



中國冶金科工股份有限公司

METALLURGICAL CORPORATION OF CHINA LTD.*

(A joint stock limited company incorporated in the People's Republic of China with limited liability)
Stock Code: 1618



2022

Annual Report

** For identification purpose only*

IMPORTANT NOTICE

- I. The Board and the Supervisory Committee of the Company and its Directors, Supervisors and senior management undertake that there are no false representations, misleading statements or material omissions in the information set out in this annual report, and they severally and jointly accept legal responsibility for the truthfulness, accuracy and completeness of its contents.
- II. The report was deliberated and approved at the 47th meeting of the third session of the Board on 29 March 2023. All Directors attended the Board meeting.
- III. Ernst & Young Hua Ming LLP (Special General Partnership) issued an audit report with standard unqualified opinions to the Company.
- IV. Chen Jianguang, the chairman of the Company, Zou Hongying, the vice president and the chief accountant of the Company, and Fan Wanzhu, the assistant to president, the deputy chief accountant and the head of the financial department, have declared that they guarantee the truthfulness, accuracy and completeness of the financial report contained in this annual report.
- V. The proposal for profit distribution or transfer of capital reserve to share capital for the Reporting Period was considered and approved by the Board

The net profit attributable to Shareholders of the Company in the audited consolidated statement of MCC in 2022 amounted to RMB 10,272,357 thousand and the undistributed profit of MCC headquarters amounted to RMB 5,742,045 thousand. Based on the total share capital of 20,723,619,170 shares, the Company proposed to distribute a cash dividend of RMB 0.83 (tax inclusive) for every 10 shares and the total cash dividend is RMB 1,720,060 thousand, the remaining undistributed profit of RMB 4,021,985 thousand will be used for the operation and development of the Company and rolled over to the coming year for distribution. The total cash dividend proposed by the plan accounts for 16.74% of the net profit attributable to the Shareholders of the Company in the consolidated statement of MCC in 2022.

- VI. Disclaimer of the forward-looking statements

The forward-looking statements contained in this report regarding the Company's future plans and others do not constitute any substantive commitment to investors who are advised to exercise caution in relation to investment risks.

- Value VII. Is there any misappropriation of non-operating funds by the Controlling Shareholder and other related parties

No

- Value VIII. Is there any external guarantee made in violation of the required decision-making procedures

No

- Value IX. Are there more than half of the Directors unable to guarantee the truthfulness, accuracy and completeness of the annual report disclosed by the Company

No

- Value X. Warning of major risks

During the Reporting Period, no material risks were identified in the Company.

The Company has elaborated on the potential risks in this annual report. Please refer to the section of "Management Discussion and Analysis" of this annual report.

- Value XI. Others

Unless otherwise specified, all the amounts in this report are denominated in RMB.

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CONTENTS FOR DOCUMENTS AVAILABLE FOR INSPECTION	Financial statements signed and sealed by the person-in-charge of the Company, the person-in-charge of accounting and the head of accounting firm
	The original of auditor's report sealed with the corporate seal of the accounting firm and signed and sealed by the certified public accountant
	Originals of all documents and announcements of the Company publicly disclosed on China Securities Journal, Shanghai Securities News, Securities Daily and Securities Times during the Reporting Period
	2022 annual report and 2022 annual results announcement published on the Hong Kong Stock Exchange



ABOUT THE COVER OF 2022 ANNUAL REPORT

The illustrations on the cover of this report, from left to right, are the Zhuhai Hengqin Headquarters Building Phase II Project (珠海橫琴總部大廈二期工程項目), the Shared Supporting Facilities Project of Three Major Public Buildings in Beijing Urban Green Center (北京城市綠心三大公共建築共享配套設施項目), the Zhejiang Huzhou Sun Hotel • Shuijingjing Plaza Project (浙江湖州太陽酒店 • 水晶晶廣場項目), the Sichuan Tuojiang Grand Bridge Project (四川沱江特大橋項目), which were undertaken by the Company.



DEFINITIONS

In this report, unless the context otherwise requires, the following expressions have the meanings as follows:

“181 Plan”, “181” key research plan	181 core technology breakthrough plans developed by the Company comprising advanced processes, green development, intelligent manufacturing and cutting-edge key technologies
“Articles of Association”	the articles of association of Metallurgical Corporation of China Ltd.*
“A Share(s)”	the domestic shares with a nominal value of RMB 1.00 each in the ordinary share capital of the Company, which are listed on the SSE and traded in RMB
“A Share Listing Rules”	the Rules Governing the Listing of Stocks on the Shanghai Stock Exchange
“Board”	the board of Directors of Metallurgical Corporation of China Ltd.*
“China Minmetals”	China Minmetals Corporation
“Connected person(s)”	Connected party/parties under A Share Listing Rules and connected person(s) under the H Share Listing Rules
“Controlling Shareholder” or “CMGC”	China Metallurgical Group Corporation
“Corporate Governance Code”	the Corporate Governance Code set out in Appendix 14 to the Hong Kong Listing Rules
“CSRC”	the China Securities Regulatory Commission
“Director(s)”	the director(s) of the Company, including all executive, non-executive and Independent Non-executive Directors
“HK\$”	Hong Kong dollars, the lawful currency of Hong Kong, PRC
“HKEx Listing Rules”, “H Share Listing Rules” or “Hong Kong Listing Rules”	the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited
“Hong Kong Stock Exchange”	The Stock Exchange of Hong Kong Limited
“H Share(s)”	the overseas listed foreign invested shares with a nominal value of RMB 1.00 each in the ordinary share capital of the Company, which are listed on the Hong Kong Stock Exchange and traded in Hong Kong dollars
“Independent Director” or “Independent Non-executive Director”	a Director who is independent of the Shareholders of the Company and is not an employee of the Company, has no material business connections or professional connections with the Company or its management and is responsible for exercising independent judgment over the Company’s affairs
“MCC Real Estate”	MCC Real Estate Group Co., Ltd.
“Model Code”	the Model Code for Securities Transactions by Directors of Listed Issuers set out in Appendix 10 to the Hong Kong Listing Rules
“Renminbi” or “RMB”	Renminbi, the lawful currency of the PRC

DEFINITIONS

“Reporting Period”	from 1 January 2022 to 31 December 2022
“Rules of Procedures for Board Meetings”	Rules of Procedures of Board Meetings of Metallurgical Corporation of China Ltd.*
“SASAC”	the State-owned Assets Supervision and Administration Commission of the State Council
“SFO” or “Securities and Futures Ordinance”	the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong), as amended, supplemented or otherwise modified from time to time
“Shareholder(s)”	holder(s) of share(s) of the Company
“Shareholders’ Meeting”	the shareholders’ meeting of Metallurgical Corporation of China Ltd.*
“SSE”	the Shanghai Stock Exchange
“State Council”	the State Council of the People’s Republic of China
“Supervisor(s)”	the supervisor(s) of the Company
“Supervisory Committee”	the Supervisory Committee of Metallurgical Corporation of China Ltd.*
“USD”	United States dollars, the lawful currency of the United States
The “Company” or “MCC”	Metallurgical Corporation of China Ltd.*

CHAIRMAN'S STATEMENT



Chen Jianguang Chairman

CHAIRMAN'S STATEMENT

Dear Shareholders,

In 2022, despite the strong impact of changes not seen in a century and the downward pressure on the economy, MCC stood up to the pressure and strived to be a leader by doing a good job of “stabilizing growth, fighting against the pandemic, ensuring safety and preventing risks”. Its operating results hit a new record high, its development quality steadily improved, and it delivered a high-quality answer sheet that was inspiring.

During the Reporting Period, MCC achieved an operating revenue of RMB 592.669 billion, representing a year-on-year increase of 18.40%; total profit of RMB 15.392 billion, representing a year-on-year increase of 9.85%; and net profit attributable to the parent company of RMB 10.272 billion, representing a year-on-year increase of 22.66%. The value of newly signed contracts reached RMB 1,343.574 billion, representing an increase of 11.50% over the same period of last year. The quality of its marketing greatly improved, the contract conversion rate and the proportion of public tendering projects were further increased, the dominant position of the metallurgical engineering business in the market was continuously consolidated, the optimization and improvement of the housing construction engineering business was accelerated, and the infrastructure construction business was continuously expanded and enhanced; among which, the value of newly signed metallurgical contracts increased by 21.67% year-on-year, basically achieving the “Grand Slam” in terms of major metallurgical engineering projects. We achieved fruitful performances in excellence and awards, with 10 projects winning Luban Prize for Construction Project, hitting a record high in terms of the number of prizes. Despite 20% and 30% reductions in the numbers of National Quality Project Award and National Excellent Project Gold Award, 23 projects were awarded the National Quality Project Award, of which 3 were awarded the National Excellent Project Gold Award, and the number of projects we undertook hit a record high. The targets set for the deepening of the reform were successfully achieved, remarkable achievements were made in “promoting healthy development by streamlining organization (瘦身健體)”, the regional professional integration continued, and our corporate governance became more standardized. The quantity and quality of our scientific and technological achievements both increased and we obtained the accreditation for a national enterprise technical center; we took the lead in undertaking 3 projects and 5 programs under the national key research and development plan project; made 12,020 new patent applications and were granted 8,963 new patents, with a cumulative total of 47,120 valid patents; obtained the approval for the release of an international standard of which we led in the preparation and 11 national standards for which we acted as the chief editor; were awarded 20 metallurgical science and technology awards from China Iron and Steel Industry Association and 9 science and technology awards from China Nonferrous Metals Industry Association. The foundation of steady improvement of MCC has been strengthened, with stronger momentum of long-term improvement.

While fully acknowledging our efforts and achievements, we are also aware that the external environment is becoming more complex and uncertain, and although our economy is still under the three-fold pressure from contracting demand, supply shocks and estimated slow down, the fundamentals of our economy, which are resilient, full of potential and positive in the long term, remain unchanged. We will adhere to the general principle of seeking progress while maintaining stable performance, fully implement the “14th Five-Year” development strategy of the Company, fully promote the high-quality development of the Company, seize policy opportunities while stressing risk prevention and control, ensure high-quality completion of the tasks and targets for the year, ensure the Company’s stability and long-term progress, and accelerate the achievement of the goals of “one building, two most, five strong (一創兩最五強)”, writing a good answer sheet of MCC to the Chinese-style modernization.

Firstly, we will stay true to our original aspiration and firmly establish the sense of mission to achieve “stronger” development. In the next step, the Company will take building itself into a world-class enterprise with global competitiveness as the traction, take building itself into the best overall metallurgical construction and operation solution provider with super core competitiveness and the most reliable general contracting service provider for internationally renowned and domestically leading infrastructure construction as its objectives, and strive to build the Company into a world-class investment and construction group with strong value creativity, strong market competitiveness, strong innovation driving forces, strong resource allocation capability, strong cultural soft power. We will focus on “five special actions” and basic management improvement actions, take serious measures to work on the construction of nine systems centering on the three elements of system, organization and personnel, and focus on improving our weak links, strengthening our strong links and consolidating our basic capabilities, so as to lay a solid foundation for becoming a world-class enterprise and achieving stronger development.

CHAIRMAN'S STATEMENT

Secondly, we will live up to our responsibility with practical hard work and firmly establish the sense of responsibility to achieve “better stage” development. At present, the development blueprint has been drawn up and the 14th Five-Year Plan is at a critical period, and the Company will further strengthen its confidence in development, continue to keep a close eye on strategy planning and management, highlight “attaching equal importance to scale and efficiency, priority being given to quality”, organically integrating such two aspects through scientific management, rational mechanisms and effective work. We will put marketing as our top priority, continue to maintain revenue growth and scale expansion while focusing on improving the quality of development, properly handle the relationship between the scale of operation and operational efficiency, the speed of development and the quality of development, and the resources of the Company and the scale of the Company, and work steadily for turning the predefined goals into reality one step at a time.

Thirdly, we will work hard to promote results and firmly establish a sense of urgency to achieve “faster” development. We will further enhance our awareness of potential dangers and accelerate the pace of development with a sense of urgency that we cannot afford to wait and a sense of crisis that we cannot afford to slow down. We will firmly grasp marketing which serves as the key link, seize new development opportunities, focus on “quality markets, quality customers and quality projects”, and achieve breakthroughs in the high-end sector, expansion in the mid-range sector and resolute abandonment of the low-end sector. Sticking to the core position of innovation in the overall development of the Company, we will further strengthen the core technology breakthrough and speed up the transformation of results, so as to give full play to the important role of technology as the first productive force. We firmly establish the management concept of “site work-cycling-market”, continuously strengthen the construction of the project management system, focus on improving the project contract performance capability and enhance the profitability of the Company. We will establish a solid risk management system, and will be able to identify and resolve major risks in the areas of finance, capital, investment, security and law. We will dare to think, dare to act, dare to explore, be courageous to compare ourselves with and catch up with and surpass industry benchmark, continue to consolidate the absolute advantage as a member of the national team of metallurgical construction, and strive to achieve further comprehensive strength among the state-owned construction enterprises.

“Ten thousand years too long, seize the day!” We will follow the trend and take advantage of it, press ourselves, overcome hurdles and forge ahead with a never-slack spirit and an unrelenting striving attitude, making unremitting efforts to write a brand new chapter of high-quality development of MCC, creating new and greater value for the country, Shareholders, society and employees!



COMPANY PROFILE AND MAJOR FINANCIAL INDICATORS

As the largest and the only A+H share listed company under China Minmetals, MCC is the world's largest and strongest metallurgical construction contractor and operation service provider, one of the state-recognized major resource enterprises, one of China's steel structure producers with the largest production capacity, one of the first 16 central enterprises designated by the SASAC with main business in property development, and the main force for China's infrastructure construction. In the early stages of China's reform and opening-up, MCC created the world-renowned "Shenzhen Speed", which ranked 6th in ENR's Top 250 Global Contractors in 2022.

With "one building, two most, five strong" as its goal, MCC will insist on perseverance and innovation spirit and speed up its integrated development. Adhering to the strategic positioning of "being the world-class national team of metallurgical construction, the main force of infrastructure construction, and the frontrunner and vanguard of emerging industries, and sticking to the path of high-tech and high-quality development in the long term", MCC has always been at the forefront internationally and among the top of the entire metallurgical industry, and shouldered the responsibilities of leading China's metallurgy to become an intelligent, green, low-carbon "advanced manufacturer" with efficient development, through first-class core technology, continuous innovation research and development of self-controllable ability, irreplaceable integration advantages of the whole metallurgical industry chain. Relying on its outstanding scientific research, exploration, design and construction capabilities, MCC speeds up transformation and upgrading, builds up the "four-beam and eight-pillar" business system, and forges itself into the leading force of national infrastructure construction. By using innovation as the new engine and fuel for corporate development, MCC undertakes the important task to innovate and lead China's development of emerging industries, thus constantly upgrading itself with a new 'name card' for promoting sustainable development under the new normality.

As a national innovation-oriented enterprise, MCC has 5 comprehensive Class A design qualifications and 42 special-grade construction qualifications for general contracting. Among its subsidiaries, 5 subsidiaries have four special qualifications for general construction contracting, 3 subsidiaries have three special qualifications for general construction contracting, and 4 subsidiaries have two special qualifications for general construction contracting, ranking among the top in China. The Company also has 28 national-level scientific research and development platforms and over 47,000 effective patents. Since 2009, it has won 84 China Patent Awards (winning the China Patent Gold Award for 3 consecutive years from 2015 to 2017). Since 2000, it has won 55 National Science & Technology Awards and published 63 international standards and 602 national standards. It has received the Luban Prize for Construction Projects for 135 projects (including participation), the National Quality Engineering Award for 288 projects (including participation), the Tien-yow Jeme Civil Engineering Prize for 27 projects (including participation), and Metallurgy Industry Quality Engineering Excellent Achievement Award and Metallurgy Industry High Quality Engineering Award for 913 projects (including participation). MCC has over 60,000 engineering technicians, 1 academician of the Chinese Academy of Engineering, 13 national exploration and design masters, 5 experts listed on the "National Hundred, Thousand and Ten Thousand Talent Project", more than 400 staff members granted special government allowances from the State Council, 3 winners of the Grand Skill Award of China, 3 gold medalists of the World Skills Competition, 77 National Technical Experts and 6 national skill master studios.

MCC was listed on the main board of the SSE and the Hong Kong Stock Exchange on 21 September 2009 and 24 September 2009, respectively. At present, the A Shares have been selected as a constituent stock of the SSE Central State-owned Enterprises Index, MSCI Concept Index, SSE 180 Constituent Index and 300 Innovation Index, etc.; while the H Shares have been selected as a constituent stock of Hang Seng Composite Index, Hang Seng Stock Connect Index, Bloomberg ESG Data Index, etc.

I. CORPORATE INFORMATION

Company name (in Chinese)	中國冶金科工股份有限公司
Abbreviation in Chinese	中國中冶
Company name (in English)	Metallurgical Corporation of China Ltd.
Abbreviation in English	MCC
Legal representative of the Company	Zhang Mengxing

COMPANY PROFILE AND MAJOR FINANCIAL INDICATORS

II. CONTACT PERSONS AND CONTACT METHOD

	Secretary to the Board	Joint Company Secretaries
Name	Wang Zhen	Wang Zhen, Ng Sau Mei
Address	MCC Tower, 28 Shuguang Xili, Chaoyang District, Beijing, PRC	MCC Tower, 28 Shuguang Xili, Chaoyang District, Beijing, PRC
Telephone	+86-10-59868666	+86-10-59868666
Facsimile	+86-10-59868999	+86-10-59868999
E-mail	ir@mccchina.com	ir@mccchina.com

III. BASIC INFORMATION

Registered address of the Company	28 Shuguang Xili, Chaoyang District, Beijing
The historical change of the registered address of the Company	On 29 June 2010, the 2009 annual general meeting of the Company considered and approved the resolution regarding the Amendments to the Articles of Association, and approved the change of the registered address of the Company from "No.11, Gaoliangqiao Xie Jie, Haidian District, Beijing" to "28 Shuguang Xili, Chaoyang District, Beijing".
Business address of the Company in the PRC	MCC Tower, 28 Shuguang Xili, Chaoyang District, Beijing, PRC
Postal code of the business address of the Company in the PRC	100028
Place of business of the Company in Hong Kong	Room 3205, 32/F Office Tower, Convention Plaza, 1 Harbour Road, Wanchai, Hong Kong
H Share registrar and transfer office	Computershare Hong Kong Investor Services Limited
Address of H Share registrar and transfer office	17M Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong
Website address of the Company	http://www.mccchina.com
E-mail	ir@mccchina.com

IV. INFORMATION DISCLOSURE AND PLACE FOR INSPECTION

Name of media and websites designated by the Company for the disclosure of the annual report	China Securities Journal: http://www.cs.com.cn Shanghai Securities News: http://www.cnstock.com Securities Times: http://www.stcn.com Securities Daily: www.zqrb.cn http://www.sse.com.cn
Website of Shanghai Stock Exchange where the Company discloses the annual report of A Shares	
Website of the Hong Kong Stock Exchange where the Company discloses the annual report of H Shares	http://www.hkexnews.hk
Place where the annual report of the Company is available for inspection	MCC Tower, 28 Shuguang Xili, Chaoyang District, Beijing, PRC

V. SHARES OF THE COMPANY

Type of shares	Shares of the Company		
	Stock exchange of listing	Stock abbreviation	Stock code
A Shares	Shanghai Stock Exchange	MCC	601618
H Shares	The Stock Exchange of Hong Kong Limited	MCC	01618

COMPANY PROFILE AND MAJOR FINANCIAL INDICATORS

VI. OTHER RELEVANT INFORMATION

Auditor appointed by the Company	Name	Ernst & Young Hua Ming LLP (Special General Partnership)
	Office address	Level 17, Ernst & Young Tower, Oriental Plaza, No. 1 East Chang'an Ave., Dongcheng District, Beijing
	Signing auditors	Zhang Ningning, Zhao Ning
Sponsor performing ongoing supervisory duty during the Reporting Period	Name	CITIC Securities Company Limited
	Office address	23/F, CITIC Securities Tower, 48 Liangmaqiao Road, Chaoyang District, Beijing
	Signing representatives of sponsor	Yang Bin, Chen Shumian
	Period of ongoing supervision	CITIC Securities Company Limited was the sponsor for the initial public offering of A Shares on 21 September 2009 and the private issuance of A Shares in 2016. As the A Shares proceeds raised by MCC have not been fully utilized, CITIC Securities Company Limited continues to supervise MCC on the utilization of A Shares proceeds, and carries out the relevant ongoing supervisory duties after the expiry of the continuous supervisory period.
PRC legal advisor appointed by the Company	Name	Beijing Jia Yuan Law Offices
	Office address	F408 Ocean Plaza, 158 Fu Xing Men Nei Avenue, Xicheng District, Beijing
Offshore legal advisor appointed by the Company	Name	King & Wood Mallesons
	Office address	13/F, Gloucester Tower, The Landmark, 15 Queen's Road Central, Central, Hong Kong

COMPANY PROFILE AND MAJOR FINANCIAL INDICATORS

VII. MAJOR ACCOUNTING DATA AND FINANCIAL INDICATORS IN THE RECENT THREE YEARS

(I) Major accounting data

Unit: RMB '000

Major accounting data	2022	2021	Increase/decrease for the period as compared to the corresponding period of the previous year (%)	2020
Operating revenue	592,669,072	500,571,647	18.40	400,114,623
Net profit attributable to Shareholders of the listed Company	10,272,357	8,374,970	22.66	7,862,185
Net profit attributable to Shareholders of the listed Company after deducting non-recurring profits and losses	9,668,191	7,032,235	37.48	7,171,792
Net cash flow generated from operating activities	18,153,061	17,640,008	2.91	28,031,705

	At the end of 2022	At the end of 2021	Increase/decrease at the end of the period as compared to the corresponding period of the previous year (%)	At the end of 2020
Net assets attributable to Shareholders of the listed Company	121,108,334	107,494,977	12.66	97,891,638
Total assets	585,384,390	543,470,147	7.71	506,392,963

(II) Major financial indicators

Major financial indicators	2022	2021	Increase/decrease for the period as compared to the corresponding period of the previous year (%)	2020
Basic earnings per share (RMB/Share)	0.45	0.35	Increase by RMB 0.10	0.32
Diluted earnings per share (RMB/Share)	0.45	0.35	Increase by RMB 0.10	0.32
Basic earnings per share after deducting non-recurring profits and losses (RMB/Share)	0.42	0.29	Increase by RMB 0.13	0.29
Weighted average return on net assets (%)	10.47	9.05	Increase by 1.42 percentage points	8.93
Weighted average return on net assets after deducting non-recurring profits and losses (%)	9.79	7.38	Increase by 2.41 percentage points	8.01

COMPANY PROFILE AND MAJOR FINANCIAL INDICATORS

(III) Financial highlights

1. Overview

The highlights of the Company's financial position as at 31 December 2022 and the operating results for 2022 are as follows:

Operating revenue amounted to RMB 592,669 million, representing an increase of RMB 92,097 million or 18.40% from RMB 500,572 million in 2021.

Net profit amounted to RMB 12,927 million, representing an increase of RMB 1,320 million or 11.37% from RMB 11,607 million in 2021.

Net profit attributable to Shareholders of the listed Company amounted to RMB 10,272 million, representing an increase of RMB 1,897 million or 22.66% from RMB 8,375 million in 2021.

Basic earnings per Share amounted to RMB 0.45, and the basic earnings per Share in 2021 amounted to RMB 0.35.

As at 31 December 2022, total assets amounted to RMB 585,384 million, representing an increase of RMB 41,914 million or 7.71% from RMB 543,470 million as at 31 December 2021.

As at 31 December 2022, Shareholders' equity amounted to RMB 161,909 million, representing an increase of RMB 10,521 million or 6.95% from RMB 151,388 million as at 31 December 2021.

Value of newly signed contracts amounted to RMB 1,343,574 million, representing an increase of RMB 138,594 million or 11.50% from RMB 1,204,980 million in 2021.

Note: The percentages of increase or decrease are calculated by rounding up to RMB.

2. Operating Revenue from Principal Business Segments

During the Reporting Period, operating revenue from the principal business segments of the Company is as follows:

(1) Engineering Contracting Business

Operating revenue amounted to RMB 550,441 million, representing an increase of RMB 88,151 million or 19.07% from RMB 462,290 million in 2021.

(2) Property Development Business

Operating revenue amounted to RMB 22,727 million, representing an increase of RMB 1,311 million or 6.12% from RMB 21,416 million in 2021.

(3) Equipment Manufacturing Business

Operating revenue amounted to RMB 12,319 million, representing an increase of RMB 696 million or 5.99% from RMB 11,623 million in 2021.

(4) Resources Development Business

Operating revenue amounted to RMB 8,866 million, representing an increase of RMB 2,197 million or 32.94% from RMB 6,669 million in 2021.

(5) Other Businesses

Operating revenue amounted to RMB 4,752 million, representing a decrease of RMB 1,410 million or 22.88% from RMB 6,162 million in 2021.

Note: All statistics of segment operating revenue above are figures before inter-segment elimination; the percentages of increase or decrease are calculated by rounding up to RMB.

COMPANY PROFILE AND MAJOR FINANCIAL INDICATORS

3. Summary of financial statements

The following is a summary of financial information prepared in accordance with China Financial Reporting Standards:

(1) Consolidated Income Statement

Unit: RMB'000

Item	Note	2022	2021
I. Total operating revenue	VII 52	592,669,072	500,571,647
Including: Operating revenue		592,669,072	500,571,647
II. Total operating costs		571,218,254	480,571,671
Including: Operating costs	VII 52	535,516,918	447,435,146
Taxes and levies	VII 53	1,870,771	2,515,554
Selling expenses	VII 54	2,883,123	2,742,789
Administrative expenses	VII 55	11,273,969	10,921,869
Research and development expenses	VII 56	18,732,632	15,901,198
Financial expenses	VII 57	940,841	1,055,115
Including: Interest expenses		2,633,074	2,140,452
Interest income		2,423,313	2,667,996
Add: Other income	VII 58	433,224	428,034
Investment losses	VII 59	(1,523,214)	(1,793,422)
Including: Gains/(losses) from investments in associates and joint ventures		177,712	(131,052)
Losses from derecognition of financial assets at amortised cost		(1,273,573)	(1,491,538)
(Losses)/gains from changes in fair values	VII 60	(317,778)	177,934
Credit impairment losses	VII 61	(3,601,874)	(3,714,814)
Asset impairment losses	VII 62	(1,359,652)	(1,624,422)
Gains on disposal of assets	VII 63	303,355	689,228
III. Operating profit		15,384,879	14,162,514
Add: Non-operating income	VII 64	323,055	299,559
Less: Non-operating expenses	VII 65	315,818	449,894
IV. Total profit		15,392,116	14,012,179
Less: Income tax expenses	VII 67	2,464,644	2,404,985
V. Net profit		12,927,472	11,607,194
(I) Net profit classified by operating continuity			
Net profit from continuing operations		12,927,472	11,607,194
(II) Net profit classified by ownership ascription			
Net profit attributable to Shareholders of the parent company		10,272,357	8,374,970
Profit or loss attributable to non-controlling interests		2,655,115	3,232,224

COMPANY PROFILE AND MAJOR FINANCIAL INDICATORS

Item	Note	2022	2021
VI. Other comprehensive income, net of income tax	VII 48	1,502,518	(73,012)
Other comprehensive income attributable to shareholders of the Company, net of income tax		1,389,333	207,063
(I) Items that will not be reclassified to profit or loss		63,633	(4,416)
1. Re-measurement of defined benefit obligations		92,481	3,333
2. Other comprehensive income that cannot be reclassified to profit or loss under equity method		(12)	55
3. Change in fair value of investments in other equity instruments		(28,836)	(7,804)
(II) Items that may be reclassified to profit or loss		1,325,700	211,479
1. Other comprehensive income that can be reclassified to profit or loss under the equity method		(35,827)	30,346
2. Changes of fair value of receivables at FVTOCI		25,232	(12,449)
3. Exchange differences on translating financial statements in foreign currencies		1,336,295	193,582
Other comprehensive income attributable to non-controlling interests, net of income tax		113,185	(280,075)
VII. Total comprehensive income		14,429,990	11,534,182
Total comprehensive income attributable to shareholders of the Company		11,661,690	8,582,033
Total comprehensive income attributable to non-controlling interests		2,768,300	2,952,149
VIII. Earnings per share	VII 68		
(I) Basic earnings per share (RMB/share)		0.45	0.35
(II) Diluted earnings per share (RMB/share)		0.45	0.35

(2) Summary of Consolidated Total Assets and Total Liabilities at the end of December 2022

Unit: RMB'000

	31 December 2022	31 December 2021
Total assets	585,384,390	543,470,147
Total liabilities	423,475,265	392,082,388
Total equity	161,909,125	151,387,759

COMPANY PROFILE AND MAJOR FINANCIAL INDICATORS

VIII. DIFFERENCE IN ACCOUNTING DATA BETWEEN DOMESTIC AND OVERSEAS ACCOUNTING STANDARDS

(I) Differences in net profit and net asset attributable to Shareholders of the Company disclosed in financial reports under International Accounting Standards (IAS) and Chinese Accounting Standards for Business Enterprises (CASBE)

Applicable Not applicable

(II) Differences in net profit and net asset attributable to Shareholders of the Company disclosed in financial reports under IAS and CASBE

Applicable Not applicable

(III) Explanation of the differences between CASBE and IAS:

Applicable Not applicable

IX. MAJOR FINANCIAL DATA BY QUARTER IN 2022

Unit: RMB '000

	The first quarter (January– March)	The second quarter (April–June)	The third quarter (July– September)	The fourth quarter (October– December)
Operating revenue	118,026,827	171,174,915	107,842,179	195,625,151
Net profit attributable to Shareholders of the listed Company	2,681,072	3,189,983	840,342	3,560,960
Net profit attributable to Shareholders of the listed Company after deducting non-recurring profits and losses	2,581,676	3,036,892	985,772	3,063,851
Net cash flow from operating activities	(14,542,276)	14,709,984	(1,737,272)	19,722,625

Explanation of the difference between quarterly data and the data in the disclosed periodical report

Applicable Not applicable

COMPANY PROFILE AND MAJOR FINANCIAL INDICATORS

X. NON-RECURRING PROFIT AND LOSS ITEMS AND THEIR AMOUNTS

Unit: RMB '000

Non-recurring profit and loss items	Amount in 2022	Note	Amount in 2021	Amount in 2020
Profit or loss on disposal of non-current assets	303,355	Note XVII	689,228	232,899
Tax refund or exemption in relation to documents with ultra vires approval or without formal approval or of incidental nature	-	-	-	
Government grants recognized in current profit or loss (except for the government grants that are closely related to the normal operating business of the Company and received in a certain amount or fixed quantity in accordance with the state's regulations)	545,862	Note XVII	679,750	817,764
Fund possession cost paid by non-financial enterprises and recorded under current profit and loss	-	-	-	
The excess of the fair value of identifiable net assets acquired over the cost for acquisition of subsidiaries, associates and joint ventures	-	-	-	
Profit/loss of non-monetary asset swap	-	-	-	
Profit/loss from entrusted investment or asset management	-	-	-	
Provision for impairment of assets due to force majeure, i.e. natural disasters	-	-	-	
Profit/loss from debt restructuring	12,476	Note XVII	-	-
Corporate restructuring expenses, i.e. expenses on staff relocation, integration costs, etc.	-	-	-	
Profit/loss from the excess of the fair value of a transaction of unfair consideration	-	-	-	
Current net profit/loss of subsidiaries resulting from merger of enterprises under common control from the beginning of the period to the date of merger	-	-	-	
Profit/loss from contingencies irrelevant to the normal operating business of the Company	-	-	-	
Profit/loss from the change of fair value of financial assets held for trading, derivative financial assets, financial liabilities held for trading and derivative financial liabilities, and investment income from the disposal of financial assets held for trading, derivative financial instruments and other non-current financial assets except for those gain/loss relating to the hedging transactions under the Company's normal operating business	(317,778)	Note XVII	200,205	106,863
Reversal of provision for credit losses individually assessed for large-amount accounts receivable	125,670	Note XVII	159,461	-
Profit/loss from external entrusted loans	-	-	-	

COMPANY PROFILE AND MAJOR FINANCIAL INDICATORS

Non-recurring profit and loss items	Amount in 2022	<i>Note</i>	Amount in 2021	Amount in 2020
Profit/loss from changes in fair value of investment properties using the fair value model for subsequent measurement	-	-	-	
Effects of one-off adjustment to current profit/loss in accordance with laws and regulations on taxation and accounting, etc.	-	-	-	
Income of entrustment fees from entrusted operations	-	-	-	
Other non-operating income and expenses other than the above items	(39,924)	<i>Note XVII</i>	(222,673)	(59,935)
Gain arising from remeasurement of equity interests held business combination not involving enterprises under common control prior to the acquisition date at fair value	146,349	<i>Note XVII</i>	-	-
Profit or loss on disposal of long-term equity investments	76,921	<i>Note XVII</i>	148,070	9,511
Less: Impact on income tax	(164,521)	<i>Note XVII</i>	(148,396)	(271,339)
Impact on minority Shareholders interests (after tax)	(84,244)	<i>Note XVII</i>	(162,910)	(145,370)
Total	604,166	<i>Note XVII</i>	1,342,735	690,393

Reasons shall be given with respect to the Company classifying the non-recurring profit and loss items defined and listed in the Explanatory Announcement No. 1 on Information Disclosure for Companies Issuing Their Securities to the Public – Non-recurring Gain or Loss Items as recurring profit and loss items.

Applicable Not applicable

XI. ITEMS MEASURED UNDER FAIR VALUE

Unit: RMB '000

Item	Balance at the beginning of the period	Balance at the end of the period	Changes during the current period	Impact on the profit of the current period
Financial assets held for trading	1,107	178,026	176,919	733
Receivables financing	11,857,791	10,346,388	(1,511,403)	(331,713)
Other investments in equity instruments	786,855	939,925	153,070	21,585
Other non-current financial assets	4,711,041	4,477,895	(233,146)	25,859
Derivative financial assets	114,790	-	(114,790)	(114,790)
Derivative financial liabilities	(4,413)	(200,670)	(196,257)	(196,257)
Total	17,467,171	15,741,564	(1,725,607)	(594,583)

REPORT OF THE BOARD OF DIRECTORS, MANAGEMENT DISCUSSION AND ANALYSIS

I. THE OPERATION RESULT DISCUSSION AND ANALYSIS

In 2022, in the face of the severe and complex situation of multiple pressures, the Company followed the requirements of “preventing the pandemic, stabilizing the economy and securing the development”, prioritized stability and sought progress in stability, adhered to the principle of “no reduction in indicators, no change in objectives”, and actively took on its responsibility to tackle difficulties. With the steady growth of marketing, the in-depth promotion of reform, the improvement of quality and efficiency of management, the innovation and improvement of technology, and the in-depth leadership of party building, the Company continued to develop well and steadily. The Company's main business indicators rose against the trend at a high level, breaking the historical record and reaching a new high. At the same time, the Company's asset operation indicators were continuously optimized, and the operation quality and economic efficiency were improved in the face of adversity, and the Company delivered an answer sheet of rising in the face of complex and difficult conditions with excellent results.

II. THE BUSINESS SITUATION OF THE COMPANY DURING THE REPORTING PERIOD

In 2022, the international political and economic situation was complex. In the face of the multiple pressure tests and the uncertainties in the external environment, the state has efficiently coordinated the promotion of economic and social development. With the facilitated construction of a new development pattern under which the domestic big cycle serves as the main body, and the domestic and international dual cycles promote each other, the economic operation continued to recover steadily, and the driving force for development was constantly strengthened. According to the data released by the National Bureau of Statistics, the gross domestic product in 2022 exceeded RMB 121 trillion, and the investment in fixed assets (excluding farmers) was RMB 57,213.8 billion, up by 5.1% year-on-year, including 9.4% year-on-year growth in infrastructure investment, 2% year-on-year growth in fixed asset investment in the construction industry, and RMB 13,289.5 billion of national property development investment, down by 10.0% year-on-year, and the investment in fixed assets recovered steadily. In general, the domestic economy remained stable and improving, and the position of the construction industry as the pillar of the national economy did not change. The goals of “carbon peak” and “carbon neutral” promoted the ongoing transition towards a clean and low-carbon society. There was larger room for investment in the fields of “New Infrastructure and New Urbanisation Initiatives and Major Projects”, traditional industrial transformation, emerging industries, green environmental protection, etc.

(I) Engineering Contracting Business

In the field of metallurgical construction, under the background of vigorously promoting the goal of “dual carbon”, the steel industry actively plans and comprehensively promotes the three major steel transformation projects of “capacity replacement”, “ultra-low emission” and “extreme energy efficiency”, further intensifies the green and intelligent upgrading and transformation, innovates low-carbon production technology, and energy saving and emission reduction, intelligent manufacturing, etc. have become the key development directions for steel enterprises. The metallurgical construction field faces new opportunities and challenges.

In the field of infrastructure construction, the development prospects are still broad. In December 2022, the Central Committee of the Communist Party of China and the State Council issued the Outline of the Strategic Plan for Expanding Domestic Demand (2022–2035), which proposed to continue to promote investment in key areas, accelerate the construction of transportation infrastructure, and systematically lay out new infrastructure. “New Infrastructure and New Urbanisation Initiatives and Major Projects”, traditional industrial transformation, emerging industries, green environmental protection and social livelihood will become the main driving force of fixed asset investment. It is estimated that the scale of domestic fixed asset investment will exceed RMB 10 trillion in 2023, with unprecedented investment intensity.

In the field of new energy construction, it will continue to accelerate development. The focus of the development of the energy industry will shift to the new energy industry represented by photovoltaic, wind power and hydropower, and the development of new energy will continue to speed up with the double effect of favorable policies and industrial demand. The Company will continue to keep abreast of traditional areas of strength and emerging fields, seize development opportunities, go with the flow, and strive to be among the advanced in the industry to achieve higher quality development.

REPORT OF THE BOARD OF DIRECTORS, MANAGEMENT DISCUSSION AND ANALYSIS

Affected by the complex and dynamic international situation, the overseas engineering business was facing a more severe external environment. The vast number of foreign-related engineering enterprises persevered in adversity, courageously developed, actively responded to various risks and challenges, took multiple measures to stabilize the market and business, and constantly explored the path of transformation and upgrading and high-quality development, thus stabilizing the basic situation of industry development. The business development mainly presented three characteristics: first, the “Belt and Road” -participating countries made huge contributions to our business; second, the business segments in Asia and Latin America grew rapidly; third, the housing construction sector gained robust momentum of the development, the business scale in the transportation and power sectors decreased significantly, and the value of new contracts signed in the industrial construction sector increased significantly.

(II) Property Development Business

Since the end of 2022, the central and local governments have gradually relaxed the property regulation policies and stabilized market expectations. The report of the Twentieth National Congress of the Communist Party of China clearly stipulates the adherence to the party line of “houses are for living, not for speculation”, accelerate the establishment of a housing system with multi-subject supply, multi-channel guarantee, and initiatives in both rent and purchase, and promote the healthy development of the property market. A number of policies at the national level were issued in a centralized manner to vigorously support the reasonable financing needs of property enterprises, especially the continuous release of the supply-side policy toolbox. The Central Bank and the Banking and Insurance Regulatory Commission issued a new policy of “16 financial rules”, and the regulatory authorities successively launched a policy combination of “three arrows” for credit financing, bond issuance, and equity financing to alleviate the financial pressure of property enterprises and support the steady and healthy development of the property market.

(III) Equipment Manufacturing Business

Currently, the steel industry has entered a critical period of high-quality development during the “14th Five-Year Plan” period, in which we will deepen supply-side reforms and promote transformation and upgrading. With the continuous deepening of the requirements for carbon emission peak and carbon neutrality, the iron and steel industry, as a key industry for our implementation of carbon emission reduction measures, shifts its main development pivot to green and low-carbon, energy conservation and environmental protection, and intelligent development. According to the “Implementation Measures of Capacity Replacement in the Iron and Steel Production Industry” (鋼鐵行業產能置換實施辦法) and the “Record Management of Iron and Steel Smelting Projects” (鋼鐵冶煉專項目備案管理辦法) promulgated by the Ministry of Industry and Information Technology and the National Development and Reform Commission in 2021, respectively, they propose new requirements on upgrading existing capacity equipment, and give policy support to the construction of steelmaking production lines with short process flows, so the core metallurgy equipment represented by electric furnaces will embrace new development opportunities. In addition, new technologies such as big data, internet and traditional metallurgical equipment manufacturing will be integrated to facilitate digital transformation, thus empowering the development of the equipment manufacturing industry. This will also become the future development trend of the metallurgical equipment manufacturing industry in China.

With its structural advantages such as sound mechanical performance and high levels of industrialization and recyclability, steel structures are widely used in various areas including high-rise, super high-rise steel structures, large-span spatial structures and infrastructure, and are increasingly valued by governments and recognized in markets. The “Guidelines for the Dimensions of Main Components of Steel Structure Residential Buildings” (鋼結構住宅主要構件尺寸指南), the national standard “Steel Structure Design Standards (Draft for Solicitation of Comments on Partial Modification of Provisions)” (鋼結構設計標準(局部修訂條文徵求意見稿)) (solicitation of public opinion) and other notices successively issued by the Ministry of Housing and Urban-Rural Development in 2020 propose to comprehensively promote the standardization of steel components, improve design and construction efficiency, and reduce the cost of residential buildings with steel structure in line with the spirit of “Guiding Opinions of the General Office of the State Council on Vigorously Developing Prefabricated Buildings” (國務院辦公廳關於大力發展裝配式建築的指導意見). With the rapid development of construction industrialisation and steel structure housing industrialisation in China, the industrialisation, standardisation and greening of the construction industry represented by fabricated steel structures will become the main development direction of the steel structure industry of China in the future.

REPORT OF THE BOARD OF DIRECTORS, MANAGEMENT DISCUSSION AND ANALYSIS

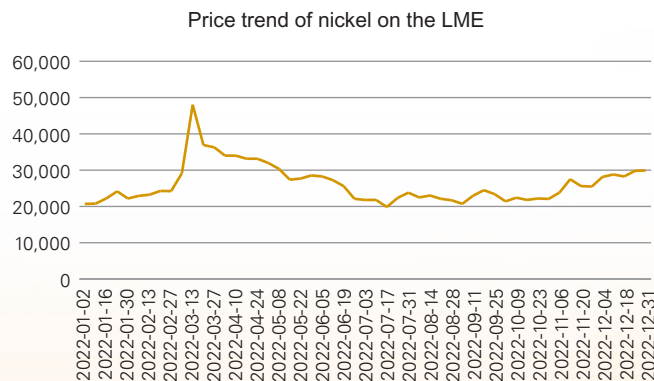
(IV) Resources Development Business

With accelerated once-in-a-century transformation, intensified international competition and continuing geopolitical tensions, and unprecedented degree of volatility in the commodity prices and global mining market, the Company's resource development business is facing a more complex and challenging external environment. In 2022, the overall price of nonferrous metals fluctuated widely, and global liquidity changes, geopolitical factors and energy factors had a significant resonating impact on nonferrous metals: First, the monetary policies of major economies in the world have changed. In 2022, with the slowing from tightening beyond expectations to interest rates increase, the US dollar index eased back from significantly strengthening, and the price of nonferrous metals showed reverse fluctuations. Second, the energy factors have impacted on the supply side, and affected by the European energy crisis and other factors, the international oil price ran at the high level, which drove the cost of nonferrous metals to rise, and brought varying degrees of disturbance to the supply of nonferrous metals. The global dominant inventory of nonferrous metals continued to decline, and the supply-side disruptions were continuously amplified. Third, the rapid development of the new energy industry including the development of new energy vehicles, clean energy, the information industry and others has increased the demand for nonferrous metals, which is more conducive to the long-term development of nonferrous metal prices.

In 2022, speaking of the rise and fall of nonferrous metal prices, affected by the long and short game in the financial futures market, nickel price made the largest annual rise, and most of the other varieties were off the high level, with the center moving down to different degrees compared with the end of 2021. In terms of the price trends of nickel, copper, zinc and lead on the London Metal Exchange in 2022, the nickel price hit a record high of USD 100,000/ton, but the trading on that day was cancelled because it was determined as abnormal trading, however, nickel had exceeded the high level of USD 55,000/ton seen in 2007, setting a record high. Since then, the nickel price fluctuated downward, once falling to around USD 20,000/ton, and then began to rebound again; copper price showed a "roller coaster" trend of significantly rising, sharply falling and then upward in a tumble; zinc price showed a wide fluctuation trend after a sharp rise and then a sharp fall; supply and demand of lead improved, and the price range remained broad. In terms of the average price of nickel, copper, zinc and lead on the London Metal Exchange in 2022, the average prices of nickel, copper, zinc and lead were approximately USD 26,154/ton, USD 8,821/ton, USD 3,451/ton and USD 2,150/ton, respectively, of which the prices of nickel and zinc increased by 42% and 15% year-on-year, respectively, and the prices of copper and lead decreased by 5% and 2% year-on-year, respectively.

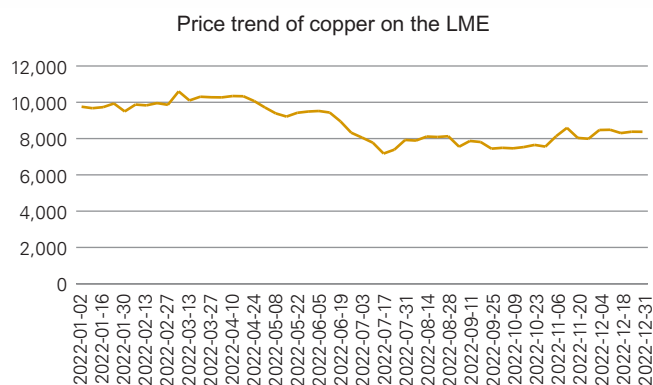
Price trends of nickel, copper, zinc and lead on the LME in 2022

Unit: USD/ton

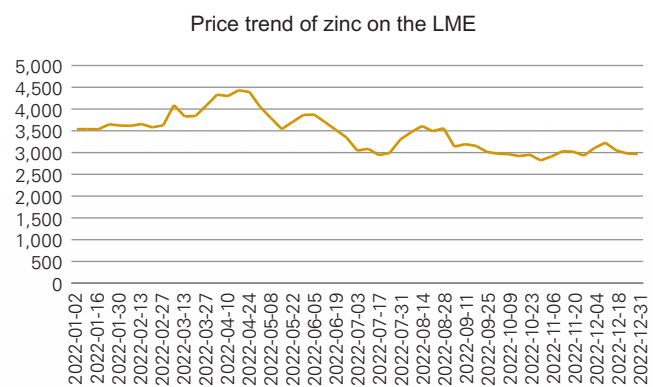


REPORT OF THE BOARD OF DIRECTORS, MANAGEMENT DISCUSSION AND ANALYSIS

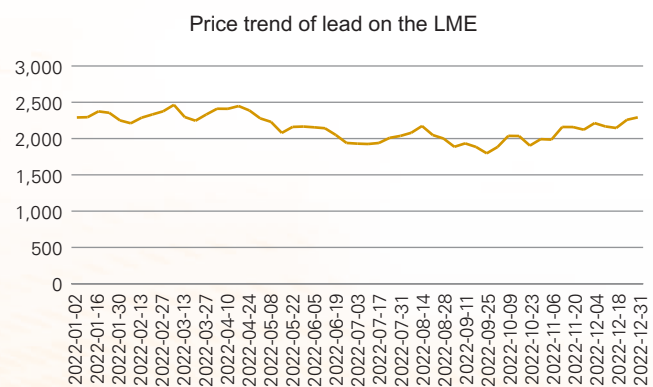
Unit: USD/ton



Unit: USD/ton



Unit: USD/ton



Source: Wind

REPORT OF THE BOARD OF DIRECTORS, MANAGEMENT DISCUSSION AND ANALYSIS

III. INFORMATION ON THE COMPANY'S BUSINESS DURING THE REPORTING PERIOD

(I) Engineering Contracting Business

In 2022, the Company adhered to the general principle of “stability first, seek progress in stability”, adhered to the marketing goal and direction of “consolidating and improving metallurgical business, optimizing and improving housing construction business, expanding and improving infrastructure business”, focused on high-quality markets, customers and projects, and strove to develop domestic and foreign engineering markets, realizing the rapid growth of the value of new contracts. After successfully breaking through the value of RMB 1 trillion of newly signed contracts in 2021, during the Reporting Period, the number of orders of the Company set a new high and the newly signed engineering contracts amounted to RMB 1,300.449 billion, representing a year-on-year increase of 12.03%, and the year-on-year growth rates for three consecutive years exceeded 12%. Among them, the newly signed metallurgical engineering contracts amounted to RMB 191.995 billion, representing a year-on-year increase of 21.67%, and accounted for 14.76% of the value of newly signed engineering contracts. The value of newly signed non-steel engineering contracts amounted to RMB 1,108.454 billion, representing a year-on-year increase of 10.52%, and accounted for 85.24% of the value of newly signed engineering contracts. The value of newly signed overseas engineering contracts amounted to RMB 41.405 billion, representing a year-on-year increase of 19.23%.

Overall operating results of the engineering contracting business in 2022

Unit: RMB '000

	2022	% of the total	2021	Year-on-year increase/decrease
Segment operating revenue	550,440,814	91.88%	462,290,153	19.07% Decreased by 0.23
Gross margin (%)	8.96	-	9.19	percentage point

Note: The segment operating revenue and gross margin are data without offsetting inter-segment transactions.

1. METALLURGICAL ENGINEERING CONSTRUCTION BUSINESS

In the field of metallurgical engineering, the Company relied on the irreplaceable advantages of the whole metallurgical industry chain, by accelerating the research and development of core key equipment technology, new technology and new processes, constantly innovated the business model, accelerated the commercialization of core technologies, and actively developed new equipment and new materials technology around the goal of green, low consumption, intelligence and efficiency, seized market opportunities of green and low-carbon projects, and continued to promote the steady implementation of the “181” key research plan. During the Reporting Period, the Company signed a large number of contracts for major metallurgical projects, each with a value of more than RMB 1 billion, such as the Production Capacity Transformation and Upgrading Integration Project of Yunnan Qujing Steel Group Shuangyou Steel Co., Ltd. which basically included major domestic metallurgical construction projects, consolidating the absolute leading position of the Company as the national metallurgical construction team on an ongoing basis.

REPORT OF THE BOARD OF DIRECTORS, MANAGEMENT DISCUSSION AND ANALYSIS

In the field of overseas metallurgical engineering, the Company continued to deepen its efforts in the markets of the “Belt and Road”-participating countries under the Regional Comprehensive Economic Partnership (RCEP), focused on key markets and cultivated potential markets, adhered to the development strategy of internationalization and localization, and achieved many highlights in the field of overseas metallurgy: the contract for the iron-smelting, steel-making, sintering and raw material plant project of Vietnam Hoa Phat Dung Quat Steel and Iron Phase II (越南和發榕橘鋼鐵二期煉鐵、煉鋼、燒結和原料廠項目) with a contract value of RMB 4.02 billion was successfully signed, which becomes another comprehensive steel base construction project secured in a “Belt and Road”-participating country; the contract for the Kazakhstan ArcelorMittal coke oven project was signed, laying an important foundation for expanding the overseas high-end coking market; after the first bid section of the Indonesia OBI Island Nickel-Cobalt Project and the phase I of the Indonesia OBI Nickel-Iron Project, the Company successfully signed the contract for the RKEF Phase II project of Indonesia OBI Nickel-Iron Project, laying a solid foundation for the Company to continue to explore the Indonesian market in-depth, further polishing the brand of “Metallurgical Construction National Team” and demonstrating the Company’s global influence.

The operating revenue of the metallurgical engineering construction business of the Company and its proportion of the total engineering contracting revenue for each of the past three years are as follows:

Unit: RMB '000

Items of revenue	2022		2021		2020	
	Amount	Proportion (%)	Amount	Proportion (%)	Amount	Proportion (%)
Metallurgical engineering	129,649,185	23.55	115,256,465	24.93	90,498,906	24.87

Note: The segment operating revenue is data without offsetting inter-segment transactions.

During the Reporting Period, the contracts for key metallurgical engineering construction projects secured and entered into by the Company are as follows:

No.	Name of Project (Contract)	Contractual Amount (RMB 100 million)
Domestic projects		
1	Steel Transformation and Upgrading Integration Project of Yunnan Qujing Steel Group Shuangyou Steel Co. Ltd. (雲南曲靖鋼鐵集團雙友鋼鐵有限公司鋼鐵轉型升級一體化項目)	26.0
2	General Contracting Contract for the Copper Bars of the Transformation, Upgrading and Renovation Project for Capacity Replacement of Yukun Iron and Steel Group Co., Ltd. in Yuxi, Yunnan Province (雲南玉溪玉昆鋼鐵集團有限公司產能置換轉型升級改造項目棒線工程總承包合同)	23.4
3	EPC Contract for Project of Steel Capacity Replacement for Blast Furnaces in Sanming Headquarters of Fujian Sansteel Mingguang Co., Ltd. (福建三鋼閩光股份有限公司鋼鐵產能置換三明本部高爐工程EPC總承包工程合同)	19.7
4	Contract for the Construction and Installation of 2030mm Cold Rolling and Acid Rolling, Mill Rolling Room and Post Rolling Warehouse for HBIS’s Industrial Upgrading and Xuansteel Production Capacity Transfer Project (河鋼產業升級及宣鋼產能轉移項目2030mm冷軋酸軋、磨輓間及軋後庫等區域建築安裝工程合同)	15.0

REPORT OF THE BOARD OF DIRECTORS, MANAGEMENT DISCUSSION AND ANALYSIS

No.	Name of Project (Contract)	Contractual Amount (RMB 100 million)
5	EPC Contract for the Ironmaking System and its Public and Auxiliary Areas of HBIS Laoting Iron and Steel Co., Ltd (河鋼樂亭鋼鐵基地項目二期項目煉鐵系統及其公輔區域EPC總承包工程合同)	14.6
6	EPC Contract for the Construction of New Medium Thick Plate Project (Rolling Mill) of Hanzhong Steel Co. (陝鋼集團漢中鋼鐵有限責任公司新建中厚板項目(軋鋼)工程建設EPC總承包合同)	14.3
7	Aluminum Equivalent Technology Transformation Project in Anshun, Guizhou Province (貴州安順鋁業等量技術改造工程項目)	14.1
8	1.68 million tonnes of Heat Recovery Coking and Ancillary Projects and PC Contract For Coking Section of Henan Angang Zhoukou Iron and Steel Co., Ltd. Plant (河南安鋼周口鋼鐵有限責任公司168萬噸熱回收煉焦及配套項目煉焦標段PC總承包項目)	13.9
9	Iron Production & Steelmaking EPC Project for Capacity Reduction & Replacement in Jishan County of Mingfu Steel Products Co., Ltd.* (稷山縣銘福鋼鐵製品有限公司產能減量置換煉鐵、煉鋼總承包項目)	13.9
10	EPC contract for the main steelmaking and continuous casting works and public and auxiliary systems for the relocation and upgrading project of Dagang (達鋼搬遷升級項目煉鋼連鑄主體工程及公輔系統總承包合同)	13.3
Overseas projects		
1	Nickel Hydroxide Cobalt Project in Indonesia (印尼氫氧化鎳鈷項目)	81.1
2	OBI Nickel Iron Project RKEF Phase II Construction Contract in Indonesia (印尼OBI鎳鐵項目RKEF二期工程建設合同)	18.9
3	EPC Contract for 2x2,500m ³ Blast Furnace of Hoa Phat Dung Quat Integrated Steel Project Phase 2 in Vietnam (越南和發2榕橋2x2,500m ³ 高爐煉鐵總承包項目)	14.1
4	Contract for 2x300T BOF Converter Shop Package of Hoa Phat Dung Quat Integrated Steel Project Phase 2 in Vietnam (越南和發2榕橋2x300t煉鋼總承包項目)	12.8
5	Kazakhstan AMT No.8&9 Coker Project (哈薩克斯坦AMT No.8&9焦化項目)	8.2
6	EPC Contract for Hoa Phat Dung Quat Steel Plant Newly Constructed Intelligent Raw Material Yard Project (越南和發榕橋鋼廠新建智能原料場總承包項目)	6.7
7	EPC Contract for 2x360m ² Sintering Project of Hoa Phat Group's Dung Quat Steel Company (Phase II) in Vietnam (越南和發集團榕橋鋼鐵公司(二期)2x360m ² 燒結項目總承包合同)	6.6

REPORT OF THE BOARD OF DIRECTORS, MANAGEMENT DISCUSSION AND ANALYSIS

2. NON-STEEL ENGINEERING CONSTRUCTION BUSINESS

① Housing Construction and Infrastructure Construction

The Company continued to develop its housing construction and infrastructure construction businesses, actively implemented the "135 business strategy" of expanding infrastructure business, actively integrated and served the national development strategy deployment, and seized the window period of infrastructure business investment and construction. By strengthening high-end leadership, optimizing top-level design, improving its own advantages, and innovating business models, the Company has continuously improved its capacity for public bidding, and focused on contracting influential projects that were "high-tech, comprehensive and big". During the Reporting Period, the value of newly signed contracts in the housing construction and infrastructure construction business of the Company was RMB 911.576 billion, up by 4.56% year-on-year, accounting for 70.10% of the total engineering contract amount. Among them, the municipal business has lived up to the expectations of the public, and achieved another good result, contributing half of the results in the infrastructure segment. The signing of contracts for municipal infrastructure projects represented by Deyang Tianfu Jingcheng Zhichuang Business District, Hengshui-Xiyang Expressway Zhaoxian-Zanhuang (boundary between Hebei and Shanxi) Section Franchise Project EPC, and Yichang High-speed Railway New City and other large-scale projects have greatly enhanced the market influence of the Company's infrastructure brand.

The Company accurately optimized the marketing structure of the housing construction business, focusing on the super high-rise, large complex, high-end housing construction and other segmented sectors. During the Reporting Period, the Company successfully won bids for a series of high-end housing construction projects, such as the Guangzhou International Financial Trade Plaza, the Business Center of the Xingdong New District High-speed Railway Station, the Maoming Olympic Sports Center, the Phase II expansion EPC of the Tianjin Hospital Project of the Beijing Union Medical College, and the contract structure of the housing construction business was further optimized.

In terms of overseas business, the non-steel market, as a potential area for overseas market development, contains huge market opportunities and room for increments. During the Reporting Period, the Company successfully signed the general contracting project of the highest landmark building in Cambodia – Golden Gateway Complex (金匯大廈綜合體總承包項目), which refreshed the new height of the super-high-rise landmark in Cambodia by more than 200 meters; the Algerian Oran Stadium project, which was contracted by the Company, was completed in 2022 and successfully hosted the 19th Mediterranean Games, showing the magnificent atmosphere of "built by China".

The operating revenue of the non-steel engineering construction business of the Company and its proportion of the total engineering contracting revenue for each of the past three years are as follows:

Unit: RMB '000

Items of revenue	2022		2021		2020	
	Amount	Proportion (%)	Amount	Proportion (%)	Amount	Proportion (%)
Housing construction						
Engineering	287,483,146	52.23	228,220,508	49.37	165,001,421	45.33
Transportation						
infrastructure	105,343,715	19.14	88,338,320	19.11	77,372,999	21.26
Other engineering	27,964,768	5.08	30,474,860	6.59	31,091,801	8.54

Note: The segment operating revenue is data without offsetting inter-segment transactions.

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During the Reporting Period, the contracts for key housing construction and infrastructure construction projects secured and entered into by the Company are as follows:

No.	Name of Project (Contract)	Contractual Amount (RMB 100 million)
House Building Projects		
1	EPC Contract for Construction of Zhongjing Wellness Area Project in Nanyang City (南陽仲景康養片區項目EPC工程總承包合同)	186.8
2	Contract for the Urban Renewal Project in the Downtown Area of Changzhou City, Section 5, Xinhua District Urban Village Renovation (Northern Area) (滄州市中心城區城市更新項目五標段新華區城中村改造(北部片區)工程合同)	119.7
3	Yuzi Haiyuan – Nanyang Urban Industrial Complex EPC Project (豫資海元•南陽城市產業綜合體EPC項目)	119.4
4	Comprehensive Development Project in Fuli New District, Suzhou City (宿州市符離新區綜合開發項目)	103.4
5	EPC Project of Zhigu Science and Innovation Park (Phase II) in Jinghe New Town, Xianyang City (咸陽市涇河新城智谷科創園(二期)EPC工程項目)	80.2
6	Urban Renewal Unit Project in West Nanhu District, Fengnan, Tangshan (唐山市豐南南湖西區城市更新單元項目)	60.6
7	Huangshi Daye Lake Core Area East Cluster Development and Construction Project (黃石市大冶湖核心區東區集聚開發建設項目)	55.9
8	Resettlement housing construction project in four plots of Yancheng City Dafeng District Zhencheng Construction Company Limited (鹽城市大豐區振城建設有限公司四個地塊拆遷安置房建設項目)	49.3
9	ABO Area Comprehensive Development Project in Southern Xuzhou District, Yibin City (Section 2) (宜賓市敘州區南部新區ABO片區綜合開發項目(二標段))	49.0
10	EPC General Contract for the Construction of Chongqing Tuanjie Lake Big Data Intelligent Industrial Park PPP Project (重慶市團結湖大數據智能產業園PPP項目EPC工程總承包合同)	41.3
Transport and Municipal Infrastructure Projects		
1	Infrastructure Construction in Deyang Tianfu Jingcheng Area (Smart Innovation and Business Area) Project (德陽天府旌城片區基礎設施建設(智創商務片區)項目)	75.4
2	Infrastructure Construction in Deyang Tianfu Jingcheng Area (Technology and Innovation Area) Project (德陽天府旌城片區基礎設施建設(科技創新片區)項目)	74.2
3	General Contractor for the construction of the concession project for the section of Hengshui-Xiyang Expressway from Zhao County to Zanhuang (boundary between Hebei and Shanxi) (衡水—昔陽高速公路趙縣至贊皇(冀晉界)段特許經營項目施工總承包項目合同)	70.0
4	Yichang High Speed Rail New Town Construction Project (宜昌高鐵新城建設項目)	65.5
5	Huangshi Xingang Port Integrated Development Project (EPC) (黃石新港港產城融合發展綜合配套項目(設計、採購、施工))	51.5
6	Comprehensive Development Contract for the Intelligent Equipment and New Materials Zone Project in Chongqing Changshou Economic Development Zone (重慶市長壽經開區智能裝備及新材料區項目片區綜合開發合同)	51.0
7	Construction Contract for the Construction Project of the Yunnan Dongmeng Industrial Park Comprehensive Development Construction Project (Section III) (雲南東盟產業園綜合開發建設項目(三標段)建設項目工程施工合同)	43.1

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No.	Name of Project (Contract)	Contractual Amount (RMB 100 million)
Overseas Projects		
1	Malaysia Johor Bahru Project Phase I EPC Project (馬來西亞新山項目一期總承包項目)	22.4
2	MESONG Golden Gateway Complex, Cambodia (柬埔寨 MESONG金匯大廈綜合體項目)	8.0
3	Singapore MRT Electrical and Mechanical System Installation Subcontract (新加坡捷運機電系統安裝分包項目)	6.6
4	Phase I of the New Guinea Highlands Highway Project in Papua (巴布亞新幾內亞高地高速公路項目二期第一標段)	6.0
5	Tanah Merah Residences Phase II EPC Project, Singapore (新 加坡丹那美拉公寓二期總承包項目)	5.1

② Emerging Industries

In accordance with the strategic positioning of “being the front runner and vanguard of emerging industries”, relying on the leading professional and technical advantages of the professional technology research institute, the Company made remarkable achievements in the fields of ecological environmental protection, cultural and tourism projects, new energy projects, etc., and it constantly upgrade itself with a new “name card” for promoting sustainable development.

In terms of eco-environmental protection industry, relying on strong scientific research capabilities and extensive engineering experience, we gained scale advantages in water and solid waste treatment, mine restoration, ecological and environmental management etc., and expanded our market share. During the Reporting Period, the Company successfully signed contracts for a number of representative projects, including the Contract for Ecologic Oriented Development (EOD) Project of Huangshi Section of Yangtze River (長江黃石段生態環境導向開發項目(EOD)), the Green and Low-carbon Industrial Park Project (Phase I) in Sanjiang New District, Yibin City (宜賓市三江新區綠色低碳優勢產業園項目一期), and the Comprehensive Development and Construction Project (Section I) of Eco-Smart City of Economic Development Zone in Eastern Part of Dazhou City (達州東部經開區生態智慧城綜合開發建設項目(一標段)).

In terms of cultural tourism projects, MCC, the world’s largest contractor for theme park construction and the only professional design institute for theme parks in China, is the country’s one and only enterprise qualified for both theme park design and the execution of the entire construction project. It has accumulated extensive experience in technological breakthroughs, management approaches, and business models, and developed its unique path of theme park development. During the Reporting Period, the Company successfully signed contracts for a series of theme park projects, including the Infrastructure Upgrade and Overall Renovation Project of the Historic and Cultural District in the Old City District of Luoyang City (洛陽老城區歷史文化街區基礎設施提升和整體改造項目), the Rural Revitalization Project (Section II) of Liubao Tea Special Town in Cangwu County, Wuzhou City (梧州市蒼梧縣六堡茶特色小鎮鄉村振興項目(第二標段)), and the Design-build Contract for Design-Construction of Cultural and Tourism Complex Project in Old Libo Ancient City (老荔波古城文旅綜合體項目(設計·施工)), which demonstrated the Company’s brand influence and industry competitiveness in the field of theme parks.

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In terms of new energy industry, the Company actively seized the new opportunities brought by energy transformation and low-carbon economy, accelerated the development and construction of clean energy businesses such as photovoltaic and wind power, and actively promoted the realization of the national “dual-carbon” goal while achieving its own business development. During the Reporting Period, the Company has newly signed a number of large-scale projects, including the Fishery and Photovoltaic Complementary Power Generation Project in Kongdian Township, Datong District (淮南大通區孔店鄉漁光互補光伏發電項目), and the EPC Contract for Qinchuangyuan-Shuiguang Intelligent Manufacturing Industrial Base Project (秦創原•水光智造產業基地項目設計、採購、施工總承包). The Company’s market share has been increasing continuously.

During the Reporting Period, the newly won and signed contracts for key emerging industry projects of the Company are as follows:

No.	Name of Project (Contract)	Contractual Amount (RMB 100 million)
Eco-environmental Protection Project		
1	Ecologically Oriented Development (EOD) of the Huangshi section of the Yangtze River (長江黃石段生態環境導向開發項目(EOD))	60.8
2	Contract for Phase I of the Green Low Carbon Industrial Park in Sanjiang New District, Yibin City (宜賓市三江新區綠色低碳優勢產業園項目一期合同)	52.7
3	Comprehensive Development and Construction Project (Section I) of Eco-Smart City of Economic Development Zone in Eastern Part of Dazhou City (達州東部經開區生態智慧城綜合開發建設項目(一標段))	48.6
Special Town and Cultural Tourism Construction Projects		
1	Upgrading of Infrastructure and Overall Renovation of the Historic and Cultural District in the Old City District of Luoyang City (洛陽老城區歷史文化街區基礎設施提升和整體改造項目)	42.4
2	EPC Contract for the Construction of the Village Revitalisation Project (Second Tender Section) in Liubao Tea Characteristic Small Town, Cangwu County, Wuzhou (梧州市蒼梧縣六堡茶特色小鎮鄉村振興項目(第二標段)施工總承包合同)	13.4
3	Design-build Contract for Cultural and Tourism Complex Project in Old Libo Ancient City (老荔波古城文旅綜合體項目(設計、施工)總承包合同)	11.7
New Energy Projects		
1	Huainan Datong District Kongdian Township Fishery and Photovoltaic Power Generation Project (淮南大通區孔店鄉漁光互補光伏發電項目)	9.7
2	EPC Contract for Jinchuan Group Dongdatan 300MW PV Power Project (金川集團東大灘300MW光伏發電項目工程總承包合同)	9.5

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(II) Property development business

During the Reporting Period, the Company adopted different policies according to the characteristics of each category and each city, and continuously carried on accomplishing the strategic layout that Yangtze River Delta, Pearl River Delta and the Beijing-Tianjin-Hebei Circum-Bohai Sea Region are taken as core development areas with coverage nationwide. In 2022, the Company acquired 5 projects with 7 land parcels in aggregate, covering a site area of 237,400 sq.m. and permissible gross floor area of 487,900 sq.m..

In 2022, MCC Real Estate, a subsidiary of the Company, ranked 36th among the Top 100 Real Estate Developers in China with its brand value jumping to RMB 30.6 billion and has been ranked among the Top 10 in Profitability and Stability of Top 100 Real Estate Developers in China for seven consecutive years, and has also been awarded the “Annual Social Responsibility Enterprises of Property Services in China”, “Outstanding Real Estate Product Capability Enterprise in China”, “Real Estate Operation Outstanding Enterprise with Chinese Characteristic – Urban Development Operator”, and “China Real Estate Annual Poverty Alleviation Benchmark Enterprise”. The long-term credit rating of MCC Real Estate was AAA with stable outlook. MCC Real Estate, a subsidiary of the Company, ranked 52nd in the “2022 China’s Top 100 Property Service Enterprises” with a brand value of RMB 2.3 billion. The two research and development achievements of “MCC Real Estate Product Technology and Service System” and “Research on Performance Testing and Optimization Design of Fume Exhaust System in Kitchen of Residential Building” won the “China Real Estate Association Science and Technology Award” in 2022; and the Dexian Huafu Project developed by MCC Real Estate in Tianjin won the 19th “Jingrui Science and Technology Award”.

During the Reporting Period, the amount invested by the Company in property development was RMB 28.949 billion, representing a year-on-year increase of 89.71%; the construction area was 9.0991 million sq.m., representing a year-on-year decrease of 1.61%; of which the new construction area was 1.8902 million sq.m., representing a year-on-year increase of 137.46%, while completed area was 3.71 million sq.m., representing a year-on-year increase of 54.20%; contracted gross floor area sold amounted to 0.4801 million sq.m. with contracted sales of RMB 9.33 billion.

The overall operating results of the property development business in 2022

Unit: RMB '000

	2022	% of the total	2021	Year-on-year increase
Segment operating revenue	22,726,736	3.79	21,416,034	6.12%
Gross margin (%)	11.00	–	23.48	Decreased by 12.48 percentage points

Note: The segment operating revenue and gross margin are data without offsetting inter-segment transactions.

During the Reporting Period, the key property projects developed by the Company are set out as follows:

(1) Shijiazhuang MCC Dexian Mansion Project

The project is located in Dongliangxiang Village, Qiaoxi District, Shijiazhuang City. It covers a permissible gross floor area of 100,400 sq.m. with a capacity building area of 308,400 sq.m., and is planned for residential and commercial use. As a product of the Dexian series, it integrates the development concept of “ecology + education + technology”, and is designed on customer concerns and pain points to effectively improve the surrounding environment and supporting facilities of Dongliangxiang parcels in a way to significantly promote the living quality of the southwest area of Shijiazhuang. The project started in September 2021 and was launched for sale in May 2022. At present, the main structure is under construction.

(2) Qinhuangdao Zhongye Dexian Huafu Project

The project is located in the north of Qiantang River Road and the west of Hengshan Road in Qinhuangdao Development Zone, Hebei Province, covers a site area and permissible gross floor area of 54,400 sq.m. and 108,500 sq.m. respectively and is planned for residential use. The project for the first and second zones was filed for completion and delivered in December 2020; the project for the third zone started in August 2021 and was launched for sale in September 2021, and was completed and delivered in December 2022.

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(3) Zhuozhou Minmetals Technology Industrial Park Project

The project covers a site area and permissible gross floor area of 327,000 sq.m. and 798,000 sq.m. respectively and is planned for residential, industrial and commercial use. The residential project (phase I) started in February 2021, and was filed for completion and delivered in June 2022; the residential project (phase II) was launched for sale in September 2022, and the main structure is under construction currently; the industrial project (phase I) started in April 2021. At present, the main structures of some buildings have been completed.

(4) Qingdao Dexian Mansion & Shengshi Plaza Project

The project is located in Jimo District, Qingdao City, Shandong Province. Among them, the Qingdao Dexian Mansion project covers a site area of 148,900 sq.m., a total construction area of 419,000 sq.m., and a permissible gross floor area of 297,900 sq.m.. It is planned for residential use and supporting businesses. The west area of the project was completed and delivered in June 2022, and the east area has completed the main structure and is in the stage of internal and external decoration and landscaping. It is expected to complete the completion filing in August 2023 and to deliver in September 2023. Qingdao Shengshi Plaza project covers a site area of 41,100 sq.m., with a total construction area of 91,700 sq.m. and a permissible gross floor area of 55,700 sq.m.. It is planned for commercial use.

(5) Nanjing Zhongye • Shengshi Binjiang Project

The project is a masterpiece of the urban development and operation of MCC Real Estate in the Yangtze River Delta area, covering a number of commercial activities, such as theme commercial street transformed from Hutchison Foreign Firm, low-density villa, subway upper cover, river-view high-rise building, commercial street of Binjiang characteristics, office building and star-rated hotel in bay area. It covers a site area and permissible gross floor area of 330,400 sq.m. and 940,800 sq.m. respectively, and mainly includes six projects, namely, the Jinxiu Jiangshan, Jinxiu Huafu, Jinxiu Mansion, Jinxiu Tianxi, and Hutchison Foreign Firm and Shengshi International Plaza. At present, part of the parcels of the Jinxiu Jiangshan, Jinxiu Huafu and Jinxiu Mansion have been completed and delivered. The projects of Jinxiu Jiangshan, Jinxiu Huafu, Jinxiu Mansion, Jinxiu Tianxi have been launched for sale. Hutchison Foreign Firm is under the construction of the basement, and the Shengshi International Plaza is under the planning and design work.

(6) Sanya Minmetals International Plaza Project

The project is located in the headquarters economic and central business district of Sanya, adjacent to Yingbin Road and Sanya River. It covers a site area and permissible gross floor area of 7,281 sq.m. and 40,000 sq.m., and is planned for retail business, office and other uses. The project started in May 2020, was launched for sale in April 2021, and was filed for completion in December 2022.

(III) Equipment Manufacturing Business

The Company's equipment manufacturing segment, relying on multiple subordinate core manufacturing bases, mainly include equipment manufacturing and steel structure business, covering research and development, design, manufacturing, sales, installation, fine-tuning, inspection and repair of metallurgical and civil construction equipment and its spare parts, steel structures and other metal and building materials, as well as other relevant services.

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The Company's equipment manufacturing segment is mainly focused on metallurgical equipment. It has multiple core manufacturing bases including MCC CISDI Equipment Base, MCC Shaanxi Pressure Equipment Base, MCC Changtian Heavy Industry Base, and MCC WISDRI Equipment Base, with products covering key metallurgical process equipment, such as sintering and pelletizing, ironmaking and casting and steel rolling, casting and rolling. These products are widely used in international and domestic large steel engineering projects. In the future, the equipment manufacturing business will closely keep pace with layout adjustment and industrial upgrading of China's steel industry. By adopting energy conservation and environmental protection, green manufacturing and smart manufacturing as breakthrough points, the Company will give full play to the three functions of the core equipment bases in respect of research and development pilot test, core manufacturing and final assembly integration, so as to accelerate and facilitate the productization and industrialization of core technologies. In addition, the Company will continue to integrate competitive upstream and downstream business resources, include core equipment manufacturing system into MCC equipment industry park for unified management and put core technologies developed by the Company into fuse box to be sold and delivered with its products to regions and countries along the Belt and Road Initiative and all over the world. It will also develop its equipment manufacturing business into the "Hard Support" of the national team for metallurgical construction, the "Incubator" of new products for metallurgical equipment and the "Carrier" for the "MCC Equipment" brand.

The Company is the founder of China's steel structure engineering and one of the pioneers of China's steel structure business, and has important research and development platforms and the most influential professional associations in the industry such as the "National Steel Structures Engineering Technology Research Centre" and the "China Steel Structure Association". It has edited and assisted in editing almost all domestic steel structure national and industry standards, and is in the leading position in comprehensive technology of steel structures in China. It has full industry chain consolidation advantages featuring the integration of research and development, design, manufacturing, installation, testing and supervision, and has built a series of famous brands with brand influence and reputation, including the Olympic Bird's Nest, the Yanqi Lake APEC Exhibition Centre, the Shanghai World Expo Theme Pavilion and Shanghai Disney Resort.

As one of the largest steel structure manufacturing enterprises in China, the Company has established 32 steel structure manufacturing bases in China, covering almost all economic hotspots in China. With a design capacity of 1.65 million tonnes, the Company ranks among the top in the industry in China in terms of steel structure manufacturing (including base and on-site fabrication), industrial scale and manufacturing volume. The Company has several core steel structure manufacturing bases such as MCC (Shanghai) Steel Structure Base, Baoye Zhengzhou Steel Structure Base and Wuye Chengdu Steel Structure Base, among which MCC (Shanghai) Steel Structure Technology Co., Ltd., as the representative enterprise of the Company's steel structure business segment, optimised the steel structure production capacity layout by integrating the Company's internal and external steel structure business resources. Adhering to the path of "specialization, branding and regionalization", it achieved steady and rapid development. In 2022, the Company has successively won the bids for the steel structure construction of the first tender section of the Xi'an Eastern Air Harbor Headquarters Protection Base Project (Commercial Services) (西安東航空港總部保障基地項目(商服)一標段鋼結構工程), the steel structure construction for the hub area of the Transportation Hub Project of Beijing Xinghuo Station (北京星火站交通樞紐工程樞紐區鋼結構工程), the metal roofing construction for the Sanya Sports Centre Gymnasium (三亞市體育中心體育館金屬屋面工程), the steel structure construction for the semiconductor equipment components research and development building and vacuum equipment expansion project of Beijing NAURA N5 Base (北京北方華創N5基地半導體裝備部件研發樓及真空裝備擴產項目鋼結構工程), the steel structure construction for the first tender section of the Terminal Building Expansion and Auxiliary Project of Shandong Linyi Qiyang Airport (山東臨沂啟陽機場航站樓改擴建及附屬工程一標段鋼結構工程), the vertebral steel structure manufacturing construction for the South Tower of the Bank of China Financial Centre on the West Island of Lingang, and the steel structure manufacturing construction for the North Tower (臨港西島中銀金融中心南塔及椎體鋼結構製造工程、北塔鋼結構製造工程), and other iconic and significant projects.

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The overall operating results of the equipment manufacturing business in 2022

Unit: RMB '000

	2022	% of the total	2021	Year-on-year increase
Segment operating revenue	12,319,197	2.06%	11,623,127	5.99%
Gross margin (%)	11.58	–	15.12	Decreased by 3.54 percentage points

Note: The segment operating revenue and gross margin are data without offsetting inter-segment transactions.

(IV) Resources Development Business

During the Reporting Period, the business of the Company's resources development mainly focuses on mining, selection and refining of metal resources of nickel, copper, zinc, lead and other metals. In line with the objective of "refining management, enhancing quality, reducing costs, controlling risks and making profits", the Company strived to improve the development and operating levels of its own mineral resources. In 2022, the three key mineral resources projects in production have successfully made through the Pakistan flood and the 7.6 magnitude earthquake in Papua New Guinea in succession. They completed self-rescue and resumed production in the shortest possible time, and helped surrounding communities and villages in emergency rescues and disaster relief, supplied manpower and equipment, donated money and materials, which showed outstanding fulfillment of corporate social responsibility and was highly praised by the local people and the government and the embassies; at the same time, the Company adhered to the prevention of epidemics and terrorism to ensure double prevention and control, insisted on safe production, environmental protection and energy saving to ensure zero accidents and zero casualties, made efforts to optimize production and organization and improve production efficiency to ensure stable and high output, insisted on quick digging and selling to ensure max output and full sales, and further stabilized the fundamentals of production and operation of resource development business. All production and operation indexes greatly exceeded the budget target and the Company continued to play its role as a major profit maker.

The overall operating results of the resources development business in 2022

Unit: RMB '000

	2022	% of the total	2021	Year-on-year increase
Segment operating revenue	8,866,005	1.48%	6,669,327	32.94%
Gross margin (%)	36.35	–	42.67	Decreased by 6.32 percentage points

Note: The segment operating revenue and gross margin are data without offsetting inter-segment transactions.

During the Reporting Period, details of the Company's mineral resource projects under development and in operation are as follows:

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(1) Papua New Guinea Ramu Nico Project

During the Reporting Period, the project achieved an annual average production rate of 105%, exceeding its production target again, and produced Ni-Co hydroxide containing 34,302 tons of nickel and 2,987 tons of cobalt in aggregate with a year-on-year growth of 9%. The Company strived to overcome the negative impact of the short-selling event in the international nickel metal futures market, optimized and adjusted its sales strategy and intensified its sales efforts. The project sold Ni-Co hydroxide that contained 37,249 tons of nickel and 3,289 tons of cobalt in aggregate with a year-on-year growth of 14%. The annual operating revenue was RMB 4.746 billion, increased by 21% year-on-year. The project achieved net profit of RMB 1.267 billion, representing a year-on-year decrease of 15.72%. Due to the continuous increase in the supply of intermediate products of hydrometallurgy in the nickel market and intensifying competition, coupled with the impact of the price difference between domestic and foreign nickel markets, the discount coefficient of nickel and cobalt sales dropped significantly, resulting in a year-on-year decrease in net profit of the project by approximately RMB 236 million.

(2) Pakistan Saindak Copper-Gold Mine Project

During the Reporting Period, the project successfully completed the signing of the fourth 15-year lease renewal agreement, and successfully withstood multiple challenges such as the terrorism prevention, and heavy rainfall and flooding, and was awarded the “Outstanding Practice of Overseas Security” in 2022, and the “Outstanding Unit of Chinese Enterprises” by the All Pakistan Chinese Enterprises Association, and received written praise from the Chinese Consulate General in Karachi. In 2022, the project achieved a 21% overproduction of ore mining target, and affected by a significant drop in the grade of raw ore in the East Ore Body, 16,346 tons of crude copper was produced with a year-on-year decrease of 13%. The project achieved operating an revenue of RMB 1.508 billion throughout the year, representing a year-on-year increase of 12.62%. The project has commenced mining and beneficiation expansion project and is expected to increase crude copper production to 24,000 tons per annum upon commissioning in the fourth quarter of 2023, so as to generate good economic and social benefits for both China and Pakistan on an ongoing basis.

(3) Pakistan Duddar Lead-Zinc Mine Project

During the Reporting Period, the project withstood the continuous impact of the heavy rainfall and flooding, resumed production within the shortest possible time, and reduced the damage and loss to the lowest level. At the same time, it withstood the huge pressure of security and terrorism prevention, and exceeded the production target again, and the operating efficiency maintained rapid growth for two consecutive years. It was awarded the Pakistan Academy of Engineering Quality Project Award, the 8th “Outstanding Achievement Award” of the business industry of Pakistan, and the “Outstanding Unit of Chinese Enterprises” of the All Pakistan Chinese Enterprises Association, and received a written commendation from the Chinese Consulate General in Karachi. The project mined 513,000 tons of ore, produced 42,349 tons of zinc in zinc concentrate and 8,886 tons of lead in lead concentrate, representing a year-on-year increase of 20% and 22% respectively, and sold 36,730 tons of zinc in zinc concentrate and 7,881 tons of lead in lead concentrate, representing a year-on-year increase of 15% and 20% respectively. The project achieved operating revenue of RMB 823 million throughout the year, representing a year-on-year increase of 51.54%, and achieved net profit of attributable to the PRC RMB 281 million, representing a year-on-year increase of 38.24%.

(4) Pakistan Sialdik Copper Project

During the Reporting Period, the Company completed the acquisition of three mining rights under the Sialdik copper project in Balochistan and carried out a detailed survey of the core area. Based on the results of the stage drilling, the copper ore resources of the project were estimated at 1,014 million tons, with 3,278,700 tons of copper metal and an average copper grade of 0.32%. The Company will continue with the exploration work and conduct a scientific feasibility study for the development of the project.

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(5) Afghanistan Aynak Copper Mine Project

During the Reporting Period, the Company conducted negotiations with Afghanistan on the solution regarding significant issues that hinder project progress under the principle of equality and mutual benefits and safeguard the legitimate rights and interests of the Company in a reasonable and orderly manner. The Company will continue to strive to improve the effectiveness of its investment in the project through contract negotiations and to promote actual progress of the project.

(6) Luoyang Silicon Polysilicon Project

During the Reporting Period, the Company's subsidiary Luoyang Silicon High Technology Company Limited ("Luoyang Silicon") produced 6,508 tons of polysilicon and sold 6,585 tons of polysilicon. It produced 11,435 tons of new silicon-based materials. It achieved sales revenue of RMB 1,789 million, representing a year-on-year increase of 104%, including sales revenue from new products of more than RMB 290 million, representing a year-on-year increase of 164%, and realised net profit of RMB 422 million, representing a year-on-year increase of 269%.

The electronic information material transformation and upgrading project is an "import substitution" project that fills the gap in the market of high-end silicon based materials in China. The technology comes from the achievements of the national industrial foundation project and the major projects of Zheng-Luo-Xin Independent Innovation Demonstration Zone undertaken by Luoyang Silicon. Many achievements have reached the international leading level through appraisal, meaning a broad development prospect. The project is developed in two phases: the first phase of the project covering an area of 350 mu, to build 300t/a of fusion grade polysilicon, 6,000t/a of VAD tetrachlorosilicon, and PCVD grade silicon tetrachloride, electronic grade silicon tetrachloride, trichlorosilane, dichlorodihydrosilane, raw material grade and electronic grade hexachlorodisilane, ethyl orthosilicate and other semiconductor electronic materials; the project was planned to be completed and put into production in the first quarter of 2023; the second phase of the project adopts the batch-by-batch construction mode for anchoring new products that have made breakthroughs, expanding the production scale of high-purity polysilicon, and building 10 new products such as electronic special gas and precursor materials. At present, the first batch of nine products in the second phase has been successfully developed and is available for industrialization. Its feasibility study has been completed and it is scheduled to commence construction in 2023.

In the future, Luoyang Silicon will actively carry out the corporate mission of "shouldering the national responsibility and making up for the shortcomings of basic materials", adhere to the development idea of "high end, multiple varieties, small batch and high profit", and base itself on the field of integrated circuits and optical communications to steadily expand into related technical fields. It will strive to build a national forward-looking innovation centre and production base of basic materials with an output value exceeding RMB 10 billion, and undertake to lead China's silicon-based materials industry to a higher level, thus consolidating and enhancing the position and increasing the voice of China in the optical communication and semiconductor industry.

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IV. ANALYSING ON CORE COMPETITIVENESS DURING THE REPORTING PERIOD

In the metallurgical engineering construction field, the Company is the world's largest and most powerful metallurgical construction contractor and metallurgical enterprise operation service provider. With top-notch core technologies, incessant reformational and innovation capabilities as well as irreplaceable whole-industry chain integration advantage in metallurgical construction, the Company shoulders the state responsibility of leading China to a higher level of development of metallurgy and is the best and the largest "national team" of metallurgical construction and operational services in the world. In the domestic market, the technical level, engineering performance, construction effect and owner satisfaction of environmental protection raw material site, coking, sintering and pelletizing, iron-making, steel-making and continuous casting, hot rolled flat wood, hot rolled long wood and cold rolling business are in an absolute leading position. In the foreign market, the Company always stays ahead of the curve internationally and sets its eyes on the growth of the metallurgical industry, adheres to the innovation driven strategy, constantly develops new core technologies and creates new competitive advantages overseas. The Company is highly competitive in terms of high-end consulting and overall design capabilities in the ferrous metallurgy field, as well as technical competitiveness in the eight major business lines of iron and steel engineering, which fully represents China's strength and level in technological development and engineering construction in the ferrous metallurgy field.

In the engineering contracting field, the Company, as one of the world's largest engineering contracting companies, has strong construction and technical advantages in housing construction, prefabricated construction, property, municipal infrastructure, comprehensive industrial engineering construction and equipment installation sectors. In 2022, the Company ranked sixth in the "Global Contractors 250" issued by ENR. The Company has 12 Class A scientific research and design institutes, and 15 large-scale construction enterprises, with 5 comprehensive Class A design qualifications and 42 special-grade general contracting construction qualifications. The Company has obtained extra-grade qualifications including 7 for highway construction, 7 for municipal utilities construction and 14 for engineering construction. The Company has the system integration capability of the whole industry chain in housing construction, transportation and municipal infrastructure construction business, and a comprehensive industrial chain for project construction covering technological research and development, consulting and planning, surveying and mapping, project design, project supervision, civil construction, installation and adjustment, equipment manufacturing and integration, technological service and import and export trade. Compared to general engineering design enterprises, engineering construction enterprises or equipment manufacturing enterprises, the Company can integrate all resources in the entire industry chain to provide more comprehensive services to its customers.

In the emerging industry field, in recent years, the Company has made continuous efforts in emerging industries such as ecological and environmental protection, feature themes engineering, beautiful countryside and smart city, and has achieved a leading position in the industry. The Company has a large number of patented technologies and proprietary technologies with independent intellectual property rights in areas of energy and environmental protection such as sewage treatment, water environment treatment, air pollution treatment, soil remediation, solid waste treatment, waste incineration, and comprehensive utilization of resources of waste heat and pressure. The Company completed the first municipal sewage treatment project in China which meets the highest discharge standard, and accounts for 60% of the market share in the field of large-scale incineration power generation consulting and design in China. The Company has 28 national technological research and development platforms and technology research institutes with the themes of utility tunnels, sponge cities, beautiful countryside and smart cities, theme parks, water environment, and healthcare and recreation. The Company has more than 47,000 active patents in total. In particular, Research Institute for Theme Park Studies in China, the sole professional design institute of theme park, has achieved "made in China" in terms of theme park design, raw materials and construction, with the manufacturing capacity of the strong steel structure and especially the figure steel. In addition, the Company has established a design institute with the strongest comprehensive strength in nonferrous metallurgy in China, possessing well-developed mining and smelting processes and equipment technologies of copper, lead, zinc, nickel and plenty of other metal, and having developed digital surveying and geographic information systems and geotechnical engineering investigation technology for complicated geological conditions. In terms of metallurgical mining, the Company plays a leading role in large scale underground iron ore mining technology and large-scale open mining technology in China.

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In the integrated industry field, the status of the Company in the industry has been improving, and its brand influence has also been increasing steadily. MCC Real Estate ranked 36th in the “Top 100 Real Estate Developers in China” in 2022, and was awarded “Top 10 in Profitability” and the “Top 10 in Stability” for seven consecutive years and won “Annual Social Responsibility Enterprises of Property Services in China”, “Real Estate Enterprise with Excellent Products in China”, and “China Excellent Operator of Special Real Estate – Urban Development Operator”. The Company was awarded “China Leading Property Companies in terms of Technology Empowerment”, and “Leading Brand Enterprises in Specialized Operation of Property Service in China”. The Company achieved a leap development from property developers to urban development operators. Adhering to the technology-led development strategy of “one main engine with multi wheels”, the Company focuses on the overall goal of “green building, technological residence, smart home and smart community” and brand positioning to create the next-generation high-end smart health residences.

During the Reporting Period, there were no material changes in the core competitiveness of the Company.

V. TECHNOLOGICAL INNOVATION

In 2022, the Company, in an all-round way, adhered to the party line of the 20th CPC National Congress, accelerated the implementation of the innovation-driven development strategy, promoted the integration of science and technology with education and talents, and strived to achieve self-sufficiency and self-improvement of high level technology in its scientific and technological innovation work. By strengthening the head office's planning and layout, management services and support and guidance for science and technology work, the Company promoted the implementation of the Company's “181 Plan” and significant non-steel research and development projects, strengthened key core technologies, and made a series of major breakthroughs in key areas such as greenization, decarbonization and intellectualization, realizing a number of key core technologies leading the development of the industry and providing solid support for the Company to be a world-class enterprise.

- 1. Continuous and stable investment in research and development.** In 2022, the Company maintained a constant and steady investment in technology. The annual investment in technology amounted to RMB 19.306 billion, accounting for 3.26% of the annual operating income. The Company made good use of research and development investment in the technological innovation of intellectualization, greenization, decarbonization and high efficiency, provided more support for “bottleneck” significant research and development projects and original disruptive innovation projects, as well as fully aroused the enthusiasm of researchers. There are more than 7,000 research and development personnel, enough to meet the needs of the Company's scientific and technological research and development.
- 2. Gradual formation of new edges for the national team for steel construction.** The Company insisted on the guidance from national strategic needs, aimed at the world's science and technology frontier, took the initiative to benchmark with the world's first-class, and took the “181 Plan” as the starting point to strengthen the key core technology breakthrough, realizing a number of key core technologies that lead the development of the industry in the fields of greenization, decarbonization and intellectualization, and realizing the promotion and application in the engineering projects. In 2022, the Company established and implemented the third batch of 30 major research and development projects under the “181 Plan” and 20 major research and development projects outside the steel industry. At the same time, the Company actively organized to declare national scientific research projects, and has been approved to lead 3 projects and 5 programs under the national key research and development program, such as “key technology and application of high-performance bridge steel plate manufacturing in complex plateau environment”, “research and development and application of in-situ online inspection system for thermal quantity in industrial complex environment”, and “multi-field advanced process control and optimization software for nonferrous metal production processes”. The Company led 3 projects of the National Natural Science Foundation of China, and participated in 7 national key research and development programs, and 1 national key research and development project of “Strategic Science and Technology Innovation Cooperation”.

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- 3. Strengthening role of scientific and technological achievements in supporting development.** The Company continuously strengthened the layout of scientific and technological achievements around its development strategy, improved the summary and evaluation of major scientific and technological achievements, and continued to strengthen the powerful grip of scientific and technological achievements appraisal, forming a high priority working situation throughout the Company. The Company revised and improved the “Management Measures of Scientific and Technological Achievement Evaluation”, actively invited famous academicians, professors and industry experts, etc. to organize more than 20 scientific and technological achievements appraisal meetings in relevant subsidiaries, and completed 155 achievements appraisals. Among them, 26 achievements were international leading and 71 achievements were international advanced, which made sufficient cultivation and reserve for recommending national, provincial and industry science and technology awards, and also provided good scientific and technological support for the cultivation of high-end talents in the Company. With the Company’s active organization and recommendation, a total of 11 industrial energy-saving technologies and achievements were selected in the 2022 national recommended catalogue of energy-saving technologies and equipment in industry and information technology. The number and level of the technologies and achievements selected were in the forefront of central enterprises, highlighting the significant influence of the Company’s major technological achievements in industrial energy-saving. In 2022, the Company won 3 China Civil Engineering Zhan Tianyou Awards, received 20 Metallurgical Science and Technology Awards from China Iron and Steel Industry Association (including 8 first prizes), 9 Science and Technology Awards of China Nonferrous Metals Industry (including 4 first prizes), 10 Engineering Construction Science and Technology Awards from China Association of Construction Enterprise Management, and 19 Science and Technology Progress Awards from China Installation Association (including 2 first prizes). Winning these awards has further expanded our influence in the industry and increased our say in the industry.
- 4. Better technological innovation platform system.** In 2022, the Company continued to improve the national science and technology platform system according to the work deployment of the national authorities, focused on strengthening the construction of MCC Technical Research Institute and MCC Engineering Technology Center, achieved optimal allocation of science and technology innovation resources, comprehensively improved the overall effectiveness of the Company’s innovation system, and provided strong scientific and technological support for the Company to cultivate strategic emerging industries. Among them, the Enterprise Technology Center of CISDI has been recognized as “National Enterprise Technology Center”. By the end of 2022, the Company had built 28 national science and technology innovation platforms approved by the Ministry of Science and Technology, the National Development and Reform Commission and other ministries.
- 5. Further improvement of patent quality and quantity.** The Company strived to improve the patents quality and the proportion of invention patents, strengthened and standardized the work of intellectual property rights, actively promoted the standardization of intellectual property rights, enhanced the awareness of intellectual property rights of all employees, promoted the productization and industrialization of core patents, and pushed the scientific research results to the project site and the market, making them truly become the “market science and technology, benefit science and technology and practical science and technology” that lead and pull the industrial development. In 2022, the Company applied for 12,020 new patents, including 6,073 patents for invention, and 8,963 newly authorized patents, including 1,761 patents for invention; accumulated 47,120 valid patents, including 12,141 patents for invention. At the same time, the subsidiaries were encouraged to actively apply for the Chinese Patent Awards to promote the improvement of patent quality through awards, and 16 Chinese Patent Awards were applied through various channels. The Company organized meetings to promote the standardization of intellectual property management and invited external experts to give lectures on the standardization of intellectual property, which further enhanced the awareness of intellectual property of all staff.

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- 6. Continuous improvement in standardization work.** The Company fully implemented the “National Standardization Development Outline”, focused on building a new standard system to promote the Company's high-quality development, strengthened the interactive development of standardization and scientific and technological innovation, promoted standardization to help the green and low-carbon development of the steel industry, and made transformation from “manufacturing” to “intelligent manufacturing”. The Company strengthened cooperation with user units and upstream and downstream industry enterprises to promote the joint proposal, development and release of standards, continued to expand the depth and breadth of participation in international standardization activities in the metallurgical field, promote the internationalization of Chinese metallurgical standards, and promote the compatibility of Chinese standards with the international standard system. The international standard Treatment and Reuse Guidelines for Leachate from Waste Incineration Plants, mainly developed by China ENFI, were approved and released. At the same time, the Company actively promoted the preparation of 7 international standards, including General Technical Requirements for Emergency Medical Modular Isolation Unit, which was mainly developed by the Company. The national key research and development plan project (National Quality Infrastructure NQI) “International Application Research of Major Overseas Engineering Standards” undertaken by the Company was approved to establish. The Company organized and held the video promotion meeting for the establishment of the second batch of sub-bases of the international standardization innovation base for metallurgical engineering, and continued to optimize the layout of the sub-bases of the innovation base; subsidiaries of the Company, CSMGC, China MCC 20 and MCC Central Research Institute of Building and Construction, actively participated in the application for being the domestic technical counterpart unit of the International Organization for Standardization and related annual meetings, actively promoted their subsidiaries to participate in the preparation of national, industry and social group standards, and strengthened the hierarchy and systematization of technical standards of the Company.
- 7. Remarkable achievements made in the demonstration and application of new technologies in the construction industry.** In 2022, the Company continued to strengthen the construction of MCC demonstration projects, applied more innovative technologies with independent intellectual property rights to the construction of the Company's projects, and realized the effective transformation of independent innovation technology achievements, and consolidated the basic conditions for the Company to strive for more Luban Prize. We launched 105 MCC demonstration projects and 51 of the said projects were accepted, laying a solid foundation for the Company to secure more awards and honors. Meanwhile, the Company actively held the 2022 BIM technology application contest to give full play to the important role of BIM technology in the process of digital transformation of enterprises, and accelerated the promotion and application of intelligent steel and intelligent construction technology, to empower the Company's digital and intelligent transformation and upgrading. In the results of the 6th Construction Engineering BIM Competition announced by China Construction Industry Association in 2022, the Company won good results again, with 12 first places, 14 second places and 10 third places. The number and quality of prizes significantly improved and ranked among the top central state-owned construction enterprises.

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VI. PRINCIPAL OPERATION RESULTS DURING THE REPORTING PERIOD

During the Reporting Period, the operating revenue of the Company amounted to RMB 592,669,072 thousand, representing a year-on-year growth of 18.40%, the total profit amounted to RMB 15,392,116 thousand, representing a year-on-year growth of 9.85% and the net profit attributable to shareholders of parent company amounted to RMB 10,272,357 thousand, representing a year-on-year growth of 22.66%.

(I) Analysis on major operating business

1. Analysis on the changes in the relevant items in income statement and cash flow statement

Unit: RMB '000

Items	Amount for the current year	Amount for the prior year	Change in proportion (%)
Operating revenue	592,669,072	500,571,647	18.40
Operating costs	535,516,918	447,435,146	19.69
Selling expenses	2,883,123	2,742,789	5.12
Administrative expenses	11,273,969	10,921,869	3.22
Financial expenses	940,841	1,055,115	-10.83
Research and development expenses	18,732,632	15,901,198	17.81
Net cash flows from operating activities	18,153,061	17,640,008	2.91
Net cash flows from investing activities	(6,559,348)	(12,567,230)	N/A
Net cash flows from financing activities	(9,670,175)	(16,236,483)	N/A

Detailed description of significant changes in the type of business, composition of profit or source of profit of the Company during the period

Applicable Not applicable

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2. Analysis on revenue and costs

(1) Analysis on the factors causing the changes in business revenue

The Company's financial position and business performance were subject to the combined impact of multiple factors, including changes in international and domestic macroeconomic environment and China's financial and monetary policies and the development status of the industry in which the Company was operating in and the implementation of adjustment and control measures of the industry imposed by the state:

1) Trend of macro-economy internationally and domestically

At present, the international political and economic situation remains complicated and volatile, with many unstable and uncertain factors. The Company's various business operations are affected by the international and domestic macroeconomic environment, and business links such as procurement, production and sales of the Company may also be affected by the trends of international and domestic macroeconomics, which further leads to fluctuations in the results of operations of the Company. The business income of the Company are derived primarily from the PRC. In different domestic economic cycles, the performance of the Company's business operations may vary.

2) Changes in the policies of industry in which the Company was involved and demands of its domestic and overseas markets

The Company's engineering contracting, property development, resources development and equipment manufacture businesses were all influenced by the policies of the industry. With the national policy requirements of "carbon emission peak and carbon neutrality", carbon emission limits have been gradually upgraded, environmental protection and energy consumption control efforts have been continuously strengthened, and the real estate industry has gradually returned to a rational and stable development stage. At the same time, there was significant fluctuations of prices of mineral products globally. Changes in the above-mentioned national policies, market changes and periodic fluctuations of the industries and changes in the operating situation of upstream and downstream enterprises of the industries all guide the adjustment of the Company's business segment and the layout of market areas to a certain extent, which thereby affected the Company's internal business structure and in return affected its financial position.

Both items 1) and 2) above were the major risk factors that impacted the Company's performance in 2022.

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3) Changes in the State's tax policy and exchange rates

① Impact from changes in the tax policy

The Company's operating results and financial position were influenced by changes in the state's tax policy through the impact of tax burdens of the Company and its subsidiaries. The preferential tax policy for the development of the western regions and the preferential tax policies for high-tech enterprises currently enjoyed by some of the Company's subsidiaries, as well as the resources tax may undergo some changes following the changes in the PRC's tax policies. Changes in the relevant preferential tax policies would affect the Company's financial performance.

② Impact of the fluctuations in exchange rate and monetary policy

Part of the Company's business revenue came from overseas markets. Changes in the exchange rates may bring exchange rate risks to the Company's overseas business revenue and currency settlement. In addition, adjustment in banks' deposit reserve ratio and changes in the benchmark interest rates for deposits and loans would affect the Company's financing costs and interest income.

4) Overseas tax policies and their changes

The Company operates in many overseas countries and regions and pays various taxes. Since the tax policies and environments are different in various places and the regulations of the various taxes, including enterprise income tax, tax of foreign contractors, individual income tax and interest tax, are complicated and diversified, the Company's overseas business may incur corresponding risks due to tax policies and the changes thereof. Meanwhile, the tax treatment for transactions and matters related to certain operating activities may require enterprises to make corresponding judgment because of the uncertainty of such tax treatment.

5) Changes in major raw materials prices

The Company's engineering contracting, resource development and property development businesses require raw materials including steel, wood, cement, explosive initiators, waterproof materials, earthwork materials and additive agents while the Company's equipment manufacture business requires steel and electronic parts, etc. Changes in the prices of the aforementioned raw materials due to factors such as supply, market conditions and costs on materials will impact the Company's costs of the corresponding raw materials and consumables.

6) Construction subcontracting expenses

The Company may, according to the different situations of engineering contracting projects, subcontract non-crucial construction parts to subcontractors. On one hand, subcontracting boosted the Company's capacity to undertake large-scale projects and to fulfil contracts flexibly. On the other hand, the management of subcontractors and the control of subcontracting costs may also affect profit on projects of the Company.

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7) Enhancement in the quality of operational management

The quality of operational management will significantly affect the results of the Company. The Company will continue to “Highlight the Theme of Reform and Focus on Core Business”, further improve the corporate governance and operation of internal control, strengthen the operation management and risk control, raise management quality and effectiveness, and perfect the assessment and incentive systems of the Company. The Company will continue to deepen the design and operation of “macro environment, major customers and large-scale projects”, through systematic reform and innovation, as well as scientific decision-making to stimulate the Company’s vitality and creativity, and achieve a simple, efficient and effective management and control system. Whether these management objectives can be effectively implemented will also influence, to quite a large extent, the improvement in the operating results of the Company.

8) Uneven distribution of revenue

The Company’s operating revenue is mainly derived from the engineering contracting business. Since the income of such business is affected by factors such as government’s project approval, public holidays and the “frozen period” in the north, the business revenue of the Company is usually higher in the second half of the year than the first half, leading to an uneven distribution of revenue.

(2) Major business by segment and region

Unit: RMB ‘000

Segment	Operating revenue	Operating costs	Situation on Major Business by Segment			
			Gross margin (%)	Increase or decrease in the operating revenue as compared to that of last year (%)	Increase or decrease in the operating costs as compared to that of last year (%)	Increase or decrease in the gross margin as compared to that of last year (%)
Engineering contracting	550,440,814	501,113,886	8.96	19.07	19.37	Decreased by 0.23 percentage point
Property development	22,726,736	20,226,222	11.00	6.12	23.43	Decreased by 12.48 percentage points
Equipment manufacturing	12,319,197	10,892,637	11.58	5.99	10.41	Decreased by 3.54 percentage points
Resources development	8,866,005	5,643,306	36.35	32.94	47.58	Decreased by 6.32 percentage points

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Region	Operating revenue	Operating costs	Situation on Major Business by Region			
			Gross margin (%)	Increase or decrease in the operating revenue as compared to that of last year (%)	Increase or decrease in the operating costs as compared to that of last year (%)	Increase or decrease in the gross margin as compared to that of last year (%)
PRC	569,649,404	516,219,748	9.38	18.56	19.59	Decreased by 0.78 percentage point
Other countries/ regions	23,019,668	19,297,170	16.17	14.43	22.24	Decreased by 5.36 percentage points

Note: The statistics of segment revenue and costs are figures before inter-segment eliminations.

Explanation of major business by segment, product, region and sales mode

1) Explanation on Major Business by Segment

① Engineering contracting business

Engineering contracting business is the traditional core business of the Company which is mainly carried out by way of EPC contract and general financing and construction contracting contract, and is currently the major source of income and profits of the Company. The gross profit margins of the engineering contracting business for the year 2022 and 2021 were 8.96% and 9.19%, respectively, with a year-on-year decrease of 0.23 percentage point.

The operating revenue of segments of the Company and their respective proportions of the total engineering contracting revenue for each of the past three years are as follows:

Unit: RMB '000

Items of revenue	2022		2021		2020	
	Amount	Proportion (%)	Amount	Proportion (%)	Amount	Proportion (%)
Metallurgical engineering	129,649,185	23.55	115,256,465	24.93	90,498,906	24.87
Housing construction engineering	287,483,146	52.23	228,220,508	49.37	165,001,421	45.33
Transportation infrastructure	105,343,715	19.14	88,338,320	19.11	77,372,999	21.26
Other engineering	27,964,768	5.08	30,474,860	6.59	31,091,801	8.54
Total	550,440,814	100.00	462,290,153	100.00	363,965,127	100.00

Note: The statistics of segment revenue are figures before inter-segment eliminations.

REPORT OF THE BOARD OF DIRECTORS, MANAGEMENT DISCUSSION AND ANALYSIS

② Property development business

For the years of 2022 and 2021, the total gross profit margin of the Company's property development business was 11.00% and 23.48%, respectively, with a year-on-year decrease of 12.48 percentage points. The decrease was mainly due to the impact of adjustment and control measures of local governments and industrial cycle.

③ Equipment manufacturing business

The Company's equipment manufacturing business mainly included metallurgical equipment, steel structures and other metal products. For the years of 2022 and 2021, the gross profit margin of the Company's equipment manufacturing business was 11.58% and 15.12%, respectively, with a year-on-year decrease of 3.54 percentage points. The decrease was mainly due to the rising price of the Company's major production raw materials that led to a larger decrease in gross profit margin.

④ Resources development business

The Company's resources development business included mining and processing. Companies including MCC Tongsin Resources Limited (MCCT) (中冶銅鋅有限公司) and MCC-JJJ Mining Development Company Limited (中冶金吉礦業開發有限公司) were mainly engaged in the mining business while China Silicon Co., Ltd. (洛陽中硅高科技有限公司), the polysilicon manufacturing enterprise, was mainly engaged in the processing business. For the years of 2022 and 2021, the gross profit margin of the Company's resources development business was 36.35% and 42.67% respectively, with a year-on-year decrease of 6.32 percentage points. The decrease was mainly due to the significant increase in international bulk material prices.

2) Explanation on Major Business by Region

For the years of 2022 and 2021, the Company realized overseas operating revenue of RMB 23,019,668 thousand and RMB 20,117,266 thousand, respectively. The revenue was mainly derived from the engineering contracting business including Central Expressway in Sri Lanka, Normanton Park in Singapore, Indonesian Dexin Steel Plant, the property development business in Singapore, and the resources development business including the Ramu Nico Laterite Mine Project in Papua New Guinea.

(3) Table of production and sales volume analysis

Applicable Not applicable

(4) Performance of major purchase contracts and major sales contracts

Applicable Not applicable

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(5) Table of cost analysis

Unit: RMB '000

Segments	Costs component	By segment				Percentage change in the amount for the current period as compared to that for the same period in the previous year (%)
		Amount for the current period	Proportion of the amount for the current period to the total costs (%)	Amount for the same period in the previous year	Proportion of the amount for the same period in the previous year to the total costs (%)	
Engineering contracting	Operating costs	501,113,886	92.52	419,814,524	92.28	19.37
Property development	Operating costs	20,226,222	3.73	16,386,721	3.60	23.43
Equipment manufacturing	Operating costs	10,892,637	2.01	9,865,876	2.17	10.41
Resources development	Operating costs	5,643,306	1.04	3,823,828	0.84	47.58

Note: The statistics of segment cost are figures before inter-segment eliminations.

The major components of cost used in construction project of the Company for the same period of the recent three years are as follows:

Unit: RMB '000

Items of cost	2022		2021		2020	
	Amount	Proportion (%)	Amount	Proportion (%)	Amount	Proportion (%)
Subcontracting expenses	277,625,907	55.40	228,688,091	54.47	180,518,387	55.21
Materials expenses	166,957,997	33.32	137,104,977	32.66	100,136,643	30.63
Labour costs	20,277,206	4.05	20,405,670	4.86	18,101,161	5.54
Machinery usage fees	8,218,176	1.64	7,731,277	1.84	6,389,727	1.95
Others	28,034,600	5.59	25,884,509	6.17	21,802,531	6.67
Total engineering costs	501,113,886	100.00	419,814,524	100.00	326,948,449	100.00

The major components of cost used in construction projects of the Company are subcontracting expenses, materials expenses, labour costs, machinery usage fees and other costs. The proportion of each component of cost to operating costs is relatively stable.

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- (6) Changes in the scope of consolidation due to changes in the equity structure of major subsidiaries during the Reporting Period

Applicable Not applicable

- (7) Significant changes or adjustments to the Company's business, products or services during the Reporting Period

Applicable Not applicable

- (8) Information of major sales customers and major suppliers

A. Information of major sales customers of the Company

The sales of top five major sales customers amounted to RMB 21,343,343 thousand, accounting for 3.60% of the total annual sales; of which, the sales of top five major customers derived from the sales to related parties amounted to RMB 4,409,435 thousand, accounting for 0.74% of the total annual sales.

Unit: RMB '000

Customer's name	Operating revenue	Proportion of the total operating revenue of the Company (%)
Unit 1	5,281,428	0.89
Unit 2	4,409,435	0.74
Unit 3	4,332,940	0.73
Unit 4	3,889,165	0.66
Unit 5	3,430,375	0.58
Total	21,343,343	3.60

Sales to a single customer exceeded 50% of the total amount, and there were new customers among the top 5 customers or there was heavy reliance on a few customers during the Reporting Period

Applicable Not applicable

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B. Information of major suppliers of the Company

The procurement of top five suppliers amounted to RMB 7,482,584 thousand, accounting for 1.39% of the total annual procurement; of which, the procurement from related parties under the procurement of top five suppliers amounted to RMB 4,878,499 thousand, accounting for 0.91% of the total annual procurement.

Unit: RMB '000

Supplier's name	Procurement for the current period	Proportion of the total operating costs of the Company (%)
Supplier 1	4,878,499	0.91
Supplier 2	788,500	0.15
Supplier 3	665,250	0.12
Supplier 4	589,445	0.11
Supplier 5	560,890	0.10
Total	7,482,584	1.39

Procurement to a single supplier exceeded 50% of the total amount, and there were new suppliers among the top 5 suppliers or there was heavy reliance on a few suppliers during the Reporting Period

Applicable Not applicable

3. Expenses

(1) Selling expenses

The Company's selling expenses mainly include employee compensation costs, travelling expenses, advertising and sale services expenses. In 2022 and 2021, the Company's selling expenses were RMB 2,883,123 thousand and RMB 2,742,789 thousand respectively, representing a year-on-year increase of 5.12%, which was mainly due to the Company's intensified market development and an increase in related expenses.

(2) Administrative expenses

The Company's administrative expenses mainly include employee compensation costs, depreciation expenses and office expenses. In 2022 and 2021, the Company's administrative expenses were RMB 11,273,969 thousand and RMB 10,921,869 thousand respectively, representing a year-on-year increase of 3.22%, which was mainly due to the increase in labour costs.

(3) Financial expenses

The Company's financial expenses include costs of borrowing, exchange gains or losses, bank charges, etc. incurred in operating business. In 2022 and 2021, the Company's financial expenses were RMB 940,841 thousand and RMB 1,055,115 thousand respectively, representing a year-on-year decrease of 10.83%, which was mainly because the Company optimized the financing structure, reducing capital costs.

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(4) Research and development expenses

The Company's research and development expenses include personnel labour costs, direct input costs, depreciation expenses and external research and development commission expenses. In 2022 and 2021, the Company's research and development expenses were RMB 18,732,632 thousand and RMB 15,901,198 thousand respectively, representing a year-on-year increase of 17.81%, which was mainly because the Company increased research and development investments.

4. Research and development expenditure

(1) Table of research and development expenditure

Unit: RMB '000

Expensed research and development expenditure for the current period	18,732,632
Capitalized research and development expenditure for the current period	17,136
Total research and development expenditure	18,749,768
Proportion of total research and development expenditure to operating revenue (%)	3.16
Proportion of capitalized research and development expenditure (%)	0.09

(2) Research and development personnel table

Number of research and development personnel in the Company	7,465
The ratio of research and development personnel to the total number of our employee (%)	7.6%

Educational structure of research and development personnel

Education type	Number
PhD	270
Master	2,751
Undergraduate	3,957
Junior college	464
High school education or less	23

Age structure of research and development personnel

Age category	Number
Under 30 (excluding)	2,059
30-40 (including 30, excluding 40)	2,701
40-50 (including 40, excluding 50)	1,833
50-60 (including 50, excluding 60)	866
60 and above	6

(3) Situation explanation

Applicable Not applicable

(4) Reasons for the major changes in the composition of research and development personnel and the impact on the future development of the Company

Applicable Not applicable

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5. Cash flow

The cash flows of the Company are as follows:

Unit: RMB '000

Items	2022	2021
Net cash flows from operating activities	18,153,061	17,640,008
Net cash flows from investing activities	(6,559,348)	(12,567,230)
Net cash flows from financing activities	(9,670,175)	(16,236,483)

(1) Operating activities

In 2022 and 2021, the Company's net cash flows generated from operating activities amounted to RMB 18,153,061 thousand and RMB 17,640,008 thousand, respectively, representing a year-on-year increase of 2.91%. For the years 2022 and 2021, the cash inflow generated from operating activities mainly came from the cash received from sales of products and provision of services, accounting for 98.58% and 98.71% respectively with respect to the cash inflow generated from operating activities. The Company's cash outflow generated from operating activities mainly consisted of cash paid out for commodities purchased and the labour services received, cash paid to and for staff and payment for various taxes, etc. In 2022 and 2021, such cash outflow accounted for 87.57%, 6.13%, 2.29% and 87.17%, 6.38%, 2.49%, respectively with respect to the cash outflow generated from operating activities.

(2) Investing activities

In 2022 and 2021, the Company's net cash flows generated from investing activities amounted to RMB -6,559,348 thousand and RMB -12,567,230 thousand, respectively. The investing activities of the Company mainly relate to engineering contracting and property development business. The Company's cash inflow generated from investing activities mainly consisted of recovery of related party borrowings and interests, cash receipts from recovery of investments and disposal of assets, which accounted for 63.10%, 12.86%, 11.02% and 16.04%, 62.73%, 10.97% of the cash inflow generated from investing activities in 2022 and 2021, respectively. Cash outflow mainly included cash paid for investment, as well as cash payments to acquire or construct fixed assets, intangible assets and other long-term assets. In 2022 and 2021, such cash outflow accounted for 49.14%, 38.74% and 28.30%, 20.22% respectively with respect to the cash outflow generated from investing activities.

(3) Financing activities

In 2022 and 2021, the Company's net cash flows generated from financing activities amounted to RMB -9,670,175 thousand and RMB -16,236,483 thousand respectively. A large amount of net cash outflow from financing activities was mainly due to the higher amount of cash paid for debt repayment, together with the cash for the distribution of dividends and, profit and interest paid for the current period than that of cash received from borrowings. The Company's cash inflow from financing activities mainly consisted of cash receipts from borrowings which accounted for 95.91% and 90.38% respectively of the cash inflow generated from financing activities for the years 2022 and 2021. The Company's cash outflow from financing activities mainly consisted of cash repayments of borrowings and cash payments for distribution of dividends, profits or settlement of interest expenses, accounting for 90.87%, 5.33% and 87.70%, 6.32% respectively of the cash outflow from financing activities for the years 2022 and 2021.

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(II) Explanation of material changes in profits from non-major businesses

Applicable Not applicable

(III) Analysis on Assets and Liabilities

1. Assets and Liabilities

Unit: RMB '000

Items	Amount at the end of the current period	Proportion of the amount at the end of current period with respect to the total assets/ total liabilities (%)	Amount at the end of the previous period	Proportion of the amount at the end of the previous period with respect to the total assets/ total liabilities (%)	Percentage change in the amount at the end of the current period as compared to that at the end of the previous period (%)
Current Assets	438,205,660	74.86	412,315,644	75.87	6.28
Cash and bank balances	45,485,413	7.77	41,824,464	7.70	8.75
Accounts receivable	93,439,673	15.96	83,881,695	15.43	11.39
Inventories	79,948,631	13.66	61,847,522	11.38	29.27
Contract assets	106,826,600	18.25	91,185,630	16.78	17.15
Non-current Assets	147,178,730	25.14	131,154,503	24.13	12.22
Intangible assets	22,026,293	3.76	20,878,147	3.84	5.50
Total Assets	585,384,390	100.00	543,470,147	100.00	7.71
Current Liabilities	385,844,649	91.11	358,889,666	91.53	7.51
Short-term borrowings	20,192,878	4.77	21,395,848	5.46	-5.62
Bills payable	37,186,380	8.78	37,616,532	9.59	-1.14
Accounts payable	187,160,134	44.20	155,265,041	39.60	20.54
Contract liabilities	74,016,212	17.48	87,092,166	22.21	-15.01
Non-current Liabilities	37,630,616	8.89	33,192,722	8.47	13.37
Long-term borrowings	28,840,673	6.81	25,332,533	6.46	13.85
Total Liabilities	423,475,265	100.00	392,082,388	100.00	8.01

(1) Analysis on the structure of assets

Cash and bank balances

As at 31 December 2022 and 31 December 2021, the balances of cash and bank balances of the Company were RMB 45,485,413 thousand and RMB 41,824,464 thousand, respectively, representing a year-on-year increase of 8.75%.

As at 31 December 2022 and 31 December 2021, the restricted cash and bank balances of the Company were RMB 12,017,196 thousand and RMB 10,607,640 thousand, respectively, which accounted for 26.42% and 25.36% of the cash and bank balances, respectively. The restricted cash and bank balances mainly included bank acceptance bill margin deposits, deposits for the guarantee letter, frozen funds for lawsuit, project supervision funds and wage deposits for rural migrant workers, etc.

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Accounts receivable

As at 31 December 2022 and 31 December 2021, the carrying value of the Company's accounts receivable were RMB 93,439,673 thousand and RMB 83,881,695 thousand, respectively, representing a year-on-year increase of 11.39%, which was mainly due to an increase in accounts receivable related to engineering contracting services.

Inventories

The inventories of the Company mainly consisted of properties under development, completed properties held for sale, raw materials, work in process and finished goods, etc. The inventory structure of the Company reflected the characteristics of the engineering and contracting, property development, equipment manufacturing and resources development businesses in which the Company was engaged.

As at 31 December 2022 and 31 December 2021, the Company's net inventories were RMB 79,948,631 thousand and RMB 61,847,522 thousand, respectively, representing a year-on-year increase of 29.27%.

Contract assets

Contract assets of the Company are mainly completed and unsettled inventories and construction quality guarantee deposits with regard to the engineering contracting service contracts. As at 31 December 2022 and 31 December 2021, the net contract assets of the Company amounted to RMB 106,826,600 thousand and RMB 91,185,630 thousand, respectively, representing a year-on-year increase of 17.15%, which was mainly due to an increase in contract assets related to engineering contracting services.

Intangible assets

As at 31 December 2022 and 31 December 2021, the aggregated carrying value of the Company's intangible assets were RMB 22,026,293 thousand and RMB 20,878,147 thousand, respectively, representing a year-on-year increase of 5.50%. The Company's intangible assets mainly included land use rights, franchise right, patent and proprietary technology, as well as mining rights etc..

(2) **Analysis on the structure of liabilities**

Long-term and short-term borrowings

Long-term and short-term borrowings of the Company mainly consisted of credit loans, pledge loans and guaranteed loans from commercial banks and other financial organizations. As at 31 December 2022 and 31 December 2021, the carrying value of the Company's short-term borrowings were RMB 20,192,878 thousand and RMB 21,395,848 thousand, respectively, representing a year-on-year decrease of 5.62%. As at 31 December 2022 and 31 December 2021, the carrying value of the Company's long-term borrowings were RMB 28,840,673 thousand and RMB 25,332,533 thousand, respectively, representing a year-on-year increase of 13.85%.

During the Reporting Period, the short-term borrowings and long-term borrowings repaid by the Company amounted to RMB 103,821,087 thousand and RMB 24,926,540 thousand, respectively. As at the end of the Reporting Period, the balances of fixed-rate short-term borrowings and fixed-rate long-term borrowings amounted to RMB 13,608,161 thousand and RMB 12,824,062 thousand, respectively.

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Accounts payable

Accounts payable mainly included material costs payable to suppliers and engineering costs payable to subcontractors by the Company. As at 31 December 2022 and 31 December 2021, the Company's carrying value of accounts payable were RMB 187,160,134 thousand and RMB 155,265,041 thousand, respectively, representing a year-on-year increase of 20.54%.

Contract liabilities

Contract liabilities mainly comprises contract liabilities related to engineering contracting services and sales contracts. As at 31 December 2022 and 31 December 2021, the Company's carrying value of contract liabilities amounted to RMB 74,016,212 thousand and RMB 87,092,166 thousand, respectively, representing a year-on-year decrease of 15.01%.

2. Overseas assets

(1) Asset size

Among them: overseas assets RMB 39,825,222 thousand, accounting for 6.80% of the total assets.

(2) Relevant explanations for the relatively high proportion of overseas assets

Applicable Not applicable

3. Restrictions on major assets as of the end of the Reporting Period

For details, please refer to Note VII 71 of the "Financial Statements" in this report.

(IV) Analysis on the Operational Information in the Industry

Analysis on the operational information in the construction industry

1. Inspection and acceptance on completion of construction projects during the Reporting Period

Unit: RMB '000

Sub-segment	Housing construction	Infrastructure construction	Metallurgical engineering	Others	Total
Number of projects (Unit)	3,288	1,133	3,029	680	8,130
Total amount	28,005,720	10,552,862	20,161,127	4,202,876	62,922,585

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Unit: RMB '000

Project location	Number of projects (Unit)	Total amount
Domestic	7,763	61,087,023
Overseas	367	1,835,562
Including: Asia	184	1,233,417
Africa	82	307,997
South America	34	46,786
Europe	27	59,928
Oceania	33	3,566
North America	7	183,868
Total	8,130	62,922,585

2. Projects under construction during the Reporting Period

Unit: RMB '000

Sub-segment	Housing construction	Infrastructure construction	Metallurgical engineering	Others	Total
Number of projects (Unit)	6,155	1,695	4,568	1,681	14,099
Total amount	262,118,472	94,545,832	89,425,114	26,214,632	472,304,051

Unit: RMB 0'000

Project location	Number of projects (Unit)	Total amount
Domestic	12,593	458,010,846
Overseas	1,506	14,293,205
Including: Asia	1,142	13,193,693
Africa	152	460,272
South America	88	252,915
Europe	93	329,636
Oceania	23	41,731
North America	8	14,958
Total	14,099	472,304,051

3. Significant projects under construction

Applicable Not applicable

4. Accumulated number of newly signed projects during the Reporting Period

During the Reporting Period, the accumulated number of newly signed projects amounting to over RMB 50 million was 2,991, and the total amount was RMB 1,260.058 billion.

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5. Orders on hand as at the end of the Reporting Period

As at the end of the Reporting Period, the outstanding contractual value of construction orders with an amount of over RMB 50 million amounted to RMB 2,183.150 billion. In particular, the value of outstanding contracts for the projects that have been signed but yet to be commenced amounted to RMB 675.698 billion, and the amount of the outstanding portion of the projects under construction was RMB 1,507.452 billion.

6. Engineering construction qualifications of the Company

As a national innovative enterprise, the Company has 5 integrated qualifications of Grade A for design and 42 special qualifications for construction general contracting. Among them, 5 subsidiaries each has 4 special qualifications for construction general contracting, 3 subsidiaries each has 3 special qualifications for construction general contracting, and 4 subsidiaries each has 2 special qualifications for construction general contracting, ranking among the top in China.

7. The operation of the quality control system and production safety system of the Company

In 2022, the operation of the quality control system of the Company was normal and the overall construction quality was under control without occurrence of any significant quality accident. The quality control system of the Company, which comprises three core levels, namely the head office, the subsidiaries and the project management departments, operated smoothly. Each of the levels stringently executes the national, industrial and local standards of quality. The Company carried out special inspections of municipal transportation projects, housing construction projects and metallurgical projects, and organized the subsidiaries to implement effective quality control on projects under construction by various measures such as self-check, regional check and special inspection, which focused on promoting standardization of quality management and building quality constructions and commenced publicity and educational activities such as "quality month" activities as safeguards.

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In 2022, the Company's safety management system functioned effectively and the production safety situation was basically stable. The Company conscientiously implemented the production safety work arrangements of the Party Central Committee, the State Council, the Ministry of Emergency Management and other higher departments, adhered to the guiding ideology of "systematic governance, addressing the root causes, addressing problems on both symptoms and root causes with focus on root causes", and constantly improved the construction of the safety management system in combination with the tasks in the upgrading stage of the national three-year action for special rectification of production safety and the 15 strict measures for production safety. The Company deepened the understanding and awareness of the extreme importance of production safety at all levels, comprehensively and thoroughly carried out the investigation and treatment of security risks, vigorously promoted standardization of construction and fully implemented the main responsibility of enterprises. The Company has convened six production safety conferences, conveyed the spirit of the instructions of the Party Central Committee and the State Council at the earliest time, and strictly implemented the "15 Measures for Production Safety" of the State Council, especially for high-risk industries, key areas and key links of production safety, and carried out repeated deployment and implementation. The Company reinforced entity responsibility through all levels, and leaders at all levels earnestly fulfilled the "one position with two responsibilities" of production safety. The leaders of the Company head office carried out a total of 73 rounds of inspections throughout the year, and the leaders of all subsidiaries carried out a total of 5,199 rounds of inspections. The Company insisted on systematic governance and addressing the root causes, further improved the system, formulated and strictly implemented the rules on production safety at construction sites and the implementation details of leading shifts to strengthen on-site safety management; strongly implemented the safety director system, opened up career paths for safety management personnel, strictly implemented the special subsidy system, and comprehensively strengthened the construction of safety management teams. The Company is committed to the principle of prevention as the first and practice as the backing, and on the basis of "Four Don'ts and Two Directs" and systematic linkage inspections, constantly innovated the inspection mode, comprehensively carried out the "guarantee" inspection, and paid close attention to the investigation and treatment of hidden dangers. A total of 1,164 key projects under construction were inspected throughout the year, and 11,765 potential safety hazards were eliminated. The Group has ensured the standardization of safety and civilisation with the guidance of "on-site recycling market". 21 projects were awarded the honorary title of "standardized construction sites for safe production in national construction projects", 226 projects were awarded provincial-level safety and civilized standard chemical sites, and 217 projects were awarded provincial-level safety and civilized standard chemical sites, setting benchmarks for MCC.

8. *Financing arrangements of the Company*

As at the end of the Reporting Period, the balance of debt financing and financing by other equity instruments of the Company amounted to RMB 101.122 billion, representing an increase of 7.18% as compared to the beginning of the period, which better satisfied the capital needs for enterprise development and industrial structure adjustment. In particular, the balances of debt financing and financing by other equity instruments amounted to RMB 62.483 billion and RMB 38.639 billion, respectively, which contributed to the further optimization of financing structure; the balance of financing due within one year and the long-term financing balance amounted to RMB 31.663 billion and RMB 69.459 billion, respectively.

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(V) Investment analysis

1. Overall analysis on external equity investments

As at 31 December 2022 and 31 December 2021, the net assets of the Company's trading financial assets were RMB 178,026 thousand and RMB 1,107 thousand, respectively. As at 31 December 2022 and 31 December 2021, the net long-term equity investments of the Company were RMB 31,863,695 thousand and RMB 30,328,766 thousand, respectively, representing an increase of 5.06% compared to the beginning of the year. As at 31 December 2022 and 31 December 2021, the net investment in other equity instruments of the Company amounted to RMB 939,925 thousand and RMB 786,855 thousand, respectively, representing an increase of 19.45% as compared to the beginning of the year. As at 31 December 2022 and 31 December 2021, the Company's other net investment in non-current financial assets amounted to RMB 4,477,895 thousand and RMB 4,711,041 thousand, respectively, representing a decrease of 4.95% as compared with the beginning of the year.

2. Substantial equity investments

Applicable Not applicable

3. Substantial non-equity investments

Applicable Not applicable

4. Financial assets measured at fair value

Equity interests in other listed companies at fair value through profit or loss

No.	Stock variety	Stock code	Stock abbreviation	Initial investment amount (RMB)	Number of shares held (share)	Carrying amount at the end of the period (RMB)	Percentage in securities investment held at the end of the period (%)	Gain or loss incurred in the Reporting Period (RMB)
1	Shares	601005	Chongqing Iron and Steel (重慶鋼鐵)	360,600	167,720	264,137	17.45	(86,399)
2	Shares	600787	CMST Development Corp (中儲股份)	498,768	57,528	571,828	37.76	(146,121)
3	Shares	000539	GED (粵電力A)	23,955	6,371	35,359	2.34	(3,504)
4	Shares	600515	Hainan Airport (海南機場)	264,438	83,683	434,315	28.68	169,876
5	Shares	600221	Hainan Airlines Holding (海航控股)	206,343	110,937	208,562	13.77	2,219
Total				1,354,104	/	1,514,201	100.00	(63,929)

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Equity interests in listed companies at fair value through other comprehensive income

Unit: RMB '000

Stock code	Stock abbreviation	Initial investment cost	Percentage of shareholding at the beginning of the period (%)	Percentage of shareholding at the end of the period (%)	Carrying amount at the end of the period	Gain or loss incurred during the Reporting Period	Changes in owners' equity during the Reporting period	Accounting category
000709	Hesteel	4,600	0.018	0.018	4,287	190	(379)	Investments in other equity instruments
601328	Bank of Communications	89,697	0.108	0.107	199,958	14,973	5,586	Investments in other equity instruments
000939	Kaidi Ecological	2,502	1.100	1.100	-	-	-	Investments in other equity instruments
600642	Shenergy	188	0.001	0.001	247	9	(85)	Investments in other equity instruments
000005	Fountain	420	0.035	0.035	698	-	(160)	Investments in other equity instruments
600665	Tande	1,122	0.018	0.018	613	21	122	Investments in other equity instruments
601005	Chongqing Iron and Steel	170,080	0.568	0.568	75,196	-	(24,272)	Investments in other equity instruments
Total		268,609	/	/	280,999	15,193	(19,188)	/

Equity interests in non-listed financial companies held

Name of investee	Initial investment amount (RMB '000)	Number of shares held (share)	Percentage of shareholding to the Company (%)	Carrying amount at the end of the period (RMB '000)	Gain or loss incurred during the Reporting Period (RMB '000)	Change in owners' equity during the Reporting Period (RMB '000)	Accounting category	Source of shares
Changcheng Life Insurance Co., Ltd. (長城人壽保險股份有限公司)	30,000	-	0.54	30,000	-	-	Investments in other equity instruments	By acquisition
Hankou Bank Company Limited (漢口銀行股份有限公司)	27,696	-	0.63	67,910	40,214	-	Investments in other equity instruments	By acquisition
Total	57,696	-	/	97,910	40,214	-	/	/

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Stock investments

Applicable Not applicable

Private fund investments

Applicable Not applicable

Derivative investments

Applicable Not applicable

5. Details of the progress of the major asset restructuring and consolidation during the Reporting Period

Applicable Not applicable

(VI) Disposal of material assets and equity

Applicable Not applicable

(VII) Analysis on holding company and joint stock company

Unit: RMB '000

No.	Name of subsidiary	Business scope	Place of establishment/ incorporation	Registered capital	Total assets	Net assets	Net profit
1	China MCC 5 Group Co., Ltd.	Engineering contracting	Chengdu	5,004,178	47,176,139	10,534,183	2,284,844
2	WISDRI Engineering & Research Incorporation Limited	Design, scientific research, EPC	Wuhan	3,350,000	27,845,623	9,448,177	1,449,504
3	China MCC 17 Group Co., Ltd.	Engineering contracting	Ma'anshan	2,050,000	27,965,410	7,293,962	1,405,624
4	MCC-JJJ Mining Development Company Limited	Resource development	Beijing	3,095,703	8,642,416	1,815,627	1,267,166
5	China First Metallurgical Group Co., Ltd.	Engineering contracting	Wuhan	2,019,027	27,471,881	6,344,483	1,131,930
6	Shanghai Baoye Group Co., Ltd.	Engineering contracting	Shanghai	5,285,230	51,950,427	10,223,130	1,036,729
7	MCC Baosteel Technology Services Co., Ltd.	Repair work	Shanghai	1,200,000	7,849,581	4,943,839	758,830
8	China Metallurgical Construction Engineering Group Co., Ltd.	Engineering contracting	Chongqing	2,100,000	22,371,226	5,607,386	662,631
9	CISDI Group Co., Ltd.	Design, scientific research, EPC	Chongqing	2,300,000	21,441,552	5,494,982	535,095
10	China Second Metallurgical Group Corporation Limited	Engineering contracting	Baotou	1,500,000	20,892,431	2,238,444	416,258
11	China MCC 22 Group Co., Ltd.	Engineering contracting	Tangshan	2,780,000	31,028,478	4,839,678	390,011
12	MCC Capital Engineering & Research Incorporation Limited	Design, scientific research, EPC	Beijing	3,283,104	24,493,197	4,827,816	366,395
13	MCC Ecological Environmental Protection Group Co., Ltd.	Water resource management	Beijing	3,000,000	5,963,206	2,960,660	330,066

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No.	Name of subsidiary	Business scope	Place of establishment/ incorporation	Registered capital	Total assets	Net assets	Net profit
14	China Non-ferrous Engineering Co., Ltd.	Design, scientific research, EPC	Beijing	2,346,730	10,389,340	4,032,790	310,460
15	MCC TianGong Group Corporation Limited	Engineering contracting	Tianjin	2,050,000	27,592,995	4,696,056	276,972
16	China MCC 20 Group Co., Ltd.	Engineering contracting	Shanghai	2,050,000	32,409,221	5,213,960	208,159
17	Zhong Ye Chang Tian International Engineering Co., Ltd.	Design, scientific research, EPC	Changsha	677,301	6,290,677	2,629,158	207,547
18	WSGRI Engineering & Surveying Incorporation Limited	Investigation, design	Wuhan	500,000	3,179,182	945,420	176,753
19	ACRE Coking & Refractory Engineering Consulting Corporation, MCC	Design, scientific research, EPC	Anshan	1,296,600	9,153,467	2,446,962	170,527
20	MCC Communication Construction Group Co., Ltd.	Infrastructure contractor	Beijing	9,312,258	31,726,416	9,398,766	167,608

Subsidiaries with net profit of subsidiaries accounted for more than 10% of the consolidated net profit

Unit: RMB '000

No.	Name of entity	Operating revenue	Operating cost	Operating profit	Net profit	Net profit attributable to the parent company
1	China MCC 5 Group Co., Ltd	80,090,352	73,225,827	2,691,681	2,284,844	2,277,499
2	WISDRI Engineering & Research Incorporation Limited	28,247,086	25,120,563	1,657,506	1,449,504	1,345,407
3	China MCC 17 Group Co., Ltd.	48,330,569	44,327,420	1,557,709	1,405,624	1,405,598

(VIII) Structured entities controlled by the Company

Applicable Not applicable

VII. THE COMPANY'S DISCUSSION AND ANALYSIS ON THE FUTURE DEVELOPMENT OF THE COMPANY

(I) Landscape and trend of the industry

In 2023, it is estimated that the steel industry will still face some problems, such as overcapacity, the apparent shortage of iron ore resources, tight energy and environmental constraints, etc. Affected by the global economic recession and the increasingly complex international market environment, and different levels of profitability and debt ratios and varied ability to resist risks of steel companies. It is expected that mergers and acquisitions in the industry will accelerate, and the industry concentration will further improve. At the same time, China's direct and indirect steel exports are under greater pressure. Under the general working principle of "seeking progress while maintaining stable" of China's economy, the gradual release of the effect of stabilizing economy policies will benefit the steel industry and provide strong support for steel consumption. In addition, in the context of the new trend of green development and "dual-carbon" policy, the steel industry will increase investment in green and intelligent upgrade and transformation, and low-carbon production technology innovation, energy saving and emission reduction, intelligent manufacturing, etc. will become the key development direction of steel enterprises. The growing popularity of greening and intelligence in the steel industry provides huge development opportunities for the Company.

At the same time, the development of China's construction industry has ushered in huge changes and is experiencing a shift from a high-speed growth phase to a high-quality development one, and continues to develop in the direction of industrialization, greening and intelligence, which poses a huge challenge to the production methods and management models of the construction industry.

In 2022, the total value of the construction industry in China was RMB 31,198.0 billion, with a simultaneous growth increase of 6.5%. The scale of the construction industry was still huge, and its position as a pillar of the national economy was stable. While the construction industry became bigger and stronger, the industry concentration got higher, the market share of state-owned construction enterprises steadily increased, the business and regional layout gradually became the same, and the industry competition became more and more fierce. The housing construction market had limited increment, and huge stock and urbanization development was changing from incremental expansion mainly in new city construction to stock quality improvement mainly in urban renewal. The infrastructure sector contained a wide range of space. In order to stabilize the economy and ensure the achievement of the annual targets, the central and local governments will issue policy packages to stabilize the economy. The "New Infrastructure and New Urbanisation Initiatives and Major Projects", rural revitalization and regional coordinated development to make up for shortcomings and benefiting people's livelihoods are still the key investment directions for infrastructure.

The economy is facing downward pressure, stable growth, cross-cycle adjustment is approaching, and the construction industry is expected to usher in the policy-driven and "construction +" double development opportunities. The "New Infrastructure and New Urbanisation Initiatives and Major Projects" construction is expected to intensify, and infrastructure investment is expected to be moderately ahead of expectations. At the same time, the construction industry actively embraces the "new economy", actively lays out new industries around the "construction +", and BIPV, energy storage, carbon pool, etc. become the key layout areas. In respect of the investment system reform, the country continues to launch and improve the PPP, REITs and other new models, and also forces construction enterprises to make huge adjustments in resource allocation, business model and management system, which accelerated innovation and development of construction enterprises.

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The Guiding Opinions on Promoting the Coordinated Development of Intelligent Construction and Building Industrialisation (《關於推動智能建造與建築工業化協同發展的指導意見》) jointly issued by 13 ministries and commissions including the Ministry of Housing and Urban-Rural Development in 2020, proposed that by 2025, the policy system and industrial system of the coordinated development of intelligent construction and building industrialization in China will be basically established, which will promote the formation of a number of leading enterprises in intelligent construction, lead the transformation and upgrade of small and medium-sized enterprises to intelligent construction and create an upgraded version of “Made in China”. In 2023, the Company will continue to promote digital transformation to become a leading enterprise in intelligent construction, thus taking the lead in the new wave of digital development of the construction industry.

In February 2022, the Ministry of Housing and Urban-Rural Development issued a notice on the “Construction Enterprise Qualification Standards (Draft Request for Comments)” (《建築業企業資質標準(徵求意見稿)》) and other four qualification standards for public comments. According to the notice, the new qualification standards for construction enterprises have undergone tremendous changes: it was clearly stipulated to transform the special qualification into comprehensive qualification, the Level One construction general contracting into Grade A general contracting, the Level Two and Level Three construction general contracting into Grade B general contracting, Level One professional contracting into Grade A professional contracting, Level Two and Level Three professional contracting into Grade B professional contracting. The national reform of the qualification management system will further promote the construction industry to strengthen the trend of “survival of the fittest”.

In the face of future opportunities and challenges, the Company will firmly resolve to further seize opportunities, take the initiative, and leverage the momentum. The Company will be fully prepared to not only give full play to the synergy effect of the integration of the entire industry chain, but also have the flexibility and efficiency to turn the whole chain into breakthroughs, thus actively and properly dealing with various competitive relationships.

(II) Development strategy of the Company

With “one building, two most, five strong” as the goal, the Company insists on innovation and accelerate integration development, puts forward the strategic positioning of “being world-class national team for metallurgical construction, the main force and pioneer team in infrastructure construction, the leader and front-runner in emerging industries, and long-term adherence to pursuing the path of quality innovation and development with advanced technologies”. “Four Beams and Eight Columns” is the business system and product positioning under this strategic positioning, which is the organic unity of future development direction, ambitious goals and realization path, closely related to each other and in line with each other.

“Four Beams” represents four business sectors namely metallurgical construction, project contracting, emerging industries and comprehensive real estate.

“Eight Columns” represents metallurgical engineering and operation services, mine engineering and operation services, core equipment and steel structures, building and urban renewal, transportation and municipal and other projects, eco-environmental protection and tourism projects, new energy and mineral resources development, green health and intelligent real estate.

one building, two most, five strong: “one building” means creating a world class enterprise with global competitiveness as the guidance; “two most” is to build the best full-service solution provider for metallurgical construction and operation with super core competitiveness, and the most reliable general contractor known by the world and domestic leading infrastructure as the target; “five strong” is to build the Company into a world class investment and construction group with strong value creation, market competitiveness, innovation driving force, resource allocation force and cultural soft power.

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World-class national team for metallurgical construction: We always strive to hold a leading global position and pursue development opportunities in the metallurgical industry. We, in accordance with the world-class standards, concentrate the best talents from 8 major parts and 19 business units of metallurgy, and continuously increase the investment in research and development. We aim for the major and frontier areas of metallurgical engineering. We improve the innovation ability of key links and key areas, focusing on breakthroughs in a number of key technologies and major equipment and iteratively upgrading the core technologies so as to always stay at the top. By integrating the resources of research and development, consulting, design, equipment, construction and operation within and outside the Company, and integrating the resources of domestic and foreign strategic customers, core equipment manufacturers and information service providers, the Group is able to improve the “professional chain + industry chain” to make the advantageous chains better, strengthen the weak chains and supplement the missing chains. The Company will remain irreplaceable with its advantages of integration of full chain. The Company will also seize the opportunities brought by the supply-side structural reform in the domestic steel market, actively lay out the metallurgical construction structural adjustment, industry layout, process optimization, technology transformation and equipment upgrade, and develop overseas markets by adhering to the three principles of “technology, cost and cooperation”. With technical innovation as the guide, we will realise the integration of planning, design, construction, service and raw materials, the whole process and the whole life cycle output, and realise the internal expansion and outward expansion of the market with continuous innovation ability. The Company will accelerate the development of the world’s first national team for metallurgical construction, operation and service, and assume the national responsibility of leading China’s metallurgy enterprise to go out at a higher level.

Main force and pioneer team in infrastructure construction: With the attitude of “main force” and “pioneer team”, we will grasp the “Belt and Road” policy, explore the huge potential of countries in the field of infrastructure construction along the Belt and Road. We will fully utilize our synergy advantages in the whole industry chain, and lead the development of the market with technological innovation to become a deep participant in the construction of urban infrastructure in target countries. We will cultivate and plan a number of high-quality, high-efficiency and distinctive brand projects. We will closely focus on the strategic layout of the coordinated development of national regions such as the joint development of Beijing, Tianjin and Hebei, the construction of Xiong’an New Area, the construction of Guangdong-Hong Kong-Macao Greater Bay Area, and the integrated development of Yangtze River Delta. In addition, we will give full play to our comparative advantages in the infrastructure business fields such as housing construction, transportation and municipal infrastructure construction, and medium and high-end real estate, and will increase our market breakthrough and influence by actively participating in the construction of new infrastructure facilities such as urban railways, extra-high voltage stations, 5G networks, and data centres. We will strive to be the driving force in the construction of national infrastructure and the implementation of the “Belt and Road” initiative. In the face of the development trend of industrialization of construction, we will give full play to the National Steel Structure Research Centre and the China Steel Construction Society and other advantageous resources to develop a steel structure and assembled building technology system with the characteristics of MCC, thus becoming the organization formulating national and industry-related standards and norms. We will open up the chain and links of design and manufacturing, component production, and construction to develop the Company into a prefabricated building company integrating research and development, design, manufacturing, installation and testing.

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Leader and front-runner in emerging industries: taking the role of “leader” and “front-runner” of the industry, the Company keeps up with the pace of new industrialized, informationalized, urbanized and agriculturally modernized national construction, and seeks market opportunities and direction for improving the quality and efficiency of the economic development of emerging industries. The Company, guided by market demand and driven by technological breakthroughs, with capital strength and business mode as “multipliers”, obtains the dominant position in the markets of urban underground utility tunnel, large theme parks construction, sponge city, smart city, beautiful countryside, health care, environment and new energy. The Company centralizes resources coordination for conducting research on key and generic technologies for emerging industries, proactively takes the lead in compiling relevant specifications and standards, establishing relevant technical systems and standard systems, comprehensively improves overall planning and execution capabilities, and hence ensures the Company to lead the market with its state-of-the-art technology and become the industry’s leading enterprise with high-end technologies, products and markets. The Company strives to be the pioneer in the process of national new urbanized construction in the idea, design and construction, so as to achieve the successful transformation and upgrade development of the Company.

Long-term adherence to pursuing the path of quality innovation and development with advanced technologies: The Company’s conclusion of the development history of the new China steel industry with its rapid development and rapid expansion is in line with the requirements of the “New Development Concepts” and is the only way for the Company to reform and develop, to become stronger and better, and the only way to achieve the overall strategy. The systemic, comprehensive and complex nature of metallurgical engineering has enabled the Company to possess technological advantages that are not available in other construction enterprises, which include a wide range of specialties and outstanding innovation capabilities, creating the Company’s core technology in the field of metallurgical engineering. The irreplaceable integration advantages of the metallurgical industry chain and the continuous innovation capabilities have established the status of the national team for metallurgical construction and contributed to the Company’s glory. “Long-term adherence to pursuing the path of quality innovation and development with advanced technologies” is to consolidate and build up technological innovation as the primary driver for development of the Company. We accelerated our research and development efforts to lead the construction industry in the future development of emerging technologies, occupying the commanding heights of technology. The Company implements the plan and deployment of CPC Central Committee, the State Council, SASAC and other competent authorities. We pursue high-quality development, optimize the industry layout, highlight main responsibility and main business, to promote the adjustment of the “four-beam and eight-pillar” business system. The Company has also focused on its own outstanding problems and strengthened the management system and management capability, thereby enhancing the effectiveness of the Company as a whole.

(III) Operational plan

The Company expected to achieve operating revenue of RMB 550.0 billion in 2022, actually achieving operating revenue of RMB 592.7 billion; expected to achieve a newly signed contract value of RMB 1,250.0 billion, actually achieving newly signed contract value of RMB 1,343.6 billion, surpassing the operating target.

In 2023, the Company expects to achieve operating revenue of RMB 660.0 billion and a newly signed contract value of RMB 1,400.0 billion.

(IV) Possible risks and measures adopted by the Company

1. *Risks associated with the macro-economy*

With increasing changes unseen in a century, the world situation is complex and volatile, the global economy is at risk of stagnation and recession, and a new round of technological revolution and industrial change is reshaping the global economic structure. Uncertainties such as the international competition has intensified and the Russia-Ukraine conflict caused severe turbulence in the global economy, interest rate hikes in major developed economies overlap the strong US dollar effect, global financial markets are under increased pressure to make adjustments, emerging economies especially face significantly increased pressure to repay their debts, and the risk of instability in the global financial markets clearly increases. In the face of complex macro situation and exceptionally severe development environment, China's economy has continued to recover from the pressure under the influence of a series of economic stabilization policies. However, the three-fold pressure from "contracting demand, supply shocks and weak expectations" has posed increasing impact on the economic operation and slowed down the economic recovery.

In order to effectively respond to the adverse impact of the macro economy, the Company takes the four major business segments as the breakthrough point, collects information on, tracks and analyzes macro-economic and industrial policies in a timely manner, accurately and deeply grasps the spirit of the policy documents, and improves judgment and accuracy of future trends. For major policy changes and industry trend changes at important time points, the Company issues the Research Reference Information internally to timely prompt its subsidiaries to pay more attention to and deal with macroeconomic and industrial policy risks. At the same time, the Company will prudently evaluate macroeconomic and policy risks, identify, analyze and evaluate possible significant risks in its areas of responsibility in combination with changes in the internal and external environment, make appropriate adjustments to its business strategies, fully utilize and explore positive development conditions, and ensure stable development of the Company.

2. *Risks associated with the traditional metallurgical engineering business segment*

Currently, the restructuring of the iron and steel industry and the optimization and upgrade of the industry will continue and deepen. Underpinning the upgrade and adjustment of product structure of the transformation of the manufacturing industry in China, the merger and reorganization of iron and steel enterprises, and the greening and intelligent development are the theme of development of domestic iron and steel industry, and bring a range of market opportunities for quality efficiency adjustments and upgrades. From an overseas perspective, despite the unprecedented complexity of the current international situation, the cooperation and mutual benefit of all countries is a long-term trend, and the overseas market is still an important pole for the future growth of the metallurgical engineering sector of the Company.

In the face of the prevailing complex market environment, the Company will establish a foothold in the domestic market, promote domestic and overseas mutual circulation, aim to become the superior all-round solution provider of metallurgical construction and operation with superb core competitiveness, pay continuous attention to the cost risks caused by the fluctuation of raw material prices and rising labor costs, continuously consolidate its position as the world's first-class metallurgical construction national team, and continuously improve its core competitiveness and brand influence in the global iron and steel engineering technology.

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3. *Risks associated with the non-steel engineering segment*

Risks relating to non-steel engineering are closely related to national strategic and fixed asset investments policies, in particular key projects such as rail transit, airports and highways tend to face the most intense competition among construction companies. Recently, the State has promulgated policies to encourage greater investment in urban infrastructure construction. In general, “New Infrastructure and New Urbanisation Initiatives and Major Projects”, rural revitalization and infrastructure construction remains one of the key elements of the “14th Five-Year Plan”. In terms of regional development, emphasis will be placed on strengthening the coordinated development of the Beijing-Tianjin-Hebei Region, the integration of the Yangtze River Delta, the Guangdong-Hong Kong-Macao Greater Bay Area and the Chengdu-Chongqing urban agglomeration.

The Company will firmly seize the opportunities of expanding its infrastructure investment, continue to adhere to the key market development principle of “focus on quality markets, focus on quality customers and focus on quality projects”, build a business structure to be in line with the market, establish a “big marketing” concept, actively innovate its business model, rapidly expand its market size, comprehensively enhance the Company’s competitiveness in the infrastructure market and emerging businesses, such as expressways, municipal infrastructure, rail transit and new urbanization, become the most reliable general contractor known by the world and domestic leading infrastructure, and secure more market share.

4. *Risks associated with the property development business segment*

In 2022, the real estate market faced serious challenges due to the crises of suspension of projects and broken capital chains of many real estate companies. The central and local governments have gradually loosened their property control policies to stabilize market expectations. However, there was a time lag in the market response, and consumer demand for housing has yet to be stimulated.

In order to actively adapt to the requirements of the situation and market changes, the Company will further accelerate the transformation from a “property developer” to a “city operator” and from focusing on “commodity attributes” to highlighting “livelihood attributes”. The Company will insist on the positioning of “houses are for living in, not for speculation”, strictly adhere to the “Three Red Lines”, focus on rigid demand and improved demand to explore new potential, focus on product structure, service model and cash flow, further control the pace of land acquisition, improve the ability of payment collection of projects, solve the problem of existing projects, ensure the efficiency of new projects, achieve steady development, continue to do a good job to ensure the delivery of buildings, people’s livelihoods and stability, and improve the product, service and brand power as a whole.

5. *Risks associated with financial segment*

The downward pressure on the global economy continues to mount with increasing risk of recession and sharply increasing geopolitical tensions, reshaping the industrial chain and supply chain pattern becomes the theme. It is expected that the global economic growth will slow down, inflation will fall, and the pace of interest rate increase will slow down. The foundation of China’s economic recovery is not solid, and the three-fold pressure from contracting demand, supply shocks and weak expectations are still relatively strong, but the long-term positive fundamentals remain unchanged, the economy is expected to rebound in general and the monetary policy is expected to remain stable.

In order to prevent risks in the financial sector, the Company paid close attention to policy directions and market changes, strengthened dual control of financing, enhanced coordination and operation, continued to optimize its financing structure, attracted low-cost capital, and improved the efficiency of capital utilization. The Company carried out capital operations and optimize its capital structure by tapping the capital market. It adhered to the neutral management concept of exchange rate risk, coordinated our control over foreign exchange risk exposures, strictly adhered to the principle of hedging, prudently carried out foreign exchange hedging business, and proactively prevented and resolved foreign exchange risks.

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6. *Risks associated with bulk commodity prices*

The market prices of bulk commodities, such as engineering raw materials and metal mineral resources, which are relevant to the Company's business, are affected by changes in the international and domestic macroeconomic environment and market demand, which may be subject to varying degrees of volatility, which may in turn affect the Company's costs of production and profitability.

The Company will enhance its research and forecast on the changing trend and policies in response to the market prices of bulk commodities, and adjust its procurement and sales strategies. At the same time, we will intensify our efforts in technical improvement, further increase our resources production, strengthen cost control management, further reduce energy consumption, and adopt all possible measures to reduce production, operation and other costs.

7. *Risks associated with international operations*

The Company's operations in various countries and regions are subject to local political, economic, social, legal, exchange rate and other environmental factors. On the other hand, the derivative risks caused by global economic downturn continue, which may result in the failure to complete construction work on time, cost overruns, disputes arising from claims, difficulties in contractual performance and increased risks in the operation of mining projects, etc., which in turn affect the revenue and profit of the Company's overseas business.

The Company shall supervise each subsidiary and foreign institution to scientifically formulate safety plan, make risk assessment and emergency drills, and ensure the health and safety of employees; at the same time, we summed up the experience and lessons learned from the international operation in terms of market expansion and project implementation, studied the policies, regulations and humanities environment of the overseas projects in-depth, established good long-term collaborative relationships with local partners, made every effort to decrease the risk of international operating by securing projects with more favourable contract terms and dynamically monitoring the projects under construction.

8. *Environmental and safety production risks*

We implement all-rounded environmental protection measures, resolutely fight the battle against pollution, and insist that green, low-carbon circular development has become an important national strategy, enterprises shall pay more attention to ecological civilization and environmental protection. The Company is engaged in a number of industries, including engineering contracting, property development, equipment manufacturing and resource development. Numerous subsidiaries and respective projects result in more stringent requirements on ecological and environmental protection management for the enterprises. As a construction and production enterprise, safety risks exist in all aspects of the Company's production and operating activities, which may lead to safety accidents due to unsafe human behavior, unsafe material conditions, unsafe environmental factors, etc., which in turn may harm the health of employees, cause certain economic losses to the enterprise and damage the reputation of the enterprise.

In order to deal with the above environmental and safety production risks, the Company will continue to actively put into practice the green development ideology that "Lucid Waters and Lush Mountains are Invaluable Assets", persist in the requirements of the relevant national laws and regulations of energy conservation and environmental protection, strictly implement an accountability system on enterprise bodies, continuously improve the energy conservation and environmental protection system, enhance daily supervision, and proactively initiate environmental pollution control. Also, the Company will continue to improve the safety management system, strengthen the implementation of responsibility system for safe production, strengthen the supervision of production safety, carry out training and education of production safety, implement strict safety control of the team in charge, strictly investigate the accident responsibility, and resolutely curb the occurrence of major and above production safety accidents.

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9. *Risks associated with data fraud or theft*

In order to keep state secrets confidential, protect trade secrets, and protect national and corporate security, the Company has formulated a set of relatively comprehensive rules and regulations on confidentiality. The Company adopts various promotional and educational measures regularly in order to raise the awareness of information confidentiality amongst employees. The Company randomly assesses the information confidentiality of its subsidiaries every year, conducts interviews, investigates and reviews systems, recorded documents and conducts on-site investigations. We carried out a comprehensive inspection on the operation of the confidentiality management system and rectify any issues discovered within a period of time. The Company has specially purchased the domestically-prescribed classified computers and timely updated the protection system, arranged for the person to be responsible for the management, and strictly abided by the principle of “no internet with secrets and no secrets on internet”.

During the Reporting Period, the Company was not involved in any data fraud and theft cases.

10. *Cyber risk and security*

Driven by the digital transformation needs of enterprises, the number of information system is surging, and the security requirements for network transmission, application systems and information data have increased significantly. Besides, the Company endeavors to expand the overseas markets for gradual enhancement in international influence. The risk from cyber attacks to the information system has increased subsequently. The occurrence of the risk events may cause adverse impacts on the production and operating activities of the Company.

In order to effectively prevent and control cyber and information security protection risks, and strengthen security protection capabilities, the Company has established a comprehensive safety protection system in accordance with relevant national network security laws, regulations, rules and requirements, and continuously promoted the optimization and upgrade of enterprise information technology infrastructure and application systems. The Company regularly carries out verification and optimization of security monitoring and protection policies, conducts vulnerability scanning for various information systems and server hosts, rectifies and strengthens the identified problems in a timely manner, and conducts retesting to ensure the security and stability of the data usage environment. The Company has attached great importance to the construction of network outlet security protection capacity, deployed network security equipment such as firewalls, WAFs, IDSs and IPSs to defend against external network attacks. At the same time, the online security monitoring platform and automated network monitoring and early warning platforms for state-owned enterprises are deployed to monitor the status of the network on a real-time basis and make timely rectification of abnormal behaviors to make sure the Company's network and information security is infallible.

VIII. EXPLANATION OF THE COMPANY'S FAILURE TO MAKE DISCLOSURE IN ACCORDANCE WITH THE STANDARDS DUE TO INAPPLICABILITY OF STANDARDS OR SPECIAL REASONS AND THE REASONS THEREOF

Applicable Not applicable

REPORT OF THE BOARD OF DIRECTORS, MANAGEMENT DISCUSSION AND ANALYSIS

IX. OTHER DISCLOSURES

(I) Major Customers and Suppliers

For details of the major customers and suppliers of the Company, please refer to “Information of major sales customers and major suppliers” on page 45 of this report.

None of the Directors, their respective associates or any Shareholders (interested in 5% or more of the share capital to the best knowledge of the Board) has any interest in any of the five largest suppliers or the Company’s five largest customers.

(II) Reserves and Distributable Reserves

During the Reporting Period, details of movements in the reserves of the Company are set out in the consolidated statement of changes in shareholders’ equity from pages 188 to 189 of this report and Note VII 51 to the consolidated financial statements on page 300.

Pursuant to the Company Law of the People’s Republic of China, retained earnings could be distributed as dividends upon deducting statutory surplus reserve. As at 31 December 2022, the retained earnings of the Company amounted to RMB 5,742,045 thousand.

(III) Donations

During the Reporting Period, the Company made external donations totalling approximately RMB 3,265,000, mainly including donating disaster relief funds and materials to the regions where overseas mineral resources projects of the Company were located, and donating scholarships to relevant schools in Liaoning, Hebei and Inner Mongolia.

In addition, the Company allocated RMB 7,980,000 of assistance funds to designated targets of poverty alleviation, and completed consumption assistance of RMB 20,303,400.

For details of charitable donations and poverty alleviation donations, please refer to “(ii) Details of social responsibility work” on page 131 and “III. The Specific Work to Consolidate and Expand the Achievements in Poverty Alleviation and to Promote Rural Revitalization” on page 132 of this report.

(IV) Dividends

For the details of the cash dividend distribution proposal of the Company during the Reporting Period, please see “Proposal for Profit Distribution or Transfer of Capital Reserve to Share Capital” on page 103 of this report.

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(V) Properties Held for Development or Sale

Locations	Current land use	Site area (sq.m.)	Floor area (sq.m.)	Status of project	Progress towards completion	Estimated completion date	Percentage of the interest attributable to the Company in the development projects
To the west of Jiangbian Road, east of Huilong Bridge, west of Jiangbian Road, north of Yangtze River Bridge, south of Guihua Road, Xiaguan District, Nanjing City	Sales after development, planned use are mainly residential, commercial, etc.	321,952.01	823,172.83	Under construction	99.44%	2025	98.52%
Nantumen Village, Hongshila Village, Xinglong Town, Xinglong County, Chengde City, Hebei Province	Sales after development, planned use are mainly residential, commercial, etc.	647,735.77	625,003.49	Under construction	74.66%	2027	100.00%
No. 333, Hongyanhe Yi Road, Jimo District, Qingdao City	Sales after development, planned use are mainly residential, commercial, etc.	190,021.00	487,925.00	Under construction	83.09%	2023	100.00%
Binhai Road, Muping District, Yantai City	Sales after development, planned use are mainly residential, commercial, etc.	711,882.00	604,732.00	Under construction	84.83%	2025	51.00%
To the south side of Jingu Street and the west side of Northwest East Road in Sanhe City; to the north side of Jingu South Street and the west side of Northwest East Road	Sales after development, planned use are mainly residential, commercial, etc.	146,476.00	292,952.00	Under construction	68.23%	2024	100.00%
Jiangbei District, Chongqing	Commercial and residential	678,259.00	383,319.00	Under construction	56.23%	2026	100.00%

(VI) Risk Factors

For risk factors faced by the Company, please refer to “(IV) Possible risks and measures adopted by the Company” on page 63 of this report.

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(VII) The Company's environmental policy and performance

The Company has consistently adhered to Xi Jinping's thoughts on ecological civilization to fully implement the laws and regulations, standards and policies of the state and the ministries on energy conservation and environmental protection. At the same time, the Company vigorously developed the environmental protection industry, conscientiously implemented the responsibility of environmental protection, actively promoted energy conservation and emission reduction, and promoted green construction and other related work.

The Company vigorously creates an energy-saving and environmental protection industry platform, and develops energy-saving and environmental protection comprehensive services to enhance the strength of the environmental protection industry in all aspects. We establish a number of professional service enterprises focusing on energy conservation and environmental protection technical consultation, system design, equipment manufacturing, engineering construction, operation management, etc. in the areas of comprehensive water environment management, garbage incineration, hazardous waste treatment, soil restoration, ecological environment management of mines, and photovoltaic power generation, etc. We also build MCC's energy-saving and environmental protection brands and increase publicity efforts to enhance the brand awareness.

The Company actively optimises its energy structure and improves its energy efficiency. We strengthen the assessment of energy consumption in the construction industry, strictly control the intensity of energy consumption, gradually reduce the proportion of fossil fuel energy consumption, strengthen the control of electricity consumption, and vigorously implement solar energy and other clean energy, and the application of air energy heat pump technology, inverter technology and other technologies to reduce consumption, and promote low-carbon energy to replace high-carbon energy, and renewable energy to replace fossil energy.

The Company promotes resource conservation and recycling by turning waste into wealth and implementing green construction. We actively promote green construction, adopt organizational management methods such as general contracting and whole-process engineering consultation, strengthen integrated collaborative management of design and construction, and save resource consumption through double optimization measures. We actively promote the factory-based processing of materials to realise precise blanking and fine management, thus reducing the attrition rate of construction materials. We make full use of surplus materials such as concrete, steel bars and formwork to implement recycling. We fully consider the combination of temporary and permanent construction facilities to realise the combination of "permanent facilities" and "temporary facilities" to reduce construction waste. In 2022, 9 projects of the Company were awarded the evaluation results of engineering construction project design level by China Association of Construction Enterprise Management, among which, the Industrial Upgrading of Hebei Steel and Production Capacity Transfer of Xuanhua Steel (河鋼產業升級及宣鋼產能轉移項目) declared by CERI and Sri Lanka Colombo Airport and Outer Ring Expressway Project (斯里蘭卡科倫坡機場及外環快速路工程) declared by China MCC 20 were awarded the first-class results; 40 projects were awarded the evaluation results of green construction construction level by China Association of Construction Enterprise Management including 13 projects with three stars.

(VIII) EMPLOYEES

For details of the employees, please refer to "Employees of the Parent Company and Principal Subsidiaries at the End of the Reporting Period" on page 102 of this report.

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(IX) LEGAL LIABILITIES WHICH HAVE SIGNIFICANT IMPACT ON THE COMPANY

During the Reporting Period, the Company was not under investigation by judicial authorities or subject to administrative penalties by relevant government authorities due to violation of laws, regulations and policies which have significant impact on the businesses of the Company. For details of the quality control system, compliance with laws and regulations in relation to production safety and operation of the production safety system of the Company, please refer to “7. The Operation of the Quality Control System and Production Safety System of the Company” on page 53 of this report.

(X) LIST OF DIRECTORS

For the list of Directors during the Reporting Period and as at the date of this report, please refer to “V. Particulars of Directors, Supervisors, Senior Management” on page 75 of this report.

(XI) LIABILITY INSURANCE PURCHASED FOR DIRECTORS AND SUPERVISORS

In 2022, the Company renewed the liability insurance of Directors, Supervisors and senior management with Huatai Property Insurance Co., Ltd. and People’s Insurance Company of China Limited for Directors, Supervisors, senior management and management personnel with management and supervising responsibilities.

(XII) EQUITY-LINKED AGREEMENTS

During the Reporting Period, no equity-linked agreement was entered into by the Company.

(XIII) INFORMATION ON TAX DEDUCTION FOR HOLDERS OF LISTED SECURITIES

The Shareholders of the Company are taxed and/or enjoy tax relief for the dividend income received from the Company in accordance with the Individual Income Tax Law of the People’s Republic of China, the Enterprise Income Tax Law of the People’s Republic of China, and relevant administrative rules, governmental regulations and normative documents. Please refer to the announcement published by the Company on the website of SSE on 19 July 2022 for the information on income tax in respect of the dividend distributed to the holders of A Shares and on the HKEx news website of Hong Kong Stock Exchange on 18 July 2022 for the information on income tax in respect of the dividend distributed to the holders of H Shares during the Reporting Period.

CORPORATE GOVERNANCE

I. EXPLANATION OF CORPORATE GOVERNANCE

During the Reporting Period, adhering to the two “consistent implementation principles”, the Company further promoted the unity of strengthening the Party’s overall leadership and improving corporate governance, and built a modern enterprise system with Chinese characteristics, and continued to comply strictly with the laws and regulations including the Company Law, the Securities Law, the relevant requirements of regulatory authorities such as the CSRC, as well as the relevant requirements of the SSE and the Hong Kong Stock Exchange, constantly optimized the establishment and operation of governance system of the general meeting, the Board, the Supervisory Committee, as well as the management and its subsidiaries. As an important part of the corporate governance structure, the Board, the Party Committee and the management of the Company discharge their own duties under respective terms of reference, take full responsibility for their own responsibilities and communicate in a timely and effective manner, thus a regulatory mechanism for the coordination and efficient operation of all aspects of decision-making, management and supervision has been formed. During the Reporting Period, the corporate governance level of the Company was further improved, laying a favorable foundation for promoting corporate development and improving Shareholders value.

During the Reporting Period, the Board and its subordinate special committees discharge their duties in strict compliance with the duties and work requirements as authorized by regulatory requirements, and carried out their work pursuant to the Company Law, regulatory rules of the listing place(s), Articles of Association, Rules of Procedures for General Meeting and the Board of Directors and other relevant requirements. For the purpose of maintaining and increasing the value of the state-owned assets and maximizing Shareholders’ interests, the Company continues to follow the function of “making strategy, making decisions, and preventing risks”, captures the development opportunity to target strategic layout to dedicate in reform and innovation, continues to strictly control the risks and facilitates sustainable, stable, and high-quality development of the Company.

During the Reporting Period, the Board continued to improve the corporate governance system, constantly enhanced the corporate governance ability, and effectively improved its standard of operation. The Company held an extraordinary general meeting on 26 January 2022 where the change and replenishment of Directors were successfully conducted. On the same day, the Board meeting was held to complete the election of the chairman of the Board, the addition of special committees and the adjustment of the members of each special committee, which further improved the construction of the Board, and ensured the integrity, standardized setting, reasonable structure and compliant operation of the Board.

As of the disclosure date of this report, the Company has five special committees, namely Strategy Committee, Finance and Audit Committee, Nomination Committee, Remuneration and Appraisal Committee, and Sustainable Development Committee. The Board places great emphasis on the complementary decision-making function and the professional procedural and advisory functions of each of the specialized committees. Before the professional issues are submitted to the Board for consideration, the relevant specialized committees will conduct thorough studies to form specific opinions to provide the Board with the basis for decision-making.

During the Reporting Period, the Company deeply implemented General Secretary Xi Jinping’s important remarks on the reform and development of state-owned enterprises and Party building, and actively implemented the three-year state-owned enterprise reform and the demands. Based on the revision of the securities regulatory system, the governance system, including the Articles of Association, the Procedural Rules of the Board and the working rules for each special committee, was reorganized and revised to ensure the effective connection of the system documents. The corporate governance system complies with the requirements of both state-owned regulatory authorities and securities regulatory authorities. Meanwhile, the Company reasonably standardizes authorization, stimulates endogenous power, continuously optimizes the authorization system of the Board, improves decision-making mechanisms and decision-making processes at all levels, standardizes core control matters and control methods for subsidiaries, and improves the level and efficiency of operation and management. In order to further strengthen the construction of the governance system of the Company and its subsidiaries at all levels, and to standardize the core control matters and control methods of the subsidiaries, the headquarters and the subsidiaries have formulated the “three lists and one process” management methods, forming a systematic control model with effective top-down coordination.

CORPORATE GOVERNANCE

The Company actively implements the three-year state-owned enterprise reform and the demands. As of June 2022, the Company has comprehensively completed all tasks of the three-year reform action of the SASAC, including realizing the establishment of the board of directors of subsidiaries and implementing the system of majority of external directors. All the subsidiaries within the scope of establishment have realized the substantive operation of the board of directors, external directors have performed their duties in accordance with the law, and the contractual management of the tenure system for the management has been fully implemented. The Company focuses on the effectiveness of the reform, provides guidance to the subsidiaries within the scope of establishment to formulate the management rules for the authorization of the board of directors, and major subsidiaries formulate the full implementation plan for the authority of the board of directors.

The Board attaches great importance to environmental, social and governance (ESG) work, implements the new development concepts, and adheres to high-quality development. It continuously integrates ESG governance with operation and management, strengthens value creation, improves governance and lays the foundation for sustainable development. It adheres to promoting green development, actively fulfills environmental responsibilities, and continues to practice social responsibilities. In 2022, in accordance with the latest regulatory requirements and capital market trends, the Sustainable Development Committee of the Board was established and the Working Rules of the Sustainable Development Committee were formulated to increase the attention and research on safety, environmental protection and health, ESG and sustainable development at the strategic level. At the same time, in accordance with the requirements of three-year state-owned enterprise reform and the Company's compliance management, compliance management has been added to the duties of the Sustainable Development Committee.

During the Reporting Period, the Board was awarded the "Golden Round-table • Award for Special Contribution to Corporate Governance"; the Company was awarded 2022 China Top 100 Forum "Top 100 Enterprise Award", China "Golden Redbud" Best Listed Company, and was selected in the first Forbes China ESG50 list, the "Excellent ESG Practice Cases of Listed Companies", the "Best Practice for 2021 Annual Report Presentation" by China Listed Companies Association, and Xinhua Credit "Jinlan Cup" ESG Corporate Governance Practice Pioneer Case. Meanwhile, the Company was once again rated Class A (the top class) Listed Company for SSE Information Disclosure for six consecutive years.

Whether the corporate governance has any discrepancies with the laws, administrative regulations and the relevant requirements of the CSRC on the governance of a listed company or not. If yes, please explain the reasons.

Applicable Not Applicable

II. COMPLIANCE OF CORPORATE GOVERNANCE CODE BY THE COMPANY

The Board has reviewed the corporate governance report of the Company. The Board is of the view that during the Reporting Period, the Company has complied with the requirements of the Corporate Governance Code, and adopted recommended best practices as appropriate.

In terms of board diversity, there are six mainland Directors and one Hong Kong Director on the Board; in terms of professional background, the Board comprises senior experts in corporate management as well as professionals in finance, law and human resources; in terms of personal career experience, the Board comprises corporate executives as well as experts and scholars who have worked in government, universities and accounting firms for many years. The diversified Board brings diversified ways of thinking to the Company, forming a good complement to each other and promoting scientific decision-making of the Board. For the next step, the Company will actively follow the requirements of the Hong Kong Stock Exchange to promote gender diversity in the Board, making "her contribution" to the scientific and effective decision-making of the Board. It is expected that, by December 2024, the Company will achieve gender diversity both in the levels of the Board and employees, including senior management.

In order to ensure that the Board receives independent views and opinions, the Company's Rules of Procedure for Board meeting clearly provides that Directors may seek information from the Company and relevant persons and organisations as necessary to make decisions, and may propose that representatives of relevant persons and organisations attend meetings to explain the situation. If a Director needs to obtain advice from an independent professional intermediary in order to properly discharge the Director's duties to the Company, the Director may make a reasonable request to the Board to that effect, and the Board may pass a resolution to provide the Director with the advice of the professional intermediary and the Company shall bear the relevant intermediary's fees. The Company has implemented the above mechanism to effectively ensure the independence of the Directors. The Board has reviewed the implementation and effectiveness of the mechanism during the Reporting Period which is considered to be effective.

CORPORATE GOVERNANCE

III SPECIFIC MEASURES TAKEN BY THE CONTROLLING SHAREHOLDER AND DE FACTO CONTROLLERS TO ENSURE THE INDEPENDENCE OF THE COMPANY'S ASSETS, PERSONNEL, FINANCE, INSTITUTION AND BUSINESSES, ETC., AS WELL AS SOLUTIONS, WORK PROGRESS AND FOLLOW-UP PLANS AFFECTING THE INDEPENDENCE OF THE COMPANY

Applicable Not applicable

The Company is strictly independent from its Controlling Shareholder and de facto controllers in assets, personnel, finance, institution and businesses, etc. There is no situation in which there is no guarantee of independence or the ability to operate independently.

In order to safeguard the independence of the operation and protection of the Company and the legal rights and interests of other Shareholders of the Company, the Controlling Shareholder and the de facto controller of the Company undertake that they will continue to protect the independence of the Company in assets, personnel, finance, institution and businesses, etc. during the period in which they have control over the Company or they have relatively material impact on MCC. They shall be liable for all losses of the Company arising from any breach of the above undertakings.

The Controlling Shareholder, the de facto controllers and other entities under their control are engaged in the same or similar business as the Company, and the impact of horizontal competition or major changes in the horizontal competition on the Company, the measures taken, the progress of the resolution and the subsequent solution plan when horizontal competition or horizontal competition

Applicable Not applicable

IV. SUMMARY OF THE GENERAL MEETINGS

Sessions of the meeting	Convening date	Enquiry index of the designated website for the publication of the resolutions	Date of publication of the resolutions	Resolutions of the meeting
2022 First Extraordinary General Meeting	26 January 2022	www.sse.com.cn www.hkexnews.hk	26 January 2022	The meeting considered and approved the "Resolution on the Election of Non-Independent Directors of the Third Session of the Board" and the "Resolution on the Election of Independent Directors of the Third Session of the Board".

CORPORATE GOVERNANCE

Sessions of the meeting	Convening date	Enquiry index of the designated website for the publication of the resolutions	Date of publication of the resolutions	Resolutions of the meeting
2021 Annual General Meeting	30 June 2022	www.sse.com.cn www.hkexnews.hk	30 June 2022	The meeting considered and approved 9 ordinary resolutions, including "Resolution on the Work Report of the Board of MCC for the Year 2021", the "Resolution on the Work Report of the Supervisory Committee of MCC for the Year 2021", the "Resolution on the Report of MCC on Final Accounts for the Year 2021", the "Resolution on Profit Distribution of MCC for the Year 2021", the "Resolution in relation to the Emoluments of Directors and Supervisors of MCC for the Year 2021", the "Resolution on the Guarantee Plan of MCC for the Year 2022", the "Proposal in relation to the Financial Services Agreement entered into between the Company and Minmetals Group Finance Co., Ltd. and the Setting of Annual Caps for the Routine Connected Transactions/Continuing Connected Transactions for the Year 2022 to 2024", the "Proposal in relation to the Adjusting and Setting of the Annual Caps for the Routine Connected Transactions/Continuing Connected Transactions for the Years of 2022 and 2023 and Renew the Mutual Supply of Comprehensive Raw Materials, Products and Services Agreement" and the "Proposal in relation to the Appointment of the Auditor of the Financial Report and Internal Control Auditor of the Company for the Year 2022"; the meeting considered and approved two special resolutions, namely the "Proposal in relation to the plan of the registration and issuance of bonds of the headquarters of MCC" and the "Proposal in relation to the Grant of General Mandate to the Board to Issue Shares".

Preferred shareholders with restored voting rights request to convene an extraordinary shareholders' meeting

Applicable

Not applicable

CORPORATE GOVERNANCE

General Meeting

On 26 January 2022, the Company convened the 2022 First Extraordinary General Meeting, where Mr. Zhang Mengxing, Mr. Zhou Jichang, Mr. Yu Hailong, Mr. Yan Aizhong, being the Directors of the Company, and Mr. Chen Jianguang, Mr. Lang Jia, Mr. Liu Li, being Directors-designate, and Mr. Yin Sisong, Ms. Zhang Yandi and Mr. Chu Zhiqi, all being Supervisors of the Company, and Mr. Zeng Gang, being the then Secretary to the Board, attended the meeting.

On 30 June 2022, the Company convened the 2021 Annual General Meeting, where Mr. Chen Jianguang being the Chairman of the Company, and Mr. Liu Li, being the independent Director of the Company, and Mr. Yin Sisong and Mr. Chu Zhiqi, being Supervisors of the Company, and Mr. Zeng Gang, being the then Secretary to the Board, attended the meeting.

V. PARTICULARS OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

(I) Particulars of changes in shareholding and remuneration of current and resigned Directors, Supervisors and senior management during the Reporting Period

Unit: share

Name	Position	Gender	Age	Commencement date of term of office	End date of term of office	Number of shares held at the beginning of the year	Number of shares held at the end of the year	Changes in shares during the year	Reason for the changes	Total remuneration before tax obtained from Company during the Reporting Period (RMB 0'000)	Whether obtained remuneration from the connected parties of the Company
Current											
Chen Jianguang ⁽¹⁾	Chairman and executive Director	Male	56	2022-01-26	Till the expiry date of the term of office of the third session of the Board	0	0	0	-	0	Yes
Zhang Mengxing	Executive Director and president	Male	59	2019-03-12	Till the expiry date of the term of office of the third session of the Board	60,032	60,032	0	-	203.01	No
Zhou Jichang	Independent Non-executive Director	Male	72	2019-03-12	Till the expiry date of the term of office of the third session of the Board	0	0	0	-	29.40	No
Lang Jia ⁽¹⁾	Non-executive Director	Male	69	2022-01-26	Till the expiry date of the term of office of the third session of the Board	0	0	0	-	25.83	No
Liu Li ⁽¹⁾	Independent Non-executive Director	Male	67	2022-01-26	Till the expiry date of the term of office of the third session of the Board	0	0	0	-	27.63	No
Ng, Kar Ling Johnny	Independent Non-executive Director	Male	62	2020-04-29	Till the expiry date of the term of office of the third session of the Board	0	0	0	-	29.10	No

CORPORATE GOVERNANCE

Name	Position	Gender	Age	Commencement date of term of office	End date of term of office	Number of shares held at the beginning of the year	Number of shares held at the end of the year	Changes in shares during the year	Reason for the changes	Total remuneration before tax obtained from the Reporting Period	Whether obtained from the connected parties of the Company
										(RMB 0'000)	
Yan Aizhong	Employee representative Director	Male	55	2020-08-31	Till the expiry date of the term of office of the third session of the Board	0	0	0	-	183.78	No
Yin Sisong	Chairman of the Supervisory Committee	Male	59	2020-10-15	Till the expiry date of the term of office of the third session of the Supervisory Committee	28,100	28,100	0	-	166.90	No
Zhang Yandi	Supervisor	Female	44	2019-03-12	Till the expiry date of the term of office of the third session of the Supervisory Committee	0	0	0	-	40.45	No
Chu Zhiqi	Employee Representative Supervisor	Male	52	2019-03-12	Till the expiry date of the term of office of the third session of the Supervisory Committee	0	0	0	-	94.10	No
Zou Hongying	Vice President and Chief Accountant	Female	58	2019-03-12	Till the appointment of the next session of senior management by the next session of the Board	40,000	40,000	0	-	181.20	No
Qu Yang ⁽²⁾	Vice President	Male	52	2019-03-12	Till the appointment of the next session of senior management by the next session of the Board	70,000	70,000	0	-	183.78	No
Zeng Jianzhong	Vice President	Male	57	2019-03-12	Till the appointment of the next session of senior management by the next session of the Board	0	0	0	-	177.90	No
Liu Fuming	Vice President	Male	59	2019-03-12	Till the appointment of the next session of senior management by the next session of the Board	0	0	0	-	201.42	No
Bai Xiaohu	Vice President	Male	55	2020-08-28	Till the appointment of the next session of senior management by the next session of the Board	0	0	0	-	188.55	No
Zhu Guangxia	Vice President	Male	43	2020-08-28	Till the appointment of the next session of senior management by the next session of the Board	0	0	0	-	180.86	No
Wang Zhen ⁽³⁾	Secretary to the Board	Male	49	2022-12-16	Till the appointment of the next session of senior management by the next session of the Board	0	0	0	-	11.14	No

CORPORATE GOVERNANCE

Name	Position	Gender	Age	Commencement date of term of office	End date of term of office	Number of shares held at the beginning of the year	Number of shares held at the end of the year	Changes in shares during the year	Reason for the changes	Total remuneration	
										before tax obtained from Company during the Reporting Period	Whether obtained from the connected parties of the Company
Resigned											
Guo Wenqing ⁽⁴⁾	Chairman and executive Director (Resigned)	Male	58	2019-03-12	2022-01-26	130,000	130,000	0	-	0	Yes
Yu Hailong ⁽⁵⁾	Independent Non-executive Director (Resigned)	Male	72	2019-03-12	2022-01-26	0	0	0	-	1.77	No
Zeng Gang ⁽⁶⁾	Secretary to the Board (Resigned)	Male	58	2019-03-12	2022-12-16	0	0	0	-	0	Yes
Total	/	/	/	/	/	328,132	328,132	0	/	1,926.82	/

Notes:

- (1) On 26 January 2022, Mr. Chen Jianguang was elected as an executive Director of the third session of the Board at the first extraordinary general meeting of the Company in 2022. Mr. Lang Jia was elected as a non-executive Director of the third session of the Board and Mr. Liu Li was elected as an Independent Non-executive Director of the third session of the Board. On the same day, Mr. Chen Jianguang was elected as the chairman of the third session of the Board at the 35th meeting of the Board.
- (2) The Shares held by Mr. Qu Yang are H Shares.
- (3) On 16 December 2022, the 44th meeting of the third session of the Board approved the appointment of Mr. Wang Zhen as the secretary to the Board, a joint company secretary and the authorised representative of the Company. For details, please refer to the relevant announcement dated 16 December 2022 published by the Company.
- (4) On 26 January 2022, the Board received the written resignation of Mr. Guo Wenqing. Mr. Guo resigned from the positions of an executive Director, the chairman of the Board and a special committee of the Board due to the needs of work.
- (5) On 26 January 2022, new independent Directors were elected at the first extraordinary general meeting of the Company in 2022, and Mr. Yu Hailong resigned from his position as an Independent Director and the members of the relevant special committees of the Board. For details, please refer to the relevant announcement dated 26 January 2022 published by the Company.
- (6) On 16 December 2022, the Board received the written resignation of Mr. Zeng Gang. Mr. Zeng resigned from the positions of secretary to the Board, joint company secretary and authorised representative of the Company due to the needs of work.

CORPORATE GOVERNANCE

Name	Major work experience
Chen Jianguang	<p>Born in April 1966, Chinese nationality with no right of abode overseas, Mr. Chen is currently the Chairman, executive Director of the Company, and concurrently serves as a vice general manager and a member of the Communist Party Committee of China Minmetals Corporation as well as the Chairman and secretary of the Communist Party Committee of CMGC. Mr. Chen previously served as Manager of Overseas Section, director of the office, Assistant to chairman, the secretary to the board of directors and deputy chief accountant of China Construction Second Engineering Bureau Co. Ltd (“CCSEB”). He served as the chief accountant, deputy director and member of the standing committee of the Communist Party Committee from January 2003 to February 2006 of CCSEB. He served as the director, general manager and deputy secretary of the Communist Party Committee of CCSEB from February 2006 to December 2007. He served as chairman of the board of directors and secretary of the Communist Party Committee of CCSEB from December 2007 to December 2019, during the period concurrently served as the chairman of the board of directors of Power Construction Corporation of China Ltd. He served as the general manager of the investment department of China State Construction Engineering Corporation from December 2019 to October 2021. He has served as the deputy general manager and a member of the Communist Party Committee of China Minmetals Corporation since October 2021, chairman of the board of directors and secretary of the Party Committee since December 2021, the Chairman of the Company since January 2022. Mr. Chen graduated from Guangdong University of Foreign Studies, majoring in English (bachelor’s degree), and University of Chinese Academy of Sciences (中國科學院大學), majoring in management science and engineering (doctoral graduate). Mr. Chen is a senior economist.</p>
Zhang Mengxing	<p>Born in August 1963, Chinese nationality with no right of abode overseas, Mr. Zhang currently serves as the executive Director, the president, vice secretary to the Party committee of the Company and concurrently, the vice secretary to the Party committee of CMGC. Mr. Zhang served as the deputy manager, the acting manager and the manager of the No. 2 Company and the deputy manager of the Tianjin Branch of China MCC 20th Construction Corporation (中國第二十冶金建設公司), successively. From February 1999 to October 2006, Mr. Zhang served as the deputy general manager of China MCC 20th Construction Corporation and the deputy manager and the manager of its Tianjin Branch. From October 2006 to October 2012, he served as a director and the general manager of China MCC 20th Construction Corporation (中國二十冶建設有限公司) (subsequently renamed as China MCC 20 Group Co., Ltd. (中國二十冶集團有限公司). From October 2012 to September 2014, he served as the chairman of the board of directors and the secretary to the Party committee of China MCC 20 Group Co., Ltd. From September 2014 to May 2015, he served as the chief economist of the Company and concurrently served as the chairman of the board of directors of MCC International Incorporation Ltd. (中冶國際工程集團有限公司). Mr. Zhang served as the vice president of the Company from May 2015 to October 2016, the chairman of the board of directors of MCC International Incorporation Ltd. from May 2015 to October 2017 and the vice secretary to the Party committee of the Company from October 2016 to December 2021. He has served as the president, the vice secretary to the Party committee of CMGC since October 2016, the director of CMGC since August 2020, the executive director of the company since October 2020 and the secretary to the Party committee of the Company since December 2021. Mr. Zhang graduated from the Department of Architectural Engineering of Baotou Institute of Iron and Steel Technology (包頭鋼鐵學院) and obtained a bachelor’s degree in engineering majoring in industrial and civil construction. Mr. Zhang is a professorate senior engineer.</p>

CORPORATE GOVERNANCE

Name	Major work experience
Zhou Jichang	<p>Born in December 1950, Chinese nationality with no right of abode overseas, Mr. Zhou currently serves as an Independent Non-executive Director of the Company, a non-executive director of Freetech Road Recycling Technology (Holdings) Limited (英達公路再生科技(集團)有限公司), an independent non-executive director of Zhejiang Communications Technology Co., Ltd.* (浙江交通科技股份有限公司), honorary president and director of the expert committee of China Highway Construction Association (中國公路建設業協會). Mr. Zhou is a member of the 11th and 12th National Committee of the Chinese People's Political Consultative Conference. Mr. Zhou successively served as technician, engineer, deputy officer of the bridge design workshop, personnel director and deputy director of CCCC First Highway Survey & Design Institute (交通部第一公路勘察設計院) from January 1977 to May 1992. He served as vice chairman of the board of directors, deputy general manager, chairman of the board of directors and general manager of China Road and Bridge Construction Corporation (中國公路橋樑建設總公司) from May 1992 to November 1997. He served as chairman of the board of directors, president and secretary of the Communist Party Committee of China Road and Bridge Corporation (中國路橋(集團)總公司) from November 1997 to August 2005. He served as chairman of the board of directors, general manager and deputy secretary of the Communist Party Committee of China Communications Construction Group (Limited) (中國交通建設集團有限公司), and chairman of the board of directors and secretary of the Communist Party Committee of China Communications Construction Company Limited (中國交通建設股份有限公司) from August 2005 to April 2013. Mr. Zhou is a senior engineer with a master's degree.</p>
Lang Jia	<p>Born in February 1954, Chinese nationality with no right of abode overseas, Mr. Lang currently serves as a non-executive director of the Company. Mr. Lang previously served as a division-Head level cadre of Executive Office of the Liaoning Provincial Government, procurator of Supreme People's Procuratorate of the People's Republic of China and the head of the secretarial division of the general office from August 1992 to February 1996; deputy director of the discipline inspection office in the China National School of Administration from August 1996 to June 2001; Director of the discipline inspection office of China National School of Administration (Director) and the Deputy Secretary of the Council's Party Committee from June 2001 to June 2006; a member of the Communist Party Committee, Discipline Inspection Team Leader and chief legal counsel of China Electronics Corporation from June 2006 to December 2014; Chairman of the Supervisory Committee of China Greatwall Technology Group CO., LTD. from August 2006 to July 2014, director of China Electronics Corporation from March 2008 to 2014; the chairman of CRIDC from July 2013 to December 2014 and an External Director of China Minmetals Corporation from April 2015 to July 2021. Mr. Lang graduated with a bachelor's degree in Chinese from Liaoning Normal University in July 1982 and participated in a one-year training course for the middle-aged and youth organized by the Central Community Party School in 2003.</p>
Liu Li	<p>Born in September 1955, Chinese nationality with no right of abode overseas, Mr. Liu currently serves as an Independent Non-executive Director of the Company, the Professor of Guanghua School of Management of Peking University. He is concurrently an independent non-executive director of China International Capital Corporation Limited. Mr. Liu Li taught at Beijing Institute of Iron and Steel from September 1984 to December 1985, and has been teaching in Guanghua School of Management (formerly known as Economic Management Department of School of Economics) of Peking University since January 1986. Mr. Liu was an independent non-executive director of listed companies, including Bank of Communications Co., Ltd., China Machinery Engineering Corporation, Zhongyuan Special Steel Co., Ltd. and CNPC Capital Company Limited, etc. Mr. Liu served as an external director of Metallurgical Corporation of China Ltd. from December 2006 to September 2008 and an Independent Non-executive Director of the Company from November 2008 to November 2014. Mr. Liu obtained a master degree in physics from Peking University in July 1984 and MBA from Catholic University of Louvain in Belgium in July 1989. Mr. Liu is a professor.</p>

CORPORATE GOVERNANCE

Name	Major work experience
Ng, Kar Ling Johnny	<p>Born in December 1960, Mr. Ng is a resident of the Hong Kong Special Administrative Region, currently serves as an Independent Non-executive Director, independent director of China Petroleum & Chemical Corporation (中國石油化工有限公司), China Vanke Co., Ltd. (萬科企業股份有限公司) and China Telecom Corporation Limited (中國電信股份有限公司). He is concurrently a vice director member of the second session of the Independent Director Specialized Committee of China Association for Public Companies (中國上市公司協會). Mr. Ng obtained a bachelor's degree and a master's degree in business administration from the Chinese University of Hong Kong in 1984 and 1999, respectively. Mr. Ng joined KPMG (Hong Kong) in 1984 and became a partner in 1996. He subsequently became the vice chairman of KPMG (China). He is currently a practising certified public accountant in Hong Kong, a practising auditor and certified public accountant in Macau, a fellow member of the Hong Kong Institute of Certified Public Accountants (FCPA), a fellow member of the Association of Chartered Certified Accountants (FCCA), and a fellow member of the Institute of Chartered Accountants in England and Wales (FCA).</p>
Yan Aizhong	<p>Born in June 1967, Mr. Yan is of Chinese nationality with no right of abode overseas and is currently the employee representative Director and deputy secretary of the Party Committee of the Company, and also serves as the employee representative Director and deputy secretary of the Party Committee of MCC Group. Mr. Yan successively served as the deputy secretary of the Party Committee (presided over the work), the secretary of the Discipline Committee, Chairman of the Trade Union, the secretary of the Party Committee of the Machinery and Electric Branch of China Second Metallurgical Construction Corporation Limited* (subsequently renamed as China Second Metallurgical Group Corporation Limited* ("CSMGC")), and an assistant to the general manager of CSMGC. He served as the deputy general manager, the deputy secretary of the Party Committee, the secretary of the Discipline Committee and the chairman of the labour union of CSMGC from January 2010 to September 2012, the head of the Party Committee promotion department of the Company from September 2012 to January 2013, the director of the general office of the Company from January 2013 to November 2014 (during which, he concurrently served as the director of the general office to the Board from May 2014 to November 2014). He served as the head of Party Committee organization department of the Company and the head of human resources department from November 2014 to May 2016. He served as the head of Party Committee organization department of the Company from May 2016 to March 2022. He has been a Supervisor of MCC from August 2016 to March 2019, and has been an assistant to the president of MCC from May 2017 to March 2018. Mr. Yan has been the vice president of the Company from March 2019 to September 2019. He served as the deputy secretary of the Company since September 2019 and the deputy secretary of the Party Committee of CMGC. Since August 2020, he has served as the employee representative Director of the Company and the employee representative Director of MCC Group. Mr. Yan graduated from the mechanical and electrical engineering department of Baotou Iron & Steel College, majoring in industrial electrical automation, with a bachelor's degree, and from Inner Mongolia Autonomous Region Committee Party School, majoring in economic management, with a postgraduate degree. Mr. Yan is a professorate senior engineer.</p>

CORPORATE GOVERNANCE

Name	Major work experience
Yin Sisong	<p>Born in March 1964, Chinese nationality with no right of abode overseas, Mr. Yin currently serves as the chairman of the Supervisory Committee of the Company and also serves as the chairman of the Supervisory Committee of CMGC. Mr. Yin joined China MCC 17 Construction Co., Ltd. (hereinafter referred to as "MCC 17") in August 1983. Since September 1991, he served successively as secretary of the Youth League Committee and director of the Chemical Plant of the Eighth Company of MCC 17. From December 1996, he served successively as deputy manager of Mechanical and Electrical Installation Company and manager of Huafeng Company of MCC 17. Since December 2002, he served successively as deputy secretary of the Party Committee, secretary of the Disciplinary Committee, chairman of the Labor Union and deputy general manager of MCC 17. From May 2010 to November 2014, he served successively as director of the Corporate Culture Department, director of the Party and Mass Work Department, director of the Human Resources Department and deputy director of the Organization Department of the Party Committee of MCC. From November 2014 to September 2016, he served as director of the General Office, director of the Office of the board of directors, director of the Work Department of the Supervisory Committee and director of the Office of the Party Committee of the Company and MCC. From September 2016 to April 2018, he served as director of the General Office of China Minmetals. From April 2018 to July 2020, he has served as director of the General Office (later renamed as Office), director of the Party Group Office, director of the Office of the board of directors, director of the Administrative Service Center of China Minmetals, chairman of the Supervisory Committee of CMGC since July 2020 and chairman of the Supervisory Committee of the Company since October 2020. Mr. Yin graduated from Chaohu Teachers College (巢湖師範專科學校), majoring in physics (diploma), and graduated from Anhui Institute of Business Administration (安徽工商管理學院), majoring in business administration (postgraduate). Mr Yin is a senior political engineer and senior economist.</p>
Zhang Yandi	<p>Born in March 1979, Chinese nationality, with no right of abode overseas, Ms. Zhang currently serves as a Supervisor, and also serves as a supervisor of CMGC. Ms. Zhang served successively as a staff member and the business manager of the planning and finance department of CMGC. She served as the deputy head of the planning and finance division of the planning and finance department (head office) of MCC from June 2010 to October 2012, as the deputy head of the accounting information division and the accounting management division of the finance department of MCC from October 2012 to July 2014, as the head of the accounting management division of the planning and finance department (debt clearance office) of MCC from July 2014 to February 2017, and as the general manager of the financial accounting department of MCC Capital Engineering & Research Incorporation Limited (中冶京誠工程技術有限公司) from February 2017 to March 2018. She has been serving as the deputy head of the capital department of the Company from March 2018 to June 2021, a supervisor of CMGC since August 2018 and a Supervisor of the Company since March 2019, the head of the capital of the Company from June 2021 to May 2022, a member of the Party Committee of China Nonferrous Engineering Co., Ltd., the chief accountant and deputy general manager appointed by China ENFI Engineering Corporation since May 2022. Ms. Zhang graduated from the accounting department of the School of Economics and Management of North China University of Technology (北方工業大學) with a bachelor's degree in economics in 2000, and from the accounting department of the School of Economics and Management of Beijing Jiaotong University (北京交通大學) with a master's degree of management in 2004. Ms. Zhang is a senior accountant and certified accountant.</p>

CORPORATE GOVERNANCE

Name	Major work experience
Chu Zhiqi	<p>Born in December 1970, Chinese nationality with no right of abode overseas, Mr. Chu currently serves as an employee supervisor and the deputy director of capital operation center of the Company, and concurrently serves as an employee supervisor of CMGC. Mr. Chu Zhiqi successively worked in Bureau of Materials in Dingzhou City, Hebei Province (河北省定州市物資局), CRBC International Co., Ltd. (路橋建設國際股份有限公司), CCCC Third Highway Engineering Co., Ltd. (中交三公局) and CCCC Fourth Highway Engineering Co., Ltd. (中交四公局). He joined MCC Inner Mongolia Construction & Investment Co., Ltd. (中冶內蒙古建設投資有限公司) and the Command of MCC Transportation Inner Mongolia Highway Project (中冶交通內蒙古高速公路項目指揮部) in July 2015. He served as the director of the capital department of MCC Inner Mongolia Construction & Investment Co., Ltd. and the Command of MCC Transportation Inner Mongolia Highway Project from October 2015 to March 2016, the director of the audit and supervisory department of MCC Inner Mongolia Construction & Investment Co., Ltd. and the Command of MCC Transportation Inner Mongolia Highway Project from March 2016 to June 2016, the secretary of the Discipline Committee of MCC Inner Mongolia Construction & Investment Co., Ltd. and the secretary of the discipline inspection and working commission of the Command of MCC Transportation Inner Mongolia Highway Project from June 2016 to April 2018. He has been serving as the deputy director of the supervisory department (later renamed the discipline inspection department) of the Company from April 2018 to December 2021, and concurrently the deputy director of the supervisory department of CMGC since April 2018. He has been an employee supervisor of CMGC since August 2018, an employee supervisor of the Company since March 2019 and the deputy director of the capital department (later renamed as the capital operation center) of the Company since December 2021. Mr. Chu graduated from Hebei Material School as a secondary student majoring in material finance accounting. Mr. Chu obtained a college diploma in economic management from Correspondence College of the Party School of Hebei Province (河北省黨校函授學院), and an undergraduate degree in accounting from Jiangxi Economic Management Cadre Institute (江西省經濟幹部管理學院). He is an accountant.</p>
Zou Hongying	<p>Born in September 1964, Chinese nationality with no right of abode overseas, Ms. Zou is currently the vice President and the Chief Accountant of the Company. Ms. Zou once served as deputy chief and chief of the finance division, deputy chief accountant and chief accountant of the finance division, as well as deputy director of the planning and finance department of China MCC 22nd Construction Corporation, a deputy manager of the planning and finance department under the management department, deputy director (in charge of work) of the audit department, as well as director of the department of finance and asset management, head of the capital department and deputy chief accountant of CMGC, and chairman of MCC Jianxin Investment Fund Management (Beijing) Co., Ltd.. Ms. Zou graduated from East China Institute of Technology and subsequently obtained an MBA degree. She is a professorate senior accountant.</p>

CORPORATE GOVERNANCE

Name	Major work experience
Qu Yang	<p>Born in May 1970, Chinese nationality with no right of abode overseas, Mr. Qu is currently a vice President of the Company. Mr. Qu Yang successively served as deputy director (section level), the director (deputy director level), and secretary of the Communist Party of the technology trade department of the Automation System Research and Design Institution (自動化系統研究設計所貿易部), person in charge of the server operation department, secretary of the Communist Party branch, director and secretary of the Communist Party of the Smart Device Research Institute (智慧裝備研究所) and deputy chief engineer of the Automation Research Institute (自動化研究院) of the Ministry of Metallurgy. He served as vice president (deputy general manager) of Beijing MCC Equipment Research & Design Corporation Ltd. (北京中冶設備研究設計總院有限公司) from December 2009 to January 2013, and secretary of the Communist Party Committee and vice president (deputy general manager) of Beijing MCC Equipment Research & Design Corporation Ltd. from January 2013 to November 2014. Mr. Qu Yang acted as an assistant to the president of the Company from November 2014 to October 2016 and served as the chairman of MCC Asset Management Co., Ltd. from November 2014 to October 2017. He has been servicing as a vice President of the Company since October 2016. Mr. Qu Yang graduated from the Department of Automated Control of Northeast University of Technology, majoring in industrial automation instrument, with a bachelor's degree in engineering, and the College of Information Science and Engineering of Northeastern University, majoring in control theory and control engineering, with a doctoral degree in engineering. He is a professorate senior engineer.</p>
Zeng Jianzhong	<p>Born in October 1965, Chinese nationality with no right of abode overseas, Mr. Zeng is currently the vice president of the Company. Mr. Zeng successively served as the deputy director and the director of the Gas Office and the director of the Gas Ventilation Office of Beijing Iron and Steel Design and Research Institute (北京鋼鐵設計研究總院) under the Ministry of Metallurgy, and the general manager of the Technical Institute of Energy and Environmental Engineering of Capital Engineering & Research Incorporation Limited (中冶京誠工程技術有限公司). He served as an assistant to the president of Capital Engineering & Research Incorporation Limited and concurrently served as the general manager of the Technical Institute of Energy and Environmental Engineering, the general manager of the engineering control department, the general manager of municipal and public facilities engineering department, and the general manager of the metallurgical engineering department. He served as the deputy head (at the ministry level) of the domestic engineering management department and the head of the construction project quota station of metallurgical industry of the Company and the head of the domestic engineering management department (subsequently renamed as the domestic market development department) from June 2013 to May 2017. He served as an assistant to the president of the Company from May 2017 to April 2018 and concurrently the head of the domestic market development department. He has been the vice president of the Company since April 2018. Mr. Zeng Jianzhong graduated from the chemical machinery department of Dalian Institute of Technology, majoring in chemical equipment and machinery, with a bachelor's degree. Mr. Zeng is a professorate senior engineer.</p>

CORPORATE GOVERNANCE

Name	Major work experience
Liu Fuming	<p>Born in November 1963, Chinese nationality with no right of abode overseas, Mr. Liu currently serves as the vice president of the Company. He also serves as the deputy general manager of CMGC, the chairman of the board of directors, legal representative and secretary of the Communist Party Committee of MCC Real Estate. Mr. Liu served as technician, assistant engineer, deputy team leader, team leader of Anbei team, assistant to the manager, deputy manager, manager of the Pipeline and Railway Engineering Company of China MCC 22nd Construction Corporation (中國第二十二冶金建設公司), served as assistant to the general manager of China MCC 22nd Construction Corporation. From November 2004 to November 2006, he served as the deputy general manager of China MCC 22nd Construction Corporation. From November 2006 to October 2010, he served as deputy general manager of MCC Jingtang Construction Corporation Limited (中冶京唐建設有限公司) (later renamed as China 22MCC Group Co., Ltd. (中國二十二冶集團有限公司)). From October 2010 to April 2013, he successively served as director, general manager and deputy secretary of the Communist Party Committee of MCC Real Estate Co., Ltd. (中冶置業有限責任公司). He served as chairman of the board of directors, legal representative and secretary of the Communist Party Committee of MCC Real Estate Group Co., Ltd. since April 2013. From June 2015 to January 2019, he served as assistant to the president of the Company. He served as the vice president of the Company since January 2019. He has served as the deputy general manager of CMGC since September 2019. Mr. Liu graduated from Shenyang Metallurgical Engineering Institute (瀋陽冶金機械專科學校) majoring in welding (associate degree), Jinan University, majoring in computer science (bachelor's degree), and Northeastern University majoring in software engineering (postgraduate) and materials science (doctoral graduate). Mr. Liu is a professorate senior engineer.</p>
Bai Xiaohu	<p>Born in January 1968, Chinese nationality with no right of abode overseas, Mr. Bai is currently vice president of the Company. Mr. Bai successively served as deputy chief economist of the Operation Department, deputy director of the Marketing Department (deputy division level) in Shanghai Baoye Construction Co., Ltd.; deputy manager of the Guangzhou Higher Education Mega Center Project Department of Shanghai Baoye, manager at Shanghai Baoye's Guangzhou branch and manager of the Engineering Project Department of Guangzhou Higher Education Mega Center; general manager of Shanghai Baoye's south China branch, general manager of its Guangzhou branch, and secretary of its General Party Branch; Assistant to General Manager and head of the General Contracting Department at Shanghai Baoye; deputy general manager of Shanghai Baoye and general manager of the Henan branch of the Company. From October 2015 to October 2016, he served as chairman, general manager, deputy secretary of the Party Committee and secretary of the Party Committee in China Metallurgical Oriental Holdings Co., Ltd.*, and general manager of the Henan branch of the Company. From October 2016 to March 2017, he served as director, general manager and deputy secretary of the Party Committee of Shanghai Baoye and chairman, general manager, and secretary of the Party Committee in China Metallurgical Oriental Holdings Co., Ltd. and general manager of the Henan branch of the Company. From March 2017 to October 2020, He served as chairman of the board of directors and secretary of the Party Committee of Shanghai Baoye, and he has been serving as vice president of the Company since August 2020. Mr. Bai majored in industrial electrical automation at the Automation Control Department of Xi'an University of Architecture and Technology, from which he graduated with a bachelor's degree in engineering. Currently, Mr. Bai is a professorate senior engineer and senior economist.</p>

CORPORATE GOVERNANCE

Name	Major work experience
Zhu Guangxia	<p>Born in July 1979, Chinese nationality with no right of abode overseas, Mr. Zhu is currently vice president of the Company. Mr. Zhu successively served as deputy head and head of the First Electrical Installation Engineering Division of China MCC17 Group Co., Ltd., assistant manager of the mechanical and electrical installation company, and manager at Project Management Department of Jiuquan Iron and Steel (Group) Co., Ltd., manager of the Gansu Branch of China MCC17 Group; deputy general manager of China MCC17 Group and general manager with the Gansu Branch of the Company; from July 2016 to November 2017, he served as director, general manager and deputy Party committee secretary of China Second Metallurgy Group Corporation Limited; from November 2017 to July 2019, he served as chairman, general manager, and deputy secretary of the Party Committee at Second Metallurgy and chairman and Party secretary of Second Metallurgy from July 2019 to July 2020; from January 2020 to August 2020, he served as assistant to the president of the Company; since August 2020, he has been serving as vice president of the Company. Mr. Zhu graduated from Xi'an University of Architecture and Technology, where he majored in engineering management. Mr. Zhu is a senior engineer.</p>
Wang Zhen	<p>Born in November 1973, Chinese nationality and without the right of abode overseas, is currently the vice chairman of the labour union, director of the office, director of the Party Committee office, director of the Board office (office of the board of supervisors) and deputy secretary of the Party Committee of the Headquarters of the Company. Mr. Wang successively served as the deputy manager of the South Korean group of the second business department of China National Coal Industry Import and Export Group, deputy director of the office of China Coal Energy Company Limited and deputy director of the general office of China National Coal Group Corporation; and he served as a member of the Party Committee and the secretary of the Disciplinary Committee of China Nonferrous Engineering Co., Ltd. from October 2014 to January 2019, served as deputy secretary of the Party Committee and secretary of the Disciplinary Committee of China Nonferrous Engineering Co., Ltd. and the director of China ENFI Engineering Corporation from January 2019 to September 2019, and successively served as the deputy director and director of the Company's party-mass work department (Party Committee propaganda department, corporate culture department), deputy secretary of the Party Committee of the Headquarters, and vice chairman of the labour union from September 2019 to January 2022, the vice chairman of the Company's labour union, director of the office, director of the Party Committee office, director of the Board office (office of the board of supervisors), director of the party-mass work department (Party Committee propaganda department, corporate culture department), and deputy secretary of the Party Committee of the Headquarters from January 2022 to March 2022, and the vice chairman of the Company's labour union, director of the office, director of the Party Committee office, director of the Board office (office of the board of supervisors), and deputy secretary of the Party Committee of the Headquarters since March 2022, and the secretary to the Board and the joint company secretary of the Company since December 2022. Mr. Wang obtained a bachelor's degree in economics majoring in English (Foreign Trade) from the Faculty of Foreign Trade and Foreign Language of Nankai University and a master's degree in economics majoring in international trade from the School of International Economics and Trade of the University of International Business and Economics and is a senior idealistic mentor.</p>

CORPORATE GOVERNANCE

(II) Employment status of current and resigned Directors, Supervisors and senior management in the Reporting Period

1. Employment status at Shareholder entities

Name	Name of shareholder entities	Position in shareholder entities	Commencement date of term of office	End date of term of office
Employment status of current Directors, Supervisors and senior management at Shareholder entities				
Chen Jianguang	China Minmetals Corporation	Deputy general manager, member of Communist Party Committee	October 2021	-
	China Metallurgical Group Corporation	Chairman, Secretary of the Communist Party Committee	December 2021	-
Zhang Mengxing	China Metallurgical Group Corporation	Director	August 2020	-
		Deputy secretary of the Communist Party Committee	October 2016	-
Yan Aizhong	China Metallurgical Group Corporation	Employee Representative Director	August 2020	-
		Deputy secretary of the Communist Party Committee	September 2019	-
Yin Sisong	China Metallurgical Group Corporation	Chairman of the Supervisory Committee	July 2020	-
Zhang Yandi	China Metallurgical Group Corporation	Supervisor	August 2018	-
Chu Zhiqi	China Metallurgical Group Corporation	Employee representative Supervisor	August 2018	-
Zou Hongying	China Metallurgical Group Corporation	Member of the standing committee of the Communist Party Committee	October 2016	-
Qu Yang	China Metallurgical Group Corporation	Member of the standing committee of the Communist Party Committee	October 2016	-
Zeng Jianzhong	China Metallurgical Group Corporation	Member of the standing committee of the Communist Party Committee	March 2018	-
Bai Xiaohu	China Metallurgical Group Corporation	Member of the standing committee of the Communist Party Committee	July 2020	-
Zhu Guangxia	China Metallurgical Group Corporation	Member of the standing committee of the Communist Party Committee	July 2020	-
Liu Fuming	China Metallurgical Group Corporation	Deputy general manager	September 2019	-
Employment status of resigned Directors, Supervisors and senior management at Shareholder entities				
Guo Wenqing	China Minmetals Corporation	Director, General Manager, Deputy secretary of the Communist Party Committee	May 2016	-
Zeng Gang	China Minmetals Corporation	Secretary to the Board, Offices General office of the Communist Party Committee, General office of the board of directors, director of the Administrative Service Center	October 2020	-
Positions in Shareholder Entities	Nil			

CORPORATE GOVERNANCE

2. Employment status at other entities

Name	Name of other entities	Position in other entities	Commencement date of term of office	End date of term of office
Employment status of current Directors at other entities				
Zhou Jichang	Freotech Road Recycling Technology (Holdings) Limited (英達公路再生科技(集團)有限公司)	Non-Executive Director	February 2021	-
	Zhejiang Communications Technology Co., Ltd.* (浙江交通科技股份有限公司)	Independent Non-Executive Director	December 2022	-
Ng, Kar Ling Johnny	China Petroleum & Chemical Corporation	Independent Director	May 2018	-
	China Vanke Co., Ltd.	Independent Director	July 2017	-
	China Telecom Corporation Limited	Independent Director	January 2023	-
Liu Li	China International Capital Corporation Limited	Independent Non-Executive Director	June 2016	-
	Guanghua School of Management of Peking University	Professor	September 1997	-
Positions in other entities	Nil			

(III) Remuneration of Directors, Supervisors and senior management

Determination procedures for remuneration of Directors, Supervisors and senior management	The remuneration of Directors and Supervisors of the Company who are not representatives of employees shall be reviewed and approved by the general meeting. The remuneration of senior management is proposed by the Remuneration and Appraisal Committee of the Board and reviewed and approved by the Board.
Basis for determination of remuneration of Directors, Supervisors and senior management	The remuneration of the Independent Non-executive Directors of the Company is determined according to the market level and the actual situation of the Company. Executive Directors do not receive remuneration for their positions as Directors, but receive remuneration according to their positions in the Company and their assessments. The Supervisors of the Company obtain remuneration in accordance with the remuneration and assessment management policies of the headquarters and the positions they hold. The remuneration of the senior management of the Company shall be implemented in accordance with the management regulations of the superior department and the remuneration management policies of the senior management of the Company.
Remuneration actually paid to Directors, Supervisors and senior management	RMB 19.2682 million
Total actual remuneration received by all Directors, Supervisors and senior management at the end of the Reporting Period	RMB 19.2682 million

CORPORATE GOVERNANCE

The remuneration of Directors and Supervisors in office of the Company as of the end of the Reporting Period in 2022 was as follows:

Unit: RMB

Name	Total of basic salary, housing allowances and other allowances	Pension scheme contributions (pension insurance borne by the Company)	Performance remuneration	Total annual remuneration
Chen Jianguang	-	-	-	-
Zhang Mengxing	1,129,278.00	57,700.80	843,095.00	2,030,073.80
Zhou Jichang	294,000.00	-	-	294,000.00
Lang Jia	258,276.19	-	-	258,276.19
Liu Li	276,276.19	-	-	276,276.19
Ng, Kar Ling Johnny	291,000.00	-	-	291,000.00
Yan Aizhong	1,021,878.00	57,700.80	758,200.00	1,837,778.80
Subtotal of Directors	3,270,708.38	115,401.60	1,601,295.00	4,987,404.98
Yin Sisong	902,478.00	57,700.80	708,800.00	1,668,978.80
Zhang Yandi	146,988.00	18,061.44	239,460.00	404,509.44
Chu Zhiqi	400,288.00	57,700.80	482,990.00	940,978.80
Subtotal of Supervisors	1,449,754.00	133,463.04	1,431,250.00	3,014,467.04

During the Reporting Period, no Directors or Supervisors of the Company waived any emoluments and no emoluments were paid by the Company to any of the Directors or Supervisors as an inducement to join or upon joining the Company or as compensation for loss of office.

(IV) Changes of Directors, Supervisors and senior management of the Company

Name	Position	Change	Reason
Chen Jianguang	Chairman and Executive Director	Elected	Appointed by election
Lang Jia	Non-executive Director	Elected	Appointed by election
Liu Li	Independent Non-executive Director	Elected	Appointed by election
Wang Zhen	the secretary to the Board	Appointed	Appointed by the Board
Guo Wenqing	Chairman and Executive Director	Resigned	Resigned due to work requirement
Yu Hailong	Independent Non-executive Director	Resigned	Expiry of his term
Zeng Gang	the secretary to the Board	Resigned	Resigned due to work requirement

(V) Penalties imposed by securities regulatory authorities in recent three years

Applicable Not applicable

(VI) Others

Applicable Not applicable

CORPORATE GOVERNANCE

VI. THE COMPOSITION OF THE BOARD

In the beginning of 2022, the members of the third session of the Board were: Mr. Guo Wenqing as an executive Director and the Chairman, Mr. Zhang Mengxing as an executive Director and the President, Mr. Zhou Jichang, Mr. Yu Hailong and Mr. Ng, Kar Ling Johnny as Independent Non-executive Directors, and Mr. Yan Aizhong as an employee representative Director. On 26 January 2022, the Company held the first extraordinary general meeting of 2022, at which Mr. Chen Jianguang was elected as an executive Director of the Company, Mr. Lang Jia was elected as a non-executive Director of the Company, and Mr. Liu Li was elected as an Independent Non-executive Director of the Company. On the same date, Guo Wenqing resigned from his duty as an executive Director, chairman of the Board and positions in special committees of the Board of the Company. On the same date, the Company held the thirty-fifth meeting of the third session of the Board, at which Mr. Chen Jianguang was elected as the Chairman of the Company. Members of the third session of the Board changed to: Mr. Chen Jianguang as an executive Director and the Chairman, Mr. Zhang Mengxing as an executive Director, Mr. Zhou Jichang, Mr. Lang Jia as a non-executive Director, Mr. Liu Li and Mr. Ng, Kar Ling Johnny as Independent Non-executive Directors and Mr. Yan Aizhong as an employee representative Director.

None of the Independent Non-executive Directors of the Board held any position of the Company other than the Directors of the Company. Among them, Mr. Ng, Kar Ling Johnny and Mr. Liu Li have expertise in the fields of financial management and accounting, in compliance with the Hong Kong Listing Rules. Pursuant to the confirmation of independence from each of the Independent Non-executive Directors pursuant to Rule 3.13 of the Hong Kong Listing Rules, the Company is of the view that each of the Independent Non-executive Directors is independent. All the Independent Non-executive Directors are able to give objective and independent opinions on decisions, thus ensuring the independence and fairness of the decisions made by the Board. All of the Directors have performed their duties with loyalty, integrity and diligence to serve the interests of the Company and all the Shareholders.

Save for their services to the Company, there is no financial, business or family relationship among the Directors and between them and the presidents, nor any other material relationship among them.

During the Reporting Period, the Company purchased liability insurance policies for all Directors.

During the Reporting Period, through study and training, all Directors practically enhanced their duty performance capability and updated the professional knowledge and skills required for the performance of their duties. The specific contents of training/study participated by Directors during the Reporting Period are as follows:

Name of Directors	Training Time	Contents of training/study
Chen Jianguang	December 2022	Corporate Governance Special Training organized by China Listed Companies Association
Zhang Mengxing	December 2022	Corporate Governance Special Training organized by China Listed Companies Association
Lang Jia	April 2022	Phase 79 Training for Independent Directors organized by SSE
	December 2022	2022 Eighth Session of Training Program for Directors and Supervisors of Listed Companies in Beijing Jurisdiction
Liu Li	September 2022	2022 Phase IV Follow-up Training for Independent Directors organized by SSE
Ng, Kar Ling Johnny	September 2022	2022 Phase IV Follow-up Training for Independent Directors organized by SSE
Yan Aizhong	September 2022	2022 Third Session of Training Program for Directors and Supervisors of Listed Companies in Beijing Jurisdiction

CORPORATE GOVERNANCE

VII. DUTIES AND OPERATION OF THE BOARD

The Board is elected at, and accountable to, general meetings. In accordance with the requirements of the Articles of Association, the Board is mainly responsible for convening general meetings, reporting the work to the general meetings, implementing the resolutions of the general meetings, deciding the Company's business and investment plans, deciding matters such as foreign investment, asset acquisition and disposal, asset mortgage, entrusted asset management and connected transactions within the authorization of general meetings, the formulation of the Company's annual financial budgets and final accounts, the formulation of the Company's profit distribution plans and plans for making up for losses, the formulation of proposals for increase or reduction in the Company's registered capital, the formulation of plans on the issuance of bonds or other securities and the listing scheme, the preparation for the Company's material acquisitions, purchases of the Company's Shares, mergers, demergers, dissolutions or changes in the Company's form, as well as the formulation of the amendment proposals for the Articles of Association. In addition, pursuant to the requirements of the Corporate Governance Code, the Board undertakes corporate governance functions such as formulating corporate governance policies and practice, monitoring trainings for Directors and senior management and supervising the Company's compliance with laws and regulations, as well as the Corporate Governance Code.

The roles of Chairman and President of the Company are segregated: during the Reporting Period, Mr. Guo Wenqing serves as the Chairman and Mr. Zhang Mengxing serves as the President. On 26 January 2022, Mr. Chen Jianguang was elected as the Chairman of the Company at the thirty-fifth meeting of the third session of the Board of MCC. The Chairman and the President perform their respective duties in accordance with the relevant requirements regarding division of duties set out in rules such as the Articles of Association, the Rules of Procedures for Board Meetings and the Work Rules for President of the Company.

The Chairman is mainly responsible for presiding over general meetings and convening and presiding over Board meetings, checking and facilitating the implementation of the resolutions of the Board, nominating candidates for the secretary to the Board, supervising and examining the performance of each special committee under the Board, organizing and formulating rules for the operation of the Board, coordinating the operation of the Board, receiving regular or irregular work reports submitted by the senior officers of the Company and advising on the implementation of the resolutions of the Board, and performing other duties required by laws, administrative regulations, department regulations or the Articles of Association, and authorized by the Board.

The President is accountable to the Board and is mainly responsible for taking charge of the Company's production, operation and management and reporting his work to the Board, coordinate to implement resolutions of the Board, coordinate to implement of the Company's annual business plans and investment plans, drafting plans for the establishment of the Company's internal management structure, drafting the Company's basic management system, formulating specific rules and regulations of the Company, preparing the merger, demerger or restructuring plans for subsidiaries of the Company, and performing other duties required by laws, administrative regulations, departmental rules or the Articles of Association, and authorized by the Board. The Vice President assists the President in his work and is accountable to the President, and perform the following duties with a clear division of labor: participate in the preparation of proposals, plans, reports and documents submitted by the President to the Board; responsible for organizing the implementation of annual business plan, investment plan, annual financial budget plan and final accounts assigned to him; and responsible for other matters assigned to him.

The Board and its subordinate special committees performed their duties in strict compliance with the duties and work requirements as authorized by regulatory requirements, and carried out their work pursuant to the Company Law, regulatory rules of the listing place(s), Articles of Association, Rules of Procedures for General Meeting and the Board of Directors and other relevant requirements. For the purpose of maintaining and increasing the value of the state-owned assets and maximizing Shareholders' interests, the Company continues to follow the function of "making strategy, making decisions and preventing risks", captures the development opportunity to target strategic layout and phased development goal to dedicate in reform and innovation, continues to strictly control risks and facilitates continuous progress of the Company.

Directors are accountable to financial reports. When preparing the financial statements for the year ended 31 December 2022, Directors have chosen and applied appropriate accounting policies and made prudent and reasonable judgments and estimations to truly and fairly reflect the position, results and cash flow of the financial year. statement made by the auditor of the Company on their reporting responsibilities is set out in the "Auditor's Report" beginning on page 171 of this annual report.

CORPORATE GOVERNANCE

VIII. BOARD MEETINGS HELD DURING THE REPORTING PERIOD

Sessions of the meeting	Convening date	Resolutions of the meeting
The thirty-fourth meeting of the third session of the Board	5 January 2022	Resolutions were considered and approved at the meeting, including the "Proposal on the Nomination of Candidates for Directors of CMGC", and the "Proposal on the Convening of Extraordinary General Meeting".
The thirty-fifth meeting of the third session of the Board	26 January 2022	Resolutions were considered and approved at the meeting, including the "Proposal on Election of the Chairman of the Board of MCC", the "Proposal on the Establishment of the Sustainable Development Committee of the Board of MCC", and the "Proposal on Adjustment of Members of the Special Committees of the Board of MCC".
The thirty-sixth meeting of the third session of the Board	1 March 2022	3 resolutions were considered and approved at the meeting, including the "Proposal on the Establishments and Adjustment of Functions of Some authorities of the Company's Head Office".
The thirty-seventh meeting of the third session of the Board	29 March 2022	26 resolutions were considered and approved at the meeting, including the "Proposal on the 2021 Annual Report of MCC" and the "Proposal on the Report of MCC on Final Accounts for the Year 2021".
The thirty-eighth meeting of the third session of the Board	29 April 2022	4 resolutions were considered and approved at the meeting, including the "Proposal on 2021 First Quarterly Report of MCC", and the "Proposal on the Amendment to the Company's "three lists and one process".
The thirty-ninth meeting of the third session of the Board	10 June 2022	7 resolutions were considered and approved at the meeting, including the "Proposal on the Comprehensive Reform Plan and Work Accounts of CERI, ACRE Coking & Refractory and MCC Wukan, "model enterprises of scientific reform" under MCC", and the "Proposal on the Acquisition of 100% Equity Interest in Guangdong Hongdingsheng Construction Co., Ltd.".
The fortieth meeting of the third session of the Board	20 July 2022	10 resolutions were considered and approved at the meeting, including the "Proposal on Amendments to the Articles of Association of MCC and Related Rules of Procedure", and the "Proposal on the Renewal of Liability Insurance for Directors Supervisors and Senior Management for the Year 2022".
The forty-first meeting of the third session of the Board	29 August – 30 August 2022	8 resolutions were considered and approved at the meeting, including the "Proposal on the 2022 Interim Report of MCC" and the "Proposal on the 2022 first Interim Financial Report of MCC".
The forty-second meeting of the third session of the Board	29 September 2022	4 resolutions were considered and approved at the meeting, including the "Proposal on the Implementation of the Integration of China MCC19 and MCC Yunnan" and the "Proposal on the Establishment of Hubei MCC Construction Co., Ltd. by MCC20".
The forty-third meeting of the third session of the Board	27 October 2022	11 resolutions were considered and approved at the meeting, including the "Proposal on 2022 Third Quarterly Report of MCC", and the "Proposal in relation to the Profit Distribution Plan of the Company for the Year 2021".

CORPORATE GOVERNANCE

Sessions of the meeting	Convening date	Resolutions of the meeting
The forty-fourth meeting of the third session of the Board	16 December 2022	2 resolutions were considered and approved at the meeting, including the Proposal for the Appointment of Secretary of the Board of Directors/Joint Company Secretary of Metallurgical Corporation of China Ltd., and the Proposal on the Remuneration Plan in 2021 and the Monthly Remuneration Plan in 2022 for Senior Management of MCC.
The forty-fifth meeting of the third session of the Board	30 December 2022	6 resolutions were considered and approved at the meeting, including the Proposal on Differentiated Delegation of Powers for "Demonstration Enterprises of Science Reform" and "Double Hundred Enterprises", and the Proposal on the Liquidation and Cancellation of MCC Financial Leasing Co., Ltd..

IX. THE PERFORMANCE OF DUTIES BY DIRECTORS

(I) Attendance of Directors at Board Meetings and General Meetings

Name of Directors	Whether they are Independent Directors	Attendance at Board Meetings						Whether they did not attend in person for two times consecutively	Attendance at general meetings Number of general meetings attended
		Number of attendance at Board meetings required for the year	Number of meetings attended in person	Number of meetings attended via communication	Number of meetings attended by proxy	Number of absence			
Chen Jianguang	No	11	10	4	1	0	No	2	
Zhang Mengxing	No	12	12	5	0	0	No	1	
Zhou Jichang	Yes	12	12	5	0	0	No	1	
Lang Jia	No	11	11	4	0	0	No	1	
Liu Li	Yes	11	11	4	0	0	No	2	
Ng, Kar Ling Johnny	Yes	12	12	5	0	0	No	0	
Yan Aizhong	No	12	11	5	1	0	No	1	

Explanation of the absence from Board meeting for two times consecutively

Applicable Not applicable

Number of Board meetings held during the year	12
Including: Number of on-site meetings	0
Number of meetings convened via communication	5
Number of meeting convened by combination of on-site meeting and communication	7

Note: During the Reporting Period, the Directors of the Company who were overseas were unable to attend the Board meetings on-site due to the restriction of the immigration policy, therefore, the Board meetings of the Company were held via teleconference, or in combination of teleconference and on-site during the Reporting Period, resulting in no on-site meeting.

CORPORATE GOVERNANCE

(II) Objections on Relevant Issues of the Company Raised by Directors

Applicable Not applicable

X. THE SPECIAL COMMITTEES UNDER THE BOARD

(I) Members of the Special Committees under the Board

Category of the Special Committees	Name of the members
Finance and Audit Committee	Convener: Ng, Kar Ling Johnny (Independent Non-executive Director) Committee member: Zhou Jichang (Independent Non-executive Director), Liu Li (Independent Non-executive Director)
Nomination Committee	Convener: Zhou Jichang (Independent Non-executive Director) Committee member: Chen Jianguang (Executive Director, Chairman of the Board), Liu Li (Independent Non-executive Director)
Remuneration and Appraisal Committee	Convener: Liu Li (Independent Non-executive Director) Committee member: Zhou Jichang (Independent Non-executive Director), Lang Jia (Non-executive Director)
Strategy Committee	Convener: Chen Jianguang (Executive Director, Chairman of the Board) Committee member: Zhang Mengxing (Executive Director), Lang Jia (Non-executive Director)
Sustainable Development Committee ^{Note}	Convener: Lang Jia (Non-executive Director) Committee member: Zhang Mengxing (Executive Director), Ng, Kar Ling Johnny (Independent Non-executive Director)

Note: On 26 January 2022, the thirty-fifth meeting of the third session of the Board considered and approved the "Proposal on the Establishment of the Sustainable Development Committee of the Board of MCC" and the "Proposal on Adjustment of Members of the Special Committees of the Board of MCC". The Board established the Sustainable Development Committee and made corresponding adjustment to the members of each of the other special committees.

(II) The Performance of Duties by Special Committees

During the Reporting Period, there were five special committees under the Board in total, namely the Strategy Committee, the Finance and Audit Committee, the Nomination Committee, the Remuneration and Appraisal Committee and the Sustainable Development Committee. Independent Non-executive Directors formed the majority and served as the convener of the Finance and Audit Committee, the Nomination Committee, and the Remuneration and Appraisal Committee.

During the Reporting Period, the Board gave more prominence to the supporting role and professional discussion and consultation function of each special committee. Before professional issues were submitted to the Board for consideration, such issues would be thoroughly studied by the relevant special committees, where specific review opinions were raised and thus provided a basis of decision-making for the Board.

CORPORATE GOVERNANCE

1. *Strategy Committee*

In accordance with the Articles of Association, the Rules of Procedures for Board Meetings and the Work Rules for the Strategy Committee, the Strategy Committee is accountable to the Board and is mainly responsible for conducting research and giving recommendations on the Company's mid-to-long term development strategies and major investment decisions, and discharging other duties authorized by the Board.

During the Reporting Period, the Strategic Committee convened three meetings through communication tools. All three committee members attended the meetings. The meetings discussed six matters which involve, among others, establishment and adjustment of the functions of some authorities of the head office, positioning adjustment of the head office's businesses, and integration and disposal of certain subsidiaries.

2. *Finance and Audit Committee*

In accordance with the requirements of the Articles of Association, the Rules of Procedures for Board Meetings and the Work Rules for the Finance and Audit Committee, the Finance and Audit Committee of the Board is accountable to the Board and is mainly responsible for reviewing major financial control objectives, supervising the implementation of the financial regulatory system and guiding the financial work of the Company, formulating guarantee management policies and reviewing guarantee business, reviewing annual financial budgets and final accounts and supervising the implementation thereof, reviewing the financial analysis of major investment projects, monitoring the execution outcome of investment projects, and arranging for the review of the subsequent evaluation of major investing and financing projects. The Finance and Audit Committee is also accountable for reviewing the Company's proposals for profit distribution and making up for losses and making recommendations in respect thereof, reviewing the construction plan, regulatory system, work flows and major control objectives for the comprehensive risk management and internal control system; reviewing the annual work plans and annual reports of comprehensive risk management and submitting the same to the Board; supervising the soundness, reasonableness and effectiveness of the execution of the risk management and internal control system, and instructing the comprehensive risk management and internal control of the Company; suggesting the engagement or replacement of external auditors for financial statements and internal control; reviewing the financial information of the Company and its disclosure, independently auditing the financial report and providing opinions; being responsible for the control and management of connected transactions of the Company, examining the Company's feedback channels to ensure employees can raise objections to the improprieties in financial reporting, internal control and other areas, as well as performing any other duties authorized by the Board.

During the Reporting Period, the Finance and Audit Committee convened 10 meetings in total, of which 1 meeting was convened on-site, 7 meetings were convened via a combination of on-site and communication tools, 2 meetings were convened through communication tools. All three committee members attended the meetings. The attendance by each committee member at meetings is as follows:

Name of Directors	Number of attendance required for the Directors	Number of meetings attended in person (Including attendance via communication)
Ng, Kar Ling Johnny	10	10
Zhou Jichang	10	10
Liu Li	10	10

CORPORATE GOVERNANCE

3. *Nomination Committee*

Pursuant to the requirements of the Articles of Association, the Rules of Procedures for Board Meetings and the Work Rules for the Nomination Committee, the Nomination Committee is accountable to the Board and is mainly responsible for studying and preparing the standards, procedures and methodology for the election of Directors, President and other senior management of the Company and submitting the recommendations to the Board, extensively identifying qualified candidates for Directors, President and other senior management, assessing the candidates for Directors, President and other senior management and advising to the Board in this respect. The Nomination Committee shall stipulate the Board diversity policy (including gender, age, culture and education background or professional experience) in accordance with strategy, business model and specific needs of the Company, and study and examine the structure, size and composition of the Board at least once per year, evaluate the independence of Independent Non-executive Directors, and discharge other duties authorized by the Board.

The members of the Nomination Committee reviewed the structure, size and composition of the Board, which, in their opinion, were consistent with the Articles of Association, regulatory requirements and business requirements of the Company. The composition of the Directors of the special committees of the Board was based on professional knowledge, expertise and previous experience of the Directors, which gave full play to the professional knowledge and skills of the Directors.

During the Reporting Period, the Nomination Committee convened 1 meeting via teleconference, and all three committee members attended the meeting. The appointment of secretary of the Board/joint company secretary of MCC was studied and discussed at the meetings.

4. *Remuneration and Appraisal Committee*

Pursuant to the requirements of the Articles of Association, the Rules of Procedures for Board Meetings and the Work Rules for the Remuneration and Appraisal Committee, the Remuneration and Appraisal Committee is accountable to the Board and is mainly responsible for studying and preparing the assessment criteria for Directors and senior management, conducting assessments and giving recommendations in respect thereof, studying and reviewing the remuneration policies and plans of Directors and senior management, and discharging other duties authorized by the Board. The remuneration plan of Directors of the Company proposed by the Remuneration and Appraisal Committee shall be subject to the consent of the Board and then submitted to general meetings for consideration and approval prior to its implementation. The remuneration distribution plan of the senior management of the Company shall be submitted to the Board for approval.

During the Reporting Period, the Remuneration and Appraisal Committee convened 2 meetings in total and all were held via communication. Three issues were studied and discussed at the meetings, which involved the adjustment on the remuneration of Independent Directors, the remuneration plan of Directors and Supervisors of the Company for the year 2021, the remuneration plan of the senior management for the year 2021 and the distribution plans of monthly salary for the year 2022 and other issues.

CORPORATE GOVERNANCE

5. *The Sustainable Development Committee*

Pursuant to the requirements of the Articles of Association, the Rules of Procedures for Board Meetings and the Work Rules for the Sustainable Development Committee, the Sustainable Development Committee is accountable to the Board and is mainly responsible for studying major decisions related to the Company's sustainable development (including environmental, social and governance) and making recommendations to the Board; overseeing the implementation and progress of the Company's sustainable development strategies and plans; overseeing the Company's commitment and performance in addressing key issues such as climate change, health and safety and social responsibility performance and making recommendations to the Board; following important information on sustainable development issues related to the Company's business, studying issues related to the Company's sustainable development and making recommendations to the Board; reviewing the Company's Environmental, Social and Governance Report (ESG Report) or Social Responsibility Report and making recommendations to the Board; other terms of reference exercisable by the Sustainable Development Committee as may be prescribed or recommended by the listing rules of the place where the Company's Shares are listed (including but not limited to the terms of reference set out in the Environmental, Social and Governance Reporting Guidelines in Appendix 27 of the Hong Kong Listing Rules); and other duties authorized by the Board.

During the Reporting Period, the Sustainable Development Committee convened 2 meetings via teleconference, and all 3 committee members attended the meeting. Four issues were discussed at the meeting, namely, among others, MCC 2021 Annual Social Responsibility Report and ESG (Environmental, Social and Governance) Report, revising the "Work Rules of the Sustainable Development Committee" and receiving the reports on compliance, safety, quality and environmental protection of the Company.

(III) Meetings of Special Committees

1. *The Strategy Committee held 3 meetings during the Reporting Period*

Convening date	Meeting content	Important comments and suggestions
28 February 2022	The first meeting of the Strategy Committee of the Third Session of the Board in 2022 considered the "Resolution on the Establishments and Adjustment of Functions of Some authorities of the Head Office".	The meeting agreed on such matter and submitted it to the Board for consideration.
25 March 2022	The second meeting of the Strategy Committee of the Third Session of the Board in 2022 considered the "Resolution on the Integration and Disposal of MCC Pipeline Corridor", the "Resolution on the Implementation of Integration of MCC Communication and MCC Rail Transit", the "Resolution on the Integration and Disposal of MCC Hainan", and the "Resolution on the Dissolution of Four Subsidiaries of MCC".	The meeting agreed on the four resolutions and submitted them to the Board for consideration.

CORPORATE GOVERNANCE

Convening date	Meeting content	Important comments and suggestions
26 August 2022	The third meeting of the Strategy Committee of the Third Session of the Board in 2022 considered the "Resolution on the Adjustment of Business Positioning of MCC Headquarters".	The meeting agreed on such matter and submitted it to the Board for consideration.

2. The Finance and Audit Committee held 10 meetings during the Reporting Period

Convening date	Meeting content	Important comments and suggestions
26 January 2022	The first meeting of the Finance and Audit Committee of the Third Session of the Board in 2022 heard the Report on the Budget of MCC for the Year 2022.	The meeting was of the opinion that the Company's 2022 budget adhered to the principle of seeking progress in a stable manner and was prepared in a comprehensive, scientific and reasonable way, in line with the Company's strategic requirements and operating conditions, and agreed to report the 2022 budget proposal to the Board.
25 March 2022	The second meeting of the Finance and Audit Committee of the Third Session of the Board in 2022 and the communication meeting between independent Directors and auditors received of the summary report of WUYIGE Certified Public Accountants LLP on the audit work of MCC's 2021 annual report, considered 19 resolutions, including the "Resolution on MCC's 2021 Annual Report", the "Resolution on the Report of MCC on Final Accounts for the Year 2021".	The meeting agreed on the above resolutions and submitted them to the Board for consideration. It was considered in the meeting that the preparation of the Company's annual report and final accounts report for the year 2021 was in compliance with the relevant requirements of the regulatory authorities and the Listing Rules, and was in line with the Company's operating reality. The meeting expressed full recognition of the Company's operation work in 2021 and made comments and suggestions on strengthening the management of cash flow and investment projects, paying attention to changes in the international situation, and enhancing the daily management and supervision of connected transactions.
24 April 2022	The third meeting of the Finance and Audit Committee of the Third Session of the Board in 2022 received the report on the regulatory penalties imposed on Cai Jinliang, a certified public accountant of WUYIGE Certified Public Accountants LLP, and fully discussed and seriously studied the appointment of accountant for the year 2022 again in combination with the laws and regulations, regulatory requirements and the opinions of lawyers.	The meeting recommended to cease to appoint WUYIGE Certified Public Accountants LLP for the 2022 annual audit and launch open tender process for the external auditor immediately to complete the selection and appointment process within the prescribed time frame of the exchanges.
28 April 2022	The fourth meeting of the Finance and Audit Committee of the Third Session of the Board in 2022 considered the "Resolution on the First Quarterly Report of MCC in 2022" and received the "Report on the Progress of the Selection and Appointment of the Auditor" and the "Report on the Update of the List of Connected Persons of MCC".	The meeting agreed on the above resolution and report and submitted them to the Board for consideration. The meeting expressed its recognition of the Company's operation in the first quarter, and at the same time put forward opinions and suggestions on improving the gross profit margin of real estate and manufacturing business, strengthening the control of off-balance sheet assets, enhancing cash flow management and standardizing the management of connected transactions.

CORPORATE GOVERNANCE

Convening date	Meeting content	Important comments and suggestions
2 June 2022	The fifth meeting of the Finance and Audit Committee of the Third Session of the Board in 2022 received the "Report on the Tender of the Auditors for the Financial Report of MCC for 2022-2025".	The meeting accepted the opinion of the tender evaluation committee and agreed to recommend Ernst & Young to the Board as the auditor of MCC's financial reports for the year 2022-2025 after the completion of the procedures related to the tender announcement.
9 June 2022	The sixth meeting of the Finance and Audit Committee of the Third Session of the Board in 2022 considered the "Resolution on the Appointment of the Lead Auditor and Internal Control Auditor for the 2022 Annual Financial Report of MCC".	The meeting agreed on the appointment of Ernst & Young Hua Ming as the lead auditor for the 2022 annual financial report and the review of the interim financial report of MCC, and the participating audit firms for the 2022 annual financial report remained to be Grant Thornton LLP and Shu Lun Pan. The meeting agreed to appoint Ernst & Young Hua Ming as the internal control auditor of MCC. The meeting agreed to submit such resolution to the Board for consideration.
20 July 2022	The seventh meeting of the Finance and Audit Committee of the Third Session of the Board in 2022 received the "Ernst & Young Hua Ming's Report on the Interim Review Plan of MCC for 2022" and considered the "Resolution on the Determination of Specific Remuneration of Auditors of MCC's Financial Report for 2022 and the Signing of Business Agreement".	The meeting agreed in principle on Ernst & Young Hua Ming's interim review work plan for 2022 and requested Ernst & Young Hua Ming to increase its human resources allocation to ensure the audit quality and accelerate its familiarization with the Company's business. The meeting agreed to the remuneration arrangements for the lead auditor Ernst & Young Hua Ming and the participating audit firms Grant Thornton LLP and Shu Lun Pan, and agreed to submit such resolution to the Board for consideration.
26 August 2022	The eighth meeting of the Finance and Audit Committee of the Third Session of the Board in 2022 and the communication meeting between the independent Directors and the auditors received the report of Ernst & Young Hua Ming on the review of the interim report of MCC in 2022, and considered four resolutions including "Resolution on the Interim Report of MCC in 2022" and "Resolution on the Financial Report of MCC in the First Half of 2022".	The meeting agreed on the above resolution and report, and submitted them to the Board for consideration. The meeting fully recognized the operating results achieved by the Company in the first half of the year. In order to achieve the annual target, the meeting put forward opinions and suggestions on strengthening project control, improving cash flow and categorizing and managing subsidiaries.

CORPORATE GOVERNANCE

Convening date	Meeting content	Important comments and suggestions
26 October 2022	The ninth meeting of the Finance and Audit Committee of the Third Session of the Board in 2022 received a report on the "2022 Annual Internal Control and Risk Management Inspection", and considered the "Resolution on the Third Quarterly Report of MCC in 2022", "Resolution on the Profit Distribution Plan of MCC Subsidiaries in 2021" and "Resolution on the Application for Adjustment of the Annual Cap of Metallurgical and Management Services - Expense Category Routine Connected Transactions/ Continuing Connected Transactions of MCC in 2022-2023".	The meeting agreed to the above resolution and the report and submitted it to the Board for consideration. The meeting fully recognized the achievements of the Company in the first three quarters of the year and put forward opinions and suggestions on the management of operating cash flow, real estate operation, refinement of project management and strengthening communication with investors.
16 November 2022	The tenth meeting of the Third Session of the Finance and Audit Committee of MCC in 2022 received the Report of Ernst & Young Hua Ming on the Audit Plan of the Annual Report of MCC in 2022.	The meeting proposed that Ernst & Young Hua Ming should strictly follow the work plan and orderly carry out the annual report audit work, help the Company identify problems, and make recommendations. Starting from the first quarter of next year, the quarterly reports would be subject to agreed procedures by the auditors.

3. The Nomination Committee held 1 meeting during the Reporting Period

Convening date	Meeting content	Important comments and suggestions
16 December 2022	The first meeting of the Nomination Committee of the Third Session of the Board in 2022 considered the "Resolution on the Appointment of the secretary of the Board/joint company secretary of MCC".	The meeting agreed that the Board appointed Mr. Wang Zhen as the secretary of the Board/joint company secretary and agreed to submit such resolution to the Board for consideration.

4. The Remuneration and Appraisal Committee held 2 meetings during the Reporting Period

Convening date	Meeting content	Important comments and suggestions
25 March 2022	The first meeting of the Remuneration and Appraisal Committee of the Third Session of the Board in 2022 considered the "Resolution on the Remuneration of Directors and Supervisors of MCC for the Year 2021".	The meeting received the report on the remuneration of Directors and Supervisors of MCC for the year 2021, agreed on the remuneration package for Directors and Supervisors for the year 2021, and submitted such package to the Board for consideration.
16 December 2022	The second meeting of the Remuneration and Appraisal Committee of the Third Session of the Board in 2022 considered the "Resolution on the Proposed Remuneration Plan in 2021 and the Proposed Monthly Remuneration Plan in 2022 for Senior Management of MCC".	The meeting agreed on the above resolution and submitted it to the Board for consideration.

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5. *The Sustainable Development Committee held 2 meetings during the Reporting Period*

Convening date	Meeting content	Important comments and suggestions
25 March 2022	The first meeting of the Sustainable Development Committee of the Third Session of the Board in 2022 considered the resolution on the "MCC 2021 Annual Social Responsibility Report and ESG (Environmental, Social and Governance) Report".	The meeting agreed on the contents of the report and submitted them to the Board for consideration.
19 July 2022	The second meeting of the Sustainable Development Committee of the Third Session of the Board in 2022 considered the "Resolution on the Amendment to Working Rules of the Sustainable Development Committee of the Board", and received the "Report on the Compliance Work of the Company in the First Half of 2022" and the "Report on the Safety, Quality and Environmental Protection Work of the Company in the First Half of 2022".	The meeting agreed on the content of the resolutions and submitted them to the Board for consideration. The meeting confirmed that, in order to keep track of the development of the Company's compliance work, the Sustainable Development Committee would receive reports on compliance, safety, quality and environmental protection work once every six months.

(IV) Explanations on Objections

Applicable Not applicable

XI. EXPLANATION OF THE RISKS OF THE COMPANY IDENTIFIED BY THE SUPERVISORY COMMITTEE

During the Reporting Period, the Supervisory Committee convened 4 meetings in total, details of which are as follows:

On 29 March 2022, the 15th meeting of the third session of the Supervisory Committee was convened by way of on-site meeting, at which the committee considered the Resolution on the Annual Report of MCC for the Year 2021, the Resolution on the Report of MCC on Final Accounts for the Year 2021, the Resolution on MCC's Provision for Impairment of Assets for the Year 2021, the Resolution on Profit Distribution of MCC for the Year 2021, the Resolution on Profit Distribution of MCC Finance Corporation Ltd., the Resolution on Special Report on Fund Appropriation by the Controlling Shareholder of MCC and Other Related Parties for the Year 2021, the Resolution on the 2021 Work Report of the Supervisory Committee of Metallurgical Corporation of China Ltd., the Resolution on the Social Responsibility Report of MCC for the Year 2021, the Resolution on the Internal Control Assessment Report of MCC for the Year 2021, the Proposal for Special Report on Funds Raised from A Share Offering and Brief for Special Report on Proceeds Raised from H Share Offering, the Proposal in Relation to Temporary Use of Idle Funds Raised from IPO of A Shares as Supplementary Working Capital, the Proposal in Relation to Temporary Use of Idle Funds Raised from IPO of H Shares as Supplementary Working Capital, and the Proposal in Relation to Use of Surplus Proceeds from Private Placement of A Shares as Permanent Supplement of Working Capital.

On 29 April 2022, the 16th meeting of the third session of the Supervisory Committee was convened by way of communications, at which the committee considered and approved the Resolution on the First Quarterly Report of MCC for the Year 2022 and reviewed the Report on Update of the List of Related Parties of MCC.

CORPORATE GOVERNANCE

On 29 August 2022, the 17th meeting of the third session of the Supervisory Committee was convened by way of on-site meeting, at which the committee considered and approved the Resolution on the Interim Report of MCC for the Year 2022 and the Resolution on the Interim Financial Report of MCC for the Year 2022, and reviewed the Special Report on Funds Raised from A Share Offering and Brief for Special Report on Proceeds Raised from H Share Offering.

On 27 October 2022, the 18th meeting of the third session of the Supervisory Committee was convened by way of on-site meeting, at which the committee considered and approved the Resolution on the Third Quarterly Report of MCC for the Year 2022.

During the Reporting Period, the Supervisory Committee did not identify any risks in the Company and had no objection to the supervision items during the Reporting Period.

XII. MANAGEMENT CONTRACTS

Apart from the service contracts of management personnel of the Company, the Company has not entered into any contract with any individual, company or body corporate to manage or handle the whole department or any material part of the Company's business.

XIII. DIRECTORS' AND SUPERVISORS' INTERESTS IN CONTRACTS

During the Reporting Period and as at the end of the Reporting Period, none of the Directors or Supervisors, unless disclosed in the relevant announcements, directly or indirectly had a material interest in any transaction, arrangement and contract of significance to the Company that was entered into by the Company, its subsidiaries or subsidiaries of its holding company.

XIV. DIRECTORS' INTERESTS IN BUSINESS COMPETING WITH THE COMPANY

During the Reporting Period and as of the latest practicable date before the publication of this report (being 29 March 2023), none of the Directors had any interests in any business that competes or is likely to compete, either directly or indirectly, with the business of the Company.

XV. DIRECTORS' AND SUPERVISORS' SERVICE CONTRACTS

None of the Directors and Supervisors of the Company had entered into a service contract with the Company or any of its subsidiaries that is not determinable within one year without payment of compensation (other than statutory compensation).

XVI. DIRECTORS' AND SUPERVISORS' RIGHTS REGARDING SHARE ACQUISITION

During the Reporting Period and as at the end of the Reporting Period, there is no arrangement in which the Company or its subsidiaries or holding companies or the subsidiaries of the holding companies act as a party, and which enables any Directors or Supervisors of the Company or any of their spouses or offspring under the age of eighteen to obtain benefits by means of the acquisition of shares, or debentures of, the Company or any other corporate entity.

CORPORATE GOVERNANCE

XVII. EMPLOYEES OF THE PARENT COMPANY AND PRINCIPAL SUBSIDIARIES AT THE END OF THE REPORTING PERIOD

(I) Employees

Number of existing staff of the parent company	264
Number of existing staff of principal subsidiaries	98,121
Total number of existing staff	98,385
Number of resigned or retired staff to whom the parent company and principal subsidiaries are liable	122,577

Composition of professions

Type of profession	Number of professionals
Engineering contracting	87,615
Real estate development and others	4,058
Equipment manufacture	5,673
Resources development	1,039
Total	98,385

Educational Level

Category of Educational Level	Number (in person)
Above postgraduate	14,274
Undergraduate	54,557
College degree	13,693
Below college degree	15,861
Total	98,385

(II) Remuneration policies

The Company implements a market-oriented and performance-based remuneration system. In accordance with applicable regulations, the Company establishes basic pension insurance, basic medical insurance, unemployment insurance, maternity insurance, work-related injury insurance and housing provident fund for employees. In accordance with applicable laws and regulations, the above social insurance and housing provident fund are paid in strict accordance with national, provincial and municipal regulations. The Company has also established enterprise annuities for employees in accordance with applicable regulations and with the approval of higher authorities.

CORPORATE GOVERNANCE

(III) Training programs

In 2022, according to the hierarchical management model, the Company implemented extensive education and training programs for cadres and employees, with 87,000 participants throughout the year. The political ability of management talents, professional and technical talents and skilled talents at all levels was further strengthened, and their professional competence and practical skills were consistently improved, laying a strong foundation for the Company's production, operation and reform and development.

(IV) Outsourcing of labour service

Annual average number of migrant workers (<i>in person</i>)	608,679
Total salaries of migrant workers (<i>RMB 0'000</i>)	5,341,037

XVIII. PROPOSAL FOR PROFIT DISTRIBUTION OR TRANSFER OF CAPITAL RESERVE TO SHARE CAPITAL

(I) Formulation, implementation or adjustment of cash dividend distribution policy

1. 2022 profit distribution proposal

The net profit attributable to Shareholders of the Company in the audited consolidated statement of MCC in 2022 amounted to RMB 10,272,357 thousand and the undistributed profit of MCC headquarters amounted to RMB 5,742,045 thousand. Based on the total share capital of 20,723,619,170 shares, the Company proposed to distribute a cash dividend of RMB 0.83 (tax inclusive) for every 10 shares and the total cash dividend is RMB 1,720,060 thousand, the remaining undistributed profit of RMB 4,021,985 thousand will be used for the operation and development of the Company and rolled over to the coming year for distribution. The total cash dividend proposed by the plan accounts for 16.74% of the net profit attributable to the Shareholders of the Company in the consolidated statement of MCC in 2022.

2. Explanation on 2022 profit distribution proposal and opinions of independent Directors

- (1) The reason for the total proposed cash dividend to be distributed being less than 30% of the net profit attributable to the Shareholders of the listed company in the consolidated statements

The profit distribution proposal has complied with the requirements of the relevant laws and regulations, and Articles of Association, and is in line with the industry characteristics, development stage and business model of the Company. The construction industry where the company is located is a fully competitive industry with intense market competition, and the Company needs to accumulate appropriate retained earnings to support its high-quality development and enhance the overall value of the Company, which is also in line with the fundamental interests of the shareholders.

In recent years, the annual cash dividend amount of MCC has continued to increase, with the dividend amount in 2022 increasing by more than 6% compared to 2021, reflecting the steady and sustainable dividend distribution ability of MCC as well as its attitude towards safeguarding shareholders' rights and interests and sharing the results of corporate operations with shareholders.

CORPORATE GOVERNANCE

(2) Exact use of the undistributed profits retained and expected earnings

Faced with the current economic situation, the Company, with a focus on high-quality development and targeting world leading enterprises, seizes opportunities to accelerate development, and continues to promote strategic transformation to seek new points of growth in efficiency, and continuously enhances its ability to withstand risks for making new progress in high-quality development. The retained earnings will be used for the strategic development and daily turnover of the Company. The retained earnings accumulated by the Company belong to all investors, and the Company will arrange the capital reasonably according to its business development needs to continuously improve the overall profitability and level of the Company and create more returns for shareholders.

3) Opinions of the independent Directors

The Company's 2022 profit distribution proposal complies with the provisions of the relevant laws, regulations and the Articles of Association, reflects the rationality and moderate growth of the profit distribution, and also takes into the account the reasonable returns to investors and the sustainable development of the Company, fulfilling the long-term interests of investors and the needs of the Company's development. The interests of minority Shareholders are not impaired. We agree to the Resolution regarding MCC's 2022 Profit Distribution 《關於中國中冶2022年度利潤分配的議案》 and agree to submit the same to the 2022 annual general meeting for consideration and approval._

(II) Special explanation of cash dividend distribution policy

Whether to comply with the provisions of the Articles of Association or the requirements of the resolutions of general meetings Yes No

Whether the standard and proportion of dividends are explicit and clear Yes No

Whether relevant decision making procedures and mechanisms are adequate Yes No

Whether the independent Directors have performed their duties and played their due roles Yes No

Whether small and medium shareholders have the opportunity to fully express their opinions and appeals, and whether their legal rights and interests have been fully protected Yes No

(III) If no cash dividend distribution plans were proposed while the Company was profitable and there were profits of the parent company distributable to Shareholders during the Reporting Period, the Company shall disclose in detail the causes thereof as well as purpose and use plan of the undistributed profit

Applicable Not applicable

CORPORATE GOVERNANCE

(IV) Profit Distribution or Transfer of Capital Reserve to Share Capital during the Reporting Period

Unit: RMB '000

Number of bonus shares to be distributed for every ten shares (<i>share</i>)	0
Amount to be distributed for every ten shares (<i>RMB</i>) (<i>tax inclusive</i>)	0.83
Number of shares to be converted into share capital for every ten shares (<i>share</i>)	0
Cash dividend amounts (<i>tax inclusive</i>)	1,720,060
Net profit attributable to the ordinary Shareholders of the listed company in consolidated statements	10,272,357
% of net profit attributable to the ordinary Shareholders of the listed company in consolidated statements	16.74%
Cash offer to repurchase shares into cash dividends	0
Total amount of dividends (<i>tax inclusive</i>)	1,720,060
% of total amount of dividends attributable to the ordinary Shareholders of the listed company in consolidated statements	16.74%

XIX. EQUITY INCENTIVE PLAN, EMPLOYEE STOCK OWNERSHIP PLAN OR OTHER EMPLOYEE INCENTIVE MEASURES OF THE COMPANY AND THEIR IMPACT

(I) Relevant equity incentive events disclosed in interim announcements without further development or change in subsequent implementation

Applicable Not applicable

(II) Incentive events not disclosed in interim announcements or with subsequent progress

Equity incentives

Applicable Not applicable

Other descriptions

Applicable Not applicable

Employee stock ownership plan

Applicable Not applicable

CORPORATE GOVERNANCE

Other incentive measures

During the Reporting Period, CISDI Group Chongqing Information and Technology Co., Ltd. (a subsidiary of the Company) continued to promote employee shareholding-related work in accordance with the laws and regulations. WISDRI Engineering & Research Incorporation Limited continued carrying out the dividend sharing work for positions in science and technology enterprises during the Reporting Period.

The Company will conscientiously learn to comprehend the “1 + N” series of documents for the reform of state-owned enterprises and the Guidelines on Implementation of Equity Incentives for Listed Companies of Central Enterprises (中央企業控股上市公司實施股權激勵工作指引) in accordance with the overall deployment and guidance requirements of the SASAC. The Incentive Scheme is still in the formulation stage, and the specific content and schedule of the Scheme are yet to be finalized. After the relevant proposals are finalized, the SASAC and the higher authorities of the State Council are required to approve the implementation. The Company will timely fulfill its information disclosure obligations according to the progress of its work.

(III) Equity incentives granted to Directors and Senior Management during the Reporting Period

Applicable Not applicable

(IV) APPRAISAL MECHANISM FOR SENIOR MANAGEMENT AND ESTABLISHMENT AND IMPLEMENTATION OF INCENTIVE MECHANISM DURING THE REPORTING PERIOD

The appraisal of senior management of the Company is mainly carried out by taking into account the Company’s operating results, personal capabilities, work performance and service attitude. The Board completes the appraisal of operating performance of senior management based on annual operating results. Meanwhile, the remunerations of senior management are determined pursuant to the appraisal results.

XX. MODEL CODE FOR SECURITIES TRANSACTIONS BY DIRECTORS AND SUPERVISORS

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers as the codes governing the dealings in the Company’s securities by the Directors and Supervisors. Having made specific enquiries with all the Directors and Supervisors, all the Directors and Supervisors of the Company confirmed that they and their respective associates had fully complied with the required standards provided by the above code during the Reporting Period.

XXI. AUDITING INSTITUTION AND ITS REMUNERATION

The Company appointed Ernst & Young Hua Ming LLP (Special General Partnership) (“Ernst & Young Hua Ming”) as its annual auditors. In addition to the annual financial audit, Ernst & Young Hua Ming also provided the Company with internal control audit services in relation to financial reports and provided part of its domestic subsidiaries with statutory financial audit services.

For details of the remuneration of independent auditors for the year 2022, please refer to “VI. Appointment and Dismissal of Accounting Firm” on page 138 of this report.

CORPORATE GOVERNANCE

XXII. INFORMATION DISCLOSURE AND INVESTOR RELATIONS

During the Reporting Period, the Company has attached great importance to information disclosure, strictly complied with the regulations and requirements of the listing rules of the place where its shares are listed, and conscientiously fulfilled its information disclosure obligations and disclosed its company information in a truthful, accurate, complete, timely and fair manner. Meanwhile, the Company continued to improve the quality of its information disclosure work and, in accordance with the principle of combining statutory disclosure with voluntary disclosure, fully delivered the Company's operation information from various angles in a way to pursue clarity and understandability, ensuring the specificity and effectiveness of information disclosure. During the Reporting Period, the Company disclosed a total of 302 announcements in both English and Chinese, including 112 announcements on the Shanghai Stock Exchange, 109 announcements in Chinese and 81 announcements in English on the Hong Kong Stock Exchange, covering matters such as periodic reports, related transactions, external investments and external guarantees. The Company was rated Class A (the top class) Listed Company for SSE Information Disclosure for the sixth consecutive year.

The Company always closely follows the strategic goals to explore performance highlights and investment value, and actively communicates with and responds to the capital market. During the Reporting Period, the Company organised roadshows, participated in various brokerage strategy meetings, convened telephone communication meetings and received visiting institutional investors for a total of more than 70 times, and communicated directly with more than 300 institutional investors and more than 100 small and medium investors. In 2022, on the basis of regular performance announcement and daily communication, the Company held three periodic results presentations and performance roadshows for annual, interim and third quarterly reports, which were conducted through multi-media platforms such as video conferences, teleconferences and the SSE Roadshow Center, covering both online and offline, and made extensive exchanges with hundreds of domestic and foreign institutions and nearly 500 investors, analysts and financial media outlets, through which the Company made a detailed introduction of the "anti-epidemic, stable growth", performance highlights, business development and technological innovation, had an in-depth communication with investors about the outlook of metallurgical construction, double carbon strategy development, growth stabilization measures and resource development business, looked forward to its development trend, and demonstrated its excellent performance and operation highlights to the capital market.

XXIII. RIGHTS OF SHAREHOLDERS

To safeguard the statutory rights of Shareholders, Article 66 of the Articles of Association of the Company prescribes that the Shareholders holding more than 10% of the Company's Shares either independently or collectively may request an extraordinary general meeting in writing. Article 76 of the Articles of Association of the Company prescribes that, when a general meeting is convened, the Shareholders holding more than 3% of the Company's shares, either independently or collectively, are entitled to table a proposal to the Company in writing, and the Company shall include in the agenda those matters which are within the scope of duties of the general meeting. Shareholders holding more than 3% of the Company's shares, either independently or collectively, may submit a temporary proposal to the convener in writing 15 working days prior to the convening of the general meeting. The Company set an exclusive session for communication with Shareholders at general meeting, during which Shareholders can raise their concerns and suggestions. Shareholders can also lodge their enquiries and suggestions through investor relations hotline (+86-10-5986-8666), or by fax (+86-10-5986-8999) or email (ir@mccchina.com).

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The Board provides guidance on the investor relations management, continuously communicates with Shareholders and investment institutions and regularly checks the effectiveness of investor relations. The Company carries out investor relations management through multiple platforms and channels, and communicates with investors through various means, such as the channels including the Company's official website, new media platforms, telephone, fax and e-mail, the third-party network infrastructure platforms including www.investor.org.cn, and the Stock Exchange Roadshow Center, special investor events including general meetings, investor presentations, roadshows, reverse roadshows, analyst presentations, reception and research activities, and attending strategy meetings and forums organized by brokerages, investment institutions, financial media and other social organizations.

In compliance with the Information Disclosure Rules, the Company makes sufficient communication and consultation with investors through various means when formulating major proposals involving Shareholders' rights and interests. The time, place and manner of the general meeting of the Company facilitate the participation of Shareholders, especially the small and medium-sized Shareholders, and provide the necessary time for investors to speak, raise questions and communicate with the Directors, Supervisors and senior management of the Company. The Company consults widely before the general meeting and collects issues of concern to investors in advance, and provides the means of online voting for the general meetings. The Company adjusts and reviews the rules and procedures of the general meeting regularly in accordance with the regulatory rules to ensure that they meet the needs of Shareholders.

The Board has reviewed the implementation and effectiveness of the Shareholders' communication policy during the Reporting Period and considered it to be effective.

XXIV. COMPANY SECRETARIES

Mr. Wang Zhen is the current secretary to the Board. Mr. Wang Zhen and Ms. Ng Sau Mei are the current joint company secretaries of the Company and the main internal contact persons of the Company.

For biographical details of Mr. Wang Zhen, please refer to page 85 of this report.

The biographical details of Ms. Ng Sau Mei are set as below:

Ms. Ng Sau Mei is a director and head of the listing services department of TMF Hong Kong Limited, with over 20 years of professional and in-house working experience in the company secretarial field. Ms. Ng Sau Mei is a fellow member of The Hong Kong Chartered Governance Institute (formerly known as "The Hong Kong Institute of Chartered Secretaries") and The Chartered Governance Institute (formerly known as "The Institute of Chartered Secretaries and Administrators") in United Kingdom.

For the purpose of complying with Rule 3.29 of the HKEx Listing Rules, the company secretaries attended relevant professional training for the year for not less than 15 hours during the year ended 31 December 2022.

CORPORATE GOVERNANCE

XXV. THE ESTABLISHMENT AND IMPLEMENTATION OF INTERNAL CONTROL SYSTEM DURING THE REPORTING PERIOD (SELF-EVALUATION REPORT OF INTERNAL CONTROL)

In accordance with the regulatory requirements for listed companies and taking into account the internal control evaluation work, the Company has prepared the “MCC 2022 Internal Control Evaluation Report”, the full text of which is published on the websites of the SSE (<http://www.sse.com.cn>), the Hong Kong Stock Exchange (<http://www.hkexnews.hk>) and the Company’s website (<http://www.mccchina.com>).

There was no significant defect of internal control in the financial report on the base date of Internal Control Evaluation Report. The evaluation conclusion of internal control of the financial report is valid. The Board of Directors is of the view that the Company has maintained effective internal control in the financial report in all material respects in accordance with the requirements of the enterprise internal control system and relevant regulations. No significant defect of internal control has been discovered in the non-financial report by the Company on the base date of Internal Control Evaluation Report. From the base date of Internal Control Evaluation Report to the issuance date of the Internal Control Evaluation Report, there is no factor incurred affecting the evaluation conclusion of internal control effectiveness.

In terms of the construction and implementation of the internal control system, the Company currently has more than 400 rules and regulations, which are divided into three levels including a fundamental management system, specific regulations/administrative measures and implementation guidelines pursuant to the established main body, levels involved and the scope of limitations. The effectiveness of the regulations and systems is evaluated annually and the list of establishment, amendment and abolishment of rules and regulations would be arranged pursuant to the evaluation results and according to the regulatory requirements and development needs of the Company to formulate the annual development plan of the system. Meanwhile, comparing the logical relationship between the requirements in the framework of internal control and the system of the Company, the regulations and systems of the Company are divided according to business categories in order to program and standardize the management of the regulations and systems of the Company, thus safeguarding the compliance operation and strategic development of the Company.

In terms of the procedures used to identify, assess and manage significant risks, the Company regularly conducts identification, evaluation and corresponding actions for risks. The Company seriously analyzes its situation within the industry on the basis of the study and judgement of the general domestic and international macro-economic situation annually and conducts relevant risk management actions by phases according to the strategic objectives and control requirements. Risk identification stage: pursuant to the requirements of the Guideline on Comprehensive Risk Management for State Enterprises (《中央企業全面風險管理指引》), the Company organized all departments and subsidiaries to collect relevant information on risks systematically on an on-going basis. In accordance with the risk categorization framework of the SASAC and the normative requirements of internal guidance on risk management, the Company conducted risk identification and reorganization procedures to identify internal and external risks affecting operating targets, analyzed the cause of risks and possible impacts case by case, and specified the departments-in-charge. Risk evaluation stage: pursuant to the actual situation of risk management, quantitative assessments and qualitative assessments, the Company classified risks into three levels based on the “importance and urgency of risk management”, namely highly important (red), close attention (yellow) and controllable risks (green). The Company organized each of the department-in-charge to evaluate the impact of different types of risks on the realization of the overall objectives of the Company and preliminarily determined the classification of risk management, with extra attention paid to material risks. Risk responding stage: the Company duly formulated risks responding measures in response to routine risks, which include: risk prevention, risk confrontation, risk mitigation and risk transformation. In terms of material risks, by preparing control measures to material risks, the Company had assigned respective departments-in-charge; effective and practicable risk management and control measures have been duly formulated upon thorough analysis on the source, cause, possible impact and corresponding strategies of material risks. Material risks tracking stage: by regularly carrying out the follow-up work of material risk changes and the implementation of response plans, the Company paid timely attention to the implementation and practicability of the solutions to material risks or contingency plans on crisis management, allocated resources accordingly, specified work procedures, assigned persons-in-charge and set deadline, so as to ensure the effective implementation of such solutions or plans.

CORPORATE GOVERNANCE

The main features of the risk management and internal control system are as follows: the Company implements a hierarchical classification of risks, standardizes the establishment of a risk management and internal control organization system. Based on the Guideline on Comprehensive Risk Management for State Enterprises (《中央企業全面風險管理指引》) published by the SASAC, the Company starts from the top-level design, follows the principle of “hierarchy and classification”, clarifies the boundaries of risk management responsibilities at each level, strengthens the main responsibilities of risk management, promotes internal control work, and unites the evaluation and supervision forces to form a risk management system that is “horizontal to the edge and vertical to the end”. The Company focuses on strengthening the top-level design of risk management, enhances the monitoring of major risks and special risks, and formulates annual guidance on comprehensive risk and internal control management at the beginning of each year to clarify annual work objectives, refine work requirements and implementation paths. Based on the business characteristics of the main business segment, the Company monitors the disposal progress of various special risks on a monthly basis, tracks the annual changes in major risks and the implementation of countermeasures on a quarterly basis, and evaluates the overall risks of the Company in conjunction with the control of major risks of its subsidiaries, and forms corresponding risk management reports to ensure that the risks are identifiable, controllable and tolerable. The Company strengthens the dynamic assessment of risks and carries out dynamic and special risk assessment in a timely manner according to the changes in the internal and external environment, and identifies and evaluates the impact of changes in the internal and external environment on the achievement of the Company’s business objectives in a timely manner and formulates targeted countermeasures. In order to effectively cope with the impact of the external environment, the Company promptly arranges relevant departments to carry out a dynamic assessment of special risks with comprehensive analysis, rapid evaluation, detailed measures, and clarification of responsibilities, and studies and formulates risk prevention and control plans and relevant risk contingency plans in advance. Meanwhile, the Company strengthens risk process monitoring, pays close attention to abnormal signs of risk related to its business, and activates emergency procedures promptly for unexpected signs of risk or events to ensure that risks are under control.

The Board assesses the effectiveness of the risk management and internal monitoring and control systems of the Company at least once a year, and comes to a complete inspection conclusion in the current year. The procedures of reviewing the effectiveness of risk management and internal control systems include: formulating the plan for evaluation of work, forming evaluation team, implementing on-site testing, identifying control defects, aggregating evaluation results and compiling evaluation reports, etc. The Company authorizes the audit department to be responsible for specific implementation of the evaluation of internal control. After a comprehensive analysis of internal control defects, the Company gives opinions, and makes a final confirmation in accordance with the scope of authority and procedures after review, and classifies the defects as significant defects, important defects and general defects based on the level of impact. The confirmation proposed will be presented to the Board and operation meeting in the form of written report, and the significant defects will be finally confirmed by the Board.

The procedures for making up severe deficiencies of the internal control system: for the identified significant defects and important defects, MCC will promptly adopt corresponding strategies to effectively control the risks within a bearable level and pursue the liabilities of the relevant department or personnel.

The Company performs information gathering, studying, preparation of announcements and disclosure approval procedures to ensure the compliance of information disclosure in accordance with the regulatory requirements and the Management System of Information Disclosure of MCC (《中國中冶信息披露管理制度》) and Measures for the Administration of Information Disclosure of MCC in the Stock Market (《中國中冶股票市場信息披露管理辦法》). Meanwhile, the Company has established the inside information insider registration system, requiring the inside information insider to truthfully and completely record the inside information at the stage of deliberation planning, demonstration consultation, contract conclusion, reporting, transmission, preparation, review, resolution, disclosure, etc. The confidentiality obligation shall be strictly fulfilled by the insiders.

The Company has established an internal audit function which analyzes and independently evaluates the adequacy and effectiveness of the risk management and internal monitoring and control systems of the Company and reports to the Board the results at least once a year. MCC has, in practice, started the supervision and evaluation as well as defect rectification inspection of internal control and risk management pursuant to the plan on evaluation of work and standard of evaluation in order to ensure the defects are rectified properly. Meanwhile, the subsidiaries are required to conduct half-year and annual self-evaluation and special evaluation work in order to provide the base for the issue of internal control evaluation report. The review period of risk management and internal control system covered is from 1 January 2022 to 31 December 2022.

CORPORATE GOVERNANCE

For the year ended 31 December 2022, the Board has inspected the effectiveness of the internal monitoring and control and risk management systems of the Company to ensure that the management maintained and managed a well-functioning system based on the control procedures and standards. The Board has confirmed that there was no significant defect of internal control in the financial report in 2022, and no significant defect of internal control has been discovered in the non-financial report. According to the inspection and assessment results of internal control of the Company, the risk management and internal monitoring and control of the Company is effective and is able to fulfill the internal control objectives.

The Board believes that the current risk management and internal monitoring and control systems are adequate and effective, in particular, with respect to financial reporting and compliance with the Listing Rules.

Explanation of material defects in internal control during the Reporting Period

Applicable Not applicable

No material defect has been discovered in the internal control of the Company during the Reporting Period.

XXVI. MANAGEMENT AND CONTROL OF SUBSIDIARIES DURING THE REPORTING PERIOD

The Company has set up secondary subsidiaries organizations in a standard manner to establish a centralized and efficient management and control mode, and required subsidiaries to form a headquarter with mutual restriction and efficient operation in accordance with the requirements of “closely connecting with superior functions, improving the establishment of the main platform of project management and control, and conforming to the development of main business”.

During the Reporting Period, the Company carried out professional consolidation work for its subsidiaries. It consolidated MCC Communications Construction Group Co., Ltd.* and MCC Rail Transit Co., Ltd., consolidated China MCC19 Group Co., Ltd. and MCC (Yunnan) Engineering Investment Construction Co., Ltd., and consolidated the Company’s internal inspection and testing business with China Metallurgical Testing and Certification Co., Ltd. as the main body, a subsidiary of Central Research Institute of Building and Construction Co., Ltd. MCC Group.

XXVII. RELEVANT EXPLANATIONS ON THE AUDIT REPORT OF INTERNAL CONTROL

The type of the internal control audit report disclosed is standard unqualified opinion. Ernst & Young Hua Ming LLP has issued the internal control audit report for the Company and is of the opinion that as at 31 December 2022, the Company maintained an effective internal control over its financial report in all material aspects pursuant to the Basic Standards for Enterprise Internal Control (《企業內部控制基本規範》) and relevant requirements. The full text of the “Internal Control Audit Report” is published on the websites of the SSE (<http://www.sse.com.cn>), the Hong Kong Stock Exchange (<http://www.hkexnews.hk>) and the Company (<http://www.mccchina.com>).

According to the audit report of internal control issued by Ernst & Young Hua Ming LLP, the Board has inspected the risk management and internal monitoring and control systems of the Company and its subsidiaries, and is of the view that they are still effective.

The internal control audit report issued by the accounting firm is consistent with the internal control evaluation report of the Company.

Whether the Company had disclosed its internal control audit report: Yes

Type of opinion of the audit report of internal control: Standard unqualified opinion

CORPORATE GOVERNANCE

XXVIII. RECTIFICATION OF SELF-INSPECTION PROBLEMS IN THE SPECIAL ACTION ON GOVERNANCE OF LISTED COMPANIES

In April 2021, the Company completed the filling and submission of the Special Self-Inspection List of Governance of Listed Companies on time in accordance with the requirements of the Announcement of Special Action on Governance of Listed Companies issued by CSRC, and carefully inspected its corporate governance against the list. Self-inspection shows that the corporate governance structure of the Company is perfect, and each governance mechanism is under normal operation except for two items that need to be rectified. As at the end of the Reporting Period, the rectification of self-inspection problems of the Company is as follows:

1. Independent Directors having served for a term of more than 6 consecutive years (rectification completed)

Mr. Yu Hailong and Mr. Ren Xudong who were Directors of the Company at that time had been serving as Independent Non-executive Directors of the Company since 13 November 2014, and their terms of office expired on 12 November 2020 with a term of six consecutive years. As the resignation of the two Directors upon the expiration of their term of office would result in the proportion of independent Directors of the Company being lower than the statutory minimum requirement, pursuant to relevant requirements such as the “Guiding Opinions on the Establishment of Independent Director System in Listed Companies” by CSRC and the “Filing and Training Guidelines of Independent Directors of Companies Listed on the Shanghai Stock Exchange”, the two Directors continued to serve as independent Directors and perform related duties in accordance with laws and regulations and the Articles of Association, until new independent Directors are elected at the general meeting. On 2 January 2021, Ren Xudong passed away due to illness. On 26 January 2022, Mr. Lang Jia was elected as the new non-executive Director, Mr. Liu Li was elected as the new independent Director, and Mr. Yu Hailong resigned from the independent Director and relevant duties of the Board of Directors at the same time at the first extraordinary general meeting of the Company of 2022. (For details, please refer to the relevant announcement issued by the Company on 26 January 2022.) So far, all independent Directors of the Company have met the relevant requirements of continuous service.

2. Senior management personnels of listed companies who are part-time staff in the Controlling Shareholder’s entities (partial completion of rectification)

Liu Fuming, Vice President of the Company, and Zeng Gang, then Secretary to the Board, take relevant positions in CMGC and China Minmetals respectively due to work requirements. On 16 December 2022, Mr. Zeng Gang resigned as the Secretary to the Board and the Board appointed Mr. Wang Zhen as the new Secretary to the Board. Subsequently the Company will continue its active communication with the Controlling Shareholder, and continue to take forward the rectification of the part-time employment of the senior management.

XXIX. CHANGES IN ARTICLES OF ASSOCIATION

On 20 July 2022, the fortieth meeting of the third session of the Board considered and passed the “Resolution on the Amendment to the Articles of Association and the Relevant Rules of Procedure of MCC”, and the Company proposed to make amendments to certain content of the Articles of Association of Metallurgical Corporation of China Ltd. pursuant to the provisions and regulatory requirements of the Administrative Measures for the Formulation of the Articles of Association of State-owned Enterprises (《國有企業公司章程制定管理辦法》) issued by SASAC, the Guidelines on Articles of Association of Central State-owned Enterprises (for Trial Implementation) (《中央企業公司章程指引(試行)》), the Opinions on Strengthening Party Leadership by Central Enterprises in Improving Corporate Governance (《關於中央企業在完善公司治理中加強黨的領導的意見》), the Sample List of Matters for the Communist Party Committee (Party Groups) of Central State-owned Enterprises for Discussion of Major Operation and Management Issues in Advance (for Trial Implementation) (《中央企業黨委(黨組)前置研究討論重大經營管理事項清單示範文本(試行)》), the Guidelines on Articles of Association of Listed Companies (《上市公司章程指引》) (revised in 2022) issued by CSRC, the Rules Governing Shareholders’ General Meetings of Listed Companies (《上市公司股東大會規則》) (revised in 2022) issued by CSRC and the Shanghai Stock Exchange Self-Regulatory Supervision Guidelines for Listed Companies No. 1 – Standardized Operation (《上海證券交易所上市公司自律監管指引第1號—規範運作》) and according to the actual operational and management needs of the Company (See the relevant announcement disclosed by the Company on 20 July 2022). The amended Articles of Association shall become effective upon submission to the general meeting of the Company for consideration and approval.

ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

I. INFORMATION ON ENVIRONMENTAL PROTECTION OF THE COMPANY

Whether an environmental protection-related mechanism is established	Yes
Funds invested in environmental protection during the Reporting Period (Unit: RMB 'billion)	1.377

(I) Environmental protection of the Company and its subsidiaries categorized as major sewage discharge enterprises as published by the environmental protection department

In accordance with the List of Enterprises under Special Supervision and Enterprises with Significant Waste Disposal in 2022 published by the state, provincial and municipal environmental protection departments, among all subsidiaries of MCC, 7 enterprises were included in the list of enterprises under special supervision of exhaust gas; 3 enterprises were included in the list of enterprises under special supervision of wastewater treatment plants; and 33 sewage treatment plants were included in the list of enterprises under special supervision of sewage treatment. During the Reporting Period, each environmental protection facility of all units under the List of Enterprises with Significant Waste Disposal operated normally, and the emission of key pollutants reached the emission standard without excessive emission, achieving the objective of total emission reduction. In 2022, MCC Ecological Environmental Protection Group Co., Ltd. ("MCC Ecological Environmental Protection"), a subsidiary of the Company, has processed a total of 568 million tonnes of sewage, achieving 113,700 tonnes of COD reduction and 13,800 tonnes of ammonia nitrogen reduction.

The Company has been adhering to the guidance of Xi Jinping's ecological civilization thought, continuing to actively put into practice the green development ideology that "Lucid Waters and Lush Mountains are Invaluable Assets", constantly promoting structural reform, transformation and upgrading. Regarding the concept of greenery development as a long-term goal, the Company formulated the "Administrative Measures for Energy Conservation and Ecological Environmental Protection of MCC" (《中國中冶能源節約與生態環境保護管理辦法》), the "Implementation Rules for Energy Conservation and Ecological Environmental Protection Responsibility System of MCC" (《中國中冶能源節約與生態環境保護責任制實施細則》), the "Implementation Rules for Energy Conservation and Environmental Protection Inspections of MCC" (《中國中冶節能環保檢查實施細則》), the "Implementation Rules for Energy Conservation and Ecological Environmental Protection Reports of MCC" (《中國中冶能源節約與生態環境保護報告實施細則》), the "Implementation Rules for Responsibility Investigation and Rewards and Penalties of Safety and Environmental Protection Accidents of MCC (for Trial Implementation)" (《中國中冶安全環保事故責任追究與獎罰實施細則(試行)》), the "Integrated Emergency Response Plan of Environmental Emergencies of MCC" (《中國中冶突發環境事件綜合應急預案》) and the "Green Construction Demonstration Atlas of MCC" (《中國中冶綠色施工示範圖集》) and other documents, which cover contents such as overall requirements of energy conservation and environmental protection management, supervision and inspection, responsibility of reporting, education and training, assessment, rewards and punishment, as well as integrated emergency response management of environmental emergencies. Such rules and regulations could satisfy the latest national requirements on energy conservation and environmental protection management, proactively advocate energy conservation and emission reduction of the Company, and promote green construction and related work, so as to fully accomplish the management objectives on energy conservation and environmental protection during the year. Having proactively devoted itself to environmental governance and environmental protection and advocated the concept of environmental protection for years, the Company strived to enhance the efficiency of energy utilization and establish a resource-conserving and environment-friendly enterprise.

ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

1. Information about pollution discharge

① 33 enterprises under special supervision of sewage treatment

No.	Company name	Discharge vent	Major pollutants and characteristic pollutants	Executive standard	Emission standard ^{note} (mg/L)	Actual emission (mg/L)	Total emission rate (10,000t/day)	Discharge flow
1	Chuzhou Water Corporation MCC (滁州市中治水務有限公司)	Main vent from Qingliu Sewage Treatment Plant WS-01904 (清流污水處理廠總排口WS-01904)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002)	50	20.75	15.61	Qingliu River (清流河)
			Ammoniacal nitrogen	Level I Standard A	5(8)	0.26		
2	Lai'an Huatian Water Corporation MCC (來安縣中冶華天水務有限公司)	Vent from Lai'an Huatian Water Corporation MCC Wastewater WS-06998 (來安縣中冶華天水務有限公司污水排放WS-06998)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002)	50	22.61	5.53	Lai River (來河)
			Ammoniacal nitrogen	Level I Standard A	5(8)	0.41		
3	MCC Qinhuangdao Water Co., Ltd. (中冶秦皇島水務有限公司)	Vent from Shanhaiguan Water Treatment Plant (山海關污水處理廠出水口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002)	50	16.12	3.18	Chao River (潮河)
			Ammoniacal nitrogen	Level I Standard A	5(8)	0.16		
4	Shouguang North Water Corporation MCC (壽光市城北中治水務有限公司)	Vent outside Shouguang North Water Corporation MCC WS-37078304 (壽光市城北中治水務有限公司外排口WS-37078304)	COD	The main indicators of effluent (COD _{Cr} , ammoniacal nitrogen, total phosphorus) were raised to the class IV standard of surface water, and that of the total nitrogen was raised to 12mg/L. Other indicators were in accordance with the Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	30	21.40	7.54	Zhangseng River (張僧河)
			Ammoniacal nitrogen		1.5	0.50		
5	Tianchang Huatian Water Corporation MCC (Tianchang Wastewater Treatment Plant) (天長市中冶華天水務有限公司(天長市污水處理廠))	Vent No. WS-009 (排放口編號為WS-009)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	40	20.00	6.22	Chuanqiao River (川橋河)
			Ammoniacal nitrogen		2(3)	0.33		
6	Qinlan Wastewater Treatment Plant of Tianchang Huatian Water Corporation MCC (天長市中冶華天水務有限公司(秦欄鎮污水處理廠))	Mixed inflow of sewage emission in Qinlan Town and Jiangwei County of Tianchang City (天長市秦欄鎮蔣圩混合入河排出口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	20.52	0.60	Qinlan River (秦欄河)
			Ammoniacal nitrogen		5(8)	0.22		
7	Yangcun Water Treatment Plant of Tianchang Huatian Water Corporation MCC (天長市中冶華天水務有限公司(楊村鎮污水處理廠))	Mixed inflow of sewage emission in Yangcun Wastewater Treatment Plant of Tianchang City (天長市楊村鎮污水處理廠混合入河排出口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	19.99	0.61	Yangcun River (楊村河)
			Ammoniacal nitrogen		5(8)	0.66		

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No.	Company name	Discharge vent	Major pollutants and characteristic pollutants	Executive standard	Emission standard ^{note} (mg/L)	Actual emission (mg/L)	Total emission rate (10,000t/day)	Discharge flow
8	Wastewater Treatment Plant of Tianchang Economic Development Zone of Tianchang Huatian Water Corporation MCC (天長市中冶華天水務有限公司(天長市經濟開發區污水處理廠))	Vent No. WS-04303 (排放口編號為WS-04303)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	22.74	2.04	New Chuangqiao River (新川橋河)
			Ammoniacal nitrogen		5(8)	0.53		
9	Tongcheng Water Treatment Plant of Tianchang Huatian Water Corporation MCC (天長市中冶華天水務有限公司(銅城鎮污水處理廠))	Vent No. WS-04305 (排放口編號為WS-04305)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	21.82	0.51	Tonglong River (銅龍河)
			Ammoniacal nitrogen		5(8)	0.31		
10	MCC Xinglong Water Co., Ltd. (興隆縣中冶水務有限公司)	Vent of disinfecting tank WS-001 (消毒池出口WS-001)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	18.27	2.37	Liu River (柳河)
			Ammoniacal nitrogen		5(8)	0.61		
11	MCC Dingyuan Water Co., Ltd. (定遠縣中冶水務有限公司)	Wastewater discharge vent WS-50004(廢水排放口WS-50004)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	15.40	5.00	Maqiao River (馬橋河)
			Ammoniacal nitrogen		5(8)	0.40		
12	Cha He Water Treatment Plant of Lai'an Huatian Water Corporation MCC (來安縣中冶華天水務有限公司(漢河污水處理廠))	Vent from Cha He Water Treatment Plant WS-06902 (漢河污水處理廠污水排放口WS-06902)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	20.62	2.03	Chu River (滁河)
			Ammoniacal nitrogen		5(8)	0.63		
13	Ma'anshan Water Corporation MCC (馬鞍山市中冶水務有限公司)	Ma'anshan Water Corporation MCC WS-090801 (馬鞍山市中冶水務有限公司WS-090801)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	8.20	1.81	Xiangcheng River (襄城河)
			Ammoniacal nitrogen		5(8)	0.19		
14	Huangshi Water Corporation MCC (黃石市中冶水務有限公司)	Vent from Huangshi Water Corporation MCC DW001 (黃石市中冶水務有限公司DW001)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	12.65	3.79	Ci-hu Lake (磁湖)
			Ammoniacal nitrogen		5(8)	0.58		
15	Shouguang MCC Huatian Water Co., Ltd. (壽光市中冶華天水務有限公司)	Vent from Shouguang MCC Huatian Water Co., Ltd. WS-37078309 (壽光市中冶華天水務有限公司排污水口WS-37078309)	COD	The main indicators of effluent (CODCr, ammoniacal nitrogen, total phosphorus) were raised to the class IV standard of surface water, and that of the total nitrogen was raised to 12mg/L. Other indicators were in accordance with the Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	30	28.20	12.04	Xiaoqing River (小清河)
			Ammoniacal nitrogen		1.5	0.11		

ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

No.	Company name	Discharge vent	Major pollutants and characteristic pollutants	Executive standard	Emission standard ^{note} (mg/L)	Actual emission (mg/L)	Total emission rate (10,000t/day)	Discharge flow
16	Qinhuangdao Funing District MCC Water Co., Ltd. (秦皇島市撫寧區中冶水務有限公司)	Vent from Qinhuangdao Funing District MCC Water Co., Ltd. Wastewater No.: DW001(秦皇島市撫寧區中冶水務有限公司排放口編號DW001)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	20.65	5.49	Discharged into artificial river
			Ammoniacal nitrogen		5(8)	0.14		
17	Fuzhou MCC Changle District Water Co., Ltd. (福州市長樂區中冶水務有限公司)	Vent from Fuzhou MCC Changle District Water Co., Ltd. WS26616 (福州市長樂區中冶水務有限公司排放口WS26616)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	25.82	5.38	Discharged into Minjiang River (閩江)
			Ammoniacal nitrogen		5(8)	0.24		
18	MCC Xuancheng Water Co., Ltd. (宣城市中冶水務有限公司)	Mixed inflow of sewage emission in Xuancheng Shuangqiao Sewage Treatment Plant No.: 341802022 (宣城市雙橋污水處理廠混合入河排污口編號: 341802022)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	16.93	1.43	Shuiyang River (水陽江)
			Ammoniacal nitrogen		5(8)	0.28		
19	Beijing Zhongshe Water Treatment Co., Ltd. (北京中設水處理有限公司)	Main vent (Phase II)(一期總排口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (Level 1 Standard A of current wastewater plant) DB11/890-2012	20	15.00	6.21	Ciwei River (刺渭河)
			Ammoniacal nitrogen		1.0(1.5)	0.32		
			Total phosphorus		0.2	0.14		
		Main vent (Phase III)(二期總排口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (Level 1 Standard A of current wastewater plant) DB11/890-2012	20	13.00	4.26	
			Ammoniacal nitrogen		1.0(1.5)	0.25		
			Total phosphorus		0.2	0.11		
20	Lanzhou Zhongtuo Water Corporation (蘭州中投水務有限公司)	Main vent (總排口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard B	50	18.50	21.95	Yellow River (黃河)
			Ammoniacal nitrogen		5(8)	0.36		
			Total phosphorus		0.5	0.12		
21	Xiaogan Zhongshe Water Co., Ltd. (孝感中設水務有限公司)	Main vent (總排口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	17.45	12.47	Gunzi River (滾子河)
			Ammoniacal nitrogen		5(8)	0.69		
			Total phosphorus		0.5	0.26		

ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

No.	Company name	Discharge vent	Major pollutants and characteristic pollutants	Executive standard	Emission standard ^{note} (mg/L)	Actual emission (mg/L)	Total emission rate (10,000t/day)	Discharge flow
22	Wenxian Zhongtuo Water Co., Ltd. (溫縣中投水務有限公司)	Main vent of the First Wastewater Treatment Plant (第一污水廠總排口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	14.55	2.85	Rongqiu River (榮鞏河)
			Ammoniacal nitrogen		5(8)	0.33		
			Total phosphorus		0.5	0.23		
		Main vent of the Second Wastewater Treatment Plant (第二污水廠總排口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	24.14	2.20	Xinmang River (新蟒河)
			Ammoniacal nitrogen		5(8)	0.40		
			Total phosphorus		0.5	0.19		
23	Changzhou Enfi Water Co., Ltd. (常州恩菲水務有限公司)	Main vent (總排口)	COD	Discharge Standard of Main Water Pollutants for Municipal Wastewater Treatment Plant & Key Industries of Taihu (DB32/1072-2018)	60	44.01	2.06	Cailing Port (採菱港)
			Ammoniacal nitrogen		5	0.35		
			Total phosphorus		0.5	0.11		
24	Wuzhi County Zhongshe Water Co., Ltd. (武陟縣中設水務有限公司)	Main vent (總排口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	38.89	1.37	Lao River in District 2 and 4 (二四區潞河)
			Ammoniacal nitrogen		5(8)	0.32		
			Total phosphorus		0.5	0.14		
25	Pingyuan Zhongshe Water Co., Ltd. (平原中設水務有限公司)	Main vent (總排口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	27.50	4.24	Ma Hong Trunk Sewers (馬洪幹渠)
			Ammoniacal nitrogen		5(8)	0.27		
			Total phosphorus		0.5	0.21		
26	Luanping Zhongshe Environmental Protection Co., Ltd. (濼平中設環保有限公司)	Main vent (總排口)	COD	Level II of Environmental Quality Standard for Surface Water (《地表水環境質量標準》) (GB3838-2002)	15	5.04	0.05	Huodoushan River (火門山河)
			Ammoniacal nitrogen		0.5	0.02		
			Total phosphorus		0.1	0.03		

ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

No.	Company name	Discharge vent	Major pollutants and characteristic pollutants	Executive standard	Emission standard ^{note} (mg/L)	Actual emission (mg/L)	Total emission rate (10,000t/day)	Discharge flow		
27	Zhuozhou Zhongshe Water Treatment Co., Ltd. (涿州中設水處理有限公司)	Main vent (總排口)	COD	Water Pollution Discharge Standard of Daqing River Basin (DB13/275/2018)	30	13.68	0.67	North Juma River South Branch (北拒馬河南支)		
			Ammoniacal nitrogen		1.5(2.5)	0.07				
			Total phosphorus		0.3	0.08				
28	Zhuozhou Zhongshe Environmental Protection Co., Ltd. (涿州中設環保有限公司)	Main vent of the West Plant (西廠總排口)	COD	Water Pollution Discharge Standard of Daqing River Basin (DB13/275/2018)	30	11.60	2.74	North Juma River (北拒馬河)		
			Ammoniacal nitrogen		1.5(2.5)	0.10				
			Total phosphorus		0.3	0.11				
		Main vent of the East Plant (東廠總排口)	COD	Water Pollution Discharge Standard of Daqing River Basin (DB13/275/2018)	30	11.30	3.33	North Drainage Channel into Baigou River (北排幹渠道入白溝河)		
			Ammoniacal nitrogen		1.5(2.5)	0.10				
			Total phosphorus		0.3	0.10				
		Main vent of the Development Zone Plant (開發區廠總排口)	COD	Water Pollution Discharge Standard of Daqing River Basin (DB13/275/2018)	30	10.30	1.90	North Drainage Channel into Baigou River (北排幹渠道入白溝河)		
			Ammoniacal nitrogen		1.5(2.5)	0.06				
			Total phosphorus		0.3	0.07				
		29	Wuhan Urban Environmental Water Co., Ltd. (都市環保武漢水務有限公司)	Vent from Wuhan Baoxie Wastewater Treatment Plant (武漢市豹澗污水處理廠廢水排放口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) Level I Standard A	50	10.7	5.2768	Yangtze River (長江)
					Ammoniacal nitrogen		5(8)	0.06		
					Total phosphorus		0.5	0.30		
30	Main vent of Zuoling Wastewater Treatment Plant of Wuhan Urban Environmental Water Co., Ltd. (都市環保武漢水務有限公司左嶺污水處理廠廢水總排口)	COD		50	11.4	8.5262				
		Ammoniacal nitrogen		5(8)	0.17					
		Total phosphorus		0.5	0.34					

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No.	Company name	Discharge vent	Major pollutants and characteristic pollutants	Executive standard	Emission standard ^{note} (mg/L)	Actual emission (mg/L)	Total emission rate (10,000t/day)	Discharge flow
31	Zhuxi Urban Environmental Water Co., Ltd. (都市環保竹溪縣水務有限公司)	Vent from ZhuxiDongcheng District Wastewater Treatment Plant (竹溪縣東城新區污水處理廠排放口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002)	50	21.4	0.85	Zhuxi River (竹溪河)
			Ammoniacal nitrogen	Level I Standard A	5(8)	2.19		
			Total phosphorus		0.5	0.31		
32	Macheng Urban Environmental Water Co., Ltd. (都市環保麻城水務有限公司)	Vent from Macheng Urban Environmental Wastewater Treatment Plant (都市環保麻城污水處理廠廢水排放口)	COD	Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002)	50	14.33	0.8443	Jushui River (舉水河)
			Ammoniacal nitrogen	Level I Standard A	5(8)	0.42		
			Total phosphorus		0.5	0.10		
33	Lai'an MCC Huatian Water Environment Investment Co., Ltd. (Second Wastewater Treatment Plant) (來安縣中冶華天水環境投資有限公司(第二污水處理廠))	Main vent of wastewater DW001 (廢水總排口DW001)	COD	Level II of Integrated Wastewater Discharge Standards (《污水綜合排放標準》) (GB8978-1996)	120	84.8	1.45	Lai'an County Wastewater Treatment Plant (來安縣污水處理廠)
			Ammoniacal nitrogen	Level II of Integrated Wastewater Discharge Standards (《污水綜合排放標準》) (GB8978-1996)	25	0.757		

Note: The values outside the brackets of the standard GB18918-2002 represent control objectives when water temperature is higher than 12 degrees Celsius. The value inside the brackets of the standard GB18918-2002 is control objectives whose water temperature is equal to or below 12 degrees Celsius.

ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

② Enterprises under special supervision of exhaust gas (7 enterprises)

No.	Company name	Discharge vent	Name of main pollutant and characteristic pollutant	Executive standard	Emission standard	Actual emission	Total emission rate (kg/h)	Discharge flow		
1	Xiangyang Enfi Environmental Protection Energy Co., Ltd. (襄陽恩菲環保能源有限公司) (new exhaust vent #4)	Xiangyang Enfi Municipal Solid Waste Incineration Power Plant (sewage vent)	COD	Integrated wastewater discharge standard (GB8978-1996) Level Three Emission limit	500mg/L	29.83	0.62	Atmosphere		
			PH	Integrated wastewater discharge standard (GB8978-1996) Level Three Emission limit	6~9	7.39	/			
		Exhaust vent #1 from Xiangyang Enfi Waste Incineration Power Plant	SO ₂	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	100mg/Nm ³	25.15	1.45			
			NO _x	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	300mg/Nm ³	150.64	9.80			
			Smoke and dust	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	30mg/Nm ³	5.62	0.22			
		Exhaust vent #2 from Xiangyang Enfi Waste Incineration Power Plant	SO ₂	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	100mg/Nm ³	25.88	1.71			
			NO _x	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	300mg/Nm ³	147.75	10.41			
			Smoke and dust	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	30mg/Nm ³	6.88	0.29			
		Exhaust vent #3 from Xiangyang Enfi Waste Incineration Power Plant	SO ₂	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	100mg/Nm ³	25.94	1.44			
			NO _x	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	300mg/Nm ³	142.17	11.58			
			Smoke and dust	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	30mg/Nm ³	4.9	0.06			
		Exhaust vent #4 from Xiangyang Enfi Waste Incineration Power Plant	SO ₂	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	100mg/Nm ³	28.35	1.37			
			NO _x	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	300mg/Nm ³	148.44	8.06			
			Smoke and dust	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	30mg/Nm ³	4.48	0.10			
		2	Ganzhou Enfi Environmental Protection Energy Co., Ltd. (贛州恩菲環保能源有限公司)	Exhaust vent #1 from Ganzhou Enfi Waste Incineration Power Plant	SO ₂	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	100mg/Nm ³	13.54	0.95	Atmosphere
					NO _x	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	300mg/Nm ³	170.93	12.69	
Smoke and dust	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)				30mg/Nm ³	8.28	0.64			
Exhaust vent #2 from Ganzhou Enfi Waste Incineration Power Plant	SO ₂			Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	100mg/Nm ³	17.21	1.09			
	NO _x			Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	300mg/Nm ³	195.07	16.40			
	Smoke and dust			Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	30mg/Nm ³	8.29	0.65			

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No.	Company name	Discharge vent	Name of main pollutant and characteristic pollutant	Executive standard	Emission standard	Actual emission	Total emission rate (kg/h)	Discharge flow
3	Gu'an Enfi Environmental Protection Energy Co., Ltd. (固安恩菲環保能源有限公司)	Exhaust vent #3 from Ganzhou Enfi Waste Incineration Power Plant	SO ₂	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	100mg/Nm ³	12.72	0.96	Atmosphere
			NO _x	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	300mg/Nm ³	172.76	13.90	
			Smoke and dust	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	30mg/Nm ³	6.19	0.49	
		Exhaust vent #1 from Guan Enfi Waste Incineration Power Plant	SO ₂	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	100mg/Nm ³	38.53	5.45	
			NO _x	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	300mg/Nm ³	51.38	6.63	
			Smoke and dust	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	30mg/Nm ³	2.72	0.30	
		Exhaust vent #2 from Guan Enfi Waste Incineration Power Plant	SO ₂	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	100mg/Nm ³	48.82	5.74	
			NO _x	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	300mg/Nm ³	49.53	5.90	
			Smoke and dust	Standard for pollution control on the municipal solid waste incineration (GB18485-2014)	30mg/Nm ³	3.01	0.29	
4	Enfi Urban Solid Waste (Xiaogan) Co., Ltd. (恩菲城市固廢(孝感)有限公司)	Exhaust vent of Xiaogan Enfi	SO ₂	Standard for pollution control on the hazardous waste incineration (GB18484-2020)	100mg/Nm ³	12.70	0.16	Atmosphere
			NO _x	Standard for pollution control on the hazardous waste incineration (GB18484-2020)	300mg/Nm ³	131.14	1.63	
			Smoke and dust	Standard for pollution control on the hazardous waste incineration (GB18484-2020)	30mg/Nm ³	12.42	0.15	
5	China City New Energy Development Dafeng Co., Ltd. (都市環保新能源開發大豐有限公司)	China City #2 exhaust gas	SO ₂	Discharge Standard of Pollutants for Thermal Power Plant (GB13223-2011)	50mg/m ³	8.2	0.00003775	Atmosphere
			NO _x		100mg/m ³	65.1	0.0002997	

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No.	Company name	Discharge vent	Name of main pollutant and characteristic pollutant	Executive standard	Emission standard	Actual emission	Total emission rate (kg/h)	Discharge flow
6	MCC-SFRE Heavy Industry Equipment Co., Ltd. (中冶陕压重工设备有限公司)	5t electric furnace exhaust pipe	Particulate matter	Discharge Standard of Pollutants for Foundry Industry GB39726-2020	30mg/m ³	1.7	0.18	Atmosphere
		Exhaust pipe of heating furnace in heat treatment workshop of old plant	Particulate matter	Notice on printing and distributing The Plan for Comprehensive Control of Air Pollution in Industrial Furnaces and Kilns (Huan Da Qi [2019] No.56), Emission Standards of Industrial Furnace Kiln Air Pollutants (GB 9078-1996)	200mg/m ³	1.7	0.069	
			NO _x		300mg/m ³	<3	<0.12	
			SO ₂		850mg/m ³	<3	<0.12	
		Boiler exhaust pipe of boiler room	Particulate matter	Boiler Pollutants (DB61/941-2018)	10mg/m ³	1.6	0.0045	
			NO _x		80mg/m ³	18	0.067	
			SO ₂		20mg/m ³	11	0.03	
		60t refining furnace	Particulate matter	Discharge Standard of Pollutants for Foundry Industry GB39726-2020	30mg/m ³	1.8	0.19	
		1# exhaust pipe of heating furnace in forging workshop of new plant	Particulate matter	Notice on printing and distributing The Plan for Comprehensive Control of Air Pollution in Industrial Furnaces and Kilns (Huan Da Qi [2019] No.56), Emission Standards of Industrial Furnace Kiln Air Pollutants (GB 9078-1996)	200mg/m ³	1	0.25	
			NO _x		300mg/m ³	<3	<0.74	
			SO ₂		850mg/m ³	<3	<0.74	
		2# exhaust pipe of heating furnace in forging workshop of new plant	Particulate matter	Notice on printing and distributing The Plan for Comprehensive Control of Air Pollution in Industrial Furnaces and Kilns (Huan Da Qi [2019] No.56), Emission Standards of Industrial Furnace Kiln Air Pollutants (GB 9078-1996)	200mg/m ³	1.5	0.35	
			NO _x		300mg/m ³	<3	11	
			SO ₂		850mg/m ³	48	<0.70	
7	MCC (Shanghai) Steel Structure Technology Co., Ltd. (中冶(上海)钢结构科技有限公司)	Exhaust vent from structured 10A workshop	Non-methane hydrocarbons	Integrated Emission Standards of Air Pollutants DB 31/199-2015	70mg/Nm ³	3.13	0.0597	Atmosphere
		Exhaust vent from structured workshop door No. 9	Non-methane hydrocarbons		70mg/Nm ³	4.48	0.0856	
		Vent from fitting workshop east paint shop	Non-methane hydrocarbons		70mg/Nm ³	3.38	0.0699	

ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

③ Enterprises under special supervision of wastewater treatment plants (3 enterprises)

No.	Company name	Discharge vent	Name of main pollutant and characteristic pollutant	Executive standard	Emission standard	Actual emission	Total emission rate (kg/h)	Discharge flow
1	China Silicon Corporation Ltd. – The First Subsidiary (洛陽中硅高科技有限公司一分公司)	Main vent of wastewater	pH	Integrated Wastewater Discharge Standard (GB8978-1996) (Level Three)	6~9	7.71	/	Sewage treatment plant of New District, Luoyang (洛陽市新區污水處理廠)
			SS	Integrated Wastewater Discharge Standard (GB8978-1996) (Level Three)	400mg/L	76.45	3.76	
			COD	Integrated Wastewater Discharge Standard (GB8978-1996) (Level Three)	500mg/L	71.99	4.17	
			Ammoniacal nitrogen	Integrated Wastewater Discharge Standard (GB8978-1996) (Level Three)	/	0.60	0.03	
			Cl ⁻	Discharge Standard of Chlorides for Salt and Alkali Industry DB41/276-2011	350mg/L	150.50	3.59	
			F ⁻	Integrated Wastewater Discharge Standard (GB8978-1996) (Level Three)	20mg/L	2.54	0.13	
		Chimney of Exhaust Washing Tower	HCl	Integrated Emission Standards of Air Pollutants Level Two	100mg/Nm ³	5.22	/	Atmosphere
					0.915kg/h	0.035	0.21	
		Chimney of Acid Fume Purification Tower	HF	Integrated Emission Standards of Air Pollutants Level Two	9mg/Nm ³	0.374	/	
					0.38kg/h	0.00526	0.01052	
					NOx	Integrated Emission Standards of Air Pollutants Level Two	240mg/Nm ³	6.66
					2.85kg/h	0.0947	0.1894	
2	Gu'an Enfi Environmental Protection Energy Co., Ltd. (固安恩菲環保能源有限公司)	Main vent of wastewater	COD	Table 4 of Integrated Wastewater Discharge Standard (GB8978-1996) (Level Three) and requirements for influent water quality of Gu'an Lvyuan Urban Sewage Treatment Co., Ltd.	500mg/L	144.44	4.40	Gu'an Lvyuan Urban Sewage Treatment Co., Ltd. (固安綠源城區污水處理有限公司)
			Ammoniacal nitrogen		45mg/L	1.35	0.04	
			PH		6~9	8.15	/	
3	Enfi Urban Solid Waste (Xiaogan) Co., Ltd. (恩菲城市固廢(孝感)有限公司)	Main vent of wastewater	COD	Integrated Wastewater Discharge Standard (GB8978-1996) (Level Three) and Water Collection Standard of Sewage Treatment Plant of Dengjiahe, Xiaogan	400mg/L	27.04	0.12	Sewage treatment plant of Dengjiahe, Xiaogan (孝感市鄧家河污水處理廠)
			Ammoniacal nitrogen		Integrated Wastewater Discharge Standard (GB8978-1996) (Level Three) and Water Collection Standard of Sewage Treatment Plant of Dengjiahe, Xiaogan	40mg/L	1.33	

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2. *Construction and operation of pollution prevention facilities*

The Company attached high importance to energy conservation and emission reduction, pollution prevention and control, and other related tasks. By continuously strengthening the management of pollution prevention and treatment facilities and their operations, in 2022, the pollution prevention and control facilities of each key enterprise were all running normally and steadily, and the production was running in an orderly and well-managed manner, effectively ensuring that the emission standards were met.

- (1) The wastewater treatment facility of China Silicon Corporation Ltd. – The First Subsidiary is equipped with a three wastes treatment station, an integrated system for domestic sewage; the exhaust gas treatment facility is equipped with exhaust washing tower, acid fume purification tower and dust collecting bag. With respect to solid waste treatment facility, general solid waste storage yard, sludge yard for wastewater treatment, hydrogenated residues yard and hazardous waste temporary storage yard are provided.
- (2) All incineration power plants kept increasing control over percolate, fly ash, flue gas purification system, etc., in order to guarantee waste water treatment and smoke and dust emission compliant with requirements.
- (3) During the Reporting Period, Beijing ENFI Environmental Protection Co., Ltd. kept increasing management and control over wastewater treatment facility, operation, etc., in order to guarantee all effluent meets standards.
- (4) Wastewater treatment process used in wastewater treatment plants operated by MCC Ecological Environmental Protection mainly adopted primary treatment (physical and chemical treatment process) + secondary treatment (biochemical treatment process) + tertiary treatment (advanced treatment process), in which the plants mainly executed the Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (Level 1 Standard A) (GB18918–2002) for effluent quality.
- (5) Baoxie Wastewater Treatment Plant of Wuhan Urban Environmental Water Co., Ltd. adopted hydrolytic acidification + modified A/A/O + coagulation and filtration process with enhanced biological denitrification and phosphorus removal function. Effluent disinfection adopted disinfection by sodium hypochlorite.
- (6) Zuoling Wastewater Treatment Plant of Wuhan Urban Environmental Water Co., Ltd. adopted modified MSBR + coagulation and filtration process with enhanced biological denitrification and phosphorus removal function. Effluent disinfection adopted disinfection by sodium hypochlorite.
- (7) Wastewater treatment process used in Lai'an County second wastewater treatment plant mainly adopted primary treatment (physical and chemical treatment process) + secondary treatment (biochemical treatment process) + tertiary treatment (fenton oxidation process), in which the plants mainly executed the Integrated Wastewater Discharge Standard (GB8978–1996) (Level Two) for effluent quality.
- (8) The 2 units of China City New Energy Development Dafeng Co., Ltd. are equipped with “SNCR (urea injection at high temperature section of furnace, selective non-catalytic reduction denitrification system)”, “furnace desulfurization system (injection of dry lime powder into high temperature combustion zone in the furnace)” and “two-level dust removal system comprising of cyclone dust remover + dust collection bag”, respectively.

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3. *Environmental impact assessment of construction projects and other permits granted by environmental protection administrative departments*

The environmental impact assessment and administrative approval status of relevant sewage treatment plants and solid waste treatment plants operated by subsidiaries of the Company are as follows:

Phase II of Ganzhou Enfi Environmental Protection Energy Co., Ltd. was approved by the Administrative Approval Bureau of Ganzhou City (赣州市行政审批局) (Gan Shi Xing Shen Zheng (1) [2019] No. 110) on 3 September 2019, and environmental protection acceptance monitoring was carried out in September 2020. On 16 December 2020, the environmental protection inspection for completion was conducted by the expert inspection team. It was publicized on the national information system of acceptance of environmental protection for completion of construction projects from 9 February to 12 March 2021, and filed with the district and municipal ecological environment departments in the month of publicity.

The standard enhancement by Xiaogan Sewage Treatment Plant had received opinions on the acceptance of environmental protection for completion of construction works; the standard enhancement and modification project of Liangxiang Sewage Treatment Plant has obtained the EIA approval (Fanghuan Shen [2018] No. 0022); the standard enhancement and modification projects of Lanzhou Yan'erwan Sewage Plant have obtained the EIA approval (Lan Huan Fu [2018] No. 18); Wuzhi County Wastewater Treatment Plant 3 has passed the acceptance of environmental protection for completion of construction works.

Guan Enfi has obtained the EIA approval from Langfang Ecological Environment Bureau (Lang Huan Han [2020] No. 37) on 2 April 2020, and the requirements in the EIA approval during the project construction has been strictly implemented. We have organized our own experts to complete the environmental protection facilities and accepted them independently on 31 December 2021.

Xiaogan Enfi has obtained the EIA approval (Xiao Huan Han [2019] No. 101) on 11 July 2019 : the independent completion and acceptance of environmental protection has been completed on 20 October 2021, and the environmental protection requirements in the EIA and acceptance approval documents have been fully implemented.

The wastewater treatment project of Luanping Zhongshe Environmental Protection Co., Ltd. has obtained the EIA approval (Luan Huan Ping [2019] No. 43) and the independent acceptance opinion of environmental protection. Zhuozhou Zhongshe Environmental Protection East Plant, Development Zone Plant and Waste Plant have obtained the EIA approval (Zhuo Huan Biao [2020] No. 123), (Zhuo Huan Biao [2020] No. 121) and (Zhuo Huan Biao [2020] No. 122) respectively. Songlindian Plant of Zhuozhou Zhongshe Water Treatment Co., Ltd. has obtained the EIA approval (Zhuo Huan Shu [2019] No. 09).

Macheng Wastewater Treatment Plant project has obtained the EIA approval (Huang Huan Han [2017] No. 230) and pollutant discharge permits, and the environmental protection requirements in the EIA and acceptance approval documents have been fully implemented.

Zhuxi Dongcheng District Wastewater Treatment Plant Construction Project has received the EIA approval (Shi Huan Han [2019] No. 481), the environmental protection in the EIA approval document has been fully implemented. The stage acceptance of environmental protection for the completion of the Phase I of the project has been completed.

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4. Contingency plans for environmental emergencies

The contingency plan for environmental emergencies set out by a subsidiary of China Silicon Corporation Ltd. – The First Subsidiary was filed with Luoyang Ecological Environment Bureau Luolong District on 23 November 2020, with reference number: 410311–2020–04-H.

The contingency plan for environmental emergencies set out by Ganzhou Enfi Environmental Protection Energy Co., Ltd. was filed with Ganzhou Ecological Environment Bureau Gan County on 18 June 2020, with reference number: 360721–2020–075–2.

The contingency plan for environmental emergencies set out by Gu'an Enfi Environmental Protection Energy Co., Ltd. was filed with Langfang Ecological Environment Bureau Guan County Branch on 30 December 2021, with reference number: 131022–2021–044-M.

The contingency plan for environmental emergencies set out by Enfi Urban Solid Waste (Xiaogan) Co., Ltd. was filed with Xiaogan Environmental Protection Bureau Xiaonan District on 13 December 2022, with reference number: 420902–2022–30-H.

The contingency plan for environmental emergencies set out by China City New Energy Development Dafeng Co., Ltd. was filed with Yancheng Environmental Protection Bureau Dafeng District on 3 November 2020, with reference number: 320982–2020–114-L.

The contingency plan for environmental emergencies set out by MCC Steel Structure – The First Manufacturing Plant was filed with Shanghai Ecological Environment Bureau Baoshan District on 3 November 2021, with reference number: 02–310113–2021–085-L.

In addition, all sewage treatment companies have worked out contingency plans for environmental emergencies and filed them with the local Ecological Environment Bureau.

5. Environmental self-monitoring plans

China Silicon Corporation Ltd. (洛陽中硅高科技有限公司), Xiangyang Enfi Environmental Protection Energy Co., Ltd. (襄陽恩菲環保能源有限公司), Ganzhou Enfi Environmental Protection Energy Co., Ltd. (贛州恩菲環保能源有限公司), Gu'an Enfi Environmental Protection Energy Co., Ltd. (固安恩菲環保能源有限公司), Enfi Urban Solid Waste (Xiaogan) Co., Ltd. (恩菲城市固廢(孝感)有限公司), China City New Energy Development Dafeng Co., Ltd. (都市環保新能源開發大豐有限公司) and each of the sewage treatment companies has worked out environmental self-monitoring plans to ensure that monitoring data is transmitted and monitored in real time by local environmental protection authorities via the Internet.

6. Administrative punishment for environmental problems during the Reporting Period

Applicable Not applicable

During the Reporting Period, none of the Company's affiliated enterprises with significant waste disposal were subject to administrative punishment due to environmental problems.

7. Other information about environmental protection that should be made public

Applicable Not applicable

ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

(II) Information on environmental protection of companies not under the List of Enterprises with Significant Waste Disposal

1. Administrative punishment due to environmental problems

During the Reporting Period, the subsidiaries of the Company were subject to 11 administrative penalties for environmental problems such as noise and dust, with fines of RMB 385,000 in total. The rectifications of such issues have been completed so far.

2. Disclosure of other environmental information with reference to the enterprises with significant waste disposal

(1) Information about pollution discharge

- 1) CISDI Equipment Co., Ltd. (中冶赛迪装备有限公司): The main pollutants are exhaust gas and waste water, and the main air pollutants include volatile organic compounds, particulate matter, nitrogen oxides and sulfur dioxide. The emission concentrations of such air pollutants meet the emission standard. The main water pollutants include ammonia nitrogen, suspended solids and chemical oxygen demand. The discharge concentrations of such water pollutants meet the discharge standard after waste water is treated in the biochemical tank and then discharged to the sewage treatment plant in the Park.
- 2) WISDRI (Wuhan) Heavy Machinery Co., Ltd (中冶南方(武汉)重工制造有限公司): The main pollutant is exhaust gas, and the main air pollutant is volatile organic compounds. The emission concentration meets the emission standards after being treated by pollution prevention and control facilities.
- 3) Zhengzhou Baoye Steel Structure Co., Ltd. (鄭州寶冶鋼結構有限公司): The main pollutants are exhaust gas, general industrial solid waste and waste water, and the main air pollutants include particulate matter, benzene, toluene, xylene, non-methane hydrocarbons, nitrogen oxides and sulfur dioxide, the emission concentrations of which all meet the emission standards. The main water pollutants include ammonia nitrogen, suspended solids, chemical oxygen demand, five-day BOD, total nitrogen, total phosphorus and petroleum, the discharge concentration of which meets the discharge standards. The major kinds of general industrial solid waste are scrap steel, scrap copper, wire reel, iron powder, iron scraps and oxidizing slag, which are collected, stored and disposed of in compliance with regulations.
- 4) Engineering project: The main pollutants include dust, wastewater, noise, solid waste, etc..

(2) Construction and operation of pollution prevention and control facilities

Each production enterprise of the Company has built various pollution control facilities for wastewater, exhaust gas, solid waste and noise in accordance with the environmental impact assessment report and approval requirements, and each project is equipped with mist cannon trucks, spraying cars, car washing stations, garbage stations and other facilities. In addition, bare soil is covered with dense mesh and noise reduction measures are taken for high-noise operations. The specific construction contents are as follows:

- 1) CISDI Equipment Co., Ltd. (中冶赛迪装备有限公司)

Exhaust gas treatment facilities: organic gases adsorption filtration system and bag type dust collector system are effectively operated, and the treated exhaust gas is discharged in compliance with standards.

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Wastewater treatment facilities: After being treated by biochemical tank, the waste water is discharged into the sewage treatment plant of the park, the discharge concentrations of which all meet the discharge standard.

Solid waste treatment facilities: special hazardous waste and solid waste warehouses are built, hazardous wastes and solid waste are entrusted to units with business license qualifications for transfer and disposal, and five-duplicate procedures have been completed in accordance with the Measures for the Administration of Hazardous Waste Transfer Manifests (《危險廢物轉移聯單管理辦法》).

2) WISDRI (Wuhan) Heavy Machinery Co., Ltd (中冶南方(武漢)重工製造有限公司)

Exhaust gas treatment facilities: We use ground absorption exhaust gas collection, cyclone tower, dry filter, UV photolysis/photocatalysis, activated carbon adsorption process to purify paint fume and then discharge in compliance with standard.

Noise pollution prevention and control measures: We select low-noise or self-contained muffler equipment, high-noise equipment with vibration reduction, sound insulation in buildings and other measures to reduce noise pollution.

Solid waste treatment facilities: special hazardous waste warehouses are built, hazardous wastes are sold to units with corresponding hazardous solid waste business license qualifications for comprehensive recovery, and five-duplicate procedures for hazardous waste transfer has been completed in accordance with the Measures for the Administration of Hazardous Waste Transfer Manifests (《危險廢物轉移聯單管理辦法》).

3) Zhengzhou Baoye Steel Structure Co., Ltd. (鄭州寶冶鋼結構有限公司)

Exhaust gas pollution control measures: three sets of smoke and dust purification and treatment devices (filter cartridge dust collector and three 20m-high exhaust pipes) are equipped for treating smoke and dust as a result of cutting. Five sets of central smoke and dust purification and treatment systems and five 20m-high exhaust pipes are equipped for treating smoke and dust as a result of welding (Each welding station is provided with suction hood). Two sets of spraying-drying integrated spraying rooms, including two sets of paint mist filtration systems (including glass fiber filter felt and two stage paint mist filtration devices), two sets of activated carbon adsorption devices, one set of desorption catalytic combustion devices, one 20m-high exhaust pipe are equipped for treating organic gases such as paint mist, xylene and non-methane hydrocarbons. Three 20m-high exhaust pipes (for treating natural gas, combustion exhaust gas, smoke and dust, SO₂, NO_x, etc.) are equipped in the drying burner.

Noise pollution control measures: select wind turbines with high efficiency, low noise, low speed and high quality, and adopt shock absorption foundation, flexible joint, and sound insulation in buildings to reduce noise pollution.

Solid waste treatment facilities: special hazardous waste warehouses are built, hazardous wastes are sold to units with corresponding hazardous solid waste business license qualifications for comprehensive recovery, and five-duplicate procedures for hazardous waste transfer have been completed in accordance with the Measures for the Administration of Hazardous Waste Transfer Manifests (《危險廢物轉移聯單管理辦法》).

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4) Engineering projects

Flying dust prevention and control measures: strictly implement the “six 100%” measures of flying dust prevention and control, and adopt dust reduction measures such as water-spraying on tower cranes, high-rise buildings, walls and mist cannon trucks, as well as dust prevention measures such as covering bare soil, greening and solidification based on the construction characteristics of the projects. Besides, sealing measures for transportation of high-floor garbage and muck is adopted, and vehicles shall be washed and cleaned before entering and leaving the site. Such measures are in line with the limit requirements of comprehensive emission standards of air pollutants.

Waste water prevention and control measures: drainage facilities are set up on the construction sites, and waste water is treated by pretreatment facilities such as tertiary sedimentation tanks. After the water in monitoring wells passes quality tests, part of the waste water is reused for greening irrigation, water spraying and dust reduction, etc..

Noise prevention measures: reasonably arrange the plan to keep high-noise facilities and equipment away from surrounding noise-sensitive buildings, set up continuous closed enclosures to isolate noise, set up closed protective cover in woodworking sheds, select low-vibration and low-noise construction machineries, and regularly monitor noise volume at the factory boundary to keep in line with the environmental noise emission standards for the construction sites.

Solid waste prevention and control measures: construction waste classification collection facilities are set up on the construction site; wastes of steel, wood and concrete are rationally reused in combination with the site, and the remaining wastes are recycled for resources recycling. In addition, we enter into a solid waste removal contract with qualified units to dispose of discharged solid wastes in compliance with the rules.

3. *Reasons for non-disclosure of other environmental information*

Applicable Not applicable

(III) **Relevant information conducive to protecting ecology, preventing pollution and fulfilling environmental responsibilities**

All enterprises of the Company with Significant Waste Disposal have timely submitted environment monitoring data to the Environmental Statistics Reporting System for Enterprises under Special Supervision (《國家重點監控企業的環境統計直報系統》) or published on relevant online platforms.

On 19 May 2022, the Party branch of Ganzhou ENFI Environmental Energy Co., Ltd. and the Party branch of Ganxian County Ecological Environment Bureau, as a public access unit and environmental education base for environmental protection facilities and urban sewage and garbage treatment facilities” and environmental education bases, jointly carried out the Party day activity called “Open Day of Environmental Protection Facilities”, with 150 teachers and students from the School of Geography and Environmental Engineering, Gannan Normal University coming to the Ganzhou ENFI factory to visit and experience the whole process of waste-to-energy and waste-to-treasure on site.

In June 2022, Urban Environmental Protection Zhuxi County Water Affairs Co., Ltd. and Shiyang Ecological Environment Bureau Zhuxi Branch jointly launched the “World Environment Day”, and organized a total of more than 50 people from the county People’s Congress, CPPCC members, public security organs, procuratorial organs and people’s courts to visit the facilities and processes of wastewater treatment.

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(IV) Measures adopted to reduce carbon emission during the Reporting Period and its results

Whether carbon reduction measures are adopted	Yes
Reduction in CO2 equivalent emissions (<i>in tonnes</i>)	Nil
Types of carbon reduction measures (e.g. use of clean energy for power generation, use of carbon reduction technologies in production processes, research and development of new products that contribute to carbon reduction, etc.)	Use of clean energy for power generation, technological innovation, etc.

Note: During the Reporting Period, the carbon dioxide emissions (comparable prices) per output value of RMB 10,000 (operating income) of the Company's domestic enterprises decreased by 8.97% year on year.

Detailed description

The Company pays attention to optimising its energy structure and improving its energy efficiency. We strengthen the assessment of energy consumption in construction, strictly control the intensity of energy consumption, gradually reduce the proportion of fossil fuel energy consumption, strengthen the control of electricity consumption, vigorously implement solar energy and other clean energy, apply air energy heat pump technology, inverter technology and other technologies to reduce consumption, and promote low-carbon energy to replace high-carbon energy, and renewable energy to replace fossil energy.

The Company actively promotes green construction, adopts organizational management methods such as general contracting and whole-process engineering consultation, strengthens integrated collaborative management of design and construction, and saves resource consumption through double optimization measures; actively promotes the factory-based processing of materials to realise precise blanking and fine management, thus reducing the loss rate of building materials; makes full use of surplus materials such as concrete, steel bars and formwork for recycling; fully consider the combination of temporary and permanent construction facilities to realise the combination of "permanent facilities" and "temporary facilities" to reduce construction waste, and promotes resource conservation and recycling by turning waste into wealth and implementing green construction.

The Company actively builds an energy saving and environmental protection industry platform, develops comprehensive energy saving and environmental protection services, and enhances the capacity of the environmental protection industry in all aspects. Focusing on sub-sectors including water environment comprehensive treatment, waste incineration, hazardous waste treatment, soil remediation, ecological and environment governance in mining areas, and photovoltaic power generation, the Company cultivates a number of specialized service enterprises in technology consultation of energy saving and environmental protection, systematic design, equipment manufacturing, engineering construction, operation management, etc., and is committed to the sustainable development of the environment through continuous technological innovation.

China ENFI, a subsidiary of the Company, currently operates three domestic waste incineration power generation enterprises, which processed a total of 1,265,500 tonnes of domestic waste and generated a total of 455,752,000 kilowatt hours of electricity in 2022, equivalent to a reduction of 390,700 tonnes of carbon dioxide equivalent.

Relying on intelligent and green technologies to boost the low-carbon transformation of the steel industry, MCC Huatian Engineering Technology Co., Ltd., a subsidiary of the Company, established the Dual-carbon Technology Research Centre in November 2021 to draw up research and development topics in three directions, namely, gas energy storage, waste heat recovery and utilisation, and atmospheric controlling, and carried out green and low-carbon research and development work, realising accurate prediction, optimisation and intelligent management in the production process of hot rolling. The project results have now been applied to a number of demonstration projects such as Masteel and Eastern Special Steel.

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The electric arc furnace steel-making technology developed by CISDI Group Co., Ltd., a subsidiary of the Company, can reduce the electricity consumption of full scrap smelting to 250kWh/t, electrode consumption to 0.6–0.8kg/t, dioxin emission index to less than 0.1ng-TEQ/m³ and dust emission to less than 10mg/m³. The impact on the power grid is 50% lower than the traditional electric arc furnace, and all indicators have reached the world's advanced level, reducing carbon emissions by 65% compared to the blast furnace – converter process and by 11% compared to the conventional electric arc furnace. It is expected to newly build or renovate 10 sets of facilities using such technology in the industry each year. Compared to the most advanced Consteel electric furnace currently, the technology can help the industry reduce CO₂ emissions by 260,000 tonnes per year.

II. SOCIAL RESPONSIBILITY WORK

(i) Whether the social responsibility report, sustainable development report or ESG report are disclosed separately

For details of the social responsibility report separately disclosed by Company, please refer to the MCC 2022 Social Responsibility and ESG (Environmental, Social and Governance) Report.

(ii) Details of social responsibility work

External donations, public welfare projects	Amount/content	Explanation
Total investment (RMB '0,000)	RMB 3,265,000	In 2022, the Company made a total of 10 external donations totalling approximately RMB 3,265,000.
Including: funds (RMB '0,000)	RMB 1,625,000	Donated scholarships of RMB 80,000 each to University of Science and Technology Liaoning, Liaoning Technical University, North China University of Science and Technology and Inner Mongolia University Of Science and Technology, and donated funds of RMB 50,000 to potential villages to help improve the village appearance; donated funds of RMB 30,000 to Charity Federation of Maanshan City, Anhui Province; donated funds of approximately RMB 1,225,000 to the flood-affected people and schools in Sandak in Balochistan, Pakistan.
Value of materials (RMB '0,000)	RMB 1,640,000	Donated rescue and relief funds to Panzhihua City, and donated supplies to the people affected by the earthquake in the eastern Afghanistan and the floods in Aghan district, Logar. The above donations totalled RMB 1,640,000.
Number of beneficiaries (person)	Approximately 40,833 people	Donated rescue and relief funds to Panzhihua City, benefiting approximately 7,323 persons; donated to the earthquake-stricken areas in eastern Afghanistan and the flood-stricken Aghan district in Logar, benefiting approximately 950 families; donated to the flood-stricken people and schools in Sandak, Balochistan, Pakistan, benefiting more than 10,000 families; donated to the Charity Federation of Maanshan City, Anhui Province, benefiting approximately 500 persons; and donated scholarships to University of Science and Technology Liaoning, etc., benefiting approximately 150 individuals.

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III. THE SPECIFIC WORK TO CONSOLIDATE AND EXPAND THE ACHIEVEMENTS IN POVERTY ALLEVIATION AND TO PROMOTE RURAL REVITALIZATION

Poverty alleviation and rural revitalization projects

Amount/content	Explanation	
Total investment (RMB '0,000)	RMB 28,283,400	–
Including: funds (RMB '0,000)	RMB 7,980,000 was allocated as non-reimbursable assistance; a total of RMB 20,303,400 was allocated as consumer assistance.	The non-reimbursable assistance funds for targeted assistance and counterpart support undertaken by the Company in 2022 amounted to RMB 7,980,000, including RMB 3,900,000 allocated to Dejiang County for two industrial revitalization projects and two ecological revitalization projects; RMB 2,100,000 allocated to Qilian County for one industrial revitalization project and one ecological revitalization project; and RMB 1,980,000 allocated to Panzhihua Technician College for the “Mining Heart (礦心)” vocational education programme for students enrolled by the college in designated support counties. In 2022, the Company directly purchased agricultural products of RMB 16,253,700 from seven counties under assistance, and sold agricultural products for assistance of RMB 283,200; and spent RMB 3,766,500 on direct purchase from the former 832 national-level poverty-stricken counties outside the seven counties under assistance.
Value of materials (RMB '0,000)	–	–
Number of beneficiaries (person)	Approximately 22,000 people	Over 12,000 people benefited from industrial and employment poverty alleviation, over 5,300 people from education poverty alleviation and over 4,700 people from consumption poverty alleviation
Form of assistance (e.g. industrial poverty alleviation, employment poverty alleviation, educational poverty alleviation, consumption poverty alleviation, etc.)	Industrial poverty alleviation, employment poverty alleviation, educational poverty alleviation, consumption poverty alleviation	Relying on the Heshui Peach and Pear Base (黑水桃梨基地) and the Xinjing Collective Economy Citrus Industrial Park (新景集體經濟柑橘產業園), the industrial poverty alleviation and employment poverty alleviation were carried out; relying on the Cuijia Village Shantytowns Transformation Project (崔家村棚改項目), the employment poverty alleviation was carried out; by contacting the China Love Development Foundation (中國愛心發展基金會) and Panzhihua Vocational and Technical College, education poverty alleviation was carried out; and the consumption poverty alleviation was carried out through purchasing agricultural specialties from the counties under assistance.

Detailed description

Applicable Not applicable

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IV. FIGHTING AGAINST THE COVID-19 PANDEMIC

In 2022, as the pandemic situation was severe, the pandemic prevention and control teams at all levels of the Company unified their thought, raised their political stance, consolidated their responsibilities at all levels, focused on key links, and cautiously carried out various works of regular epidemic prevention and control. During the Reporting Period, there were outbreaks of the Covid-19 pandemic in many places in China, and the construction of designated hospitals, mobile cabin hospitals and isolation sites became a very urgent and important task for local governments to fight the outbreak. All the subsidiaries of the Company responded to the order, and actively participated in the construction of epidemic prevention projects. Many units, including Shanghai Baoye, MCC 20, MCC 17, MCC 5, Baosteel Technology and MCC Steel Structure, fought day and night and won the “Battle of pandemic prevention” under extremely difficult circumstances. In 2022, a total of 17 subsidiaries of the Company were engaged in the construction of 151 epidemic prevention projects, involving 74,433 personnel and a construction area of 5,210,000 square metres.

MATERIAL EVENTS

I. PERFORMANCE OF UNDERTAKINGS

(I) Events of undertakings made by relevant parties such as de facto controllers, Shareholders, related parties and acquirers of the Company and the Company during the Reporting Period or subsisting during the Reporting Period

Background of undertaking	Type of undertaking	Undertaking party	Details of undertaking	Date and duration of undertaking	Whether there is a time limit for performance	Whether it is strictly performed in a timely manner	If not performed timely, specify the reasons in detail	If not performed timely, specify further plans
Undertakings in relation to the restructuring of major assets	Solution to and prevention of horizontal competition	China Minmetals	<p>1. In respect of businesses carried out by China Minmetals and other controlled companies which overlap with those of MCC, China Minmetals will, according to its actual situations and the characteristics and development trend of the industry in which it operates, actively adopts different methods such as entrusted management, asset restructuring, equity swap and business adjustment to minimize the business overlap between the two parties.</p> <p>2. Upon the completion of the acquisition, China Minmetals and its other controlled companies will not, in whatever form, directly or indirectly, engage in new businesses competing with MCC, and will not establish controlling subsidiaries which engage in the same or similar businesses that will constitute substantial horizontal competition with MCC. China Minmetals will supervise its controlled companies and adopt certain measures when necessary.</p> <p>3. Subject to the above principles 1 and 2 and upon the completion of the acquisition, if the products or services that will be operated by the unlisted subsidiaries controlled by or other unlisted related enterprises of China Minmetals are likely to compete with the main products or services of MCC, China Minmetals will agree that MCC shall be entitled to preferentially acquire the assets in relation to these products or services or 100% equity of China Minmetals in the subsidiaries. MCC shall be entitled to determine the time to request China Minmetals to sell the abovementioned competing businesses at its discretion.</p> <p>4. China Minmetals will abstain from voting at the Board meeting or general meeting at which MCC reviews whether its new businesses constitute horizontal competition with China Minmetals and whether to exercise the above option right and pre-emptive rights.</p>	17 February 2016	No	Yes	-	-

MATERIAL EVENTS

Background of undertaking	Type of undertaking	Undertaking party	Details of undertaking	Date and duration of undertaking	Whether there is a time limit for performance	Whether it is strictly performed in a timely manner	If not performed timely, specify the reasons in detail	If not performed timely, specify further plans
			5. China Minmetals undertook that it will strictly comply with the relevant regulations of the CSRC and the SSE, and the Articles of Association and other rules and regulations of MCC, and equally exercise the Shareholder's rights and perform the Shareholder's obligations. It also undertook not to take advantage of its privileged positions as the substantial Shareholder nor impair the legal interests of MCC or other Shareholders. The commitments continue to be valid, cannot be altered and are irrevocable during the period in which China Minmetals has control over MCC or there is relatively material impact. If there is any breach of the above commitments, China Minmetals shall assume all losses to MCC.					
Undertakings in relation to the initial public offering	Solution to and prevention of horizontal competition	CMGC	CMGC, the Controlling Shareholder of MCC, undertook to avoid being engaged in or taking part in any business which may compete horizontally with the principal business of MCC.	5 December 2008	No	Yes	-	-
Undertakings in relation to the corporate bonds	Others	MCC	During the term of Corporate Bonds (First Tranche) for 2018 under the Public Issuance by Metallurgical Corporation of China Ltd.* ("2018 Corporate Bonds"), if the Company does not expect to pay the principal and interest for this tranche of bonds on time or fails to pay the principal and interest on time on the maturity date of this tranche of bonds, at least the following measures will be taken: (1) no distribution of profits to the ordinary Shareholders; (2) no reduction in registered capital. The funds raised from the bonds are used only for production and operating activities of enterprises that comply with national laws, regulations and policies. Such raised funds will be used strictly in accordance with the agreed purpose mentioned in the prospectus. Such funds will not be used by others and will not be used as non-production expenditures and real estate business. A practical and effective monitoring mechanism and isolation mechanism for raised funds will be established.	8 May 2018 to 8 May 2023	Yes	Yes	-	-

MATERIAL EVENTS

Background of undertaking	Type of undertaking	Undertaking party	Details of undertaking	Date and duration of undertaking	Whether there is a time limit for performance	Whether it is strictly performed in a timely manner	If not performed timely, specify the reasons in detail	If not performed timely, specify further plans
Undertakings in relation to non-financial corporate debt financing instruments	Others	MCC	The funds raised from the 2020 First Tranche and the Second Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.* are used only for production and operating activities of enterprises that comply with national laws, regulations and policies, and shall not be used for land, real estate, equity, securities, futures and other areas prohibited by national regulations. Funds raised for the current period will be used to meet the liquidity requirements that comply with national laws, regulations and policies, and shall not be used for long-term investment. During the term of above Medium-term Notes, if the uses of funds are changed, the relevant information will be disclosed in a timely manner.	The issuance dates to redemption dates of the 2020 First Tranche and the Second Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.*	Yes	Yes	-	-
	Others	MCC	The funds raised from the 2021 First Tranche, the Second Tranche, the Third Tranche and the Fourth Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.* are used only for production and operating activities of enterprises that comply with national laws, regulations and policies, and shall not be used for land, real estate, equity, securities, futures and other areas prohibited by national regulations. Funds raised for the current period will be used to meet the liquidity requirements that comply with national laws, regulations and policies, and shall not be used for long-term investment. During the term of above Medium-term Notes, if the uses of funds are changed, the relevant information will be disclosed in a timely manner.	The issuance dates to redemption dates of the 2021 First Tranche, the Second Tranche, the Third Tranche and the Fourth Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.*	Yes	Yes	-	-
	Others	MCC	The funds raised from the 2022 First Tranche, the Second Tranche and the Third Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.* are used only for production and operating activities of enterprises that comply with national laws, regulations and policies, and shall not be used for land, real estate, equity, securities, futures and other areas prohibited by national regulations. Funds raised for the current period will be used to meet the liquidity requirements that comply with national laws, regulations and policies, and shall not be used for long-term investment. During the term of above Medium-term Notes, if the uses of funds are changed, the relevant information will be disclosed in a timely manner.	The issuance dates to redemption dates of the 2022 First Tranche, the Second Tranche and the Third Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.*	Yes	Yes	-	-

MATERIAL EVENTS

(II) When there is profit forecast regarding assets or projects of the Company, and if the Reporting Period remains in the profit forecast period, the Company shall give an explanation of whether such assets or projects have realized the original profit forecast and its reasons

Realised Not Realised Not applicable

(III) Fulfilment of performance undertakings and its impact on goodwill impairment test

Applicable Not applicable

II. MISAPPROPRIATION OF FUNDS BY THE CONTROLLING SHAREHOLDERS AND OTHER RELATED PARTIES FOR NON-OPERATING PURPOSES DURING THE REPORTING PERIOD

Applicable Not applicable

III. BREACH OF GUARANTEES

Applicable Not applicable

IV. EXPLANATION ON THE "NON-STANDARD AUDIT REPORT" ISSUED BY THE ACCOUNTING FIRM OF THE BOARD OF DIRECTORS

Applicable Not applicable

V. ANALYSIS OF REASONS AND IMPACT OF ACCOUNTING POLICY, CHANGES TO ACCOUNTING ESTIMATE OR CORRECTION TO MATERIAL ACCOUNTING ERRORS

(I) Analysis of reasons and impact of accounting policy and changes to accounting estimate

Applicable Not applicable

(II) Analysis of reasons and impact of correction to material accounting errors

Applicable Not applicable

(III) Communication with former accounting firm

Applicable Not applicable

(IV) Other explanations

Applicable Not applicable

MATERIAL EVENTS

VI. APPOINTMENT AND DISMISSAL OF ACCOUNTING FIRM

Unit: RMB

	Former Appointment	Current Appointment
Name of domestic accounting firm	WUYIGE Certified Public Accountants LLP (Special General Partnership)	Ernst & Young Hua Ming LLP (Special General Partnership)
Remuneration of domestic accounting firm	7,880,000	16,000,000
Term of audit by domestic accounting firm	2 years	1 year
Name of certified public accountant of domestic accounting firm	Wang Jin/ Cai Jinliang	Zhang Ningning/ Zhao Ning
Term of continuous audit services by certified public accountant of domestic accounting firm	2 years	1 year

	Name	Remuneration
Accounting firm for internal control audit	Ernst & Young Hua Ming LLP (Special General Partnership)	1,500,000

Description of appointment and dismissal of accounting firm

The Company's 2021 annual financial report auditor and internal control auditor are WUYIGE Certified Public Accountants LLP (Special General Partnership). Considering the needs of the Company's development strategy and audit requirements, with the approval at the Company's annual general meeting for 2021, Ernst & Young Hua Ming LLP (Special General Partnership) was appointed as the Company's auditor for the 2022 financial report, review auditor of the interim financial report and the Company's 2022 internal control audit accounting firm, responsible for the annual audit and interim review of the Company's financial statements prepared in accordance with China Accounting Standards for enterprises.

The certified public accountants who signed the 2022 audit report of the Company are Zhang Ningning and Zhao Ning.

Explanation of change in appointment of accounting firm during the audit period

Applicable Not applicable

VII. RISK EXPOSURES TO SUSPENSION OF LISTING

(I) Reasons for suspension of listing risk warning

Applicable Not applicable

(II) Measures proposed by the Company in response to risks

Applicable Not applicable

(III) Situation of and reasons for delisting

Applicable Not applicable

MATERIAL EVENTS

VIII. EVENTS IN RELATION TO BANKRUPTCY AND REORGANISATION

Applicable Not applicable

IX. MATERIAL LITIGATION AND ARBITRATION

The Company had material litigation and arbitration during the year The Company had no material litigation and arbitration during the year

X. SUSPECTED VIOLATION OF LAWS AND REGULATIONS, THE PENALTIES AND RECTIFICATION OF THE LISTED COMPANY AND ITS DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT, CONTROLLING SHAREHOLDER AND DE FACTO CONTROLLER

Applicable Not applicable

XI. EXPLANATION ON INTEGRITY OF THE COMPANY AND ITS CONTROLLING SHAREHOLDER AND DE FACTO CONTROLLER DURING THE REPORTING PERIOD

During the Reporting Period, the Company and its Controlling Shareholder, CMGC, did not fail to fulfill the obligations specified in the effective legal documents of the court or any overdue liability with a relatively significant outstanding amount and was not otherwise involved in any other similar circumstances.

XII. MATERIAL CONNECTED TRANSACTIONS

(I) Connected transactions related to day-to-day operation

1. *Events disclosed in interim announcements without further development or change in subsequent implementation*

Overview of the Matter

Query Indexes

At the 37th meeting of the third session of the Board of Directors convened on 29 March 2022, the Resolution on Adjusting Annual Caps for Daily Related Party Transactions/Continuing Connected Transactions in 2022 and 2023, the Resolution on MCC's Application for Signing a Financial Service Agreement with Minmetals Group Finance Co., Ltd., the Resolution on MCC's Risk Assessment Report on Minmetals Group Finance Co. Ltd., the Resolution on Risk Disposal Plan for the Development of Financial Business by MCC and Minmetals Group Finance Co., Ltd. were considered and approved. It was agreed that the Company would adjust and estimate the relevant caps and sign the relevant agreements, and submit the resolutions to the general meeting of the Company for consideration after the prior review of Hong Kong Stock Exchange in accordance with the relevant regulations.

For details, please refer to the relevant announcement published by the Company on 29 March 2022.

At the 43rd meeting of the third session of the Board of Directors convened on 27 October 2022, the Resolution on the Application for Adjusting Annual Caps for Metallurgical and Management Services (Expenditure) Daily Related Party Transactions/Continuing Connected Transactions of MCC in 2022–2023. It was agreed that the Company would adjust the caps for metallurgical and management services (expenditure) daily related party transactions of MCC in 2022–2023.

For details, please refer to the relevant announcement published by the Company on 27 October 2022.

MATERIAL EVENTS

2. Events disclosed in interim announcements and with further development or change in subsequent implementation

Applicable Not applicable

3. Events not disclosed in interim announcements

Unit: RMB '000

Party to connected transaction	Connected relationship	Type of connected transaction	Content of connected transaction	Pricing principle of connected transaction	Annual caps for 2022	Price of connected transaction	Amount of connected transaction	Percentage to similar transactions (%)	Payment Method for connected transaction	Market price	Reason for significant difference between transaction price and reference market price
China Minmetals and its subsidiaries (Except MCC)	Indirect controlling shareholder	Sales of commodities	Purchase and sales of materials-income	Agreed price	8,104,530	-	3,095,249	13.89%	-	-	-
China Minmetals and its subsidiaries (Except MCC)	Indirect controlling shareholder	Purchase of commodities	Purchase and sales of materials-expense	Agreed price	24,340,290	-	11,446,053	6.37%	-	-	-
China Minmetals and its subsidiaries (Except MCC)	Indirect controlling shareholder	Provision of services	Engineering construction-income	Agreed price	18,850,000	-	3,619,922	0.70%	-	-	-
China Minmetals and its subsidiaries (Except MCC)	Indirect controlling shareholder	Acceptance of services	Engineering construction-expense	Agreed price	5,935,000	-	374,371	0.15%	-	-	-
China Minmetals and its subsidiaries (Except MCC)	Indirect controlling shareholder	Provision of services	Metallurgy and management services-income	Agreed price	625,000	-	48,543	0.26%	-	-	-
China Minmetals and its subsidiaries (Except MCC)	Indirect controlling shareholder	Acceptance of services	Metallurgy and management services-expenses	Agreed price	268,580	-	157,224	10.38%	-	-	-
China Minmetals and its subsidiaries (Except MCC)	Indirect controlling shareholder	Other outflow	Property leasing - expenses	Lease contracts	110,830	-	96,438	5.79%	-	-	-
CMC Finance Co., Ltd.	Subsidiary of shareholder	Borrowings from related parties	Daily maximum balance of provision of comprehensive credit granting to the Company and its subsidiaries by CMC Finance Co., Ltd. ^{Note1}	Agreed price	30,000,000	-	49,545	-	-	-	-
CMC Finance Co., Ltd.	Subsidiary of shareholder	Deposits	Daily deposits balance by the Company and its subsidiaries with CMC Finance Co., Ltd. ^{Note2}	Agreed price	12,000,000	-	4,300,099	-	-	-	-
CMC Finance Co., Ltd.	Subsidiary of shareholder	Expenditures	Total charges for provision of financial services to the Company and its subsidiaries by CMC Finance Co., Ltd. ^{Note3}	Agreed price	50,000	-	210	0.00%	-	-	-

MATERIAL EVENTS

Party to connected transaction	Connected relationship	Type of connected transaction	Content of connected transaction	Pricing principle of connected transaction	Annual caps for 2022	Price of connected transaction	Amount of connected transaction	Percentage to similar transactions (%)	Payment Method for connected transaction	Market price	Reason for significant difference between transaction price and reference market price
MCC Ruimu Amperex Technology Limited	Subsidiary of shareholder	Borrowings to related parties	Daily maximum balance of provision of loan and bill discounting services	Agreed price	800,000	-	200,000	-	-	-	-
MCC Ruimu Amperex Technology Limited	Subsidiary of shareholder	Borrowings to related parties	Daily maximum balance of provision of financial leasing services	Agreed price	500,000	-	87,333	-	-	-	-
MCC Ruimu Amperex Technology Limited	Subsidiary of shareholder	Interest income	Annual caps for interests and rents	Agreed price	88,000	-	2,462	0.22%	-	-	-
China Minmetals and its subsidiaries (Except MCC)	Indirect controlling shareholder	Interest expenses	Industry and financial Services-financing costs-financial assistance	Agreed price	1,600,000	-	13,907	0.53%	-	-	-
Total	/	/	/	/	103,272,230	/	23,491,356	/	/	/	/
Details of return of sold goods in large quantities	Not Applicable										
Description of connected transaction	Not Applicable										

Notes:

- (1) Including but not limited to loans, acceptances and discounts on bills, guarantees, letters of guarantee and opening letters of credit, including accrued interest incurred.
- (2) Including accrued interest incurred.
- (3) Including but not limited to the total amount of agency fees, handling fees, advisory fees or other service fees charged for the provision of advisory, clearing, internet banking, investment, letter of credit, entrusted loans, guarantees, acceptance of bills, letters of guarantee, etc.

In respect of the abovementioned continuing connected transactions, the Company has complied with the disclosure requirements of Chapter 14A of the Hong Kong Listing Rules. During the Reporting Period, in conducting the abovementioned continuing connected transactions, the Company has followed the pricing policies and guidelines determined at the time of entering into transactions.

The Company's Independent Non-executive Directors have reviewed the aforementioned continuing connected transactions and confirmed that these transactions have been entered into:

- (1) in the ordinary course of business of the Company;
- (2) either on normal commercial terms or on terms no less favourable to the Company than those available to or provided from (as appropriate) independent third parties as the Company is concerned; and

MATERIAL EVENTS

- (3) in accordance with the terms of the agreements governing them that are fair and reasonable and in the interests of the Company's Shareholders as a whole.

The Company's auditors were engaged to report on the aforementioned continuing connected transactions of the Company in accordance with Hong Kong Standard on Assurance Engagements 3000 "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" and with reference to Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants. The auditors have issued their unqualified letter containing their conclusions in respect of the aforementioned continuing connected transactions in accordance with Rule 14A.56 of the Hong Kong Listing Rules, stating that, during the Reporting Period:

- (1) nothing has come to the auditor's attention that causes the auditor to believe that the disclosed continuing connected transactions have not been approved by the Company's Board;
- (2) for transactions involving the provision of goods or services by the Company, nothing has come to the auditor's attention that causes the auditor to believe that the transactions were not, in all material respects, in accordance with the pricing policies of the Company;
- (3) nothing has come to the auditor's attention that causes the auditor to believe that the transactions were not entered into, in all material respects, in accordance with the relevant agreements governing such transactions; and
- (4) nothing has come to the auditor's attention that causes the auditor to believe that the amount of such continuing connected transactions have exceeded the total annual caps set by the Company.

(II) Connected transactions in relation to acquisition of assets or acquisition or disposal of equity

1. *Events disclosed in an interim announcement, yet with no progress or changes in subsequent implementation*

Applicable Not applicable

2. *Events disclosed in an interim announcement with progress or changes in subsequent implementation*

Applicable Not applicable

3. *Events undisclosed in an interim announcement*

Applicable Not applicable

4. *Business results of the Reporting Period shall be disclosed as agreed involving the results*

Applicable Not applicable

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(III) Material connected transactions in relation to joint investment in external parties

1. *Events disclosed in an interim announcement, yet with no progress or changes in subsequent implementation*

Applicable Not applicable

2. *Events disclosed in an interim announcement and with progress or changes in subsequent implementation*

Applicable Not applicable

3. *Events undisclosed in an interim announcement*

Applicable Not applicable

(IV) Related creditors' rights and debt transactions

1. *Events disclosed in interim announcements without further development or change in subsequent implementation*

Applicable Not applicable

2. *Events disclosed in interim announcements with further development or change in subsequent implementation*

Applicable Not applicable

3. *Events not disclosed in interim announcements*

Applicable Not applicable

(V) Financial business between the Company and its related financial companies and financial business between the Company's holding financial company and its related parties

1. *Deposits*

During the Reporting Period, the deposits of MCC Ruimu Amperex Technology Limited ("MCC Ruimu Amperex", a subsidiary of CMGC, the Controlling Shareholder of the Company) in MCC Finance Corporation Ltd. (referred to as "Finance Company", a subsidiary of the Company), and the deposits of the Company in CMC Finance Co., Ltd. (referred to as "Minmetals Finance Company", a related party of the Company), are as follows:

Unit: RMB

Related party	Connection	Daily maximum deposit limit	Interest rate range of deposits	Balance at the beginning of the period	Amount for the period		Balance at the end of the period
					Total deposits for the period	Total withdrawal amount for the period	
MCC Ruimu Amperex	Subsidiary of the Controlling Shareholder	/	0.42%-1.26%	295,666,965.69	300,228,588.92	595,895,554.61	0
Minmetals Finance Company	Under common control of China Minmetals Corporation	12,000,000,000	0.35%-1.15%	0	26,664,142,294.97	26,663,922,310.46	219,984.51
Total	/	/	/	295,666,965.69	26,964,370,883.89	27,259,817,865.07	219,984.51

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2. Loan business

During the Reporting Period, the loan business of Finance Company (a subsidiary of the Company) to MCC Ruimu Amperex (a related party of the Company) are as follows:

Unit: RMB

Related party	Connection	Loan facility	Interest rate range of loans	Balance at the beginning of the period	Amount for the period		Balance at the end of the period
					Total loans for the period	Total repayment for the period	
MCC Ruimu Amperex	Subsidiary of the Controlling Shareholder	300,000,000	3.85%	200,000,000	0	200,000,000	0

3. Credit granting or other financial business

During the Reporting Period, the credit granted by Finance Company (a subsidiary of the Company) to MCC Ruimu Amperex (a related party of the Company), and the comprehensive credit granted by Minmetals Finance Company, a related party of the Company, to the Company and its member units are as follows:

Unit: RMB

Related party	Connection	Business types	Total	Actual amount
MCC Ruimu Amperex	Subsidiary of the Controlling Shareholder	Credit granting	400,000,000	0
Minmetals Finance Company	Under common control of China Minmetals Corporation	Credit granting	30,000,000,000	49,544,574.94
Total	/	/	30,400,000,000	49,544,574.94

4. Other explanations

During the Reporting Period, the total amount of handling, consulting or other service fees charged by Minmetals Finance Company, a related party of the Company, for the provision of financial services to the Company and its member units are as follows:

Unit: RMB

Related party	Connection	Business types	Total	Actual amount
Minmetals Finance Company	Under common control of China Minmetals Corporation	Service expenses	50,000,000	209,766.71

MATERIAL EVENTS

(VI) Others

Applicable Not applicable

XIII. MATERIAL CONTRACTS AND THE PERFORMANCE THEREOF

(I) Custody, contracting and leasing

1. Custody

Applicable Not applicable

2. Contracting

Applicable Not applicable

3. Leasing

Applicable Not applicable

(II) Guarantees

Unit: RMB

External guarantees provided by the Company (excluding guarantees provided to subsidiaries)

Guarantor	Relationship between the guarantor and the listed company	Guaranteed party	Guaranteed amount	Date of guarantee			Type of guarantee	Security (if any)	Whether execution of guarantee has been completed		Expired amount of the guarantee	Counter-guarantee	Whether guarantee is provided to related parties	Connected relationship
				(Signing date of agreement)	Inception date of guarantee	Expiration date of guarantee			Is the guarantee completed	expired				
MCC Real Estate Group Co., Ltd.	Wholly-owned subsidiary	Zhuhai Hengqin Headquarter Building Development Co., Ltd.	574,466,654.17	2019-9-4	2019-9-4	2024-9-4	Joint liability guarantee	Nil	No	No	0	Nil	No	Nil
China MCC 20 Group Co., Ltd	Holding subsidiary	Zhuhai Hengqin Headquarter Building Development Co., Ltd.	370,623,647.85	2019-9-4	2019-9-4	2024-9-4	Joint liability guarantee	Nil	No	No	0	Nil	No	Nil

MATERIAL EVENTS

Total amount of guarantees incurred during the Reporting Period (excluding guarantees to subsidiaries)	51,000,000.00
Total balance of guarantees as at the end of the Reporting Period (A) (excluding guarantees to subsidiaries)	945,090,302.02

Guarantees provided by the Company and its subsidiaries to their subsidiaries

Total amount of guarantees provided to its subsidiaries during the Reporting Period	-2,793,798,477.12
Total balance of guarantees provided to its subsidiaries as at the end of the Reporting Period (B)	16,624,676,077.79

Total guarantees provided by the Company (including guarantees to subsidiaries)

Total amount of guarantees (A+B)	17,569,766,379.81
Total amount of guarantees as a percentage in the net assets of the Company (%)	14.60
Including:	
Amount of guarantees provided to Shareholders, the de facto controllers and their related parties (C)	0
Debt guarantees directly or indirectly provided to guaranteed parties with gearing ratio of over 70% (D)	5,938,301,102.02
Guarantees with the total amount exceeding 50% of the net assets (E)	0
Total amount of guarantees of the three above items (C+D+E)	5,938,301,102.02
Explanation on the potential joint repaying liability arising from outstanding guarantees	Nil
Explanation on guarantees	See below

Explanation on guarantees: Zhuhai Hengqin Headquarters Building Development Co., Ltd. (珠海橫琴總部大廈發展有限公司) is 31% owned by MCC Real Estate, a subsidiary of the Company, 20% owned by another subsidiary of the Company, China MCC 20 Group Co., Ltd. 30% owned by Zhuhai Da Hengqin Real Estate Co., Ltd. (珠海大橫琴置業有限公司), and 19% owned by Hong Kong Jimei Property Development Co., Ltd. (香港集美地產發展有限公司). In July 2016, Zhuhai Da Hengqin Real Estate Co., Ltd. agreed to act in concert with MCC Real Estate on voting at the Board meeting, and issued an Acting in Concert Letter. The control of Zhuhai Hengqin Headquarters Building Development Co., Ltd. acquired by MCC Real Estate was included in the scope of consolidation in August 2016. On 5 September 2019, MCC Real Estate and China MCC 20 Group Co., Ltd. provided guarantees in the amount of up to RMB 930 million and RMB 600 million respectively, on a pro-rata basis, for Zhuhai Hengqin Headquarters Building Development Co., Ltd. (for details, please refer to the announcement of the Company dated 30 August 2019 in relation to the provision of guarantees for its subsidiaries). In March 2020, Zhuhai Da Hengqin Real Estate Co., Ltd. cancelled the Acting in Concert Letter with MCC Real Estate, and Zhuhai Hengqin Headquarters Building Development Co., Ltd. ceased to be included in the scope of MCC Real Estate Group Co., Ltd. The guarantee provided by MCC Real Estate and China MCC 20 Group Co., Ltd. then became a guarantee provided for an external company (excluding the guarantee provided for the subsidiaries).

(III) Entrusting third parties with cash asset management

1. Entrusted financial management

(1) Overall entrusted wealth management

Applicable Not applicable

Other

Applicable Not applicable

MATERIAL EVENTS

(2) Individual entrusted wealth management

Applicable Not applicable

Other

Applicable Not applicable

(3) Provisions for impairment of entrusted wealth management

Applicable Not applicable

2. Entrusted loans

(1) Overall entrusted loans

Applicable Not applicable

Other

Applicable Not applicable

(2) Individual entrusted loans

Applicable Not applicable

Other

Applicable Not applicable

(3) Provisions for impairment of entrusted wealth management

Applicable Not applicable

(IV) Other material contracts

For details of the material contracts signed by the Company during the Reporting Period, please refer to "Report of the Board of Directors, Management Discussion and Analysis".

XIV. OTHER IMPORTANT MATTERS THAT HAVE A SIGNIFICANT IMPACT ON INVESTORS' VALUE JUDGEMENT AND INVESTMENT DECISION

Applicable Not applicable

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

I. CHANGES IN SHARE CAPITAL

(I) Changes in shares

1. Changes in shares

During the Reporting Period, there were no changes in the total number of shares and share capital structure of the Company.

2. Explanation of the changes in shares

Applicable Not applicable

3. Impacts on financial indicators including earnings per share, net assets per share, etc. from changes in shares in the latest year and period (if any)

Applicable Not applicable

4. Other information the disclosure of which is deemed necessary by the Company or is required by securities regulatory authorities

Applicable Not applicable

(II) Changes in shares subject to selling restrictions

Applicable Not applicable

II. ISSUANCE AND LISTING OF SECURITIES

(I) Issuance of securities for the Reporting Period

RMB 0'000

Types of shares and their derivative securities	Issue date	Issue price (or interest rate)	Issue Amount	Listing date	Amount of shares permitted to be listed for trading	Termination date of transaction
Bonds (including enterprise bonds, corporate bonds and non-financial corporate debt financing instruments)						
MCC 2022 first tranche of medium-term notes	7 December 2022 to 8 December 2022	4.18%	200,000	2022/12/12	200,000	3+N(3)
MCC 2022 second tranche of medium-term notes	14 December 2022 to 15 December 2022	4.23%	200,000	2022/12/19	200,000	3+N(3)
MCC 2022 third tranche of medium-term notes	21 December 2022 to 22 December 2022	4.12%	130,000	2022/12/26	130,000	3+N(3)
2022 first tranche of ultra-short-term financing bonds of MCC	11 November 2022	1.78%	200,000	2022/11/14	200,000	2022/12/30

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

Types of shares and their derivative securities	Issue date	Issue price (or interest rate)	Issue Amount	Listing date	Amount of shares permitted to be listed for trading	Termination date of transaction
2022 second tranche of ultra-short-term financing bonds of MCC	15 November 2022	1.85%	200,000	2022/11/17	200,000	2022/12/30
2022 third tranche of ultra-short-term financing bonds of MCC	5 December 2022	1.88%	200,000	2022/12/6	200,000	2022/12/30
2022 fourth tranche of ultra-short-term financing bonds of MCC	7 December 2022	1.88%	200,000	2022/12/9	200,000	2022/12/30

Explanations on the securities issuance during the Reporting Period (please explain the bonds with different interest rates during the lifetime separately):

During the Reporting Period, the Company issued non-financial corporate debt financing instruments, including 2022 first tranche of medium-term notes of RMB 2 billion, 2022 second tranche of medium-term notes of RMB 2 billion, and 2022 third tranche of medium-term notes of RMB 1.3 billion, the first, second, third and fourth tranche of ultra-short-term financing bonds for 2022 amounted to RMB 2 billion, RMB 2 billion, RMB 2 billion and RMB 2 billion, respectively.

(II) Changes in the total number of shares and Shareholder structures and changes in the asset and liability structures of the Company

Applicable Not applicable

(III) Existing internal employee shares

Applicable Not applicable

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

III. PARTICULARS OF SHAREHOLDERS AND DE FACTO CONTROLLER

(I) Total number of Shareholders

Total number of ordinary Shareholders as at the end of the Reporting Period (<i>Person</i>)	384,921
Total number of holders of ordinary shares as at the end of the last month prior to the disclosure of annual report (<i>Person</i>)	376,843
Total number of Shareholders of preferred shares whose voting rights have been restored as at the end of the Reporting Period (<i>Person</i>)	0
Total number of holders of preference shares with voting rights restored as at the end of the last month prior to the disclosure of annual report (<i>Person</i>)	0

(II) Shareholdings of the Top Ten Shareholders and Top Ten Holders of Tradable Shares (or holders of shares not subject to selling restrictions) as at the end of the Reporting Period⁽¹⁾

Unit: share

Name of Shareholder (full name)	Change during the Reporting Period	Shareholding of the top 10 Shareholders		Number of Shares subject to selling restrictions	Pledged, marked or frozen		Nature of Shareholder
		Number of Shares held at the end of the period	Percentage (%)		Status of Shares	Amount	
China Metallurgical Group Corporation	0	10,190,955,300	49.18	0	Nil	0	State-owned legal person
HKSCC Nominees Limited ⁽²⁾	166,400	2,842,033,951	13.71	0	Nil	0	Others
China National Petroleum Corporation	0	1,227,760,000	5.92	0	Nil	0	State-owned legal person
China Securities Finance Corporation Limited	0	589,038,427	2.84	0	Nil	0	State-owned legal person
Hong Kong Securities Clearing Company Limited	70,499,411	443,292,658	2.14	0	Nil	0	Others
Bank of Communications Co., Ltd. – GF China Securities Trading – Index Securities Investment Open-ended Fund	18,751,200	88,411,100	0.43	0	Nil	0	Others
Bosera Funds – Agricultural Bank – Bosera China Securities and Financial Assets Management Program	0	63,516,600	0.31	0	Nil	0	Others
EFund – Agricultural Bank – EFund China Securities and Financial Assets Management Program	0	63,516,600	0.31	0	Nil	0	Others
Da Cheng Fund – Agricultural Bank – DaCheng China Securities and Financial Assets Management Program	0	63,516,600	0.31	0	Nil	0	Others

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

Shareholding of the top 10 Shareholders							
Name of Shareholder (full name)	Change during the Reporting Period	Number of Shares held at the end of the period	Percentage (%)	Number of Shares subject to selling restrictions	Pledged, marked or frozen		
					Status of Shares	Amount	Nature of Shareholder
Harvest Fund – Agricultural Bank – Harvest China Securities and Financial Assets Management Program	0	63,516,600	0.31	0	Nil	0	Others
GF Fund – Agricultural Bank – GF China Securities and Financial Assets Management Program	0	63,516,600	0.31	0	Nil	0	Others
Zhong Ou Fund – Agricultural Bank – Zhong Ou China Securities and Financial Assets Management Program	0	63,516,600	0.31	0	Nil	0	Others
China AMC Fund – Agricultural Bank – China AMC China Securities and Financial Assets Management Program	0	63,516,600	0.31	0	Nil	0	Others
Yinhua Fund – Agricultural Bank – Yinhua China Securities and Financial Assets Management Program	0	63,516,600	0.31	0	Nil	0	Others
China Southern Fund – Agricultural Bank – China Southern China Securities and Financial Assets Management Program	0	63,516,600	0.31	0	Nil	0	Others
ICBC Credit Suisse Fund – Agricultural Bank – ICBC Credit Suisse China Securities and Financial Assets Management Program	0	63,516,600	0.31	0	Nil	0	Others

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

Shareholding of the top 10 Shareholders not subject to selling restrictions

Name of Shareholder	Number of tradable Shares held not subject to selling restrictions	Types and number of Shares	
		Types of Shares	Number of Shares
China Metallurgical Group Corporation	10,190,955,300	RMB-denominated ordinary shares	10,190,955,300
HKSCC Nominees Limited ⁽²⁾	2,842,033,951	Overseas-listed foreign shares	2,842,033,951
China National Petroleum Corporation	1,227,760,000	RMB-denominated ordinary shares	1,227,760,000
China Securities Finance Corporation Limited	589,038,427	RMB-denominated ordinary shares	589,038,427
Hong Kong Securities Clearing Company Limited	443,292,658	RMB-denominated ordinary shares	443,292,658
Bank of Communications Co., Ltd. – GF China Securities Trading – Index Securities Investment Open-ended Fund	88,411,100	RMB-denominated ordinary shares	88,411,100
Bosera Funds – Agricultural Bank – Bosera China Securities and Financial Assets Management Program	63,516,600	RMB-denominated ordinary shares	63,516,600
EFund – Agricultural Bank – EFund China Securities and Financial Assets Management Program	63,516,600	RMB-denominated ordinary shares	63,516,600
Da Cheng Fund – Agricultural Bank – DaCheng China Securities and Financial Assets Management Program	63,516,600	RMB-denominated ordinary shares	63,516,600
Harvest Fund – Agricultural Bank – Harvest China Securities and Financial Assets Management Program	63,516,600	RMB-denominated ordinary shares	63,516,600
GF Fund – Agricultural Bank – GF China Securities and Financial Assets Management Program	63,516,600	RMB-denominated ordinary shares	63,516,600
Zhong Ou Fund – Agricultural Bank – Zhong Ou China Securities and Financial Assets Management Program	63,516,600	RMB-denominated ordinary shares	63,516,600
China AMC Fund – Agricultural Bank – China AMC China Securities and Financial Assets Management Program	63,516,600	RMB-denominated ordinary shares	63,516,600
Yinhua Fund – Agricultural Bank – Yinhua China Securities and Financial Assets Management Program	63,516,600	RMB-denominated ordinary shares	63,516,600
China Southern Fund – Agricultural Bank – China Southern China Securities and Financial Assets Management Program	63,516,600	RMB-denominated ordinary shares	63,516,600

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

Shareholding of the top 10 Shareholders not subject to selling restrictions

Name of Shareholder	Number of tradable Shares held not subject to selling restrictions	Types and number of Shares	
		Types of Shares	Number of Shares
ICBC Credit Suisse Fund – Agricultural Bank – ICBC Credit Suisse China Securities and Financial Assets Management Program	63,516,600	RMB-denominated ordinary shares	63,516,600
Explanations on the special account for repurchase of the top ten Shareholders			Not applicable
Explanations on the aforesaid Shareholders' entrusting of voting rights, entrusted voting rights, and waiver of voting rights			Not applicable
Explanations on the connections or parties acting in concert among the aforesaid Shareholders		The Company is not aware of the existence of any connections or parties acting in concert among the aforesaid Shareholders	
Explanations on the Shareholders of preferred shares whose voting rights have been restored and the number of Shares held			Not applicable

Note (1): Figures in the table were extracted from the Company's register of Shareholders as at 31 December 2022.

Note (2): The H Shares held by HKSCC Nominees Limited are those held on behalf of their multiple equity owners.

Number of Shares held by top 10 Shareholders subject to selling restrictions and information on the selling restrictions

Applicable Not applicable

(III) Strategic investors or general legal persons becoming the top 10 Shareholders by placing of new Shares

Applicable Not applicable

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

IV. PARTICULARS OF CONTROLLING SHAREHOLDER OR DE FACTO CONTROLLERS

(I) Controlling Shareholder

1. Legal person

Name	China Metallurgical Group Corporation
Person in charge	Chen Jianguang
Date of incorporation	1982-12-18
Principal business operations	General contracting of various kinds of domestic and international engineering; various kinds of engineering and technology consulting services and leasing of engineering equipment; technological development, technical services, technical exchange and transfer of technology of new materials, new techniques, and new products related to engineering and construction; development, production and sales of equipment required for the metallurgical industry; property development and operation; bidding agent; undertaking various types of international industrial and civilian construction, engineering consulting, surveying, design and leasing of equipment; import and export business; sales of mechanical and electrical products, cars, building materials, instrument and apparatus, and hardware and electric materials; research, planning, surveying, design, supervision and services for construction and installation projects of mechanical and electrical equipment and its related technology; development and sale of raw materials and products of papermaking; resources development, processing and utilization of metallic mineral products and relevant services. (The Company independently selects operational projects and carries out operational activities in accordance with laws; for projects subject to approval according to laws, operational activities shall be carried out according to the approved contents upon approval by related authorities; and the Company shall not engage in operational activities of projects prohibited or restricted by the municipal industrial policies.)
Equity interests in other domestic and overseas listed companies controlled and held by the Company during the Reporting Period	As at the end of the Reporting Period, CMGC held 27% equity interest in MCC Huludao Nonferrous Metals Group Co., Ltd., which in turn had a shareholding of 23.59% in Huludao Zinc Industry Co., Ltd. (000751). CMGC had a shareholding of 0.31% in PetroChina Company Limited (601857).
Other explanations	Nil.

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

2. *Natural person*

Applicable Not applicable

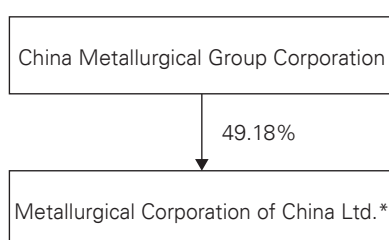
3. *Special explanation of the Company not having any controlling shareholder*

Applicable Not applicable

4. *Explanations on changes in Controlling Shareholder during the Reporting Period*

Applicable Not applicable

5. *A diagram showing the equity and relationship between the Company and the Controlling Shareholder*



(II) De Facto Controller

1. *Legal person*

Applicable Not applicable

The de facto controller of the Company is the SASAC.

2. *Natural person*

Applicable Not applicable

3. *Special explanation of the Company not having any de facto controller*

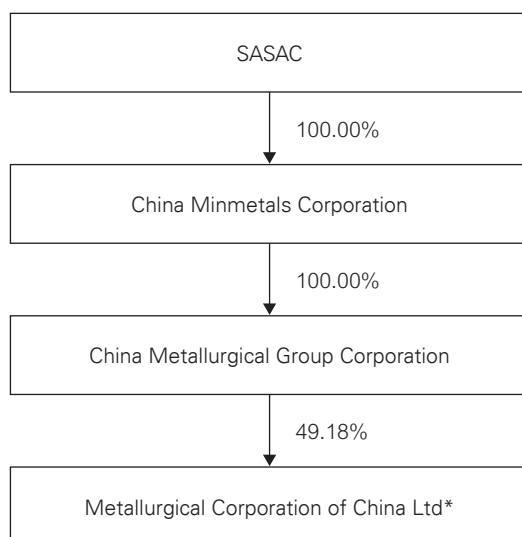
Applicable Not applicable

4. *Explanations on changes of control rights of the Company during the Reporting Period*

Applicable Not applicable

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

5. *A diagram showing the equity and relationship between the Company and the de facto controller*



6. *Control of the Company by the de facto controller by way of trust or other means of asset management*

Applicable Not applicable

(III) Other explanation regarding the Controlling Shareholder and the de facto controller

Applicable Not applicable

V. THE CUMULATIVE NUMBER OF SHARES PLEDGED BY THE CONTROLLING SHAREHOLDER OR THE LARGEST SHAREHOLDER OF THE COMPANY AND THE PERSONS ACTING IN CONCERT ACCOUNTS FOR MORE THAN 80% OF SHARES OF THE COMPANY HELD BY THEM

Applicable Not applicable

VI. OTHER CORPORATE SHAREHOLDERS HOLDING MORE THAN 10% OF THE COMPANY'S SHARES

Applicable Not applicable

VII. RESTRICTION ON REDUCTION IN SHAREHOLDING

Applicable Not applicable

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

VIII. DISCLOSURE OF INTERESTS

(I) Directors', Supervisors' and chief executive's interests and short positions in the Shares, underlying Shares and debentures of the Company and its associated corporations

As at 31 December 2022, as far as the Company is aware, interests or short positions of the Directors, Supervisors and the chief executive of the Company or their associates in the Shares, underlying Shares or debentures of the Company or any of its associated corporations (within the meaning of Part XV of the SFO) which were required, pursuant to section 352 of the SFO, to be entered in the register referred to therein, or otherwise notified to the Company and the Hong Kong Stock Exchange by the Directors and Supervisors pursuant to the Model Code or the rights granted for the purchase of shares or debentures of the Company or any of its associated corporations are as follows:

Unit: share

Name	Position	Class of shares	Long/short position	Capacity	Number of shares	Percentage of the relevant class of shares in issue (%)	Percentage of the total number of shares in issue (%)
Directors							
Zhang Mengxing	Executive Director and president	A Shares	Long position	Beneficial owner	60,032	0	0
Supervisors							
Yin Sisong	Chairman of Supervisory Committee	A Shares	Long position	Beneficial owner	28,100	0	0

Save as disclosed above, as at 31 December 2022, as far as the Company is aware, none of the Directors, Supervisors or the chief executive of the Company or their associates had any interests or short positions in the Shares, underlying Shares or debentures of the Company or any of its associated corporations (within the meaning of Part XV of the SFO) which were required, pursuant to section 352 of the SFO, to be entered in the register referred to therein, or otherwise required to be notified to the Company and the Hong Kong Stock Exchange by the Directors and Supervisors pursuant to the Model Code.

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

(II) Other senior management's interests and short positions in the Shares, underlying Shares and debentures of the Company and its associated corporations

As at 31 December 2022, as far as the Company is aware, interests of other senior management of the Company in the Shares of the Company are as follows:

Unit: share

Name	Position	Class of shares	Long/short position	Capacity	Number of shares	Percentage of the relevant class of shares in issue (%)	Percentage of the total number of shares in issue (%)
Zou Hongying	Vice president and chief accountant	A Shares	Long position	Beneficial owner	40,000	0	0
Qu Yang	Vice president	H Shares	Long position	Beneficial owner	70,000	0	0

(III) Interests and short positions of substantial Shareholders and other persons in the Shares and underlying Shares of the Company

As at 31 December 2022, the Company was informed that the following persons had interests or short positions in the Shares or underlying Shares of the Company as recorded in the register required to be kept under Section 336 of the SFO:

Holders of A Shares

Unit: share

Name of substantial Shareholder	Capacity	Number of A Shares	Nature of interest	Approximate percentage of the total issued A Shares (%)	Approximate percentage of the total issued shares (%)
China Minmetals Corporation	Interest of a controlled corporation	10,190,955,300	Long position	57.08	49.18
China Metallurgical Group Corporation	Beneficial owner	10,190,955,300	Long position	57.08	49.18
China National Petroleum Corporation	Beneficial owner	1,227,760,000	Long position	6.88	5.92

CHANGES IN SHARES AND PARTICULARS OF SHAREHOLDERS

Holders of H Shares

Unit: share

Name of substantial Shareholder	Capacity	Number of H Shares	Nature of interest	Approximate percentage of the total issued H Shares (%)	Approximate percentage of the total issued shares (%)
Citigroup Inc.	Interest of a controlled corporation	142,470,812	Long position	4.96	0.69

Save as disclosed above, as far as the Directors, Supervisors and chief executives of the Company are aware, as at 31 December 2022, in accordance with the register required to be kept under Section 336 of the SFO, no other person or corporation has an interest or short position in the Company's share capital that would require disclosure to the Company under Divisions 2 and 3 of Part XV of the SFO.

IX. SPECIFIC IMPLEMENTATION OF SHARE REPURCHASE DURING THE REPORTING PERIOD

Applicable Not applicable

X. MINIMUM PUBLIC FLOAT

During the Reporting Period and as of the latest practicable date prior to the publication of this report (i.e. 29 March 2023), the Company has maintained sufficient public float, based on the information that is publicly available to the Company and within the knowledge of the Directors of the Company.

XI. PRE-EMPTIVE RIGHTS AND SHARE OPTION ARRANGEMENTS

There are no provisions for pre-emptive rights under the Articles of Association of the Company or the laws of the PRC, which would oblige the Company to issue new shares to its existing Shareholders in proportion to their current equity ratio. Subject to the Hong Kong Listing Rules and pursuant to the Articles of Association, the Company may increase its registered capital by issuing shares through public or non-public offering, issuing bonus shares to the existing Shareholders, converting capital reserve to share capital or using other methods as required by applicable laws and administrative regulations or approved by relevant authorities.

Meanwhile, the Company does not have any share option arrangements.

BONDS

I. ENTERPRISE BONDS, CORPORATE BONDS AND NON-FINANCIAL CORPORATE DEBT FINANCING INSTRUMENTS

(I) Enterprise bonds

Applicable Not applicable

(II) Corporate bonds

1. Basic information on corporate bonds

Unit: RMB

Name of bonds	Abbreviation	Stock code	Issue date	Value date	Expiry date	Outstanding bonds	Interest rate (%)	Method to pay principal and interests	Stock exchange	Investor suitability arrangements (if any)	Trading mechanism	Is there any risk of termination of listing and trading
2018 Corporate Bonds (First Tranche) under the Public Issuance	18 MCC 02	143635	7 May 2018 to 8 May 2018	8 May 2018	8 May 2023	220,000,000	4.98	This tranche of bonds adopts simple interest on a yearly basis rather than compound rate and interest shall be paid once a year. Upon expiry of such period, the principal shall be repaid on one-off basis and the interest for the last tranche shall also be paid at the same time	SSE	-	Bidding transaction	No

The Company's measures to reduce the risk of termination of listing and trading of the Bonds

Applicable Not applicable

Overdue bonds

Applicable Not applicable

Payment of bond interest during the Reporting Period

Name of bonds	Explanations on bond interest payment
---------------	---------------------------------------

2017 Corporate Bonds (First Tranche) under the Public Issuance	Normal interest payment and repayment
2018 Corporate Bonds (First Tranche) under the Public Issuance	Normal interest payment

BONDS

2. *Trigger and implementation of option clauses of issuer or investor and investor protection clauses*

As of the date of approval of the annual report, no option clauses have been set for issuer or investor in the corporate bonds issued by the Company; no investor protection clauses were triggered by the corporate bonds issued by the Company.

3. *The intermediaries providing services for bond issuance and effective period business*

Name of the intermediaries	Office address	Contact persons	Contact No.
China Merchants Securities Co., Ltd.	17th Floor, 3rd Building, China Merchant Bank Mansion, No. 1 Yuetan South Street, Xicheng District, Beijing	Zhao Xin, Yang Dong	010-60840890
China Chengxin International Credit Rating Co., Ltd.	Galaxy SOHO5, No. 2 Nanzhugan Hutong, Dongcheng District, Beijing	Zhang Xinyu, Du Peishan	010-66428877

Changes in the aforesaid intermediaries

Applicable Not applicable

4. *Use of proceeds at the end of the Reporting Period*

Unit: RMB

Name of bonds	Total amount of proceeds	Amount used	Amount unused	Operation of special account for proceeds (if any)	Rectification of unauthorized use of proceeds (if any)	Is it in line with the intended use, plan of use and other purposes as stipulated in the prospectuses
2018 Corporate Bonds (First Tranche) under the Public Issuance	220,000,000	220,000,000	-	Operating under governance	-	Yes

Progress and operational efficiency of the construction projects in which the proceeds are used

Applicable Not applicable

Explanations on changes in the use of aforesaid proceeds during the Reporting Period

Applicable Not applicable

Other explanations

Applicable Not applicable

BONDS

5. Adjustment of credit rating results

Applicable Not applicable

Other explanations

Applicable Not applicable

6. Implementation, change and impact of guarantee, debt repayment plan and other debt repayment guarantee measures during the Reporting Period

Status	Implementation	Change or not	After the change	Reason for the change	Whether the change has been approved by the competent authority	Effect of changes on the interests of bond investors
As of the date of approval of the annual report, no credit enhancement mechanism has been set in the corporate bonds issued by the Company, and the debt repayment plan and other debt repayment guarantee measures have not changed	The debt repayment plan and other debt repayment guarantee measures are consistent with the agreements and relevant commitments in the prospectus	No	-	-	No	-

7. Other information on corporate bonds

2018 Corporate Bonds (First Tranche) under the Public Issuance are targeted at qualified investors through public issuance.

(III) Non-financial corporate debt financing instruments in interbank bond market

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

Unit: RMB

Name of bonds	Short name	Stock code	Issue date	Value date	Expiry date	Outstanding bonds	Interest rate (%)	Method to pay principal and interests	Stock exchange	Investor suitability arrangements (if any)	Trading mechanism	Is there any risk of termination of listing and trading
2020 First Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	20 MCC MTN001	102001274	22 June 2020 to 23 June 2020	24 June 2020	Exercise Date of Options redeemed by the issuer, with the first exercise date on 24 June 2023	2,000,000,000	3.90	Interests payable per annum, and principal and interest payable upon maturity	National Interbank Bond Market	-	Bidding transaction	No

BONDS

Name of bonds	Short name	Stock code	Issue date	Value date	Expiry date	Outstanding bonds	Interest rate (%)	Method to pay principal and interests	Stock exchange	Investor suitability arrangements (if any)	Trading mechanism	Is there any risk of termination of listing and trading
2020 Second Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	20 MCC MTN002	102001293	24 June 2020, 28 June 2020 to 29 June 2020	29 June 2020	Exercise Date of Options redeemed by the issuer, with the first exercise date on 29 June 2023	1,000,000,000	3.89	Interests payable per annum, and principal and interest payable upon maturity	National Interbank Bond Market	-	Bidding transaction	No
2021 First Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	21 MCC MTN001	102101395	26 July 2021 to 27 July 2021	28 July 2021	Exercise Date of Options redeemed by the issuer, with the first exercise date on 28 July 2024	2,000,000,000	3.55	Interests payable per annum, and principal and interest payable upon maturity	National Interbank Bond Market	-	Bidding transaction	No
2021 Second Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	21 MCC MTN002	102101593	17 August 2021 to 18 August 2021	19 August 2021	Exercise Date of Options redeemed by the issuer, with the first exercise date on 19 August 2024	2,000,000,000	3.47	Interests payable per annum, and principal and interest payable upon maturity	National Interbank Bond Market	-	Bidding transaction	No
2021 Third Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	21 MCC MTN003	102101685	24 August 2021 to 25 August 2021	26 August 2021	Exercise Date of Options redeemed by the issuer, with the first exercise date on 26 August 2024	2,000,000,000	3.50	Interests payable per annum, and principal and interest payable upon maturity	National Interbank Bond Market	-	Bidding transaction	No
2021 Fourth Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	21 MCC MTN004	102103353	28 December 2021 to 29 December 2021	30 December 2021	Exercise Date of Options redeemed by the issuer, with the first exercise date on 30 December 2024	500,000,000	3.30	Interests payable per annum, and principal and interest payable upon maturity	National Interbank Bond Market	-	Bidding transaction	No
2022 First Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	22 MCC MTN001	102282664	7 December 2022 to 8 December 2022	9 December 2022	Exercise Date of Options redeemed by the issuer, with the first exercise date on 9 December 2025	2,000,000,000	4.18	Interests payable per annum, and principal and interest payable upon maturity	National Interbank Bond Market	-	Bidding transaction	No
2022 Second Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	22 MCC MTN002	102282722	14 December 2022 to 15 December 2022	16 December 2022	Exercise Date of Options redeemed by the issuer, with the first exercise date on 16 December 2025	2,000,000,000	4.23	Interests payable per annum, and principal and interest payable upon maturity	National Interbank Bond Market	-	Bidding transaction	No

BONDS

Name of bonds	Short name	Stock code	Issue date	Value date	Expiry date	Outstanding bonds	Interest rate (%)	Method to pay principal and interests	Stock exchange	Investor suitability arrangements (if any)	Trading mechanism	Is there any risk of termination of listing and trading
2022 Third Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	22 MCC MTN003	102282771	21 December 2022 to 22 December 2022	23 December 2022	Exercise Date of Options redeemed by the issuer, with the first exercise date on 23 December 2025	1,300,000,000	4.12	Interests payable per annum, and principal and interest payable upon maturity	National Interbank Bond Market	-	Bidding transaction	No
2023 First Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	23 MCC MTN001	102380165	8 February to 9 February 2023	10 February 2023	Exercise Date of Options redeemed by the issuer, with the first exercise date on 10 February 2025	2,000,000,000	3.57	Interests payable per annum, and principal and interest payable upon maturity	National Interbank Bond Market	-	Bidding transaction	No
2023 Second Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	23 MCC MTN002	102380190	10 February to 13 February 2023	14 February 2023	Exercise Date of Options redeemed by the issuer, with the first exercise date on 14 February 2025	2,000,000,000	3.52	Interests payable per annum, and principal and interest payable upon maturity	National Interbank Bond Market	-	Bidding transaction	No
2023 Third Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	23 MCC MTN003	102380222	15 February to 16 February 2023	17 February 2023	Exercise Date of Options redeemed by the issuer, with the first exercise date on 17 February 2025	2,000,000,000	3.45	Interests payable per annum, and principal and interest payable upon maturity	National Interbank Bond Market	-	Bidding transaction	No
2023 Fourth Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	23 MCC MTN004	102380244	17 February to 20 February 2023	21 February 2023	Exercise Date of Options redeemed by the issuer, with the first exercise date on 21 February 2025	2,000,000,000	3.52	Interests payable per annum, and principal and interest payable upon maturity	National Interbank Bond Market	-	Bidding transaction	No
2023 Fifth Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	23 MCC MTN005	102380443	8 March to 9 March 2023	10 March 2023	Exercise Date of Options redeemed by the issuer, with the first exercise date on 10 March 2025	2,000,000,000	3.37	Interests payable per annum, and principal and interest payable upon maturity	National interbank bond market	-	Bidding transaction	No

BONDS

Name of bonds	Short name	Stock code	Issue date	Value date	Expiry date	Outstanding bonds	Interest rate (%)	Method to pay principal and interests	Stock exchange	Investor suitability arrangements (if any)	Trading mechanism	Is there any risk of termination of listing and trading
2023 Sixth Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	23MCC MTN006	102380488	10 March to 13 March 2023	14 March 2023	Exercise Date of Options redeemed by the issuer, with the first exercise date on 14 March 2025	2,000,000,000	3.36	Interests payable per annum, and principal and interest payable upon maturity	National interbank bond market	-	Bidding transaction	No
2023 Seventh Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	23MCC MTN007	102380546	15 March to 16 March 2023	17 March 2023	Exercise Date of Options redeemed by the issuer, with the first exercise date on 17 March 2025	2,000,000,000	3.37	Interests payable per annum, and principal and interest payable upon maturity	National interbank bond market	-	Bidding transaction	No
2023 Eighth Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	23MCC MTN008	102380610	17 March to 20 March 2023	21 March 2023	Exercise Date of Options redeemed by the issuer, with the first exercise date on 21 March 2025	2,000,000,000	3.36	Interests payable per annum, and principal and interest payable upon maturity	National interbank bond market	-	Bidding transaction	No
2023 Ninth Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	23MCC MTN009	102380672	22 March to 23 March 2023	24 March 2023	Exercise Date of Options redeemed by the issuer, with the first exercise date on 24 March 2025	2,000,000,000	3.35	Interests payable per annum, and principal and interest payable upon maturity	National interbank bond market	-	Bidding transaction	No

The Company's response measures to the risk of termination of listing and trading of the Bonds

Applicable Not applicable

Overdue bonds

Applicable Not applicable

BONDS

Bond interest payment during the Reporting Period

Name of bonds	Explanations on bond interest payment
2020 First Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	Normal interest payment
2020 Second Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	Normal interest payment
2021 First Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	Normal interest payment
2021 Second Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	Normal interest payment
2021 Third Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	Normal interest payment
2021 Fourth Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	Normal interest payment
2022 first tranche of ultra-short-term financing bonds of Metallurgical Corporation of China Ltd.	Normal interest payment and repayment
2022 second tranche of ultra-short-term financing bonds of Metallurgical Corporation of China Ltd.	Normal interest payment and repayment
2022 third tranche of ultra-short-term financing bonds of Metallurgical Corporation of China Ltd.	Normal interest payment and repayment
2022 fourth tranche of ultra-short-term financing bonds of Metallurgical Corporation of China Ltd.	Normal interest payment and repayment
2023 first tranche of ultra-short-term financing bonds of Metallurgical Corporation of China Ltd.	Normal interest payment and repayment
2023 second tranche of ultra-short-term financing bonds of Metallurgical Corporation of China Ltd.	Normal interest payment and repayment

2. *Trigger and implementation of option clauses of issuer or investor and investor protection clauses*

As of the date of approval of this annual report, the issuer's redemption option and interest deferred payment option have not been created on the medium-term notes issued by the Company; the medium-term notes issued by the Company had not triggered the investor protection clauses.

3. *The intermediaries providing services for bond issuance and effective period business*

Name of the intermediaries	Office address	Contact persons	Contact No.
Bank of Shanghai Co., Ltd.	No. 168, Yincheng Central Road, Pudong New District, Shanghai	Yan Yijia	021-68476439
China CITIC Bank Co., Ltd.	Building No. 1, 10 Guanghua Road, Chaoyang District, Beijing	You Wen	010-66635906
Shanghai Pudong Development Bank Co., Ltd.	No. 12, Zhongshan East 1st Road, Shanghai	Yang Shifeng	010-57395551
Postal Savings Bank of China Co., Ltd.	Jinding Building, No. 3, Financial Street, Xicheng District, Beijing	Li Na, Zhang Jialu	010-68858049
China Chengxin International Credit Rating Co., Ltd.	Galaxy SOHO5, No. 2 Nanzhugan Hutong, Dongcheng District, Beijing	Zhang Xinyu, Du Peishan	010-66428877
Bank of China Limited	No. 1 Fuxingmen Inner Street, Beijing	Xun Yamei	010-66592749

Changes in the aforesaid intermediaries

Applicable Not applicable

BONDS

4. Use of proceeds at the end of the Reporting Period

Unit: RMB

Name of bonds	Total amount of proceeds	Amount used	Amount unused	Operation of special account for proceeds (if any)	Rectification of unauthorized use of proceeds (if any)	Is it in line with the intended use, plan of use and other purposes as stipulated in the prospectuses
2020 First Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	2,000,000,000	2,000,000,000	- -	-	-	Yes
2020 Second Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	1,000,000,000	1,000,000,000	- -	-	-	Yes
2021 First Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	2,000,000,000	2,000,000,000	- -	-	-	Yes
2021 Second Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	2,000,000,000	2,000,000,000	- -	-	-	Yes
2021 Third Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	2,000,000,000	2,000,000,000	- -	-	-	Yes
2021 Fourth Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	500,000,000	500,000,000	- -	-	-	Yes
2022 First Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	2,000,000,000	2,000,000,000	- -	-	-	Yes
2022 Second Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	2,000,000,000	2,000,000,000	- -	-	-	Yes
2022 Third Tranche of Medium-term Notes of Metallurgical Corporation of China Ltd.	1,300,000,000	1,300,000,000	- -	-	-	Yes

Progress and operational efficiency of the construction projects in which the proceeds are used

Applicable Not applicable

Explanations on changes in the use of aforesaid proceeds during the Reporting Period

Applicable Not applicable

Other explanations

Applicable Not applicable

5. *Adjustment of credit rating results*

Applicable Not applicable

Other explanations

Applicable Not applicable

6. *Implementation, change and impact of guarantee, debt repayment plan and other debt repayment guarantee measures during the Reporting Period*

Status	Implementation	Whether there is a change	Situation after the change	Reasons for the change	Whether the change has been approved by the decision-making authority	Effect of changes on the interests of bond investors
As at the date of approval of the annual report, no credit enhancement mechanism has been set up in the medium-term notes issued by the Company, and no changes have been made to the debt repayment plans and other debt repayment protective measures	The debt repayment plans and other debt repayment protective measures are in line with the terms of the Prospectus and the relevant undertakings	No	-	-	No	-

7. *Other explanations on non-financial corporate debt financing instruments*

The medium-term notes issued by MCC are all targeted at institutional investors in national interbank bond market through public issuance.

BONDS

(IV) The Company's loss within the scope of consolidated statements during the Reporting Period exceeded 10% of the net assets at the end of the previous year

Applicable Not applicable

(V) Overdue interest-bearing debts other than bonds at the end of the Reporting Period

Applicable Not applicable

(VI) Violations of laws and regulations, Articles of Association and provisions of information disclosure management system during the Reporting Period, and the impacts of agreements or commitments in the prospectuses for bond offering on the rights and interests of bond investors

Applicable Not applicable

(VII) Accounting data and financial indicators of the Company for the latest two years as at the end of the Reporting Period

Unit: RMB '000

Major indicators	2022	2021	Increase/decrease as compared to the same period of last year (%)
Net profits after deducting non-recurring profit and loss attributable to Shareholders of the listed company	9,668,191	7,032,235	37.48
Current Ratio	1.14	1.15	Decreased by 0.01 percentage point
Quick Ratio	0.65	0.72	Decreased by 0.07 percentage point
Asset-liability Ratio (%)	72.34	72.14	Increased by 0.20 percentage points
EBITDA/Total Liabilities	0.05	0.05	–
Interest Protection Multiples	4.76	3.98	Increased by 0.78 percentage point
Cash Dividend Protection Multiples	5.45	4.95	Increased by 0.50 percentage point
EBITDA/Interest Protection Multiples	5.80	4.86	Increased by 0.94 percentage point
Loan Repayment Ratio (%)	100.00	100.00	–
Interest Payment Ratio (%)	100.00	100.00	–

II. CONVERTIBLE CORPORATE BONDS

Applicable Not applicable

FINANCIAL STATEMENTS

For the year ended 31 December 2022

I. AUDITOR'S REPORT

Ernst & Young Hua Ming (2023) Shen Zi No. 60923904_A01
Metallurgical Corporation of China Ltd.

TO THE SHAREHOLDERS OF METALLURGICAL CORPORATION OF CHINA LTD.:

(I) Opinion

We have audited the financial statements of Metallurgical Corporation of China Ltd. (hereinafter the "Company"), which comprise the consolidated and company balance sheets as at 31 December 2022, and the consolidated and company income statements, the consolidated and company statements of changes in equity and the consolidated and company statements of cash flows for the year then ended, and notes to the financial statements.

In our opinion, the accompanying financial statements present fairly, in all material respects, the consolidated and company's financial position as at 31 December 2022, and their financial performance and cash flows for the year ended in accordance with the requirements of Accounting Standards for Business Enterprises ("ASBEs").

(II) Basis for opinion

We conducted our audit in accordance with China Standards on Auditing ("CSAs"). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the Company in accordance with China Code of Ethics for Certified Public Accountants (the "Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

(III) Key audit matters

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

We have fulfilled the responsibilities described in the Auditor's responsibilities for the audit of the financial statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial statements.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

I. AUDITOR'S REPORT (CONTINUED)

(III) Key audit matters (continued)

Key audit matter	How our audit addressed the key audit matter
<p><i>Revenue recognition from construction contracts</i></p> <p>The revenue of the Company is mainly derived from construction contracts and recognised based on the performance progress over the period of the contract. Determined by input method, the performance progress is measured by reference to the percentage of actual contract costs incurred to the total budgeted costs. Management makes estimates on the revenue and budgeted costs at the inception of each contract. Management shall continuously review and revise financial impacts arising from the changes in the estimated total revenue and budgeted costs based on factors such as scope changes and cost to completion throughout the contract period, which involves management's use of significant estimates and judgements.</p> <p>The accounting policies and disclosures are included in notes V. 23 and V. 27 and note VII. 52 to the financial statements.</p>	<p>We evaluated and tested the relevant controls over revenue recognition from construction contracts, including the key internal control of preparation of revenue and budgeted costs and the determination of performance progress.</p> <p>We obtained the list of construction contracts and selected significant contracts to perform the following procedures:</p> <ul style="list-style-type: none">• Reviewed the key terms of the construction contracts and the revenue and budgeted costs prepared by the management;• Tested the accuracy of actual costs incurred during the year by reviewing supporting documents and verifying whether the actual costs were recorded in the appropriate accounting period;• Recalculated performance progress based on contract costs of incurred and total projected costs of contracts and revenue recognised for the current period based on projected total revenue and performance progress;• Visiting selected samples of sites of construction projects to observe the progress, discussing with the site project management, comparing the performance progress with ledger record, and evaluating the reasonableness of the performance progress of the construction projects.• Performed analytical procedure based on gross margins. <p>We evaluated the adequacy of disclosure of revenue recognition from construction contracts.</p>

FINANCIAL STATEMENTS

For the year ended 31 December 2022

I. AUDITOR'S REPORT (CONTINUED)

(III) Key audit matters (continued)

Key audit matter

How our audit addressed the key audit matter

Impairment allowance of accounts receivable and contract assets

The impairment allowance of accounts receivable, contract assets was recognised based on expected credit losses (ECLs). The management determines the ECLs based on information analysis of past records of settlement of contract assets and collection of accounts receivable, the counter parties' credit ratings and forecasts of future economic conditions etc., which involves significant management's judgements and estimates.

We evaluated and tested the relevant controls over the impairment allowance test of accounts receivable and contract assets.

For accounts receivable and contract assets which the management assesses the ECLs individually, we assessed the historical settlement of the contract assets, the historical payment of accounts receivable and the customers' payment ability on a sample basis. Taking into consideration the project progress and forecasted future economic situation, we evaluated the rationality and sufficiency of the management's provision of ECLs.

The accounting policies and disclosures are included in notes V. 10 and V. 27 and note VII. 5, VII. 10 to the financial statements.

For accounts receivable and contract assets which the management assesses the ECLs collectively by reference to the credit risk characteristics, we obtained the ECL provision matrix from the management, and evaluated the appropriateness of the inputs that management used, such as historical loss ratio and forward-looking adjustments, and then recalculated the expected loss. We tested the accuracy of ageing on a sample basis over the billing and collection cycle.

We evaluated the adequacy of disclosure of impairment of accounts receivable and contract assets.

(IV) Other information

The management of the Company is responsible for the other information. The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon.

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

In connection with our audit of the financial statements, our responsibility is to read the other information 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, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

I. AUDITOR'S REPORT (CONTINUED)

(V) Responsibilities of the management and those charged with governance for the financial statements

The management of the Company is responsible for the preparation and fair presentation of the financial statements in accordance with ASBEs, and for designing, implementing and maintaining such internal control as the management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless 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.

(VI) Auditor's responsibilities for the audit of the financial statements

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

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

- (1) Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- (2) Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances.
- (3) Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the management.
- (4) Conclude on the appropriateness of the management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- (5) Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- (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. We remain solely responsible for our audit opinion.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

I. AUDITOR'S REPORT (CONTINUED)

(VI) Auditor's responsibilities for the audit of the financial statements (continued)

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

We also provide statements to the governance regarding compliance with ethical requirements relating to independence, communicating with them all relationships and other matters that may reasonably be considered to affect the independence, as well as the relevant precautions (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 auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Ernst & Young Hua Ming LLP

Beijing, China

Chinese Certified Public Accountant:
Zhang Ningning
(Engagement Partner)

Chinese Certified Public Accountant:
Zhao Ning
(Engagement Partner)
29 March 2023

This auditor's report of the financial statements and the accompanying financial statements are English translations of the auditor's report and the financial statements prepared under accounting principles and practices generally accepted in the People's Republic of China. These financial statements are not intended to present the balance sheet and results of operations and cash flows in accordance with accounting principles and practices generally accepted in other countries and jurisdictions. In case the English version does not conform to the Chinese version, the Chinese version prevails.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

I. FINANCIAL STATEMENTS

CONSOLIDATED BALANCE SHEET

31 December 2022

All amounts in RMB '000

Items	Notes	31 December 2022	31 December 2021
Current Assets:			
Cash and bank balances	VII 1	45,485,413	41,824,464
Financial assets held for trading	VII 2	178,026	1,107
Derivative financial assets	VII 3	-	114,790
Bills receivable	VII 4	5,127,425	3,425,229
Accounts receivable	VII 5	93,439,673	83,881,695
Receivables at FVTOCI	VII 6	10,346,388	11,857,791
Prepayments	VII 7	36,352,532	46,111,033
Other receivables	VII 8	48,071,717	67,766,635
Inventories	VII 9	79,948,631	61,847,522
Contract assets	VII 10	106,826,600	91,185,630
Non-current assets due within one year	VII 11	4,896,108	2,241,185
Other current assets	VII 12	7,533,147	2,058,563
Total Current Assets		438,205,660	412,315,644
Non-current Assets:			
Long-term receivables	VII 13	35,841,643	30,386,163
Long-term equity investments	VII 14	31,863,695	30,328,766
Investments in other equity instruments	VII 15	939,925	786,855
Other non-current financial assets	VII 16	4,477,895	4,711,041
Investment properties	VII 17	7,871,895	7,327,797
Fixed assets	VII 18	25,411,113	25,117,809
Construction in progress	VII 19	4,077,347	4,379,190
Right-of-use assets	VII 20	860,236	591,878
Intangible assets	VII 21	22,026,293	20,878,147
Goodwill	VII 22	54,315	55,896
Long-term prepayments	VII 23	396,200	293,791
Deferred tax assets	VII 24	6,260,115	6,056,805
Other non-current assets	VII 25	7,098,058	240,365
Total Non-current Assets		147,178,730	131,154,503
TOTAL ASSETS		585,384,390	543,470,147

FINANCIAL STATEMENTS

For the year ended 31 December 2022

I. FINANCIAL STATEMENTS (CONTINUED)

CONSOLIDATED BALANCE SHEET (CONTINUED)

31 December 2022

All amounts in RMB '000

Items	Notes	31 December 2022	31 December 2021
Current Liabilities:			
Short-term borrowings	VII 26	20,192,878	21,395,848
Derivative financial liabilities	VII 27	200,670	4,413
Bills payable	VII 28	37,186,380	37,616,532
Accounts payable	VII 29	187,160,134	155,265,041
Receipts in advance	VII 30	92,382	135,118
Contract liabilities	VII 31	74,016,212	87,092,166
Employee benefits payable	VII 32	2,254,726	2,055,773
Taxes payable	VII 33	5,525,953	5,097,306
Other payables	VII 34	28,228,858	27,582,380
Non-current liabilities due within one year	VII 35	11,981,744	13,218,552
Other current liabilities	VII 36	19,004,712	9,426,537
Total Current Liabilities		385,844,649	358,889,666
Non-current Liabilities:			
Long-term borrowings	VII 37	28,840,673	25,332,533
Bonds payable	VII 38	1,300,000	220,000
Lease liabilities	VII 39	569,000	369,145
Long-term payables	VII 40	615,009	1,050,081
Long-term employee benefits payable	VII 41	3,506,754	3,887,979
Provisions	VII 42	1,081,743	811,797
Deferred income	VII 43	1,078,553	1,465,004
Deferred tax liabilities	VII 24	178,523	56,183
Other non-current Liabilities	VII 44	460,361	-
Total Non-current Liabilities		37,630,616	33,192,722
TOTAL LIABILITIES		423,475,265	392,082,388

FINANCIAL STATEMENTS

For the year ended 31 December 2022

I. FINANCIAL STATEMENTS (CONTINUED)

CONSOLIDATED BALANCE SHEET (CONTINUED)

31 December 2022

All amounts in RMB '000

Items	Notes	31 December 2022	31 December 2021
Shareholders' Equity:			
Share capital	VII 45	20,723,619	20,723,619
Other equity instruments	VII 46	28,500,000	23,700,000
Including: Perpetual bonds		28,500,000	23,700,000
Capital reserve	VII 47	22,601,592	22,612,919
Other comprehensive income	VII 48	1,084,471	(201,624)
Special reserve	VII 49	119,813	12,550
Surplus reserve	VII 50	2,976,424	2,692,992
Retained earnings	VII 51	45,102,415	37,954,521
Total shareholders' equity attributable to shareholders of the Company		121,108,334	107,494,977
Non-controlling interests		40,800,791	43,892,782
TOTAL SHAREHOLDERS' EQUITY		161,909,125	151,387,759
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		585,384,390	543,470,147

This financial statement is signed by the following person:

Chairman:
Chen Jianguang

General Accountant:
Zou Hongying

Financial Controller:
Fan Wanzhu

The accompanying notes form an integral part of these financial statements.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

II. FINANCIAL STATEMENTS (CONTINUED)

THE COMPANY'S BALANCE SHEET

31 December 2022

All amounts in RMB '000

Items	Notes	31 December 2022	31 December 2021
Current Assets:			
Cash and bank balances		4,562,014	5,017,042
Derivative financial assets		-	114,325
Accounts receivable	XVI 1	390,950	173,325
Prepayments		241,723	717,175
Other receivables	XVI 2	69,564,542	60,379,167
Inventories		877	1,107
Contract assets		829,494	1,482,927
Non-current assets due within one year		2,037	2,037
Other current assets		-	1,481
Total Current Assets		75,591,637	67,888,586
Non-current Assets:			
Long-term receivables	XVI 3	241,531	632,590
Long-term equity investments	XVI 4	97,969,791	97,647,601
Investments in other equity instrument		687	553
Fixed assets		18,393	11,947
Right-of-use assets		40,474	691
Intangible assets		2,416	3,758
Other non-current assets		431,393	-
Total Non-current Assets		98,704,685	98,297,140
TOTAL ASSETS		174,296,322	166,185,726

FINANCIAL STATEMENTS

For the year ended 31 December 2022

II. FINANCIAL STATEMENTS (CONTINUED)

THE COMPANY'S BALANCE SHEET (CONTINUED)

31 December 2022

All amounts in RMB '000

Items	Notes	31 December 2022	31 December 2021
Current Liabilities:			
Short-term borrowings	XVI 5	8,540,913	16,032,447
Derivative financial liabilities		166,454	–
Accounts payable		1,851,774	1,734,094
Contract liabilities		519,069	973,037
Employee benefits payable		17,278	16,219
Taxes payable		56,526	54,690
Other payables	XVI 6	46,269,575	32,902,591
Non-current liabilities due within one year	XVI 7	20,498,188	2,830,724
Total Current Liabilities		77,919,777	54,543,802
Non-current Liabilities:			
Long-term borrowings	XVI 8	439,080	–
Bonds payable		–	220,000
Lease liabilities		19,819	138
Long-term payables		–	20,456,990
Long-term employee benefits payable		56,406	62,011
Deferred income		3,598	3,598
Total Non-current Liabilities		518,903	20,742,737
TOTAL LIABILITIES		78,438,680	75,286,539
Shareholders' Equity:			
Share capital		20,723,619	20,723,619
Other equity instruments		28,500,000	23,700,000
Including: Perpetual bonds		28,500,000	23,700,000
Capital reserve		37,907,129	37,925,332
Other comprehensive income		(4,125)	(1,554)
Special reserve		12,550	12,550
Surplus reserve		2,976,424	2,692,992
Retained earnings		5,742,045	5,846,248
TOTAL SHAREHOLDERS' EQUITY		95,857,642	90,899,187
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		174,296,322	166,185,726

This financial statement is signed by the following person:

Chairman:
Chen Jianguang

General Accountant:
Zou Hongying

Financial Controller:
Fan Wanzhu

The accompanying notes form an integral part of these financial statements.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

II. FINANCIAL STATEMENTS (CONTINUED)

CONSOLIDATED INCOME STATEMENT

For the year ended
31 December 2022

All amounts in RMB '000

Items	Notes	2022	2021
I. Total operating revenue		592,669,072	500,571,647
Including: Operating revenue	VII 52	592,669,072	500,571,647
II. Total operating costs		571,218,254	480,571,671
Including: Operating costs	VII 52	535,516,918	447,435,146
Taxes and levies	VII 53	1,870,771	2,515,554
Selling expenses	VII 54	2,883,123	2,742,789
Administrative expenses	VII 55	11,273,969	10,921,869
Research and development expenses	VII 56	18,732,632	15,901,198
Financial expenses	VII 57	940,841	1,055,115
Including: Interest expenses		2,633,074	2,140,452
Interest income		2,423,313	2,667,996
Add: Other income	VII 58	433,224	428,034
Investment losses	VII 59	(1,523,214)	(1,793,422)
Including: Gains/(losses) from investments in associates and joint ventures		177,712	(131,052)
Losses from derecognition of financial assets at amortized cost		(1,273,573)	(1,491,538)
(Losses)/gains from changes in fair values	VII 60	(317,778)	177,934
Credit impairment losses	VII 61	(3,601,874)	(3,714,814)
Impairment losses of assets	VII 62	(1,359,652)	(1,624,422)
Gains on disposal of assets	VII 63	303,355	689,228
III. Operating profit		15,384,879	14,162,514
Add: Non-operating income	VII 64	323,055	299,559
Less: Non-operating expenses	VII 65	315,818	449,894
IV. Total profit		15,392,116	14,012,179
Less: Income tax expenses	VII 67	2,464,644	2,404,985
V. Net profit		12,927,472	11,607,194
(I) Net profit classified by operating continuity			
Net profit from continuing operations		12,927,472	11,607,194
(II) Net profit classified by ownership ascription			
Net profit attributable to shareholders of the Company		10,272,357	8,374,970
Net profit attributable to non-controlling interests		2,655,115	3,232,224

FINANCIAL STATEMENTS

For the year ended 31 December 2022

II. FINANCIAL STATEMENTS (CONTINUED)

CONSOLIDATED INCOME STATEMENT (CONTINUED)

For the year ended
31 December 2022

All amounts in RMB '000

Items	Notes	2022	2021
VI. Other comprehensive income, net of income tax	VII 48	1,502,518	(73,012)
Other comprehensive income attributable to shareholders of the Company, net of income tax		1,389,333	207,063
(I) Items that will not be reclassified to profit or loss		63,633	(4,416)
1. Re-measurement of defined benefit obligations		92,481	3,333
2. Other comprehensive income that cannot be reclassified to profit or loss under the equity method		(12)	55
3. Changes in fair values of investments in other equity instruments		(28,836)	(7,804)
(II) Items that may be reclassified to profit or loss		1,325,700	211,479
1. Other comprehensive income that can be reclassified to profit or loss under the equity method		(35,827)	30,346
2. Changes of fair value of receivables at FVTOCI		25,232	(12,449)
3. Exchange differences on translating financial statements in foreign currencies		1,336,295	193,582
Other comprehensive income attributable to non-controlling interests, net of income tax		113,185	(280,075)
VII. Total comprehensive income		14,429,990	11,534,182
Total comprehensive income attributable to shareholders of the Company		11,661,690	8,582,033
Total comprehensive income attributable to non-controlling interests		2,768,300	2,952,149
VIII. Earnings per share	VII 68		
(I) Basic earnings per share (RMB/share)		0.45	0.35
(II) Diluted earnings per share (RMB/share)		0.45	0.35

This financial statement is signed by the following person:

Chairman:
Chen Jianguang

General Accountant:
Zou Hongying

Financial Controller:
Fan Wanzhu

The accompanying notes form an integral part of these financial statements.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

II. FINANCIAL STATEMENTS (CONTINUED)

THE COMPANY'S INCOME STATEMENT

For the year period ended
31 December 2022

All amounts in RMB '00

Items	Notes	2022	2021
I Total operating revenue	XVI 9	1,999,796	3,552,768
Less: Operating costs	XVI 9	1,812,142	3,249,717
Taxes and levies		3,727	3,612
Administrative expenses		311,035	273,575
Financial expenses		729,482	179,015
Including: Interest expenses		2,408,207	2,119,621
Interest income		2,289,658	1,895,214
Add: Other income		1,886	676
Investment income	XVI 10	4,524,923	6,713,361
Including: Gains from investments in associates and joint ventures		17,122	17,701
(Losses)/gains from changes in fair values		(280,779)	140,960
Credit impairment (losses)/reversal	XVI 11	(541,441)	68,561
Impairment losses of assets		(1,128)	(3,672)
II. Operating profit		2,846,871	6,766,735
Add: Non-operating income		91	2
Less: Non-operating expenses		10	317
III. Total profit		2,846,952	6,766,420
Less: Income tax expenses		12,631	4,182
IV. Net profit		2,834,321	6,762,238
Net profit from continuing operations		2,834,321	6,762,238
V. Other comprehensive income, net of income tax		(2,571)	(1,199)
(I) Items that will not be reclassified to profit or loss		1,705	(1,219)
1. Changes in re-measurement of defined benefit obligations		1,571	(1,318)
2. Changes in fair values of investments in other equity instruments		134	99
(II) Items that will be reclassified to profit or loss		(4,276)	20
1. Items that may be reclassified to profit or loss in equity method		(4,276)	20
VI. Total comprehensive income		2,831,750	6,761,039

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General Accountant:
Zou Hongying

Financial Controller:
Fan Wanzhu

The accompanying notes form an integral part of these financial statements.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

II. FINANCIAL STATEMENTS

CONSOLIDATED CASH FLOW STATEMENT

For the year ended
31 December 2022

All amounts in RMB '000

Items	Notes	2022	2021
I Cash Flows from Operating Activities:			
Cash receipts from the sale of goods and the rendering of services		521,602,191	469,930,650
Receipts of tax refunds		1,799,701	573,918
Other cash receipts relating to operating activities	VII 69(1)	5,713,694	5,555,846
Sub-total of cash inflows from operating activities		529,115,586	476,060,414
Cash payments for goods purchased and services received		447,439,021	399,596,402
Cash payments to and on behalf of employees		31,296,525	29,261,065
Payments of various types of taxes		11,719,249	11,429,292
Other cash payments relating to operating activities	VII 69(2)	20,507,730	18,133,647
Sub-total of cash outflows from operating activities		510,962,525	458,420,406
Net Cash Flows from Operating Activities	VII 70(1)	18,153,061	17,640,008
II Cash Flows from Investing Activities:			
Cash receipts from disposals and recovery of investments		588,310	3,135,749
Cash receipts from investment income		210,340	424,781
Net cash receipts from disposal of fixed assets, intangible assets and other long-term assets		504,261	548,126
Net cash receipts from disposal of subsidiaries and other business units	VII 70(2)	3,656	88,266
Other cash receipts relating to investing activities	VII 69(3)	3,269,801	801,548
Sub-total of cash inflows from investing activities		4,576,368	4,998,470
Cash payments to acquire or construct fixed assets, intangible assets and other long-term assets		4,313,922	3,551,383
Cash payments to acquire investments		5,472,246	4,971,778
Net cash payments to acquire subsidiaries and other business units		356,403	–
Other cash payments relating to investing activities	VII 69(4)	993,145	9,042,539
Sub-total of cash outflows from investing activities		11,135,716	17,565,700
Net Cash Flows used in Investing Activities		(6,559,348)	(12,567,230)

FINANCIAL STATEMENTS

For the year ended 31 December 2022

II. FINANCIAL STATEMENTS (CONTINUED)

CONSOLIDATED CASH FLOW STATEMENT (CONTINUED)

For the year ended
31 December 2022

All amounts in RMB '000

Items	Notes	2022	2021
III Cash Flows from Financing Activities:			
Cash receipts from capital contributions		5,413,645	11,048,169
Including: Cash receipts from capital contributions by non-controlling interests of subsidiaries		113,645	3,348,169
Cash receipts from issue of perpetual bond		5,300,000	7,700,000
Cash receipts from borrowings		135,665,962	106,816,090
Other cash receipts relating to financing activities	VII 69(5)	371,220	322,886
Sub-total of cash inflows from financing activities		141,450,827	118,187,145
Cash repayments of borrowings		137,329,627	117,884,912
Cash payments for distribution of dividends or profits or settlement of interest expenses		8,056,220	8,489,370
Including: Payments for distribution of dividends or profits to non-controlling interests of subsidiaries		1,600,555	1,934,726
Other cash payments relating to financing activities	VII 69(6)	5,735,155	8,049,346
Sub-total of cash outflows from financing activities		151,121,002	134,423,628
Net Cash Flows used in Financing Activities		(9,670,175)	(16,236,483)
IV Effect of Foreign Exchange Rate Changes on Cash and Cash Equivalents		327,855	215,227
V Net Increase/(Decrease) in Cash and Cash Equivalents		2,251,393	(10,948,478)
Add: Opening balance of Cash and Cash equivalents		31,216,824	42,165,302
VI Closing Balance of Cash and Cash Equivalents	VII 70(3)	33,468,217	31,216,824

This financial statement is signed by the following person:

Chairman:
Chen Jianguang

General Accountant:
Zou Hongying

Financial Controller:
Fan Wanzhu

The accompanying notes form an integral part of these financial statements.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

II. FINANCIAL STATEMENTS (CONTINUED)

THE COMPANY'S CASH FLOW STATEMENT

For the year period ended
31 December 2022

All amounts in RMB '000

Items	Notes	2022	2021
I Cash Flows from Operating Activities:			
Cash receipts from the sale of goods and the rendering of services		1,578,273	1,479,193
Other cash receipts relating to operating activities		1,208,074	619,518
Sub-total of cash inflows from operating activities		2,786,347	2,098,711
Cash payments for goods purchased and services received		1,205,120	1,547,900
Cash payments to and on behalf of employees		216,170	183,255
Payments of various types of taxes		23,431	5,359
Other cash payments relating to operating activities		1,112,971	863,627
Sub-total of cash outflows from operating activities		2,557,692	2,600,141
Net Cash Flows from/(used in) Operating Activities	XVI 12(1)	228,655	(501,430)
II Cash Flows from Investing Activities:			
Cash receipts from returns on investments		20,246	-
Cash receipts from investment income		3,717,372	5,371,439
Other cash receipts relating to investing activities		22,003,282	2,864,952
Sub-total of cash inflows from investing activities		25,740,900	8,236,391
Cash payments to acquire or construct fixed assets, intangible assets and other long-term assets		14,659	1,659
Cash payments to acquire investments		337,794	2,923,814
Other cash payments relating to investing activities		28,860,464	99,952
Sub-total of cash outflows from investing activities		29,212,917	3,025,425
Net Cash Flows used in/(from) Investing Activities		(3,472,017)	5,210,966

FINANCIAL STATEMENTS

For the year ended 31 December 2022

II. FINANCIAL STATEMENTS (CONTINUED)

THE COMPANY'S CASH FLOW STATEMENT (CONTINUED)

For the year period ended
31 December 2022

All amounts in RMB '000

Items	Notes	2022	2021
III Cash Flows from Financing Activities:			
Cash receipts from investments		5,300,000	7,700,000
Including: Cash receipts from issue of perpetual bond		5,300,000	7,700,000
Cash receipts from borrowings		76,965,339	78,012,556
Other cash receipts relating to financing activities		363,640,755	103,050
Sub-total of cash inflows from financing activities		445,906,094	85,815,606
Cash repayments of borrowings		87,416,468	86,119,183
Cash payments for distribution of dividends or profits or settlement of interest expenses		3,503,019	4,504,147
Other cash payments relating to financing activities		352,236,683	4,500,000
Sub-total of cash outflows from financing activities		443,156,170	95,123,330
Net Cash Flows from/(used in) Financing Activities		2,749,924	(9,307,724)
IV Effect of Foreign Exchange Rate Changes on Cash and Cash Equivalents		38,076	(1,872)
V Net Decrease in Cash and Cash Equivalents		(455,362)	(4,600,060)
Add: Opening balance of Cash and Cash equivalents		5,006,514	9,606,574
VI Closing Balance of Cash and Cash Equivalents	XVI 12(2)	4,551,152	5,006,514

This financial statement is signed by the following person:

Chairman:
Chen Jianguang

General Accountant:
Zou Hongying

Financial Controller:
Fan Wanzhu

The accompanying notes form an integral part of these financial statements.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

II. FINANCIAL STATEMENTS (CONTINUED)

CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

All amounts in RMB '000

Items	For the year ended 31 December 2022								
	Attributable to shareholders of the Company								Total shareholders' equity
	Share capital	Other equity instruments (Perpetual bonds)	Capital reserve	Other comprehensive income	Special reserve	Surplus reserve	Retained profits	Non-controlling interests	
I Opening balance of the current year	20,723,619	23,700,000	22,612,919	(201,624)	12,550	2,692,992	37,954,521	43,892,782	151,387,759
II Changes for the year	-	4,800,000	(11,327)	1,286,095	107,263	283,432	7,147,894	(3,091,991)	10,521,366
(I) Total comprehensive income	-	-	-	1,389,333	-	-	10,272,357	2,768,300	14,429,990
(II) Shareholders' contributions and reductions in capital	-	4,800,000	(11,327)	-	-	-	-	(4,560,901)	227,772
1. Capital contribution from shareholders	-	-	-	-	-	-	-	167,902	167,902
2. Capital reduction from shareholders	-	-	-	-	-	-	-	(3,980,000)	(3,980,000)
3. Capital contribution from other equity instruments' holders (Note VII 46)	-	5,300,000	(18,203)	-	-	-	-	-	5,281,797
4. Capital reduction from other equity instruments' holders (Note VII 46)	-	(500,000)	-	-	-	-	-	(800,000)	(1,300,000)
5. Others	-	-	6,876	-	-	-	-	51,197	58,073
(III) Profit distribution	-	-	-	-	-	283,432	(2,938,524)	(1,600,555)	(4,255,647)
1. Transfer to surplus reserve	-	-	-	-	-	283,432	(283,432)	-	-
2. Distributions to shareholders	-	-	-	-	-	-	(1,616,442)	(1,233,724)	(2,850,166)
3. Distributions of perpetual bond interest	-	-	-	-	-	-	(1,038,650)	(366,831)	(1,405,481)
(IV) Transfers within shareholders' equity	-	-	-	(5,595)	-	-	5,595	-	-
1. Other comprehensive income carried forward to retained earnings (Note VII 15)	-	-	-	(5,595)	-	-	5,595	-	-
(V) Special reserve	-	-	-	-	107,263	-	-	11,988	119,251
1. Transfer to special reserve in the current year	-	-	-	-	9,253,421	-	-	709,371	9,962,792
2. Amount utilized in the current year	-	-	-	-	(9,146,158)	-	-	(697,383)	(9,843,541)
(VI) Others	-	-	-	(97,643)	-	-	(191,534)	289,177	-
III Closing balance of the current year	20,723,619	28,500,000	22,601,592	1,084,471	119,813	2,976,424	45,102,415	40,800,791	161,909,125

FINANCIAL STATEMENTS

For the year ended 31 December 2022

II. FINANCIAL STATEMENTS (CONTINUED)

CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY (CONTINUED)

All amounts in RMB '000

Items	For the year ended 31 December 2021									
	Attributable to shareholders of the Company								Non-controlling interests	Total shareholders' equity
	Share capital	Other equity instruments (Perpetual bonds)	Capital reserve	Other comprehensive income	Special reserve	Surplus reserve	Retained profits			
I Opening balance of the current year	20,723,619	20,500,000	22,461,602	(284,396)	12,550	2,016,768	32,461,495	42,463,669	140,355,307	
II Changes for the year	-	3,200,000	151,317	82,772	-	676,224	5,493,026	1,429,113	11,032,452	
(I) Total comprehensive income	-	-	-	207,063	-	-	8,374,970	2,952,149	11,534,182	
(II) Shareholders' contributions and reductions in capital	-	3,200,000	151,317	-	-	-	-	226,515	3,577,832	
1. Capital contribution from Shareholders	-	-	-	-	-	-	-	122,166	122,166	
2. Capital contribution from other equity instruments' holders	-	7,700,000	-	-	-	-	-	3,246,700	10,946,700	
3. Capital reduction from other equity instruments' holders	-	(4,500,000)	-	-	-	-	-	(3,172,039)	(7,672,039)	
4. Others	-	-	151,317	-	-	-	-	29,688	181,005	
(III) Profit distribution	-	-	-	-	-	676,224	(3,006,235)	(1,749,551)	(4,079,562)	
1. Transfer to surplus reserve	-	-	-	-	-	676,224	(676,224)	-	-	
2. Distributions to shareholders	-	-	-	-	-	-	(1,554,272)	(1,364,810)	(2,919,082)	
3. Distributions of perpetual bond interest	-	-	-	-	-	-	(775,739)	(384,741)	(1,160,480)	
(IV) Transfers within shareholders' equity	-	-	-	(124,291)	-	-	124,291	-	-	
1. Other comprehensive income carried forward to retained earnings	-	-	-	(124,291)	-	-	124,291	-	-	
(V) Special reserve	-	-	-	-	-	-	-	-	-	
1. Transfer to special reserve in the current year	-	-	-	-	7,189,775	-	-	606,714	7,796,489	
2. Amount utilized in the current year	-	-	-	-	(7,189,775)	-	-	(606,714)	(7,796,489)	
III Closing balance of the current year	20,723,619	23,700,000	22,612,919	(201,624)	12,550	2,692,992	37,954,521	43,892,782	151,387,759	

This financial statement is signed by the following person:

Chairman:
Chen Jianguang

General Accountant:
Zou Hongying

Financial Controller:
Fan Wanzhu

The accompanying notes form an integral part of these financial statements.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

II. FINANCIAL STATEMENTS (CONTINUED)

THE COMPANY'S STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

All amounts in RMB '000

Items	For the year ended 31 December 2022							Total shareholders' equity
	Share capital	Other equity instruments (Perpetual bonds)	Capital reserve	Other comprehensive income	Special reserve	Surplus reserve	Retained profits	
I Opening balance of the current year	20,723,619	23,700,000	37,925,332	(1,554)	12,550	2,692,992	5,846,248	90,899,187
II Changes for the year	-	4,800,000	(18,203)	(2,571)	-	283,432	(104,203)	4,958,455
(II) Total comprehensive income	-	-	-	(2,571)	-	-	2,834,321	2,831,750
(III) Shareholders' contributions and reductions in capital	-	4,800,000	(18,203)	-	-	-	-	4,781,797
1. Capital contribution and reduction from other equity instruments' holders	-	5,300,000	(18,203)	-	-	-	-	5,281,797
2. Capital reduction from other equity instruments' holders	-	(500,000)	-	-	-	-	-	(500,000)
(III) Profit distribution	-	-	-	-	-	283,432	(2,938,524)	(2,655,092)
1. Transfer to surplus reserve	-	-	-	-	-	283,432	(283,432)	-
2. Distributions to shareholders	-	-	-	-	-	-	(1,616,442)	(1,616,442)
3. Distributions of perpetual bond interest	-	-	-	-	-	-	(1,038,650)	(1,038,650)
III Closing balance of the current year	20,723,619	28,500,000	37,907,129	(4,125)	12,550	2,976,424	5,742,045	95,857,642

Items	For the year ended 31 December 2021							Total shareholders' equity
	Share capital	Other equity instruments (Perpetual bonds)	Capital reserve	Other comprehensive income	Special reserve	Surplus reserve	Retained profits	
I Opening balance of the current year	20,723,619	20,500,000	37,925,332	(355)	12,550	2,016,768	2,090,245	83,268,159
II Changes for the year	-	3,200,000	-	(1,199)	-	676,224	3,756,003	7,631,028
(II) Total comprehensive income	-	-	-	(1,199)	-	-	6,762,238	6,761,039
(III) Shareholders' contributions and reductions in capital	-	3,200,000	-	-	-	-	-	3,200,000
1. Capital contribution and reduction from holders of other equity instruments	-	7,700,000	-	-	-	-	-	7,700,000
2. Capital reduction from other equity instruments' holders	-	(4,500,000)	-	-	-	-	-	(4,500,000)
(III) Profit distribution	-	-	-	-	-	676,224	(3,006,235)	(2,330,011)
1. Transfer to surplus reserve	-	-	-	-	-	676,224	(676,224)	-
2. Distributions to shareholders	-	-	-	-	-	-	(1,554,272)	(1,554,272)
3. Distributions of perpetual bond interest	-	-	-	-	-	-	(775,739)	(775,739)
III Closing balance of the current year	20,723,619	23,700,000	37,925,332	(1,554)	12,550	2,692,992	5,846,248	90,899,187

This financial statement is signed by the following person:

Chairman:
Chen Jianguang

General Accountant:
Zou Hongying

Financial Controller:
Fan Wanzhu

The accompanying notes form an integral part of these financial statements.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

III. BASIC CORPORATE INFORMATION

1. Basic information of the Company

Metallurgical Corporation of China Ltd. (the “Company”) was established as a joint stock limited liability company by China Metallurgical Group Corporation (“CMGC”) and China Baowu Steel Group Corporation (“CBSGC”, formerly named as Baosteel Group Corporation) as promoters on 1 December 2008 and was registered in Beijing in the People’s Republic of China (the “PRC”), upon the approval by the State-owned Assets Supervision and Administration Commission of the State Council of the PRC (the “SASAC”) of Guozhi Reform [2008] 528 Approval for CMGC’s Group Restructuring and Dual Listing in Domestic and Overseas Markets, issued on 10 June, 2008. CMGC is the parent company of the Company and the SASAC is the ultimate controlling party of the Company. Upon establishment of the Company, the registered capital of the Company was RMB 13 billion, representing 13 billion ordinary shares of RMB 1.0 each. On 14 September 2009, the Company issued 3,500 million A shares of the Company to domestic investors and these A shares of the Company were listed on the Shanghai Stock Exchange on 21 September 2009, and 2,610 million H shares of the Company were issued on 16 September 2009 and listed on the Main Board of The Stock Exchange of Hong Kong Ltd. (the “Hong Kong Stock Exchange”) on 24 September 2009. During the course of the issue of A shares and H shares of the Company, CMGC and CBSGC transferred a total amount of 350 million shares of the Company to National Council for State Security Fund (“NSSF”) of the PRC and converted 261 million domestic shares into H shares and transferred to NSSF, among which 261 million H shares were offered for sale upon issuance of H shares of the Company. Upon completion of the public offering of A shares and H shares above, the total registered capital of the Company increased to RMB 19.11 billion.

Pursuant to the special mandate granted by the shareholders at the 2016 First Extraordinary General Meeting, the 2016 First A Shareholders’ Class Meeting and the 2016 First H Shareholders’ Class Meeting, having received the Approval in relation to the Non-public Issuance of Shares by Metallurgical Corporation of China Ltd. (Zheng Jian Xu Ke [2016] No. 1794) from the China Securities Regulatory Commission (the “CSRC”), the Company performed the non-public issuance of 1,613,619,000 A Shares of the Company (the “Non-Public Issuance”) to certain specific investors on 26 December 2016. Upon completion of the Non-Public Issuance, the share capital of the Company increases to RMB 20,723,619,000, and CMGC remains the controlling shareholder of the Company.

On 8 December 2015, the Strategic Restructuring between CMGC and China Minmetals Corporation (“CMC”) started upon the approval of the SASAC, whereby CMGC would be merged into CMC. In May 2019, CMGC completed the industrial and commercial registration of its shareholding alteration with its capital contributor changing from SASAC to CMC. The status of CMGC as controlling shareholder and the SASAC as the ultimate controlling shareholder of the Company does not change before or after the Strategic Restructuring.

In October 2018, CMGC purchased the structure adjusting funds for central enterprises at a consideration of 3% shares it held in the Company. The proportion of shareholding and voting upon the Company decreased from 59.18% to 56.18% subsequent to the completion of purchase and CMGC is still the controlling shareholder of the Company.

In September and November 2019, CMGC purchased the central enterprise innovation driven ETF fund with 224,685,000 shares of the Company. After the purchase, the shareholding ratio and voting right ratio of CMGC in the Company decreased from 56.18% to 55.10%, and CMGC remains as the controlling shareholder of the Company.

In May 2020, CMGC transferred its 1,227,760 thousand A shares of the Company (accounting for 5.92% of the Company’s total share capital) to China National Petroleum Corporation (“CNPC”) for free. After the completion of the free transfer, China Metallurgical Company’s shareholding and voting rights in the Company were reduced from 55.10% to 49.18%, and CMGC remains as the controlling shareholder of the Company.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

III. BASIC CORPORATE INFORMATION (CONTINUED)

1. Basic information of the Company (Continued)

The Company and its subsidiaries (the “Group”) are principally engaged in the following activities: engineering contracting, property development, equipment manufacture, and resource development.

The Group provide services and products as follows: provision of engineering, construction and other related contracting services for metallurgical and non-metallurgical projects (“engineering contracting”); development and sale of residential and commercial properties, affordable housing and primary land development (“property development”); development and production of metallurgical equipment, steel structures and other metal products (“equipment manufacture”); and development, mining and processing of mineral resources and the production of nonferrous metal and polysilicon (“resource development”).

During the Reporting Period, the Group did not have material changes on principal business activities.

The Company’s and consolidated financial statements had been approved by the Board of Directors of the Company on 29 March 2023. According to the Articles of Association, the financial statements will be submitted to the General Meeting of Shareholders for deliberation.

2. Scope of consolidated financial statements

Please refer to Note VIII for details of significant subsidiaries included in the consolidation scope in the current year.

IV. BASIS OF PREPARATION

1. Basis of preparation

These financial statements have been prepared in accordance with the Accounting Standards for Business Enterprises – Basic Standard and specific accounting standards, implementation guidance, interpretations, other relevant regulations issued subsequently by the Ministry of Finance (the “MOF”) (hereinafter collectively referred to as “ASBEs”).

According to Acceptance of Mainland Accounting and Auditing Standards and Mainland Audit Firms for Mainland Incorporated Companies Listed in Hong Kong and other Hong Kong Listing Rules Amendments issued by the Hong Kong Stock Exchange in December 2010, and the relevant provisions issued by the MoF and the CSRC, and approved by the stockholders in the general meeting of the Company, from fiscal year 2014, the Company no longer provides the financial statements prepared in accordance with the CASBE and the International Financial Reporting Standards (the “IFRS”) separately to stockholders of A shares and H shares. Instead, the Company provides the financial statements prepared in accordance with the CASBE to all stockholders, taking into consideration the relevant disclosure standards of Hong Kong Companies Ordinance and Hong Kong Listing Rules into consideration.

IV. BASIS OF PREPARATION (CONTINUED)

2. Accrual basis and measurement principle

The Group has adopted the accrual basis of accounting. Except for certain financial instruments set out in Note XI 1 which are measured at fair value, the Group adopts the historical cost as the principle of measurement in the financial statements. Where assets are impaired, provisions for asset impairment are made in accordance with relevant requirements.

In the historical cost measurement, assets obtained shall be measured at the amount of cash or cash equivalents or fair value of the purchase amount paid. Liabilities shall be measured at the actual amount of cash or assets received or the contracted amount, given the current obligations assumed, or measured at the prospective amount of cash or cash equivalents paid to discharge the liabilities according to business activities.

Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing market participants in an arm's length transaction at the measurement date. Fair value measured and disclosed in the financial statements are determined on this basis whether it is observable or estimated by valuation techniques.

The following table provides an analysis, grouped into Levels 1 to 3 based on the degree to which the fair value input is observable and significant to the fair value measurement as a whole:

Level 1 – based on quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is observable, either directly or indirectly;

Level 3 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

3. Going concern

The Group has performed an assessment of the going concern for the following 12 months from 31 December 2022 and does not identify any significant doubtful matter or event on the going concern. As such, these financial statements have been prepared on a going concern basis.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

1. Statement of compliance

These financial statements are in compliance with the CASBE to truly and completely reflect consolidated and the Company's financial position as at 31 December 2022 and consolidated and the Company's operating results and cash flows for the year then ended.

2. Accounting period

The Group has adopted the calendar year as its accounting year, i.e. from 1 January to 31 December.

3. Business cycle

Business cycle refers to the period that starts from the purchase of assets for production and ends with the realization of cash or cash equivalents. The business cycle of infrastructure and property development business of the Group is normally over one year because the duration of construction and infrastructure warranty is relatively long. The business cycles of other businesses are in 12 months in general.

4. Functional currency

The Company and its domestic subsidiaries choose Renminbi ("RMB") as their functional currency. The functional currency of the overseas subsidiaries of the Company is selected based on the primary economic environment where they operate. The Company adopts RMB to present its financial statements.

5. Business combinations

Business combinations are classified into business combinations involving entities under common control and business combinations not involving entities under common control.

(1) Business combinations involving enterprises under common control

A business combination involving entities under common control is a business combination in which all of the combining entities are ultimately controlled by the same party or parties both before and after the combination, and that control is not transitory. In a business combination involving entities under common control, the entity that, at the combination date, obtains control of another combining entity is the absorbing entity, while that other combining entity is the entity being absorbed. The combination date refers to the date on which the merging party actually obtains control of the merged party.

The assets and liabilities (including goodwill arising from the ultimate controlling party's acquisition of the entity being absorbed) that are obtained by the absorbing entity in a business combination involving entities under common control shall be measured on the basis of their carrying amounts in the financial statements of the ultimate controlling party at the combination date. The difference between the carrying amount of the net assets obtained and the carrying amount of the consideration paid for the combination (or the aggregate face value of shares issued as consideration) shall be adjusted to share premium under capital reserve. If the capital premium is not sufficient to absorb the difference, any excess shall be adjusted against retained earnings.

IV. BASIS OF PREPARATION (CONTINUED)

5. Business combinations (CONTINUED)

(2) *Business combinations not involving enterprises under common control*

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

The acquirer shall measure the acquiree's identifiable assets, liabilities and contingent liabilities acquired in the business combination at their fair values on the acquisition date. Goodwill is initially recognised and measured at cost, being the excess of the aggregate of the fair value of the consideration transferred (or the fair value of the equity securities issued) and any fair value of the Group's previously held equity interest in the acquiree over the Group's interest in the fair value of the acquiree's net identifiable assets. After initial recognition, goodwill is measured at cost less any accumulated impairment losses. Where the aggregate of the fair value of the consideration transferred (or the fair value of the equity securities issued) and any fair value of the Group's previously held equity interest in the acquiree is lower than the Group's interest in the fair value of the acquiree's net identifiable assets, the Group reassesses the measurement of the fair value of the acquiree's identifiable assets, liabilities and contingent liabilities and the fair value of the consideration transferred (or the fair value of the equity securities issued), together with the fair value of the Group's previously held equity interest in the acquiree. If after that reassessment, the aggregate of the fair value of the consideration transferred (or the fair value of the equity securities issued) and the Group's previously held equity interest in the acquiree is still lower than the Group's interest in the fair value of the acquiree's net identifiable assets, the Group recognises the remaining difference in profit or loss.

Where a business combination not involving enterprises under common control is achieved through multiple transactions in stages, the long-term equity investments held in the acquiree before the acquisition date are remeasured at fair value at the acquisition date, with any difference between the fair value and the carrying amount included in investment income for the current period. Where the long-term equity investments held in the acquiree before the acquisition date relates to other comprehensive income measured under the equity method, the accounting treatment shall be conducted on the same basis as the direct disposal of related assets or liabilities by the invested entity, other changes in shareholders' equity except net profit or loss, other comprehensive income and profit distribution shall be transferred to income for the period in which the acquisition date falls. Where the equity instrument investments are held in the acquiree before the acquisition date, accumulated changes in the fair value of other comprehensive income of those equity instrument investment before the acquisition date are transferred to retained earnings.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

6. Consolidated financial statements

The scope of the consolidated financial statements, which include the financial statements of the Company and all of its subsidiaries, is determined on the basis of control. Subsidiary refers to the entity controlled by the company (including the divisible parts of the enterprises, the invested units, and the structured entities controlled by the company, etc).

In the preparation of the consolidated financial statements, where the accounting policies of a subsidiary are different from those of the Company have made adjustments to the financial statements of the subsidiary based on the Company's own accounting policies, Where the accounting period of a subsidiary is different from that of the Company, the Company has adjusted the financial statements of the subsidiary based on the Company's own accounting period. All intra-group assets, liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

Where the loss for the current period attributable to non-controlling interests of a subsidiary exceeds the non-controlling interests of the opening balance of equity of the subsidiary, the excess shall still be allocated against the non-controlling interests.

For subsidiaries acquired through business combinations not involving entities under common control, the financial performance and cash flows of the acquiree shall be consolidated from the date on which the Group obtains control, and continue to be consolidated until the date such control ceases. While preparing the consolidated financial statements, the Group shall adjust the subsidiary's financial statements, on the basis of the fair values of the identifiable assets, liabilities and contingent liabilities recognised on the acquisition date.

For subsidiaries acquired through business combinations involving entities under common control, the financial performance and cash flows of the entity being absorbed shall be consolidated from the beginning of the period in which the combination occurs. While preparing the comparative financial statements, adjustments are made to related items in the financial statements for the prior period as if the reporting entity after the combination has been in existence since the date the ultimate controlling party first obtained the control.

The Group reassesses whether or not it controls an investee if any changes in facts and circumstances indicate that there are changes to one or more of the three elements of control.

A change in the non-controlling interests, without a loss of control, is accounted for as an equity transaction.

If the accounting treatment of a transaction is inconsistent in the financial statements at the Group level and at the Company or its subsidiary level, adjustment will be made from the perspective of the Group.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

7. Classification of joint arrangement and joint operation

Joint arrangement involves two or more parties with joint control. Joint control is the contractually agreed sharing of control over an economic activity, and exists only when the strategic financial and operating decisions relating to the activity require the unanimous consent of the parties sharing control (the ventures).

The Group classifies the joint arrangements according to the rights enjoyed and obligations borne in the joint arrangements. There are only two types of joint arrangements – joint operations and joint ventures.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint ventures are accounted for using the equity method.

A joint operation is a joint arrangement whereby the joint operators have rights to the assets, and obligations for the liabilities, relating to the arrangement. When the Group undertakes its activities under joint operations, the Group as a joint operator recognized in relation to its interest in a joint operation: its assets, including its share of any assets held jointly; its liabilities, including its share of any liabilities incurred jointly; its revenue from the sale of its share of the output arising from the joint operation; its share of the revenue from the sale of the output by the joint operation; and its expenses, including its share of any expenses incurred jointly. The Group accounts for the assets, liabilities, revenues and expenses relating to its interest in a joint operation in accordance with the provision applicable to the particular assets, liabilities, revenue and expenses.

8. Cash and cash equivalents

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

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

9. Translation of transactions and financial statements denominated in foreign currencies

(1) Transactions denominated in foreign currencies

On initial recognition, foreign currency transactions are translated into RMB using the spot exchange rate prevailing at the date of transaction.

At the balance sheet date, foreign currency monetary items are translated into RMB using the spot exchange rates at the balance sheet date. Exchange differences arising from the differences between the spot exchange rates prevailing at the balance sheet date and those on initial recognition or at the previous balance sheet date are recognized in profit or loss for the period, except that exchange differences related to a specific-purpose borrowing denominated in foreign currency that qualify for capitalization are capitalized as part of the cost of the qualifying asset during the capitalization period.

When preparing financial statements involving foreign operations, if there is any foreign currency monetary items which in substance form part of the net investment in the foreign operations, exchange differences arising from the changes of foreign currency should be recorded as other comprehensive income, and will be reclassified to profit or loss upon disposal of the foreign operations.

Foreign currency non-monetary items measured at historical cost are translated to the amounts in functional currency at the spot exchange rates on the dates of the transactions and the amounts in functional currency remain unchanged. Foreign currency non-monetary items measured at fair value are re-translated at the spot exchange rate on the date the fair value is determined. Difference between the re-translated functional currency amount and the original functional currency amount is treated as changes in fair value (including changes of exchange rate) and is recognized in profit and loss or as other comprehensive income.

(2) Translation of financial statements denominated in foreign currency

For the purpose of preparing consolidated financial statements, financial statements of a foreign operation are translated from the foreign currency into RMB using the following method: assets and liabilities on the balance sheet are translated at the spot exchange rate prevailing at the balance sheet date; shareholders' equity items except for retained earnings are translated at the spot exchange rates at the dates on which such items arose; all items in the income statement as well as items reflecting the distribution of profits are translated at the spot exchange rates on the dates of the transactions; the opening balance of retained earnings is the translated closing balance of the previous year's retained earnings; and the closing balance of retained earnings is calculated and presented on the basis of each translated income statement and profit distribution item. The difference between the translated assets and the aggregate of liabilities and shareholders' equity items is recorded as other comprehensive income.

Cash flows arising from a transaction in foreign currency and the cash flows of a foreign subsidiary are translated at the spot exchange rate on the date of the cash flows. The effect of exchange rate changes on cash and cash equivalents is regarded as a reconciling item and presented separately in the cash flow statement as "effect of foreign exchange rate changes on cash and cash equivalents".

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

9. Translation of transactions and financial statements denominated in foreign currencies (Continued)

(2) Translation of financial statements denominated in foreign currency (Continued)

The opening balances and the comparative figures of prior year are presented at the translated amounts in the prior year's financial statements.

On disposal of the Group's entire equity interest in a foreign operation, or upon a loss of control over a foreign operation due to disposal of certain equity investment in it or other reasons, the Group transfers the accumulated exchange fluctuation reserve, which is attributable to the owners' equity of the Company and presented under other comprehensive income to profit or loss in the period in which the disposal occurs.

In case of disposal of certain equity investment or other reasons that does not result in the Group losing control over a foreign operation, the proportionate share of accumulated exchange fluctuation reserve is re-attributed to non-controlling interests and is not recognized in profit and loss. For partial disposals of equity interest in foreign operations which are associates or joint ventures, the proportionate share of the accumulated exchange fluctuation reserve is reclassified to profit or loss.

10. Financial instruments

Financial assets and financial liabilities are recognized when the Group becomes a party to the contractual provisions of the instrument. Financial assets and financial liabilities are initially measured at fair value. For financial assets and financial liabilities at fair value through profit or loss, transaction costs are immediately recognized in profit or loss. For other financial assets and financial liabilities, transaction costs are included in their initial recognized amounts. When the Group recognizes the accounts receivable excluding significant financing component or does not consider the financing component in the contract within one year in accordance with the Accounting Standards of Business Enterprise No. 14 – Revenue (hereinafter referred to as “New Standards for Revenue”, the standards for revenue before modification are to be referred to as “Former Standards for Revenue”), the accounts receivable on initial recognition is measured at transaction price defined in New Standards for Revenue.

The amortized cost of a financial asset or a financial liability is an accumulatively amortized amount arising from the initially recognized amount of the financial asset or the financial liability deducting repaid principals plus or less amortization of the differences between the initially recognized amount on initial recognition and the amount on maturity date using the effective interest method, and then deducting accumulated provisions for losses (only applicable to financial assets).

The effective interest method is a method of calculating the amortized cost of a financial asset or a financial liability and of allocating the interest income or interest expense over the relevant accounting period.

The effective interest rate is the rate that exactly discounts estimated future cash flows through the expected life of the financial asset or financial liability or, where appropriate, a shorter period to the net carrying amount of the financial asset or financial liability. When calculating the effective interest rate, the Group estimates future cash flows considering all contractual terms of the financial asset or financial liability without considering expected credit losses.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

10. Financial instruments (Continued)

(1) Classification and measurement of financial assets

On initial recognition, the Group's financial assets are classified into the following categories: financial assets measured at amortized cost, financial assets at fair value through other comprehensive income and financial assets at fair value through profit or loss.

(a) Financial assets measured at amortized cost

If the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding and the financial asset is held within a business model whose objective is achieved by collecting contractual cash flows, the Group shall classify the financial asset into the financial asset measured at amortized cost. The Group's financial assets measured at amortized cost include cash and bank balances, bills and accounts receivable, other receivables, non-current assets due within one year and long-term receivables.

Financial assets measured at amortized cost are subsequently measured at amortized cost using the effective interest rate method. Gain or loss arising from impairment or derecognition is recognized in profit or loss.

For financial assets measured at amortized cost, the Group recognizes interest income using effective interest rate method. The Group calculates and recognizes interest income through book value of financial assets multiplying effective interest rate, except for the following circumstances:

- (i) For purchased or originated credit-impaired financial assets with credit impairment, the Group calculates and recognizes its interest income based on amortized cost of the financial asset and the effective interest rate through credit adjustment since initial recognition.
- (ii) For purchased or originated financial assets without credit impairment incurred while with credit impairment incurred in subsequent periods, the Group calculates and recognizes its interest income based on amortized cost of the financial asset and the effective interest rate in subsequent periods. If the credit risk of the financial asset is reduced during subsequent periods and credit impairment does not exist, the Group shall calculate and recognize interest income through book value of financial assets multiplying effective interest rate.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

10. Financial instruments (Continued)

(1) Classification and measurement of financial assets (Continued)

(b) Financial assets at fair value through other comprehensive income ("FVTOCI")

If the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, and the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets, the Group shall classify the financial asset into the financial assets at FVTOCI.

Impairment losses or gains related to financial assets, interest income measured using effective interest rate method and exchange gains or losses are recognized into profit or loss for the current period. Except for the above circumstances, changes in fair value of the financial assets are included in other comprehensive income. When the financial asset is derecognized, the cumulative gains or losses previously recognized in other comprehensive income shall be removed from other comprehensive income and recognized in profit or loss.

The Group's financial assets at FVTOCI are presented in the line item "financing with receivables" in the balance sheet.

(c) Financial assets at fair value through profit or loss ("FVTPL")

Financial assets at FVTPL include financial assets at FVTPL and those designated as at FVTPL.

Financial assets that do not meet the criteria for being measured at amortized cost or FVTOCI are categorized into financial assets measured at FVTPL.

On initial recognition, the Group may irrevocably designate a financial asset as measured at FVTPL if doing so eliminates or significantly reduces an accounting mismatch.

Other than financial assets included in a portion of hedging relations, the Group subsequently measured these financial assets at fair value, and gains or losses arising from changes in fair value and dividends and interest income related to these financial assets shall be recognized into profit or loss for the period.

The Group's financial assets measured at FVTPL include monetary funds, tradable equity instrument investments, investments in unlisted funds and trust products and derivatives classified as financial assets, which are presented under the items "tradable financial assets", "other non-current financial assets" and "derivative financial assets" in the balance sheet. The Group has no financial assets designated as at FVTPL.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

10. Financial instruments (Continued)

(1) Classification and measurement of financial assets (Continued)

- (d) Designated as financial assets at fair value through other comprehensive income ("FVTOCI")

On initial recognition, the Group may irrevocably designate a non-tradable equity instrument investments as financial asset measured at FVTOCI.

The financial assets designated as financial assets measured at FVTOCI are set out under the item "investments in other equity instrument". Changes in fair value of non-tradable equity investments should be recognized in other comprehensive income, and when the financial assets are derecognized, the accumulative gains or losses previously recognized in other comprehensive income shall be transferred out from other comprehensive income and recognized in retained earnings. During the period that the Group holds these non-tradable equity instruments, the Group has established the right of collecting dividends, whose economic benefit is probably flow into the Group, and the amount of the dividends can be reliably measured, then the Group recognize dividend income in profit or loss.

(2) Impairment of financial instruments

The Group shall recognize an impairment loss for expected credit losses on financial assets measured at amortized cost, financial assets at FVTOCI, contract assets and financial guarantee contracts.

The Group measures loss reserves for contract assets and accounts receivable formed by transactions regulated by income standards that do not include significant financing components or do not consider the financing components in contracts that do not exceed one year at an amount equivalent to the expected credit loss over the entire duration.

For other financial instruments, the Group assesses changes in credit risks of the relevant financial instruments since initial recognition at each balance sheet date. If the credit loss of the financial instruments has been significantly increased since initial recognition, the Group will make a loss allowance at an amount of expected credit loss during the whole life; if not, the Group will make a loss allowance for the financial instruments at an amount in the future 12-month expected credit losses. The increased or reversed amount of credit is recognized in profit or loss as impairment loss or gain. The Group has made a loss allowance against amount of expected credit losses during the whole life in the prior accounting period. However, at the balance sheet date, the credit risk on a financial instrument has not increased significantly since initial recognition, the Group will measure the loss allowance for that financial instrument at an amount in the future 12-month expected credit losses. Reversed amount of loss allowance arising from such circumstances shall be included in profit or loss as impairment gains.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

10. Financial instruments (Continued)

(2) Impairment of financial instruments (Continued)

(a) Significant increase of credit risk

The Group will make use of reasonable and supportable forward-looking information that is available to determine whether credit risk has increased significantly since initial recognition through comparing the risk of a default occurring on the financial instruments as at the reporting date with the risk of a default occurring on the financial instruments as at the date of initial recognition. For financial guarantee contracts, when applying the provision of impairment of financial instruments, the Group shall take the date when it becomes the party making an irrevocable undertaking as the initial confirmation date.

The Group will take the following factors into consideration when assessing whether credit risk has increased significantly:

- Significant changes in internal price indicators of credit risk as a result of a change in credit risk;
- Adverse changes in business, financial or economic conditions that are expected to cause a significant change in the debtor's ability to meet its debt obligations;
- An actual or expected significant change in the operating results of the debtor;
- Significant adverse change in the regulatory, economic, or technological environment of the debtor;
- Significant changes in the value of the collateral supporting the obligation or in the quality of third-party guarantees or credit enhancements, which are expected to reduce the debtor's economic incentive to make scheduled contractual payments or to otherwise have an effect on the probability of a default occurring;
- Significant changes in circumstances expected to reduce the debtor's economic incentive to make scheduled contractual payments;
- Expected changes in the loan documentation including an expected breach of contract that may lead to covenant waivers or amendments, interest payment holidays, interest rate step-ups, requiring additional collateral or guarantees, or other changes to the contractual framework of the financial instruments;
- Significant changes in the expected performance and behavior of the debtor;
- Past due period of contract payment exceeds (inclusive) 30 days..

At balance sheet date, if the Group considers that the financial instruments has only lower credit risk, the Group will assume that the credit risk of the financial instruments has not been significantly increased since initial recognition. If the risk of default on financial instruments is low, and the borrower's ability to meet its contractual cash flow obligations in the short term is strong, even if the economic situation and operating environment are adversely changed over a long period of time, it may not necessarily reduce the borrower's ability to fulfill its contractual cash flow obligations, and the financial instrument is considered to have a lower credit risk.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

10. Financial instruments (Continued)

(2) Impairment of financial instruments (Continued)

(b) Credit-impaired financial assets

When the Group expected occurrence of one or more events which may cause adverse impact on future cash flows of a financial asset, the financial asset will become a credit-impaired financial assets. Objective evidence that a financial asset is impaired includes the following observable events:

- Significant financial difficulty of the issuer or debtor;
- A breach of contract by the debtor, such as a default or delinquency in interest or principal payments;
- The creditor, for economic or legal reasons relating to the debtor's financial difficulty, granting a concession to the debtor;
- It becoming probable that the debtor will enter bankruptcy or other financial reorganizations;
- The disappearance of an active market for that financial asset because of financial difficulties of the issuer or the debtor;
- Purchase or originate a financial asset with a large scale of discount, which reflects the facts of credit loss incurred.

(c) Determination of expected credit loss

The Group determines expected credit losses of relevant financial instruments using the following methods:

- For a financial asset, a credit loss is the present value of the difference between the contractual cash flows that are due to the Group under the contract and the cash flows that the Group expects to receive;
- For a financial guarantee contract, the credit loss is the present value of the differences between estimated amount paid by the Group for the credit losses incurred by the contract holder and the amount the Group expects to receive from the contract holder, the debtor or any other party;
- For a financial asset with credit-impaired at the balance sheet date, the credit loss is the difference between the asset's gross carrying amount and the present value of estimated future cash flows discounted at the financial asset's original effective interest rate.

The factors reflected in methods of measurement of expected credit losses include an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes; time value of money; reasonable and supportable information about past events, current conditions and forecasts on future economic status at balance sheet date without unnecessary additional costs or efforts.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

10. Financial instruments (Continued)

(2) *Impairment of financial instruments (Continued)*

(d) Write-down of financial assets

When the Group will no longer reasonably expect that the contractual cash flows of financial assets can be collected in aggregate or in part, the Group will directly write down the carrying amount of the financial asset, which constitutes derecognition of relevant financial assets.

(3) *Transfer of financial assets*

The Group will derecognize a financial asset if one of the following conditions is satisfied: (i) the contractual rights to the cash flows from the financial asset expire; (ii) the financial asset has been transferred and substantially all the risks and rewards of ownership of the financial asset are transferred to the transferee; or (iii) the financial asset has been transferred, and the Group neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset, but the Group has not retained control of the financial asset.

If the Group neither transfers nor retains substantially all the risks and rewards of ownership of a financial asset, and it retains control of the financial asset, the Group will recognize the financial asset to the extent of its continuing involvement in the transferred financial asset and recognize an associated liability.

If a transfer of a financial asset in its entirety satisfies the derecognition criteria, for financial asset categorized into those measured at amortized cost, the difference between the carrying amount of the financial asset transferred and the sum of the consideration received from the transfer is recognized in profit or loss; for the non-tradable equity instruments designated as financial assets at FVTOCI, the cumulative gain or loss that has been recognized in other comprehensive income should be transferred out from other comprehensive income but be recognized in retained earnings.

If a transfer of a financial asset partially satisfies the derecognition criteria, the carrying amount of the transferred financial asset is allocated between the part that is derecognized and the part that is continuously involved, based on the respective fair values of those parts on transfer date. The difference between (1) the sum of the consideration received for the part derecognized and any cumulative gain or loss allocated to the part derecognized which has been previously recognized in other comprehensive income; and (2) the carrying amount allocated to the part derecognized on derecognition date; is recognized in profit or loss or retained earnings.

For a transfer of a financial asset in its entirety that does not satisfy the derecognition criteria, the Group will continuously recognize the transferred financial asset in its entirety. Considerations received due to transfer of assets should be recognized as a liability upon receipts.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

10. Financial instruments (Continued)

(4) Classification and measurement of financial liabilities

Financial instruments issued by the Group are classified into financial liabilities or equity instruments based on the substance of the business and contractual arrangements other than its legal form, together with the definition of financial liability and equity instruments on initial recognition.

On initial recognition, financial liabilities are classified into financial liabilities at fair value through profit or loss and other financial liabilities.

(a) Financial liabilities at fair value through profit or loss

Financial liabilities at FVTPL consist of financial liabilities held for trading (including derivatives classified as financial liabilities) and those designated as at FVTPL.

Financial liabilities meet one of the following conditions, indicating that the Group's purpose of undertaking the financial liabilities is for trading:

- The purpose of undertaking relevant financial liabilities is mainly for the recent repurchase;
- The relevant financial liabilities are part of the centrally managed identifiable financial instrument portfolio at initial recognition, and there is objective evidence that short-term profits will occur in the near future;
- Related financial liabilities are derivatives, except for derivatives that meet the definition of a financial guarantee contract and that are designated as effective hedging instruments.

Financial liabilities held for trading are subsequently measured at fair value. Any gains or losses arising from changes in the fair value and any dividend or interest expenses paid on the financial liabilities are recognized in profit or loss.

The Group's financial liabilities measured at FVTPL are derivatives classified as financial liabilities which are presented as "derivative financial liabilities" in the balance sheet.

(b) Financial liability measured at amortized cost

Other financial liabilities, except for financial liabilities arising from transfer of financial assets which does not satisfy derecognition criteria or continuous involvement of transferred financial assets and financial guarantee contracts liability, are subsequently measured at amortized cost, with gain or loss arising from derecognition or amortization recognized in profit or loss. The Group's financial liabilities measured at amortized cost include bills payable, accounts payable, other payables, long-term payables, loans and bonds payable etc.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

10. Financial instruments (Continued)

(4) *Classification and measurement of financial liabilities (Continued)*

(b) Financial liability measured at amortized cost (Continued)

If the Group and its counterparty modify or renegotiate the contract and do not lead to derecognition of a financial liability subsequently measured at amortized cost but result in changes in contractual cash flows, the Group will recalculate the carrying amount of the financial liability, with relevant gain or loss recognized in profit or loss. The Group will determine carrying amount of the financial liability based on the present value of renegotiated or modified contractual cash flows discounted at the financial liability's original effective interest rate. For all costs or expenses arising from modification or renegotiation of the contract, the Group will adjust the modified carrying amount of the financial liability and amortized during the remaining term of the modified financial liability.

If the term of the financial liability measured at amortized cost is under one year (inclusive), the financial liability is presented as current liability; if the financial liability is with the term over one year but will fall due within one year (inclusive) since the balance sheet date, it is present as non-current liability due within one year; others are presented as non-current liability.

(c) Financial guarantee contracts

A financial guarantee contract is a contract by which the issuer is required to compensate a specific amount to the contract holder suffering losses in the case where the specific debtor fails to settle the debt in accordance with the initial or revised terms of debt instrument when the debt falls due. After initial recognition, the Group measure financial guarantee contracts at the higher of: (i) amount of loss allowance; and (ii) the amount initially recognized less cumulative amortization recognized in accordance with related terms of Standards for Revenue.

(5) *Derecognition of financial liabilities*

The Group derecognizes a financial liability (or part of it) only when the underlying present obligation (or part of it) is discharged. An agreement between the Group (an existing debtor) and an existing lender to replace the original financial liability with a new financial liability with substantially different terms is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability.

When the Group derecognizes a financial liability or a part of it, it recognizes the difference between the carrying amount of the financial liability (or part of the financial liability) derecognized and the consideration paid (including any non-cash assets transferred or new financial liabilities assumed) in profit or loss.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

10. Financial instruments (Continued)

(6) *Equity instruments*

An equity instrument is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities. The issuance (including refinance), repurchase, selling or cancellation of these instruments are treated as change in equity. Change of fair value of equity instruments is not recognized by the Group. The related transaction costs are deducted from equity.

The Group recognizes the distribution to holders of the equity instruments as distribution of profits, and dividends paid do not affect the total amount of shareholders' equity.

(7) *Derivatives*

Derivatives of the Group include forward foreign exchange settlement contracts and currency swap contracts. Derivatives are initially measured at fair value at the date when the derivative contracts are entered into and are subsequently re-measured at fair value. Changes are recognized in current profit or loss.

(8) *Offsetting financial assets and financial liabilities*

Where the Group has a legal right that is currently enforceable to set off the recognized financial assets and financial liabilities, and intends either to settle on a net basis, or to realize the financial asset and settle the financial liability simultaneously, a financial asset and a financial liability shall be offset and the net amount is presented in the balance sheet. Except for the above circumstances, financial assets and financial liabilities shall be presented separately in the balance sheet and shall not be offset.

11. Inventories

(1) *Categories of inventories and initial measurement*

The Group's inventories are initially measured at cost. Inventories mainly include raw materials, material procurement, outsourced processing materials, work in progress, finished goods, materials in transit, properties under development, completed properties held for sale etc.

The cost of contract performance classified as current assets is shown in inventory.

(2) *Valuation method of inventories upon delivery*

The actual cost of inventories upon delivery is calculated using the first-in-first-out or weighted average method. Cost of finished goods and work in progress comprise all costs of materials, direct labor costs and other manufacturing overheads allocated on a normal production capacity and systematic basis.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

11. Inventories (Continued)

(3) Basis for determining net realizable value of inventories and provision methods for decline in value of inventories

At the balance sheet date, inventories are measured at the lower of cost and net realizable value. If the net realizable value is below the cost of inventories, a provision for decline in value of inventories is made. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion, the estimated costs necessary to make the sale and relevant taxes. Net realizable value is determined based on clear evidence obtained, taking into consideration the purposes of holding inventories and effect of post balance sheet events.

(4) The perpetual inventory system is maintained for stock system.

(5) Amortization method for low cost and short-lived consumable items and packaging materials

Materials in transit include packaging materials and low cost and short-lived consumable items. Packaging materials and low cost and short-lived consumable items are using either one-off amortization method or multiple-stage amortization method.

(6) Properties under development and completed properties held for sale

Costs of properties under development and completed properties held for sale mainly consist of acquisition cost of land use rights, expenditures of land development, infrastructure costs, construction costs, capitalized borrowing costs and other relevant costs. The expenditure of development land is included in the development cost. The construction expenditures of public facilities (the facilities approved by the relevant government departments such as roads) form part of property development costs and are allocated to respective individual properties projects. Development costs are capitalised as developed products after completion of construction.

12. Long-term equity investments

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

Subsidiaries are the companies that are controlled by the Company. Associates are the companies over which the Group has significant influence. Joint ventures are joint arrangements over which the Group has joint control along with other investors and has rights to the net assets of the joint arrangement.

The Company accounts for the investment in subsidiaries at historical cost in the Company's financial statements. Investments in joint ventures and associates are accounted for under equity method.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

12. Long-term equity investments (Continued)

(1) *Determination of investment cost*

For a long-term equity investment acquired through a business combination involving enterprises under common control, the investment cost of the long-term equity investment is the share of the carrying amount of the shareholders' equity of the acquiree attributable to the ultimate controlling party at the date of combination. For a long-term equity investment acquired through business combination not involving enterprises under common control, the investment cost of the long-term equity investment is the cost of acquisition. For a business combination not involving enterprises under common control achieved in stages that involves multiple exchange transactions, the initial investment cost is carried at the aggregate of the carrying amount of the acquirer's previously held equity interest in the acquiree and the new investment cost incurred on the acquisition date.

Regarding the long-term equity investment acquired otherwise than through a business combination, if the long-term equity investment is acquired by cash, the historical cost is determined based on the amount of cash paid and payable; if the long-term equity investment is acquired through the issuance of equity instruments, the historical cost is determined based on the fair value of the equity instruments issued.

(2) *Subsequent measurement and recognition of profit or loss*

If the long-term equity investment is accounted for at cost, it should be measured at historical cost. Dividend declared by the investee should be accounted for as investment income.

Under the equity method, where the initial investment cost of a long-term equity investment exceeds the Group's share of the fair value of the investee's identifiable net assets at the time of acquisition, no adjustment is made to the initial investment cost. Where the initial investment cost is less than the Group's share of the fair value of the investee's identifiable net assets at the time of acquisition, the difference is recognized in profit or loss for the period, and the cost of the long-term equity investment is adjusted accordingly.

Under the equity method, the Group recognizes its share of the net profit or loss and other comprehensive income of the investee for the period as investment income or loss and other comprehensive income for the period. The Group recognizes its share of the investee's net profit or loss based on the fair value of the investee's individual separately identifiable assets at the acquisition date after making appropriate adjustments to be in compliance with the Group's accounting policies and accounting period. The Group's share of net losses of the investee is recognised to the extent that the carrying amount of the investment together with any long-term interests that in substance form part of its net investment in the investee is reduced to zero, except that the Group has the obligations to assume further losses. If the Group has incurred obligations to assume additional losses of the investee, a provision is recognized according to the expected obligation, and recorded as an investment loss for the period. For the changes in equity in addition to the net profit or loss, other comprehensive income and profits distribution, the carrying value of long-term equity investment is adjusted when the investee declares dividend distribution and included in shareholders' equity. The Group recognizes its share of the dividends of the investee by reducing the carrying value of the investment. Unrealized profits or losses resulting from the Group's transactions with its associates and joint ventures are recognized as investment income or loss to the extent that those attributable to the Group's equity interest are eliminated if the trading assets do not form a business. Unrealized losses are resulted from the Group's transactions with its associates and joint ventures, and the assets impairment losses are not eliminated.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

12. Long-term equity investments (Continued)

(3) *Basis for determining control, joint control and significant influence over investee*

Control is achieved when the Company has power over the investee; is exposed, or has rights, to variable returns from its involvement with the investee; and has the ability to use its power to affect its returns.

Joint control is the contractually agreed sharing of control over an economic activity, and exists only when the strategic financial and operating policy decisions relating to the activity require the unanimous consent of the parties sharing control.

Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

When determining whether an investing enterprise is able to exercise control or significant influence over an investee, the effect of potential voting rights of the investee (for example, warrants and convertible debts) held by the investing enterprises or other parties that are currently exercisable or convertible shall be considered.

(4) *Impairment loss of long-term equity investments*

If the recoverable amounts of the investments to subsidiaries, joint ventures and associates are less than their carrying amounts, an impairment loss should be recognized to reduce the carrying amounts to the recoverable amounts (Note V18).

(5) *The disposal of long-term equity investment*

On disposal of a long-term equity investment, the difference between the proceeds actually received and receivable and the carrying amount is recognized in profit or loss for the period.

If the Group loses its control over the investee because of the disposal of partial equity investment and the remaining equity investment still have joint control or significant influence on the investee, then equity method should be adopted to record long-term equity investment when preparing the financial statements as if the equity investment is accounted for under equity method from the date the Group acquired this investment. If the remaining equity investment does not have joint control or significant influence on the investee, the equity investment should be recorded according to the recognition and measurement of financial assets and the difference between the carrying amount and fair value of the equity investment on the date of losing control shall be included in profit or loss for the current year. The other comprehensive income recognized before the Group had control over the investee under equity method or the financial assets measurement, should be treated on a basis that the investee disposes these assets and liabilities directly at the date the Group loses control over the investee. The other changes in shareholders' equity of the investee's net assets, except the net profit or loss, other comprehensive income and profit distribution, will be included in profit or loss for the current year of losing its control over the investee. Where the remaining equity after disposal is accounted for using the equity method, other comprehensive income and other owner's equity are carried forward in proportion; If the remaining equity after disposal is subject to accounting treatment in accordance with the recognition and measurement standards for financial instruments, all other comprehensive income and other owner's equity are carried forward.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

13. Investment properties

Investment real estate refers to real estate held for rent or capital appreciation, or both, including leased land use rights and buildings for rental purposes and buildings that are under construction or development and will be used for rent in the future, initially measured at cost. Subsequent expenditures related to investment properties are included in the cost of investment real estate when the relevant economic benefits are likely to flow into the Group and the cost can be reliably measured; Otherwise, they are included in the current profit and loss when incurred.

The Group uses the cost model for subsequent measurement of investment property, and adopts a depreciation or amortization policy for the investment property according to estimated useful lives and net salvage value for buildings or land use rights. The estimated useful lives, estimated residual values and annual depreciation rates of investment properties by category are as follows:

	Estimated useful lives <i>(years)</i>	Estimated residual values <i>(%)</i>	Annual depreciation (amortization) rate <i>(%)</i>
Buildings and structures	15–40	3–5	2.38–6.47
Land use rights	40–70	–	1.43–2.50

When the purpose of the investment properties is changed to self-use, the investment properties are transferred to fixed assets or intangible assets from the date the purpose is changed. When the purpose of the self-use buildings or land use rights are changed to held for earning rentals or capital appreciation, the buildings are transferred from fixed assets or intangible assets to investment properties from the date the purpose is changed. When a conversion occurs, the carrying amounts before the conversion is used as the entry value after the conversion..

The estimated useful lives, estimated residual values and depreciation (amortization) rate of investment properties are reviewed and adjusted as appropriate at each year-end.

When an investment property is sold or retired from its use and the expected not to be able to recover economic benefits from disposal, the investment property should be de-recognized. When an investment property is sold, transferred, retired or damaged, the Group recognizes the amount of any proceeds on disposal net of the carrying amount and related taxes in profit or loss for the period.

If the recoverable amounts of the investment properties are less than the carrying amounts, the carrying amounts will be reduced to the recoverable amounts (Note V18).

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

14. Fixed assets

(1) Recognition criteria for fixed assets

Fixed assets include buildings and structures, machinery and equipment, transportation vehicles, office equipment and others.

Fixed assets are tangible assets that are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes, and have useful lives of more than one accounting year. A fixed asset is recognized only when it is probable that economic benefits associated with the asset will flow to the Group and the cost of the asset can be reliably measured. Purchased or constructed fixed assets are initially measured at cost when acquired. During the course of transformation of the Company into a limited liability company, the initial costs of fixed assets injected by the State-owned shareholder were measured based on the valuation amounts approved by the State-owned assets management authority.

Subsequent expenditures incurred for the fixed asset are included in the cost of the fixed asset if it is probable that economic benefits associated with the asset will flow to the Group and the subsequent expenditures can be measured reliably. When old-fixed asset items are replaced by other new fixed asset items, the old-fixed asset items should be de-recognized. Other subsequent expenditures are recognized in profit or loss in the period in which they are incurred.

(2) Depreciation of each category of fixed assets

Fixed asset is depreciated based on the cost of fixed asset recognized less expected net residual value over its useful life using the straight-line method. For the impaired fixed asset, depreciation is calculated based on the carrying amount of the fixed asset after impairment over the estimated remaining useful life of the asset. The estimated useful lives, estimated residual values and annual depreciation rate of fixed assets are reviewed at each year end date to assess if any change is needed. The estimated useful life, estimated net residual value and annual depreciation rate of each category of fixed assets are as follows:

Category	Depreciation method	Useful life (year)	Residual value (%)	Annual depreciation rate (%)
Buildings and structures	the straight-line method	15–40	3–5	2.38–6.47
Temporary buildings and structures	the straight-line method	3–5	3–5	19.00–32.33
Machinery and equipment	the straight-line method	3–14	3–5	6.79–32.33
Transportation vehicles	the straight-line method	5–12	3–5	7.92–19.40
Office equipment and others	the straight-line method	5–12	3–5	7.92–19.40

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

14. Fixed assets (Continued)

(3) Derecognition and impairment

If a fixed asset is disposed of or no future economic benefits are expected to be generated from its use or disposal, the fixed asset is derecognized. When a fixed asset is sold, transferred, retired or damaged, the amount of any proceeds on disposal of the asset net of the carrying amount and related taxes is recognized in profit or loss for the period.

If the recoverable amounts of the fixed assets are less than the carrying amounts, the carrying amounts will be reduced to the recoverable amounts (Note V18).

15. Construction in progress

Construction in progress is measured at its actual costs. The actual costs include various construction, installation costs, borrowing costs capitalized and other expenditures incurred until such time as the relevant assets are completed and ready for its intended use. When the asset concerned is ready for its intended use, the cost of the asset is transferred to fixed assets and depreciated starting from the following month.

If the recoverable amounts of the construction in progress are less than the carrying amounts, the carrying amounts will be reduced to the recoverable amounts (Note V18).

16. Borrowing costs

The borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are capitalised. The amounts of other borrowing costs incurred are recognised as an expense in the period in which they are incurred. Qualifying assets are assets that necessarily take a substantial period of time of acquisition, construction or production to get ready for their intended use or sale.

The capitalisation of borrowing costs commences only when all of the following conditions are satisfied:

- (i) expenditures for the asset have been incurred;
- (ii) borrowing costs have been incurred; and
- (iii) activities that are necessary to acquire, construct or produce the asset for its intended use or sale have been undertaken.

Capitalisation of borrowing costs ceases when the qualifying asset being acquired, constructed or produced gets ready for its intended use or sale. Any borrowing costs subsequently incurred are recognised in profit or loss.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

16. Borrowing costs (Continued)

During the capitalisation period, the amount of interest eligible for capitalisation for each accounting period shall be determined as follows:

- (i) where funds are borrowed specifically for the purpose of obtaining a qualifying asset, the amount of interest eligible for capitalisation is the actual interest costs incurred on that borrowing for the period less any bank interest earned from depositing the borrowed funds before being used on the asset or any investment income on the temporary investment of those funds; or
- (ii) where funds are borrowed generally for the purpose of obtaining a qualifying asset, the amount of interest eligible for capitalisation is determined by applying a weighted average interest rate on the general borrowings to the weighted average of the excess of the cumulative expenditures on the asset over the expenditures on the asset funded by the specific borrowings.

Capitalisation of borrowing costs is suspended during periods in which the acquisition, construction or production of a qualifying asset is suspended abnormally by activities other than those necessary to get the asset ready for its intended use or sale, when the suspension is for a continuous period of more than 3 months. Borrowing costs incurred during these periods are recognised as an expense in profit or loss until the acquisition, construction or production is resumed.

17. Intangible assets

(1) Valuation methods, service life and impairment

The Group's intangible assets include land use rights, mining rights, the right to use of the franchise, software, patent and proprietary technology and others. Intangible assets are measured initially at cost. During the course of transformation of the Company into a limited liability company, the initial costs of intangible assets injected by the State-owned shareholder were measured based on the valuation amount approved by the State-owned assets management authority.

(a) Land use rights

Land use rights of the Group are amortized on the straight-line basis according to the useful lives of 40 to 70 years.

(b) Mining rights

Amortization is calculated based on the units of production method based only on proved mining reserves.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

17. Intangible assets (Continued)

(1) Valuation methods, service life and impairment (Continued)

(c) The right to use of the franchise

The Group engages in certain service concession arrangements in which the Group carries out construction work for the granting authority and receives in exchange a right to operate the assets concerned in accordance with the pre-established conditions set by the granting authority. The assets under the concession arrangements may be classified as intangible assets or receivables from the granting authority.

The Group recognizes revenue and a financial asset to the extent that it has an unconditional contractual right to receive specified or determinable amount of cash or another financial assets from the granting authority, or to receive the shortfall from the granting authority, if any, between amounts received from users of the public service and specified or determinable amounts.

According to the contract, the Group has the right to charge fees from the service recipients during a certain operating period after the related infrastructure construction is completed. If the charge amount is undetermined, this right does not constitute any right of collecting cash unconditionally. The Group recognizes revenue and intangible assets simultaneously.

The Group classifies the non-current assets linked to the long-term investment in these concession arrangements as “concession assets” within intangible assets on the balance sheet if the intangible asset model is adopted. Once the underlying infrastructure of the concession arrangements has been completed, the concession assets will be amortized over the term of the concession on the straight-line or traffic flow basis under the intangible asset model.

If the financial asset model is applied, the Group recognizes financial assets resulted from the concession arrangement in its balance sheet. Financial assets are measured in accordance with Accounting Standards for Business Enterprises No.22 – Recognition and Measurement of Financial Instruments.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

17. Intangible assets (Continued)

(1) Valuation methods, service life and impairment (Continued)

(d) Software

Software is amortized on the straight-line basis over its estimated useful life of 3 to 5 years.

(e) Patent and proprietary technologies

Patent and proprietary technologies are amortized on the straight-line basis over 5 to 20 years.

(f) Review of the useful life and amortization method periodically

For an intangible asset with a finite useful life, the Group reviews the useful life and amortization method at the end of the year, and makes adjustments when necessary.

(g) If the recoverable amounts of the intangible assets are less than the carrying amounts, the carrying amounts will be reduced to the recoverable amounts (Note V18).

(2) Accounting policies of internal research and development expenditures

Internal research and development project expenditures were classified into research expenditures and development expenditures depending on its nature and the greater uncertainty whether the research activities becoming to intangible assets.

Expenditure during the research phase is recognized as an expense in the period in which it is incurred. Expenditure during the development phase that meets all of the following conditions at the same time is recognized as an intangible asset:

- It is technically feasible to complete the intangible asset so that it will be available for use or sale;
- The Group has the intention to complete the intangible asset and use or sell it;
- The Group can demonstrate the ways in which the intangible asset will generate economic benefits;
- The availability of adequate technical, financial and other resources to complete the development and the ability to use or sell the intangible asset;
- The expenditure attributable to the intangible asset during its development phase can be reliably measured.

Expenditures that do not meet all of the above conditions at the same time are recognized in profit or loss when incurred. Expenditures that have previously been recognized in the profit or loss would not be recognized as an asset in subsequent years. Those expenditures capitalized during the development stage are recognized as development costs incurred and will be transferred to intangible assets when the underlying project is ready for an intended use.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

18. Impairment of non-current assets other than financial assets

The Company assesses at each balance sheet date whether there is any indication that the fixed assets, construction in progress, right of use assets, intangible assets with finite useful lives, investment properties measured at historical cost, investments in subsidiaries, joint ventures and associates may be impaired. If there is any indication that such assets may be impaired, recoverable amounts are estimated for such assets. The recoverable amount of an asset is the higher of its fair value less costs to sell and the present value of the future cash flow estimated to be derived from the asset. The Group estimates the recoverable amount on an individual basis. If it is not possible to estimate the recoverable amount of the individual asset, the Group determines the recoverable amount of the asset group to which the asset belongs. Identification of an asset group is based on whether major cash inflows generated by the asset group are largely independent of the cash inflows from other assets or asset groups.

Goodwill arising from a business combination is tested for impairment at least at each year end, irrespective of whether there is any indication that the asset may be impaired. For the purpose of impairment testing, the carrying amount of goodwill acquired in a business combination is allocated from the acquisition date on a reasonable basis to each of the related asset groups; if it is impossible to allocate to the related asset groups, it is allocated to each of the related set of asset groups. Each of the related asset groups or set of asset groups is an asset group or set of asset group that is able to benefit from the synergies of the business combination and shall not be larger than a reportable segment determined by the Group. If the carrying amount of the asset group or set of asset groups is higher than its recoverable amount, the amount of the impairment loss is firstly used to reduce the carrying amount of the goodwill allocated to the asset group or set of asset groups, and then used to reduce the carrying amount of other assets (other than the goodwill) within the asset group or set of asset groups, on a pro-rata basis of the carrying amount of each asset.

Once the impairment loss of such assets is recognized, it is not be reversed in any subsequent period.

19. Long-term prepayments

Long-term prepayments include improvement expenses on leased assets and other expenses incurred that should be amortized over the current and subsequent periods (amortization period of more than one year). Long-term prepayments are amortized on a straight-line basis over the expected periods in which benefits are derived, presented as the net amount of actual expenditure less accumulated amortization.

20. Employee benefits

(1) Short-term employee benefits

Short-term employee benefits include salaries, bonus, subsidies, staff benefits, social security charges (including medical insurance, work-related injury insurance and maternity insurance, etc.), housing funds, labor union expenditures and personal education.

During the accounting period in which the employees provide services, the Group's actual short-term remuneration is recognized as liabilities and included in the profits or losses of the current year or recognized as respective assets costs. At the time of actual occurrence, The Group's employee benefits are recorded into the profits and losses of the current year or the cost of relevant assets according to the actual amount. The non-monetary employee benefits are measured at fair value.

Regarding the health insurance, industrial injury insurance, maternity insurance and other social insurances, housing fund and labor union expenditure and personnel education that the Group paid for employees, the Group should recognize corresponding employee benefit payables and include these expenses in the profits or losses of the current year or recognized as respective assets costs.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

20. Employee benefits (Continued)

(2) *Post-employment benefits*

Post-employment benefits are classified into defined contribution plans and defined benefit plans.

All the employees of the Group enjoy and participate in the endowment insurance plans set by local government, which are called defined contribution plans. The Group takes certain proportion (no more than the upper limit) out of employees' wages as endowment insurance, and pays to local labor and social security institutes. Corresponding expenses shall be included in the profits or losses of the period in which employees provide services or assets associated costs.

The Group provides supplementary pension benefits to certain retired employees, which is considered as defined benefit plans. The defined benefit plans obligation is calculated semiannually by independent actuaries using the projected unit credit method. The Group's defined benefit plans include the following components: (i) Service cost include current year service cost, past- service cost and settlement gain or loss. Current year service cost means the increase of the value of defined benefit plans resulting from the current year service offered by employees. Past-service cost means the increase or decrease of the value of defined benefit plans resulting from the revision of the defined benefit plans related to the prior year service offered by employees. (ii) Interest costs of defined benefit plans payable. (iii) Changes related to the revaluation of defined benefit plans liabilities.

Unless other accounting standards require or permit to charge the employee benefits into assets cost, the Group charges (i) and (ii) mentioned above into profits or losses of the current year, and recognize (iii) mentioned above as other comprehensive income without charging into profits or losses in later accounting periods.

Part of subsidiaries of the Group provide medical benefits to the retired employees. The costs of benefits are determined using the same accounting policies with defined benefit plans.

(3) *Termination benefits*

Liabilities arising from termination benefits and staff early retirement plan are recognized after the specific termination clauses are agreed or passed to the employee. The Group should recognize the employee benefits liabilities related to the compensation of the employment termination and charge to profit or loss at the earlier of the time when (i)The Group cannot withdraw from the compensation plan of the employment termination by itself and (ii)The Group recognizes the costs or expenses of the reorganization involving the compensation of termination. When the Group offers some compensation plans to encourage the employees to accept the termination of the labor relationship voluntarily, the termination benefits are recognized based on the expected number of employees who are willing to take the compensation plans. The specific terms of the termination and early retirement plans varies according to the occupation, seniority and location etc.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

20. Employee benefits (Continued)

(3) Termination benefits (Continued)

The Group provides early retirement benefits to employees who are willing to retire voluntarily. Early retirement benefits refer to wages and social security fees the Group pays to employees who retired earlier voluntarily with the approval of the management. Early retirement benefits are recognized in the period in which the Group has entered into an agreement with the employee specifying the terms of redundancy, or after the individual employee has been advised of the specific terms. The accounting treatments of early retirement benefits are referring to termination benefits. From the date on which the termination benefit requirements are fulfilled, the Group recognizes monthly paid salaries and social benefits for these early retirees during the period from the date of early retirement to the normal retirement date as employee benefits payable and charges in profit or loss of the current year.

21. Provisions

Provisions are recognized when the Group has a present obligation related to a contingency, it is probable that an outflow of economic benefits will be required to settle the obligation, and the amount of the obligation can be measured reliably.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the settlement date, taking into account factors pertaining to a contingency such as the risks, uncertainties and time value of money. Where the effect of the time value of money is material, the amount of the provision is determined by discounting the related future cash outflows. The increase in the provision due to passage of time is recognized as interest expense.

If all or part of the provision settlements is reimbursed by third parties, when the realization of income is virtually certain, then the related asset should be recognized. However, the amount of related asset recognized should not exceed the respective provision amount.

At the balance sheet date, the carrying amount of provision should be re-assessed to reflect the best estimation then.

22. Other equity instruments

Perpetual bonds or other financial instruments issued by the Group are equity instruments if, and only if both conditions below are met:

- The instrument includes no contractual obligation: (i) to deliver cash or another financial asset to another entity; or (ii) to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavorable to the issuer;
- If the instrument will be or may be settled in the issuer's own equity instruments, and it is a non-derivative that includes no contractual obligation for the issuer to deliver a variable number of its own equity instruments.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

22. Other equity instruments (Continued)

The interest expenses or dividends of perpetual bonds or other financial instruments classified as equity instruments are treated as profit distribution of the Group. The repurchase or cancellation of these instruments is treated as a change in equity. The related transaction costs are deducted from equity.

23. Revenue

The Group's revenue is mainly from the following business types:

- Engineering contracting
- Real estate development
- Equipment manufacturing
- Resources development

The Group shall recognize revenue when the Group satisfies a performance obligation in the contract, that is when the customer obtains control over relevant goods or services. Control over the relevant goods refers to the ability to direct the use of, and obtain substantially all of the remaining benefits from the goods or services.

Where the contract entered into by the Group and the customer satisfies all of the following conditions at the same time, the Group will recognize revenue when the customer obtains control over the relevant goods or services:

- The parties to the contract have approved the contract and are committed to perform their respective obligations;
- The contract can identify each party's rights and obligations regarding goods or services to be transferred;
- The contract can identify the payment terms for the goods or services to be transferred;
- The contract has commercial substance (i.e. the risk, timing or amount of the Group's future cash flows is expected to change as a result of the contract); and
- It is probable that the Group will recover the consideration to which it will be entitled in exchange for the goods or services that will be transferred to the customer.

If a contract meets the above criteria at contract inception, the Group shall not reassess those criteria unless there is an indication of a significant change in facts and circumstances. If a contract does not meet the above criteria at contract inception, the Group shall continue to assess the contract and make accounting treatment when the above criteria are met. When a contract does not meet the above criteria, the Group shall recognize the consideration received as revenue only when the Group has no remaining obligations to transfer goods or services to the customers and the consideration received from the customer is non-refundable; otherwise, the Group shall recognize the consideration received from the customer as a liability.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

23. Revenue (Continued)

Engineering construction contracts

The engineering construction contracts between the Group and the clients usually involve performing obligations for building construction and infrastructure construction. Since the clients have control over the assets in construction in the course of the Group's performance, the Group shall treat them as performance obligations to be satisfied during a period of time and recognize revenue according to progress of performance within such period, unless the progress of performance cannot be reasonably determined. The Group determines the progress of performance of the services provided based on the costs incurred under the input method. When the progress of performance cannot be reasonably determined, the costs incurred are expected to be compensated, the Group recognizes revenue based on the amount of costs incurred till the progress of performance can be reasonably determined.

Contracts for sale of goods

Contracts for sale of goods between the Group and the clients usually contain only the obligation to transfer goods. The Group generally recognizes revenue at the time of control transfer on the basis of comprehensively considering the following factors: acquisition of the current right to receive payments for the goods, transfer of the main risks and rewards in the ownership of the goods, transfer of legal ownership of the goods, transfer of physical assets of the goods, and acceptance of the goods by the clients.

The Group recognizes the income from sale of real estate when a building is completed and accepted, the Group has signed a sales contract with the buyer, obtained the buyer's proof of payment and delivered the building for use. If the buyer receives a written notice of delivery and refuses to accept it without justifiable reasons, The Group recognizes the income from sale of real estate after the end of the delivery time limit determined in the written notice of delivery.

The specific policies of the Group's contracts with clients mainly include:

(1) *Determining the transaction price*

The transaction price is the amount of consideration to which the Group expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties and amounts expected to be refunded to a customer. The Group shall consider the terms of the contract and its customary business practices to determine the transaction price. When determining the transaction price, the Group may consider effects of factors such as the variable consideration, a significant financing component, consideration payable to a customer and non-cash considerations.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

23. Revenue (Continued)

(1) Determining the transaction price (Continued)

(a) Variable consideration

In case of the existence of variable consideration (performance bonuses and penalties etc.) in the contract, the Group shall determine the best estimate of variable consideration based on the expected value or the most probably occurred amount. The transaction price including variable consideration shall not exceed the amount of the cumulative recognized revenue which is the most probably to be significantly reversed when elimination of relevant uncertainty. At each balance sheet date, the Group re-estimate the amount of variable consideration which should be included in transaction price.

(b) A significant financing component

In case of the existence of a significant financing component in the contract, the Group shall determine the transaction price on the assumption that the customer has paid the amount payable by cash when obtaining the control over the goods or services. Differences between transaction price and contract consideration are amortized using effective interest method during the contract life. At contract inception, if the period between when the Group transfers a promised good or service to a customer and when the customer pays for that good or service will be one year or less, the Group would not consider the significant component in the contract.

(c) Consideration payable to a customer

In case of the existence of consideration payable to a customer in the contract, the Group shall account for consideration payable to a customer as a reduction of the transaction price and, therefore, of revenue unless the payment to the customer is in exchange for a distinct good or service. The Group shall recognize the reduction of revenue at the later of recognizing relevant revenue and paying (or promising to pay) the consideration.

(d) Non-cash consideration

In case of non-cash consideration paid by the customer, the Group shall determine transaction price at fair value of non-cash consideration. If the fair value of the non-cash consideration is not be estimated reasonably, the Group shall measure the consideration indirectly by reference to the stand-alone selling price of the goods or services promised to the customer.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

23. Revenue (Continued)

(2) Identification of stand-alone performance obligations in the contract

At contract inception, the Group assesses the contract and identify stand-alone performance obligations. Performance obligations refer to commitment of the Group to transfer a distinct good or service to the customer.

In the following circumstances, the Group takes the commitments to transfer of a good or services to the customer as stand-alone performance obligations: (i) commitment to transfer of a distinct good or services (or a group of goods or services); (ii) commitment to transfer of a series of distinct goods or services with the same substances and the same transfer model.

If the goods or services committed by the Group to the customer meet the following two conditions at the same time, they can be taken as distinct goods or services: (i) the customer is able to benefit from the stand-alone goods or services or from the goods or services together with other available source, namely that the goods or services its own can be distinct; (ii) the commitment to transfer the goods or services is separated from other commitments in the contract, namely, the commitment to transfer of the goods or services is distinct in the contract.

When determining whether the commitment to transfer the goods or services can be distinct, the Group uses judgement and comprehensively considers all facts and circumstances. The following circumstances generally reflect that the commitment to transfer the goods or services is not separated from other commitments in the contract: (i) the Group provides a significant service of integrating the goods or services with other goods or services promised in the contract into a bundle of goods or services that represent the combined output for which the customer has contracted; (ii) the goods or services significantly modify or customize other goods or services promised in the contract; and (iii) the goods or services are highly interrelated with other goods or services promised in the contract.

(3) Transaction price allocated to each stand-alone performance obligation

If there are two or more of performance obligations included in the contract, at the contract inception, the Group allocates the transaction price to each single performance obligation based on the proportion of stand-alone selling price of goods or services promised in each stand-alone performance obligation. However, if there is conclusive evidence indicating that the contract discount or variable consideration is only relative with one or more (not the whole) performance obligations in the contract, the Group will allocate the contract discount or variable consideration to relative one or more performance obligation. Stand-alone selling price refers to the price of single sales of goods or services. If the stand-alone selling price cannot be observed directly, the Group estimates the stand-alone selling price through comprehensive consideration of all reasonably acquired relative information and maximum use of observable inputs.

(4) Revenue recognition at satisfying each stand-alone performance obligation

At contract inception, the Group identifies each stand-alone performance obligation included in the contract, determines whether the performance obligation satisfied during a period of time or at a point in time, and recognizes revenue when satisfying each stand-alone performance obligation.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

23. Revenue (Continued)

(4) Revenue recognition at satisfying each stand-alone performance obligation (Continued)

(a) Performance obligation satisfied during a period of time

It is a performance obligation satisfied during a period of time if one of the following conditions is met: (i) the customer obtains and consumes economic benefits at the same time of the Group's performance; (ii) the customer is able to control goods or services in progress during the Group's performance; and (iii) goods or services generated during the Group's performance have irreplaceable utilization, and the Group is entitled to collect amounts of cumulative performance parts which have been done up to now.

For performance obligations satisfied during a period of time, the Group will recognize revenue according to progress of performance within such period except for circumstances that the progress of performance cannot be reasonably determined. The Group determines progress of performance using input method, to determine the progress of performance based on the proportion of the accumulative actual cost accounting for the expected total cost. When the progress of performance cannot be reasonably determined, and the costs incurred are expected to be compensated, the Group recognizes revenue based on the amount of costs incurred till the progress of performance can be reasonably determined.

(b) Performance obligation satisfied at a point in time

For performance obligation satisfied not during a period of time but at a point in time, the Group will recognize revenue at the point in time when the customer obtains control over relative goods or services.

When judging whether the customer has obtained control over the goods or services, the Group will consider the following indications.

- The Group has a present right of receivables for the good or services, namely, a customer is presently obliged to pay for the good or services;
- The Group has transferred the legal title of the good to the customer, namely, the customer has physically possessed the good;
- The Group has transferred the significant risks and rewards of ownership of the good to the customer, namely, the customer has obtained the significant risks and rewards of ownership of the good;
- The customer has accepted the good or services;
- Other indications reflecting that the customer has obtained the control over the good or services.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

23. Revenue (Continued)

(5) Accounting treatment of specific transaction

(a) Sales attached with quality warranty terms

For sales attached with quality warranty terms, if such quality warranty provides an individual service other than that the Group have made commitments that the sold goods or services meet the established criteria, such quality warranty constitutes a single performance obligation, otherwise, the Group will make accounting treatment for quality warranty liability in accordance with the Accounting Standard for Business Enterprises No. 13 – Contingencies.

(b) A principal and an agent

To determine whether the Group is a principal or an agent, the Group identifies the specified goods or services to be provided to the customer, and assesses whether it controls those goods or services before they are transferred to the customer. If the Group can control those goods or services before they are transferred to the customer, the Group is a principal, recognizing revenue at the total consideration received or receivable; otherwise, the Group is an agent, recognizing revenue at the amount of commissions or service charges expected to be entitled to collection, and such amount shall be determined based on net amount of total consideration received or receivable less amounts payable to other related parties, or on established amounts or proportions of commissions.

(6) Contract costs

(a) Costs of obtaining a contract

The incremental costs of obtaining a contract (i.e. it would not have incurred if the contract had not been obtained) which are expected to be collected shall be recognize as an asset. If the amortization period of the asset is less than one year, it will be included in profit or loss when incurred. Other expenditures incurred to obtain the contract are included in profit or loss when incurred, except for expenditures clearly borne by the customer.

(b) Costs to fulfil a contract

If the costs incurred in fulfilling a contract are not within the scope of other accounting standards for business enterprises other than the new revenue standards and satisfy the following conditions at the same time, the costs will be recognized as an asset: (i) the costs relate directly to a contract or to an anticipated contract; (ii) the costs enhance resources of the Group that will be used in satisfying performance obligations in the future; and (iii) the costs are expected to be recovered.

(c) Amortization of the related assets of contract costs

An asset associated with contract costs shall be amortized on the same basis as the revenue recognition of goods or services associated with the asset.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

23. Revenue (Continued)

(6) Contract costs (Continued)

(d) Impairment of the related assets of contract costs

The Group shall make impairment allowance and recognize an impairment loss in profit or loss to the extent that the carrying amount of an asset associated with contract costs recognized the remaining amount of consideration that the Group expects to receive in exchange for the goods or services to which the asset relates, less the costs expected to be incurred to transfer the relative goods or services.

(7) Contract asset and contract liability

Contract asset refers to the Group's right to consideration in exchange for goods or services that the Group has transferred to a customer when that right is conditioned on something other than the passage of time. Please refer to Note V 10 (2) for accounting policies on impairment of a contract asset. The Group's right of unconditional (i.e. solely depending on the passage of time) collection of consideration from the customer shall be separately set out as receivables.

Contract liability refers to the Group's obligation to transfer goods or services to a customer for which the Group has received consideration (or the amount is due) from the customer.

The Group shall recognize revenue when the Group satisfies a performance obligation in a contract, namely when the client obtains control over relevant goods or services. Control over relevant goods or services refers to the ability to direct the use of, and obtain substantially all of the remaining benefits from the goods or services.

24. Government grants

Government grants are transferred of monetary assets and non-monetary assets from the government to the Group at no consideration. A government grant is recognized only when the Group can comply with the conditions attaching to it and the grant will be received.

If a government grant takes the form of a monetary asset, it is measured at the amount received or receivable. If a government grant takes the form of a non-monetary asset, it is measured at fair value. If the fair value cannot be reliably determined, it is measured at a nominal amount. A government grant measured at a nominal amount is recognized immediately in profit or loss for the period. Government grants received by the Group related to routine activities are recognized in other income or as reductions in the related costs and expenses according to the economic nature of business; whereas government grants received by the Group other than those related to routine activities are recognized in non-operating income.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

24. Government grants (Continued)

Government grants used for creating long-term assets by purchase, construction or other ways are recognized by the Group as the government grants related to assets, mainly including the investment subsidies for the purchase or construction of new equipment and other production infrastructure. Government grants related to assets of the Group will be recognized as deferred income and amortized to profit or loss for the current period on a reasonable and systematic basis over the useful life of the related assets.

The government grants related to income are those other than the ones related to assets. Government grants of the Group related to income mainly include scientific research subsidies. As they are mainly the compensation for related expenses of the enterprises, such government grants are recognized as the government grants related to income. The Group classifies government grants which are difficult to distinguish as the grants related to income on an entire basis. If the government grants related to income are compensation for related expenses or losses to be incurred in subsequent periods, they are recognized as deferred income, and will be recognized in profit or loss or used to offset with related costs and expenses for the period when related expenses or losses are recognized. If the government grants related to income are compensation for related expenses or losses already incurred, they are recognized immediately in profit or loss for the current period or used to offset related with costs and expenses.

If the preferential low-interest loans received by the Group is subject to the fact that the government finance authority allocates interest subsidy fund to the bank which thereafter issues loans to the Group at preferential low-interest rates, the Group recognizes such borrowing at an amount actually received and calculates the borrowing costs based on the principal and the preferential low-interest rates. If the preferential low-interest loans received by the Group is the interest subsidy fund to the Group directly from the government finance authority, the Group deducts the interest subsidy from related borrowing costs.

Repayment of government grants should be applied first against any unamortized deferred income in respect of the grants. To the extent that repayment exceeds any such deferred income, or when no deferred income exists, the repayment should be recognized immediately in profit or loss for the current period.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

25. Deferred tax

For temporary differences between the carrying amounts of certain assets or liabilities and their tax base, or between the nil carrying amount of those items that are not recognized as assets or liabilities and their tax base that can be determined according to tax laws, deferred tax assets and liabilities are recognized using the balance sheet liability method.

All taxable temporary differences are recognized as related deferred tax liabilities under normal circumstances. Deferred tax assets are recognized to the extent that it is probable that future taxable profits will be available against which the deductible losses and tax credits can be utilized.

For deductible losses and tax credits that can be carried forward, deferred tax assets are recognized to the extent that it is probable that future taxable profits will be available against which the deductible losses and tax credits can be utilized. However, for deductible temporary differences associated with the initial recognition of goodwill and the initial recognition of an asset or liability arising from a transaction (not a business combination) that affects neither the accounting profit nor taxable profits (or deductible losses) at the time of transaction, no deferred tax asset or liability is recognized. At the balance sheet date, deferred tax assets and liabilities are measured at the tax rates, according to tax laws, that are expected to apply in the period in which the asset is realized or the liability is settled.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint ventures, except where the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

At the balance sheet date, the carrying amount of deferred tax assets is reviewed and reduced if it is no longer probable that sufficient taxable profits will be available in the future to allow the benefit of deferred tax assets to be utilized. Such reduction in amount is reversed when it becomes probable that sufficient taxable profits will be available.

When the Group has a legal right to settle current tax assets and liabilities on a net basis, and deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax assets and liabilities on a net basis or to realize the assets and liabilities simultaneously and in each future period in which significant amounts of deferred tax assets or liabilities are expected to be reversed, deferred tax assets and deferred tax liabilities are offset and presented on a net basis.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

26. Lease

At inception of a contract, the Group assesses whether the contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

(1) The Group as the lessee

(a) Separation of the lease

For a contract that contains a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components.

The Group applies practical expedient not to separate non-lease components from lease component, and instead accounts for the lease component and any associated non-lease components as a single lease component for contracts containing leases for buildings and structures, machinery and equipment, and transportation vehicles.

(b) Right-of-use assets

Except for short-term leases and leases of low value assets, the Group recognizes right-of-use assets at the commencement date of the lease (i.e. the date the underlying asset provided by the lessor is available for use). Right-of-use assets are measured at cost which includes:

- the amount of the initial measurement of the lease liabilities;
- any lease payments made at or before the commencement date, less any lease incentives received;
- any initial direct costs incurred by the Group; and
- an estimate of costs to be incurred by the Group in dismantling and removing the underlying assets, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease.

If a re-measurement of the lease liability occurs after the commencement date of the lease, the book value of the right-of-use assets shall be adjusted accordingly.

The Group depreciates the right of use assets in accordance with the relevant depreciation requirements of the Accounting Standards for Business Enterprises No.4 – Fixed Assets. Right-of-use assets in which the Group is reasonably certain to obtain ownership of the underlying leased assets at the end of the lease term are depreciated from commencement date to the end of the useful life. Otherwise, right-of-use assets are depreciated on a straight-line basis over the shorter of its estimated useful life and the lease term.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

26. Lease (Continued)

(1) The Group as the lessee (Continued)

(b) Right-of-use assets (Continued)

The Group determines whether the right of use assets are impaired and accounts for the identified impairment loss based on the Accounting Standards for Business Enterprises No.8 – Impairment of Assets. If the recoverable amount of the right-of-use asset is estimated to be less than its carrying amount, the carrying amount of the asset will be reduced to its recoverable amount (Note V18).

(c) Refundable rental deposit

The refundable rental deposits paid by the Group are measured at fair value in accordance with the Accounting Standards for Business Enterprises No.22 – Recognition and Measurement of Financial Instruments. The differences between the fair value and the nominal value at the time of initial recognition are considered as an additional lease payments and included in the cost of the right-of-use assets.

(d) Lease liabilities

Except for short-term leases and leases of low value assets, at the commencement date of the lease, the Group recognizes and measures the lease liabilities at the present value of lease payments that are unpaid at that date. In calculating the present value of lease payments, the Group uses the incremental borrowing rate at the lease commencement date if the interest rate implicit in the lease is not readily determinable.

Lease payments refer to the payments made by the Group to the lessor for the lessee's right to use the leased asset over the lease term and include:

- fixed payments (including in-substance fixed payments) less any lease incentives receivable;
- variable lease payments that depend on an index or a rate;
- the exercise price of a purchase option reasonably certain to be exercised by the Group;
- payments of penalties for terminating a lease, if the lease term reflects the Group exercising the option to terminate;
- amounts expected to be paid under residual value guarantees.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

26. Lease (Continued)

(1) The Group as the lessee (Continued)

(d) Lease liabilities (Continued)

Variable lease payments that depend on an index or a rate are initially measured using the index or rate at the commencement date. Variable lease payments that are not included in the measurement of lease liabilities are recognized in profit or loss or the cost of underlying assets in the period in which they occur.

Interest expenses on the lease liabilities in each period during the lease term are recognized by the Group by using the fixed periodic rate of interest.

After the commencement date of the lease, The Group increases the carrying amount of the lease liability when it recognizes interest and reduces the carrying amount of the lease liability when it pays the lease payment. The Group remeasures lease liabilities (and makes a corresponding adjustment to the related right-of-use assets) whenever:

- the lease term has changed or there is a change in the assessment of exercise of a purchase option, in which case the related lease liabilities are remeasured by discounting the revised lease payments using a revised discount rate at the date of reassessment.
- the lease payments change due to changes in expected payment under a guaranteed residual value or a change in an index or a rate used to determine those payments, in which cases the related lease liabilities are remeasured by discounting the revised lease payments using the initial discount rate.

Lease liabilities are presented as “current liabilities” and “non-current liabilities” based on their liquidity at the balance sheet. The closing balance of non-current lease liabilities due within 1 year from the balance sheet date is reflected under the line item of “non-current liabilities due within 1 year”.

(e) Short-term leases and leases of low-value assets

For short-term leases and leases of low-value items to which the recognition exemption is applied by the Group, right-of-use assets and lease liabilities are not recognized. A short-term lease refers to a lease that, at the commencement date, has a lease term of 12 months or less and does not contain a purchase option. A lease of low value asset refers to a single lease asset, when new, is of low value. Lease payments on short-term leases and leases of low-value assets are recognized in profit or loss or the cost of underlying assets on a straight-line basis over the lease term.

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

26. Lease (Continued)

(2) *The Group as the lessor*

(a) Separation of the lease

Where a contract contains both lease and non-lease components, the Group allocates the consideration of the contract in accordance with the provisions of the revenue standards on allocation of transaction price. The basis of the allocation is the respective stand-alone selling price of lease component and non-lease component.

(b) Classification of the lease

The Group classifies the lease into financing lease and operating lease on the start date of the lease. Financial lease refers to a lease that essentially transfers almost all the risks and rewards related to the ownership of leased assets. Its ownership may or may not be transferred eventually. Operational lease refers to the leases other than financial leases.

The Group does not reassess the classification of leases after the start of the lease unless there is a modification in the lease. The Group shall not reassess the classification of leases if the estimated useful life and expected residual value of leased assets change or the lessee defaults.

(c) Rental deposit to be refunded

The lease deposits received by the Group that shall be refunded are measured at fair value at the time of initial recognition in accordance with Accounting Standards for Business Enterprises No.22 – Recognition and Measurement of Financial Instruments. The difference between the fair value and the nominal value at the time of initial recognition shall be considered as the additional lease payments from the lessee.

(d) Operating leases recorded by the Group as lessor

During the periods within the lease term, the Group recognizes the lease receipts from operating lease as rental income. The initial direct costs incurred by the Group to obtain the operating lease are capitalized when they are incurred, and are allocated over the lease term on the same basis of recognition of rental income, and are included in profit or loss by stages.

The variable lease receipts obtained by the Group from operating lease but not included in the lease receivables are included in profit or loss when they incur.

(3) *Sale and leaseback transactions (The Group acting as a seller-lessee)*

The Group assesses whether the transfer of the asset in the sale and leaseback transaction constitutes a sale in accordance with the Revenue Standards. If the transfer of the asset is not a sale, the Group continues to recognize the transferred assets and should recognize a financial liability equal to the transfer proceeds. Such financial liability is accounted for applying Accounting Standards for Business Enterprises No.22 – Recognition and Measurement of Financial Instruments. If the transfer of an asset constitutes a sale, the Group shall measure the right-of-use asset arising from the leaseback at the proportion of the previous carrying amount of the asset that relates to the right of use and recognize only the amount of any gain or loss that relates to the rights transferred to the lessor.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

27. Other significant accounting policies and accounting estimates

(1) *Distribution of dividends*

The cash dividend of the Company is recognized as a liability upon approval in the annual shareholders' meeting.

(2) *Safety production expenses*

Safety production expenses provided according to the regulations are included in costs of related products or profit or loss, and credited to the special reserve. When the expenditures are utilized, they should be offset against the special reserve; when the expenditures incurred relate to fixed assets, they shall be recognized as construction in progress. When the assets are ready for their intended use, a same amount should be offset against the special reserve and recorded as accumulated depreciation at the same time. The related fixed asset is not subject to any further depreciation in the subsequent periods.

(3) *Segment information*

The accounting policies of segment information are listed in Note XV1 (1).

(4) *Discontinued operation*

Discontinued operation refers to the separately identifiable components that have been disposed of or classified as held for sale and meet one of the following conditions:

- The component represents an independent main business or a major business area;
- This component is a part of a related plan that intends to dispose of an independent main business or a separate main operating area;
- This component is a subsidiary acquired exclusively for resale.

(5) *Significant accounting estimates and judgments*

As operating activities have inherent uncertainties, the Group need to make judgments, estimates and assumptions upon report items that cannot be accurately calculated in applying the above accounting policies. These judgments, estimates and assumptions are made based on historical experiences of the management of the Group, taking other related factors into consideration. The actual results may be different from the estimates of the Group.

The Group review the above judgments, estimates and assumptions periodically based on going concern. If the changes of accounting estimates only affect the current year, the influence amount is recognized in the current year. If the changes of accounting estimates affect both of the current year and the future period, the influence amount is recognized in the current year and the future period.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

27. Other significant accounting policies and accounting estimates (Continued)

(5) Significant accounting estimates and judgments (Continued)

(a) Important judgments in applying accounting policies

The Group made some important judgments in applying accounting policies, which have significant influences on the amount of financial statements.

(i) Equity instrument

The issued perpetual bond has no maturity date. Since the Group has the right to defer interest payment and the option for redemption of perpetual bond. The Group has no obligation to deliver cash or another financial asset to another entity, or to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavorable to the issuer, the perpetual bond is classified as an equity instrument, which meets the qualifying to be recorded in Note V22 as equity instrument.

(ii) Business models

The classification of financial assets at initial recognition depends on the Group's business model for managing financial assets. When determining the business model, the Group consider how the performance of the business model and the financial assets held within that business model are evaluated and reported to the entity's key management personnel, the risks affecting the performance of financial assets and the risk management, and the manner in which the relevant management receives remuneration. When assessing whether the objective is to collect contractual cash flows, the Group needs to analyse and judge the reason, timing, frequency and value of the sale before the maturity date of the financial assets.

(iii) Contractual cash flow characteristics

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics, and the judgements on whether the contractual cash flows are solely payments of principal and interest on the principal amount outstanding, including the assessment of the modification of the time value of money, the judgement on whether there is any significant difference from the benchmark cash flow and whether the fair value of the prepayment features is insignificant for financial assets with prepayment features, etc.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

27. Other significant accounting policies and accounting estimates (Continued)

(5) Significant accounting estimates and judgments (Continued)

(a) Important judgments in applying accounting policies (Continued)

(iv) Whether the Group has control over a structured entity

The Group has shares in a number of structured entities investing in infrastructure development. The Group mainly determines whether it actually controls a structured entity in accordance with Accounting Standard for Business Enterprises No. 33 – Consolidated Financial Statements. Where the Group has effective control, the Group includes the structured entity in the consolidated financial statements. Where the Group does not actually control the structured entity but exercises joint control with other parties or is only able to exert significant influence on the structured entity, the Group accounts for the structured entity as a joint venture or associated enterprise. Where the Group has neither actual control nor joint control over the structured entity and has no significant influence, the Group accounts for the structured entity in other non-current financial assets.

(v) Whether a contract is, or contains, a lease

The Group signed the lease agreement on equipment for some engineering construction projects. The Group believes that, based on the agreement, there is no identified asset, the supplier has the substantive right to substitute the underlying asset throughout the period of use. Therefore, the agreement does not contain a lease, and the Group treats it as acceptance of a service.

(b) The key assumptions and uncertainties used in accounting estimates

As at balance sheet date, the key assumptions concerning the future, and other key sources of estimation uncertainty that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities in the next 12 months are as below:

(i) Engineering construction contracts

The Group determines to use input method to measure the progress of income of engineering services contracts provided by the Group which require to be fulfilled in a certain period. Specifically, the Group determines progress of performance based on the proportion of accumulatively actual cost in estimated total cost. Because of the nature of the activity undertaken in engineering contracting services, the date at which the contract activity is entered into and the date when the activity is completed usually fall into different accounting periods. In the contract progress, the management of the Group regularly reviews the transaction price and contract modification, contract costs in the budget prepared for each contract, the progress of the contracts performance and the accumulatively actual cost. If there are circumstances that there are changes in the transaction price, the contract costs in the budget or the progress of the contract performance, estimates are revised. These revisions may result in increasing or decreasing in estimated revenues or costs and are reflected in consolidated income statement in the current period.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

27. Other significant accounting policies and accounting estimates (Continued)

(5) Significant accounting estimates and judgments (Continued)

(b) The key assumptions and uncertainties used in accounting estimates (Continued)

(ii) Impairment of financial instruments and contract assets

The Group uses the expected credit loss model to assess the impairment of financial instruments and contract assets. The Group is required to perform significant judgement and estimation and take into account all reasonable and supportable information, including forward-looking information. When making such judgements and estimates, the Group infers the expected changes in the debtor's credit risk based on historical repayment data combined with economic policies, macroeconomic indicators, industry risks and other factors. The different estimates may impact the impairment assessment, and the provision for impairment may also not be representative of the actual impairment loss in the future.

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

The Group assesses whether there are any indicators of impairment for all non-current assets other than financial assets at the balance sheet date. Intangible assets with indefinite useful lives are tested for impairment annually and at other times when such indicator exists. Other non-current assets other than financial assets are tested for impairment when there are indicators that the carrying amounts may not be recoverable. Where the carrying amount of an asset or asset group is higher than its recoverable amount (i.e. the higher of its fair value less costs to sell and the present value of the future cash flows expected to be derived from it), it is indicated that such asset or asset group is impaired. The fair value less costs to sell is determined with reference to the price in sales agreement or observable market price in arm's length transaction, adjusted for incremental costs that would be directly attributable to the disposal of the asset or asset group. When calculating the present value of expected future cash flows from an asset or asset group, the management shall estimate the expected future cash flows from the asset or asset group and choose a suitable discount rate in order to calculate the present value of those cash flows. Further details are given in Note V 18.

(iv) Useful lives of fixed assets, investment properties and intangible assets

The fixed assets, investment properties and intangible assets of the Group are depreciated or amortised over their expected useful lives. The Group periodically reviews the expected useful life of the underlying assets to determine the amount of depreciation and amortization expense to be included in each reporting period. The useful life of an asset is determined by the Group based on its past experience with comparable assets and in the light of anticipated technological changes. If there is a significant change to previous estimates, depreciation and amortization expenses are adjusted for future periods.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

27. Other significant accounting policies and accounting estimates (Continued)

(5) Significant accounting estimates and judgments (Continued)

(b) The key assumptions and uncertainties used in accounting estimates (Continued)

(v) Tax

The Company and its subsidiaries are subject to income taxes and other taxes in numerous jurisdictions in domestic provinces and certain overseas countries. The ultimate tax effect of many transactions has uncertainty during normal business activities. The Group shall make significant judgment on current year income tax and land appreciation tax provisions in different areas and districts. Where the final tax outcome of these matters is different from the amounts originally recorded, the differences will impact on the current year income tax provisions in the periods in which the differences arise.

Deferred tax assets relating to certain temporary differences and tax losses are recognized as management considers it is probable that future taxable profit will be available against which the deductible temporary differences or tax losses can be utilized. In cases where the estimated amount differs from original estimation, the difference would influence the recognition of deferred tax assets in the period when the estimation changes. Deferred tax assets relating to certain temporary differences and tax losses should not be recognized if management considers it is not probable to utilize the deductible temporary differences or tax losses to deduct taxable income in future.

(vi) Retirement benefits

The Group establishes liabilities in connection with supplementary benefits paid to certain retired employees. The amounts of employee benefit expenses and liabilities are determined using various assumptions and conditions on discount rates, salary growth rates during retirement, medical expense growth rates, and other factors. Actual results that differ from the assumptions are recognized immediately and therefore affect recognized other comprehensive income in the period in which such differences arise. While management believes that its assumptions are appropriate, differences in actual experience or changes in assumptions may affect the other comprehensive income and balance of liabilities related to the supplementary employee retirement benefit obligations.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

V. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

28. Changes in significant accounting policies and accounting estimates

(1) Changes in significant accounting policies

During the reporting period, there were no significant changes in accounting policies.

(2) Changes in significant accounting estimates

During the reporting period, there were no significant changes in accounting estimates.

VI. TAXATION

1. Major categories of taxes and respective tax rates

The main taxes and tax rates applicable to the Company and the onshore subsidiaries are as follows:

Category of tax	Basis of tax computation	Tax rates
Value-added tax ("VAT")	VAT payable (VAT is imposed on the taxable sales amount multiplied by the tax rate (output-VAT) less deductible input-VAT of the current year)	3%, 5%, 6%, 9% and 13%
City maintenance and construction tax ("CCT")	Payment for VAT	1%, 5% and 7%
Education surcharges	Payment for VAT	3%
Enterprise income tax ("EIT")	Taxable income	25%
Land appreciation tax	Appreciation amount on the transfer of real estate	30% to 60%

The Company and the subsidiaries, except some established onshore that enjoy preferential tax policies, are subject to corporate income tax at 25% of their taxable income.

Offshore subsidiaries of the Company (including those established in Hong Kong SAR of China) are subject to the taxes at the tax rates stipulated by tax regulations of respective jurisdictions.

FINANCIAL STATEMENTS

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VI. TAXATION (CONTINUED)

2. Tax incentive

The preferential policies on corporate income tax enjoyed by the main entities of the Group are summarized as follows:

	Preferential tax rate		Preferential policies on corporate income tax
	Amount for the current period	Amount for the prior period	
Shanghai Baoye Group Corp. Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises
China First Metallurgical Group Co. Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
China Second Metallurgy Group Corp. Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
China MCC5 Group Corp. Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
China MCC17 Group Co. Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
China MCC19 Group Corp. Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses, additional deduction for payroll expenses of disabled employees
China MCC20 Group Corp. Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses, additional deduction for payroll expenses of disabled employees
China MCC22 Group Corp. Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises
Central Research Institute of Building and Construction Co., Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises
Beijing Metallurgical Equipment Research Design Institute Co., Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
MCC Capital Engineering & Research Incorporation Limited	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
WISDRI Engineering & Research Incorporation Limited	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VI. TAXATION (CONTINUED)

2. Tax incentive (Continued)

	Preferential tax rate		Preferential policies on corporate income tax
	Amount for the current period	Amount for the prior period	
Huatian Engineering & Technology Corporation, MCC	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
ZHONGYE Chang Tian International Engineering Co., Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
Shen Kan Engineering & Technology Corporation, MCC	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
Wuhan Surveying Geotechnical Research Institute Co., Ltd. of MCC	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
MCC TianGong Group Corporation Limited	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for payroll expenses of disabled employees
MCC Baosteel Technology Services Co., Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses, additional deduction for payroll expenses of disabled employees
MCC Communication Construction Group Co., Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises
MCC (Shanghai) Steel Structure Technology Co., Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
MCC Urban Investment Holding Co., Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
MCC-SFRE Heavy Industry Equipment Co., Ltd.	15%	15%	Preferential taxation policies for the western development, Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
MCC (Guizhou) Construction Investment Development Co., Ltd.	15%	15%	Tax preferential policy for high-new technology enterprises, additional deduction for R&D expenses
China Metallurgical Construction Engineering Group Co., Ltd	15%	15%	Preferential taxation policies for the western development, additional deduction for R&D expenses

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VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Cash and bank balances

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Cash	11,004	11,136
Bank deposits	40,427,149	30,905,299
Other cash and bank balances	5,047,260	10,908,029
Total	45,485,413	41,824,464
Including: Total amount of offshore deposits	3,436,973	2,333,195

As at 31 December 2022, restricted cash and bank balances of the Group were RMB 12,017,196,000 (As at 31 December 2021: RMB 10,607,640,000) which mainly included bank deposits for issuing acceptance bills, guarantee deposits, frozen funds for lawsuit, funds under supervision for projects and deposits on wages for rural migrant workers, etc.

The Group's certain cash and bank balances deposited overseas are subject to the exchange control in relevant countries or regions and cannot be converted to foreign currencies freely or remitted out from these countries or regions. As at 31 December 2022, the proportion of the Group's cash and bank balances denominated in foreign currency deposited in these countries or regions to the balance of cash and bank balances in the Group's consolidated balance sheet was less than 2% (As at 31 December 2021: less than 5%).

The Group obtains interest income on its bank demand deposits at the interest rates for demand deposits. The fixed deposit term for short-term deposits range from 30 days to 3 months, depending on the Group's demands for cash and the interest income is earned at the corresponding interest rates for demand deposits.

2. Financial assets held for trading

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Financial assets at FVTPL		
Equity instrument investment	178,026	1,107
Including: Investment in listed stocks	1,514	1,107
Investment in unlisted equities	176,512	–
Total	178,026	1,107

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

3. Derivative financial assets

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Forward foreign exchange settlement and Sales contracts	-	114,790
Total	-	114,790

4. Bills receivable

(1) Bills receivable analyzed by category

All amounts in RMB '000

Items	31 December 2022			31 December 2021		
	Book value	Provisions for credit losses	Carrying amount	Book value	Provisions for credit losses	Carrying amount
Bank acceptance bills	2,776,663	5,823	2,770,840	1,085,427	-	1,085,427
Commercial acceptance bills	2,398,421	41,836	2,356,585	2,736,162	396,360	2,339,802
Total	5,175,084	47,659	5,127,425	3,821,589	396,360	3,425,229

(2) The Group's pledged bills receivable

All amounts in RMB '000

Items	Pledged amount as at 31 December 2022	Pledged amount as at 31 December 2021
Bank acceptance bills	60,741	278,038
Commercial acceptance bills	75,902	30,432
Total	136,643	308,470

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

4. Bills receivable (Continued)

(3) *The Group's bills receivable endorsed to other parties or discounted but not yet due at the balance sheet date*

All amounts in RMB '000

Items	31 December 2022 Derecognized	31 December 2022 Not derecognized	31 December 2021 Derecognized	31 December 2021 Not derecognized
Bank acceptance bills	–	2,045,139	–	–
Commercial acceptance bills	–	1,016,831	–	999,697
Total	–	3,061,970	–	999,697

(4) *Changes in provision for credit losses of bills receivable*

All amounts in RMB '000

Item	31 December 2021	Reversal for the current period	Transfer out for the current period	31 December 2022
Provisions for credit losses of bank acceptance bills	–	5,823	–	5,823
Provisions for credit losses of commercial acceptance bills	396,360	16,095	370,619	41,836
Total	396,360	21,918	370,619	47,659

(5) *Restricted bills receivable as at 31 December 2022 are set out in Note VII 71.*

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5. Accounts receivable

(1) Disclosed by aging

The Group's accounts receivables are mainly receivables for engineering contracting business. The credit period of accounts receivable is generally one to three months.

All amounts in RMB '000

Aging	31 December 2022	31 December 2021
Within 1 year	64,731,628	62,442,338
1 to 2 years	19,972,973	13,893,734
2 to 3 years	8,277,928	6,350,925
3 to 4 years	4,296,073	3,921,082
4 to 5 years	3,240,391	3,027,452
Over 5 years	10,457,635	9,219,754
Total book value	110,976,628	98,855,285
Less: provisions for credit losses	17,536,955	14,973,590
Carrying amount	93,439,673	83,881,695

Settlement of trade receivables generated through engineering and construction services is made in accordance with terms specified in the contracts governing the relevant transactions, and the aging of relevant trade receivables is calculated based on the settlement time of the project.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5. Accounts receivable (Continued)

(2) Disclosed by method of determining provision for credit losses

All amounts in RMB '000

Category	31 December 2022				31 December 2021					
	Book value		Provision for credit losses		Book value		Provision for credit losses		Carrying amount	
	Amount	Ratio (%)	Amount	Ratio (%)	Amount	Ratio (%)	Amount	Ratio (%)		
Accounts receivable for which provision for credit losses is individually assessed (a)	25,438,047	22.92	9,280,662	36.48	16,157,385	28,719,762	29.05	7,145,146	24.88	21,574,616
Accounts receivable for which provision for credit losses is collectively assessed on a portfolio basis (b)	85,538,581	77.08	8,256,293	9.65	77,282,288	70,135,523	70.95	7,828,444	11.16	62,307,079
Total	110,976,628	100.00	17,536,955	/	93,439,673	98,855,285	100.00	14,973,590	/	83,881,695

(a) Accounts receivable for which provision for credit losses is individually assessed at the end of the year

All amounts in RMB '000

Name of entity	31 December 2022			Reasons
	Accounts receivable	Provision for credit losses	Proportion of provision (%)	
Party 1	1,682,517	-	-	The Group considered the reasonable and supported information related to other party (including forward-looking information), then evaluated the anticipated credit losses and made provision for credit losses.
Party 2	1,465,841	566,940	38.68	
Party 3	712,030	-	-	
Party 4	627,139	125,685	20.04	
Party 5	611,101	244,441	40.00	
Others	20,339,419	8,343,596	41.02	
Total	25,438,047	9,280,662	36.48	

The notes for impairment allowance of accounts receivable individually accrued is as follows:

Note: For the evaluation on Party 1's expected credit losses, please refer to Note VII 10.(3)..

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5. Accounts receivable (Continued)

(2) Disclosed by method of determining provision for credit losses (Continued)

- (b) Accounts receivable for which provision for credit losses is collectively assessed on a portfolio basis at the end of the year

All amounts in RMB '000

Aging	31 December 2022		
	Estimated gross carrying amount at default	Expected lifetime credit losses	Proportion of provision (%)
Within 1 year	59,970,276	1,347,391	2.25
1 to 2 years	13,349,314	992,891	7.44
2 to 3 years	5,169,138	971,541	18.80
3 to 4 years	2,434,544	891,918	36.64
4 to 5 years	1,374,266	858,676	62.48
Over 5 years	3,241,043	3,193,876	98.54
Total	85,538,581	8,256,293	9.65

Basis and description for impairment allowance collectively accrued by credit risk portfolio are as follows:

The Group considers the aging factor and groups accounts receivable accordingly. The Group determines the expected credit loss and provision for credit losses based on the historical experience of credit losses.

(3) Provision for credit losses of accounts receivable

All amounts in RMB '000

Item	31 December 2021	Changes for the year					31 December 2022
		Provision	Reversal	Transfer-in	Write-off	Other movements	
Provision for credit losses	14,973,590	2,929,753	(638,249)	462,013	(205,998)	15,846	17,536,955

The Group's significant amounts of reversal or recovery for this year are as follows:

All amounts in RMB '000

Name of entity	Reason for reversal/recovery	Basis for proportion of provision for reversal/recovery	Amount	Way of collection
Party 1	Accounts receivable of project recovered	Possibility of recovery	62,499	Bank deposits
Party 2	Accounts receivable of project recovered	Possibility of recovery	61,000	Bank deposits

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5. Accounts receivable (Continued)

(4) *The five largest accounts receivable collected by arrears at the end of the year*

All amounts in RMB '000

Name of entity	Relationship with the Group	Balance as at 31 December 2022	Provision for bad debts as at 31 December 2022	As a percentage of accounts receivable (%)
Party 1	Third party	3,073,933	291,790	2.77
Party 2	Third party	3,050,190	200,012	2.75
Party 3	Third party	1,682,517	-	1.52
Party 4	Third party	1,465,841	566,940	1.32
Party 5	Third party	712,030	-	0.64
Total	/	9,984,511	1,058,742	9.00

(5) For the current year, the Group's total carrying amount of derecognized accounts receivable due to the transfer of accounts receivable amortized cost to financial institutions in the form of non-recourse protection factoring and asset securitization was RMB 31,148,669,000. Losses due to derecognition of financial assets was RMB 1,273,573,000, which was recorded into investment losses. As at 31 December 2022, no assets and liabilities the Group recognized for transfer of accounts receivable and continuing involvement (as at 31 December 2021 : Nil).

(6) Accounts receivable with title restriction as at 31 December 2022 are set out in Note VII 71.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

6. Receivables at FVTOCI

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Bank acceptance bills	9,091,179	11,857,791
Other credit instruments at fair value through other comprehensive income	1,255,209	–
Total	10,346,388	11,857,791

The Group recognizes impairment provision for receivables at FVTOCI on the basis of the expected credit loss. For the current year, there was no significant credit risk in financing with receivables upon evaluation. Therefore, the Group didn't make provision for credit impairment loss of the receivables at FVTOCI.

Endorsed or discounted financing with receivables which were not due as at the balance sheet date are as follows:

All amounts in RMB '000

Items	31 December 2022		31 December 2021	
	Derecognized	Not derecognized	Derecognized	Not derecognized
Bank acceptance bills	18,420,996	–	15,310,163	–
Other credit instruments at fair value through other comprehensive income	2,629,979	–	–	–
Total	21,050,975	–	15,310,163	–

Restricted receivable of FVTOCI as at 31 December 2022 are set out in Note VII 71.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

7. Prepayments

(1) Analysis by aging

All amounts in RMB '000

Aging	31 December 2022		31 December 2021	
	Amount	Ratio (%)	Amount	Ratio (%)
Within 1 year	28,097,869	77.29	38,785,762	84.12
1 to 2 years	5,073,643	13.96	4,146,628	8.99
2 to 3 years	1,631,498	4.49	1,703,716	3.69
Over 3 years	1,549,522	4.26	1,474,927	3.20
Total	36,352,532	100.00	46,111,033	100.00

As at 31 December 2022, prepayments aged over one year were RMB 8,254,663,000 (As at 31 December 2021: RMB 7,325,271,000), mainly including prepaid construction payments and payments for goods to sub-contractors.

(2) The carrying amounts of the five largest prepayments at the end of the year

All amounts in RMB '000

Name of entity	Relationship with the Group	31 December 2022	As a percentage of total prepayments (%)
Party 1	Third party	1,228,512	3.38
Party 2	Third party	1,008,500	2.77
Party 3	Third party	932,550	2.57
Party 4	Third party	333,467	0.92
Party 5	Third party	254,757	0.70
Total	/	3,757,786	10.34

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

8. Other receivables

(1) Other receivables analyzed by category

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Interest receivables	11,614	1,038
Dividend receivables	142,428	579,445
Other receivables	47,917,675	67,186,152
Total	48,071,717	67,766,635

(2) Interest receivables

All amounts in RMB '000

Item	31 December 2022	31 December 2021
Interests on term deposits	11,614	1,038
Total	11,614	1,038

(3) Dividend receivables

All amounts in RMB '000

The name of investee	31 December 2022	31 December 2021
Hebei Steel Luan County Sijiaying Iron Ore Co., Ltd.	95,804	9,024
Hebei Xiongan Zhi Tong Technology Co., LTD.	18,782	–
Chongqing Qianxin International Trading Co., Ltd.	8,994	11,060
MCC Rong Xing Building Materials (Chengdu) Co., Ltd.	1,146	6,000
China Overseas Infrastructure Development and Investment Corporation	606	–
Zhuhai MCC Jianxin Investment Management Partnership (LP)	–	531,697
Sichuan Developing Shuoou Construction Engineering Co., Ltd.	–	1,749
Others	17,096	19,915
Total	142,428	579,445

As at 31 December 2022, dividends receivable aged over one year were RMB 18,242,000 (31 December 2021: RMB 24,144,000).

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

8. Other receivables (Continued)

(4) Other receivables

(a) aging analysis

All amounts in RMB '000

Aging	31 December 2022	31 December 2021
Within 1 year	16,339,095	44,830,051
1 to 2 years	14,478,969	9,813,773
2 to 3 years	5,660,108	4,197,192
3 to 4 years	3,361,149	3,810,157
4 to 5 years	3,805,083	3,903,880
Over 5 years	12,572,455	9,392,287
Total book value	56,216,859	75,947,340
Less: provisions for credit losses	8,299,184	8,761,188
Carrying amount	47,917,675	67,186,152

(b) Other receivables categorized by nature

All amounts in RMB '000

Nature of other receivables	Book value on 31 December 2022	Book value on 31 December 2021
Deposits, guarantee funds and advances	33,153,648	31,827,031
Loan receivables from related parties	14,827,983	34,363,346
Advance to employees	285,024	284,175
Receivables on disposal of investments	2,702,393	2,702,393
Others	5,247,811	6,770,395
Total	56,216,859	75,947,340

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

8. Other receivables (Continued)

(4) Other receivables (Continued)

(c) Provision for credit losses of other receivables

All amounts in RMB '000

Items	Phase 1	Phase 2	Phase 3	Total
	Future 12-month expected credit losses	Lifetime expected credit losses (Non-credit-impaired)	Lifetime expected credit losses (Credit-impaired)	
Provision for credit losses at 31 December 2021	2,618,201	793,510	5,349,477	8,761,188
Transfer of opening balance for the current year	(1,353,870)	234,298	1,119,572	-
Provision for the current year	995,726	1,149,797	724,400	2,869,923
Reversal for the current year	(899,542)	(257,945)	(709,140)	(1,866,627)
Write-off for the current year	(7,161)	-	(164,196)	(171,357)
Changes in scope of consolidation	-	(313,505)	(880,668)	(1,194,173)
Transfer out for the current year	-	-	(117,018)	(117,018)
Change of exchange rate	14,515	-	2,733	17,248
Provision for credit losses at 31 December 2022	1,367,869	1,606,155	5,325,160	8,299,184

(d) The five largest other receivables at the end of the current year

All amounts in RMB '000

Name of entity	Relationship with the Group	Nature of other receivables	Aging	31 December 2022	Provision for bad debts	As a percentage of total other receivables (%)
Party 1	Joint venture	Loans to related parties	1 to 2 years	2,242,797	-	3.99
Party 2	Third party	Receivables on disposal of investments	Over 5 years	2,122,943	-	3.78
Party 3	Joint venture	Loans to related parties	1 to 2 years and over 5 years	1,917,214	719,159	3.41
Party 4	Joint venture	Loans to related parties	1 to 2 years	1,892,722	-	3.37
Party 5	Third party	Guarantee funds	1 to 2 years, 3 to 5 years and over 5 years	1,465,000	-	2.61
Total	/	/	/	9,640,676	719,159	17.16

(e) Restricted other receivables as at 31 December 2022 are set out in Note VII 71.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

9. Inventories

(1) Categories of inventories

All amounts in RMB '000

Items	31 December 2022			31 December 2021		
	Book value	Provision for impairment	Carrying amount	Book value	Provision for impairment	Carrying amount
Raw materials	3,054,719	40,647	3,014,072	4,867,187	19,609	4,847,578
Materials procurement	29,013	-	29,013	352,585	-	352,585
Outsourced processing materials	7,641	-	7,641	8,339	105	8,234
Work in progress	2,474,626	345,149	2,129,477	3,056,724	503,637	2,553,087
Finished goods	2,928,397	115,787	2,812,610	3,190,278	199,283	2,990,995
Other materials	535,424	790	534,634	635,843	4,469	631,374
Performance costs of contracts	64,610	-	64,610	142,430	-	142,430
Properties under development (a)	45,633,743	400,020	45,233,723	26,552,312	19,763	26,532,549
Completed properties held for sale (b)	26,310,587	187,736	26,122,851	24,141,037	352,347	23,788,690
Total	81,038,760	1,090,129	79,948,631	62,946,735	1,099,213	61,847,522

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

9. Inventories (Continued)

(1) Categories of inventories (Continued)

(a) Details of the properties under development

All amounts in RMB '000

Project name	Project Commencement date	Estimated Completion date	Estimated total investment amount	31 December 2021	31 December 2022
Nanjing Xiaguan Riverside Project (Note 1)	2011-01-01	2025-12-31	18,728,279	5,722,280	6,850,274
Guangzhou Wanbao (Note 1)	2018-04-01	2023-03-31	7,266,008	-	5,924,180
MCC Xinglong New City Hongshijun	2017-12-20	2027-12-31	8,812,613	3,708,978	3,939,352
Hangzhou Cuiyuan (Note 1)	2017-11-20	2023-06-30	3,730,040	-	3,353,088
Nanjing Yuhuatai District G35 project (Note 1)	2021-11-01	2024-10-31	4,409,273	-	3,237,230
Tiantai Road (Yangqiao Avenue) (Note 1)	2017-04-30	2023-12-30	7,175,016	-	2,998,694
Shijiazhuang MCC Dexian Mansion (Note 1)	2021-08-29	2024-06-30	4,930,980	-	2,909,225
Yanjiao Headquarters Base Project	2019-10-31	2024-06-30	3,278,780	1,611,110	1,817,286
MCC Tongluo Town	2014-11-01	2026-12-31	5,523,340	1,387,733	1,687,397
Qingdao MCC Dexian Mansion	2020-06-24	2023-12-31	4,016,260	2,582,940	1,441,496
Zhongjie Mansion	2012-11-11	2023-06-30	1,605,830	1,243,027	1,263,598
MCC Changyuanli Project	2022-07-01	2028-12-01	3,629,774	-	1,249,874
Qin Hai Yun Villa Project	2011-08-08	2025-12-31	4,400,000	1,686,907	1,065,967
Tangshan MCC Dexian Mansion	2022-03-15	2024-03-15	3,772,290	-	954,395
Changchengshili Spring Breeze Town	2018-03-03	2024-12-31	2,500,000	1,077,888	917,783
Shijiazhuang Zhaotuo Park Project	2019-03-01	2024-12-31	5,441,540	724,294	726,219
Qinhuangdao Fanhua Dexian New City Project II	2018-12-31	2025-12-31	2,823,800	702,001	711,917
MCC Famous City Project (Note 1)	2022-03-10	2024-06-30	1,690,120	-	685,386
Qinhuangdao Yunding Dexian New City Project I	2018-12-31	2025-12-31	2,666,337	617,703	649,430
Renhe Xili	2019-03-01	2023-12-31	1,924,180	373,991	451,846
MCC Baizhishan International Holiday Resort (Project I)	2014-04-01	2024-04-01	4,000,000	701,992	432,468
Qianhai Headquarter R&D Base Commercial properties of Southern R&D Center	2019-12-12	2023-09-30	3,382,174	267,660	298,868
Tanxi County Xicheng Family Project	2020-03-01	2023-10-31	518,744	206,317	292,299
Hebei Qinhuangdao Yudai Bay Project	2008-12-23	2025-12-31	3,675,070	93,768	236,942
Others	/	/	45,043,190	3,843,723	1,538,529
Total	/	/	154,943,638	26,552,312	45,633,743

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

9. Inventories (Continued)

(1) Categories of inventories (Continued)

All amounts in RMB '000

Project name	Completion date	31 December 2021	Increase in the current year	Decrease in the current year	31 December 2022
Guangzhou Changling Residence Project (Note 1)	2022-07-15	-	7,649,558	4,569,740	3,079,818
Zhongye Yijing Mansion	2022-04-13	5,482,517	202,348	3,506,791	2,178,074
Hengqin Port Base Project	2020-01-31	1,852,504	636	27,231	1,825,909
Tianjin Xinbadali District Qixianli Project	2019-06-26	1,879,721	3,969	109,076	1,774,614
Shijiazhuang Zhaotuo Park Project	2022-12-31	2,162,007	79,745	702,366	1,539,386
Shijiazhuang MCC Dexian Mansion Project	2019-06-18	1,617,288	26,753	243,795	1,400,246
Qin Hai Yun Villa Project	2022-06-23	646,311	726,656	67,319	1,305,648
Nanjing Xiaguan Riverside Project	2021-09-26	1,028,708	780,267	613,653	1,195,322
Qingdao MCC Dexian Mansion	2022-06-15	-	1,642,949	866,097	776,852
Hong Kong Quanwan Qinglongtou Yijing Longwan Project	2020-10-06	835,849	-	90,636	745,213
MCC Xinglong New City Hongshijun	2021-11-02	427,933	213,650	22,745	618,838
Tianjin Dexian Huafu	2022-03-31	-	1,107,015	525,860	581,155
Shanghai Jinshan District - MCC Fengjunyuan Project II	2022-06-30	-	716,102	181,241	534,861
Sanya Minmetals International Plaza (Note 1)	2022-12-26	-	855,152	326,009	529,143
Baotou MCC Campus South Road Community Project	2022-06-02	561,354	-	46,307	515,047
Luanping Anxinjiayuan	2021-06-30	340,010	157,615	13,602	484,023
MCC Baizhishan International Holiday Resort (Project II)	2022-05-18	156,957	344,341	22,521	478,777
Guanhu Phase I Project	2022-08-04	-	475,560	34,565	440,995
MCC 39th Street Project	2019-09-30	973,389	28,086	580,525	420,950
Plot D-1, Gengyang New City	2022-12-31	447,995	16,358	87,203	377,150
Gengyang New City 5 District II	2022-12-22	-	974,549	622,019	352,530
MCC Happy Chen	2022-06-27	77,111	287,532	31,236	333,407
Dalian International Business City	2014-12-31	316,997	-	8,995	308,002
Beijing Daxing District Jiugong Green Belt Parcel A1 Project	2017-10-31	345,038	2,144	83,565	263,617
Changchengshili Spring Breeze Town	2022-10-31	-	393,486	144,757	248,729
Hubei Huangshi-MCC Huangshi Park II	2021-12-31	352,563	83,544	213,380	222,727
Xian MCC Changan Dadu	2017-09-12	222,868	1,995	8,452	216,411
MCC Mingyuan Residential Project (Note 1)	2022-09-15	-	1,097,831	887,621	210,210
MCC Wenqinyuan Project	2017-03-20	209,086	819	2,142	207,763
Brazil Fluctuation Apartment	2018-10-30	598,536	-	598,536	-
Others	/	3,606,295	1,328,507	1,789,632	3,145,170
Total	/	24,141,037	19,197,167	17,027,617	26,310,587

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

9. Inventories (Continued)

(1) Categories of inventories (Continued)

Note 1: The inventories have been increased by RMB 28,415,943,000 as MCC Real Estate Group Co., Ltd., one of the Company's subsidiaries, has acquired Nanjing MCC Zhenghui Real Estate Co., Ltd., Tianjin MCC Mingrui Real Estate Co., Ltd., Guangzhou MCC Mingjie Real Estate Co., Ltd., Shijiazhuang MCC Mingguan Real Estate Development Co., Ltd., Guangzhou MCC Minghui Real Estate Co., Ltd., Hangzhou MCC Mingjin Real Estate Development Co., Ltd., Nanjing MCC Minghan Real Estate Co., Ltd. and Sanya MCC Minglan Development Co. Ltd.

Note 2: As at 31 December 2022, the total borrowing costs capitalized included in costs of properties development and development products were RMB 10,503,391,000 (as at 31 December 2021: RMB 6,287,047,000), where the capitalized amount of borrowing costs has been increased by an amount of RMB 4,218,476,000 due to changes in scope of consolidation. For the year ended 31 December 2022, the total borrowing costs capitalized were RMB 670,203,000 (for the year ending 31 December 2021: RMB 1,243,541,000). The capitalization rates for determining the capitalized amount of borrowing costs were 2.75% – 7.80% (for the year ended 31 December 2021: 3.55% – 8.50%).

(2) Provision for decline in value of inventories

All amounts in RMB '000

Items	31 December 2021	Increase Provision	Decrease Reversals	Write-offs	Balance at 31 December 2022
Raw materials	19,609	21,230	4	188	40,647
Outsourced processing materials	105	-	-	105	-
Work in progress	503,637	24,665	178,587	4,566	345,149
Finished goods	199,283	27,923	85,578	25,841	115,787
Other materials	4,469	-	3,603	76	790
Properties under development	19,763	400,020	19,763	-	400,020
Completed properties held for sale	352,347	5,051	167,020	2,642	187,736
Total	1,099,213	478,889	454,555	33,418	1,090,129

(3) Inventories with title restriction as at 31 December 2022 are set out in Note VII 71.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

10. Contract assets

(1) Presentation of contract assets

All amounts in RMB '000

Items	31 December 2022			31 December 2021		
	Book value	Provision for impairment	Carrying amount	Book value	Provision for impairment	Carrying amount
Contract assets interrelated with engineering contracting services	109,333,033	4,486,893	104,846,140	91,584,943	4,226,123	87,358,820
Contract assets interrelated with quality guarantee deposits	2,167,042	186,582	1,980,460	4,110,334	283,524	3,826,810
Total	111,500,075	4,673,475	106,826,600	95,695,277	4,509,647	91,185,630

The engineering contracting services provided by the Group normally constitute the single performance obligation, which is required to be fulfilled in a certain period. The Group shall determine the implementation progress according to the proportion of actual cost in estimated total cost. Engineering contracting services require regular settlement with the client, and the related contract consideration vests the Group the right to charge the consideration, which will be reclassified to accounts receivables, to the client unconditionally after the completion of settlement. Under normal circumstances, there are some timing differences between the implementation progress and the settlement progress in engineering contracting. As at 31 December 2022, implementation progress of part of contracts exceeded the settlement progress, thus formed related contract assets, which shall be transferred into receivables after the completion of settlement.

For the engineering quality deposit arising from the settlement of engineering contracting services provided by the Group, the Group has the right to receive the consideration unconditionally from the customer upon the expiration of the guarantee period with no significant quality issues occurred therein. Such deposit constituted contract assets and was transferred into accounts receivable under the condition mentioned above.

(2) Provision for impairment of contract assets

All amounts in RMB '000

Items	Provision for impairment which is individually assessed	Provision for impairment by portfolios	Total
Provision impairment at 31 December 2021	2,051,117	2,458,530	4,509,647
Provision for the current year	-	552,224	552,224
Reversal for the current year	(233,658)	(4,616)	(238,274)
Transfer out for the current year	(91,394)	-	(91,394)
Other changes	-	(58,728)	(58,728)
Provision impairment at 31 December 2022	1,726,065	2,947,410	4,673,475
Book value of contract assets at 31 December 2022	2,582,537	108,917,538	111,500,075

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

10. Contract assets (Continued)

(3) *West Australia SINO Iron Mining Project*

In 2012, MCC Mining (Western Australia) Pty Ltd. (“Western Australia”), a wholly-owned subsidiary of the Group, was forced to postpone the SINO Iron Project, including six production lines in total, due to reasons such as extreme weather condition in Australia and other unpredictable reasons. The owner of the project is CITIC Limited. The Group negotiated with China CITIC Group Ltd. (“CITIC Group”, the parent company of CITIC Limited) for the project delay and the total contract price after cost overruns. CITIC Group and Western Australia signed the Third Supplementary EPC Agreement of SINO Iron Project in Western Australia on 30 December 2011 agreeing that the construction costs to complete the second main process line including trial run should be within USD 4.357 billion. The ultimate construction costs for the aforesaid project should be determined by an audit performed by a third-party auditor. Based on the consensus with CITIC Group above and the estimated total construction costs of the project, the Group recognized an impairment loss on contract costs of USD 481 million (equivalent to approximately RMB 3.035 billion) for the year ended 31 December 2012.

As of 31 December 2013, the first and the second production lines of the project were completed and put into operation. Western Australia and Sino Iron Pty Ltd. (a wholly-owned subsidiary of CITIC Limited) signed the Fourth Supplementary Agreement of SINO Iron Project in Western Australia dated 24 December 2013 for the handing over of the first and the second production lines of the project to CITIC Group at the end of 2013. As such, the construction, installation and trial running work set out in the EPC contract for the project entered into by Western Australia was completed. For the third to sixth production lines of the project, Western Australia and Northern Engineering & Technology Corporation, a subsidiary of the Company, has entered into the Project Management Service Agreement and Engineering Design and Equipment Procurement Management Technology Service Agreement, respectively, with CITIC Group for the provision of follow-up technology management services to CITIC Group. In addition, both the Group and CITIC Group have agreed to engage an independent third party to perform an audit of the total construction costs incurred for the project, the reasonableness of the construction costs incurred, the reasons for the project delay and the responsibility for the delay. Based on the final result of the audit, the Group and CITIC Group will make final settlement of the project.

The Group assessed the accounts receivable (Note VII 5(2) (a)) and the contract assets based on expected credit losses. In the opinion of the Group, although the final contract amount shall be confirmed after the auditing of the third party, the consensus between the Group and CITIC Group for the previously agreed construction costs of USD 4.357 billion mentioned in the paragraph above remained unchanged. The Group reasonably expected that the consensus should not have any significant change and recognized no additional contract losses as at 31 December 2022.

On 31 December 2022, the accounts receivable for the above items amounted to RMB 1,682,517,000, and the contract assets of the project mentioned above amounted to RMB 3,726,133,000. After the completion of the audit mentioned above, the Group will actively follow up with CITIC Group for negotiation and discussion in reaching the final agreed project construction costs and make relevant accounting treatments accordingly.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

11. Non-current assets due within one year

All amounts in RMB '000

Item	31 December 2022	31 December 2021
Long-term receivables due within 1 year (Note VII 13)	4,896,108	2,241,185
Total	4,896,108	2,241,185

12. Other current assets

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Input VAT to be deducted	5,459,977	1,169,008
Prepayments of tax	2,073,170	889,555
Total	7,533,147	2,058,563

13. Long-term receivables

(1) Long-term receivables

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Long-term receivables on project	41,754,912	33,284,178
Long-term loans	234,230	319,333
Receivables on disposal of equity investments	333,485	333,485
Others	901,755	891,877
Total carrying amount	43,224,382	34,828,873
Less: Provisions for credit losses of long-term receivables	2,486,631	2,201,525
Total book value	40,737,751	32,627,348
less: Long-term receivables due within 1 year, net	4,896,108	2,241,185
Long-term receivables due over 1 year, net	35,841,643	30,386,163

At 31 December 2022, long-term receivables are presented on a net basis with the discount rates ranging from 3.65% to 4.90% (as at 31 December 2021: 4.35% to 4.90%).

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

13. Long-term receivables (Continued)

(2) Provision for credit losses of long-term receivables

As at 31 December 2022, changes in provision for credit losses based on the 12-month expected credit losses and expected lifetime credit losses on long-term receivables are as follows:

All amounts in RMB '000

Items	Phase 1 Future 12-month expected credit losses	Phase 2 Lifetime expected credit losses (Non- credit-impaired)	Phase 3 Lifetime expected credit losses (Credit- impaired)	Total
Provisions for credit losses at 31 December 2021	409,330	337,251	1,454,944	2,201,525
Transfer of opening balance for the current year	63,129	(186,482)	123,353	-
Provision for the year	341,058	1,219	4,599	346,876
Reversal for the year	(34,552)	(17,263)	(9,905)	(61,720)
Transfer out for the current year	-	(50)	-	(50)
Provisions for credit losses at 31 December 2022	778,965	134,675	1,572,991	2,486,631

(3) Long-term receivables with title restriction as at 31 December 2022 are set out in Note VII 71.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

14. Long-term equity investments

All amounts in RMB '000

Name of investee	Carrying amount at 31 December 2021	Movements for the current year		Share of profits/(losses)	Other comprehensive income	Other equity income movements	Declaration of cash dividends or profits	Changes in scope of consolidation	Others	Carrying amount at 31 December 2022	Provision for impairment at 31 December 2022
		Increase in investments	Decrease in investments								
I. Joint ventures											
Guizhou Ziwang Highway Construction Co., Ltd.	1,516,947	-	-	21,960	-	-	-	-	-	1,538,907	-
Guizhou Sanli Highway Construction Co., Ltd.	1,455,666	-	-	30,929	-	-	-	-	-	1,486,595	-
Guizhou Sanshi Highway Construction Co., Ltd.	803,560	-	-	(18,316)	-	-	-	-	-	785,244	-
Zuhai Hengjin Headquarters Building Development Co., Ltd.	518,128	-	-	(6,108)	-	-	-	-	-	512,020	-
Chongqing-Hunan Double-track Highway Co., Ltd.	-	214,570	-	-	-	-	-	-	199,600	414,170	-
Shiyuan Baoye Urban Construction Co., Ltd.	-	-	-	14,193	-	-	-	-	293,169	307,362	-
Zhongshan MCC Cuicheng Street Integrated Pipe Network Co., Ltd.	-	-	-	(1,651)	-	-	-	-	302,400	300,749	-
Yinchuan Huaiyuan Road Integrated Pipe Network Construction and Management Co., Ltd.	243,405	-	-	1,404	-	-	-	-	-	244,809	-
Ningguo Baoye City Construction Co., Ltd.	-	-	-	3,214	-	-	-	-	197,356	200,570	-
Hangzhou MCC Mingjin Real Estate Development Co., Ltd.	31,121	43,569	-	1,643	-	-	-	(76,333)	-	-	-
Guangzhou MCC Minghui Real Estate Co., Ltd.	20,000	43,300	-	-	-	-	-	(63,300)	-	-	-
Sanya MCC Minglan Development Co., Ltd.	16,507	15,735	-	25	-	-	-	(32,267)	-	-	-
Guangzhou MCC Mingjie Real Estate Co., Ltd.	28,189	-	-	-	-	-	-	(28,189)	-	-	-
Nanjing MCC Minghan Real Estate Co., Ltd.	10,212	11,037	-	77	-	-	-	(21,326)	-	-	-
Others	2,232,865	139,250	(18,172)	(22,649)	(27)	720	(2,113)	(37)	493,263	2,823,100	219,720
Sub-total	6,876,600	467,461	(18,172)	24,721	(27)	720	(2,113)	(221,452)	1,485,788	8,613,526	219,720

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

14. Long-term equity investments (Continued)

Name of investee	Carrying amount at 31 December 2021	Increase in investments	Decrease in investments	Share of profits/ (losses)	Movements for the current year			Declaration of cash dividends or profits	Changes in scope of consolidation	Others	Carrying amount at 31 December 2022	Provision for impairment at 31 December 2022
					Other comprehensive income	Other equity movements						
II. Associates												
Zhuhai MCC Jianxin Investment Management Partnership (LP) (Note VIII 1)	3,363,350	-	-	29,281	-	-	-	(3,392,631)	-	-	-	-
Lanzhou Lianhuo Highway Qingzhong Section Construction and Development Co., Ltd.	394,240	624,128	-	-	-	-	-	-	-	-	1,018,368	-
Yunnan Mangliang Expressway Investment and Development Co., Ltd.	641,576	217,000	-	-	-	-	-	-	-	-	858,576	-
Chongqing Yunkai Expressway Co., Ltd.	495,000	250,000	-	5	-	-	-	-	-	-	745,005	-
Tangshan Stainless Steel Co., Ltd.	659,784	-	-	1,502	-	3,912	-	-	-	-	665,198	-
Xiamen International Trade Exhibition Center Co., Ltd.	198,781	448,960	-	678	-	-	-	-	-	-	648,419	-
Shigang Jingcheng Equipment Development and Manufacturing Co., Ltd.	532,125	-	-	1,655	-	-	-	-	-	-	533,780	-
Beijing City Vice-Center Investment Fund Partnership (Limited Partnership)	853,411	-	-	5,204	-	-	-	-	-	-	858,615	-
Hebei Steel Luan County Sijiyang Iron Ore Co., Ltd.	491,295	-	-	100,285	-	(28)	(115,600)	-	-	-	475,952	-
Yunnan Luqiu Guangfu Expressway Investment Development Co., Ltd.	359,881	-	-	4	-	-	-	-	-	-	359,885	-
Gansu Gonghanglv Tongding Expressway Management Co., Ltd.	349,070	-	-	5	-	-	-	-	-	-	349,075	-
Chongqing Qianxin International Trade Co., Ltd.	362,059	-	-	30,294	(43,465)	1,158	(8,994)	-	-	-	341,052	-
Sichuan Fazhan Guoye Construction Investment Co., Ltd.	323,781	-	-	22,148	-	-	(29,346)	-	-	-	316,583	-
Jiangxi XISCO-WISDRI New Material Co., Ltd.	277,138	-	-	32,870	-	-	-	-	-	-	310,008	-
Shandong Expressway Jiqing Middle Line Highway Co., Ltd.	150,000	139,548	-	-	-	-	-	-	-	-	289,548	-
Hangzhou Fuchunwan Baofu Construction & Management Co., Ltd.	16,001	258,555	-	-	-	-	-	-	-	-	274,556	-
Gansu Gonghang Lvdinglin Expressway Management Co., Ltd.	262,460	-	-	3	-	-	-	-	-	-	262,463	-
Zhongshan MCC Cuicheng Street Integrated Pipe Network Co., Ltd.	302,400	-	-	-	-	-	-	-	(302,400)	-	-	-
Shiyuan Baoye Urban Construction Co., Ltd.	293,169	-	-	-	-	-	-	-	(293,169)	-	-	-
Chongqing-Hunan Double-track Highway Co., Ltd.	199,600	-	-	-	-	-	-	-	(199,600)	-	-	-
Ningguo Baoye City Construction Co., Ltd.	197,356	-	-	-	-	-	-	-	(197,356)	-	-	-
Others	13,658,802	2,773,343	(204,300)	(70,943)	(4,271)	(10,625)	(82,000)	(173,875)	(493,263)	-	15,392,868	230,062
Sub-total	24,381,279	4,711,534	(204,300)	152,991	(47,736)	(5,583)	(235,940)	(3,566,506)	(1,485,788)	-	23,699,951	230,062
Total	31,257,879	5,178,995	(222,472)	177,712	(47,763)	(4,863)	(238,053)	(3,787,958)	-	-	32,313,477	449,782

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VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

14. Long-term equity investments (Continued)

All amounts in RMB '000

Items	Provision for impairment at 31 December 2021	Increase	Decrease	Provision for impairment at 31 December 2022
I. Joint ventures				
Tianjin Zhongji Equipment Manufacture Co., Ltd.	154,830	-	-	154,830
Ningcheng Hongda Mining Co., Ltd.	64,890	-	-	64,890
Sub-total	219,720	-	-	219,720
II. Associates				
Zhuhai MCC Jianxin Investment Management Partnership (LP)	553,807	-	553,807	-
Tianjin Seri Machinery Equipment Corporation Ltd.	98,855	-	-	98,855
Qiqihar North MCC Real Estate Co., Ltd.	-	51,308	-	51,308
Shanghai United Auto Avenue Development and Construction Co., Ltd.	38,736	-	-	38,736
Inner Mongolia MCC Debang Real Estate Co., Ltd.	-	23,168	-	23,168
Others	17,995	-	-	17,995
Sub-total	709,393	74,476	553,807	230,062
Total	929,113	74,476	553,807	449,782

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

15. Investments in other equity instruments

All amounts in RMB '000

Items	Carrying amount at 31 December 2022	Carrying amount at 31 December 2021	Cash dividends recognized for the current year
Investments in non-trading equity instruments			
Including: Stock investments of listed companies	280,999	301,457	15,193
Equity investments of unlisted companies	658,926	485,398	6,392
Total	939,925	786,855	21,585

Since these investments are non-tradable equity instruments and the Group is not expected to sell them in the foreseeable future, the Group designates these investments as financial assets at fair value through OCI. The method for determining the fair values of investments in other equity instruments can be found in Note XI.

For the current year, the Group derecognized investments in other equity instruments, and transferred the accumulated gains from such investments previously included in other comprehensive income amounting to RMB 5,595,000 to retained earnings. At the end of 31 December 2022, loss from changes in fair value of other equity instruments held by the Group that are other comprehensive income was RMB 125,061,000 (Note VII 48).

16. Other non-current financial assets

All amounts in RMB '000

Items	Carrying amount at 31 December 2022	Carrying amount at 31 December 2021
Financial assets at FVTPL		
Including: Investment in unquoted fund products and trust products	4,397,366	4,632,778
Others	80,529	78,263
Total	4,477,895	4,711,041

Several subsidiaries of the Company were involved in structured entity arrangements. They invested in joint ventures and associates indirectly by purchasing funds and trusts. Relevant investments are measured at fair value through profit or loss. For further information, please refer to Note IX 4.

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

17. Investment properties

All amounts in RMB '000

Items	Buildings and structures	Land use rights	Total
I. Total original book value			
1. 31 December 2021	8,038,053	616,798	8,654,851
2. Increase	1,356,870	25,330	1,382,200
(1) Transferred from fixed assets	8,708	–	8,708
(2) Transferred from inventories	679,553	–	679,553
(3) Transferred from intangible assets	–	25,330	25,330
(4) Change of consolidation scope	604,083	–	604,083
(5) Changes of exchange rates	62,750	–	62,750
(6) Others	1,776	–	1,776
3. Decrease	620,915	16,764	637,679
(1) Disposal	8,699	16,764	25,463
(2) Transferred to fixed assets	466,337	–	466,337
(3) Transferred to inventories	6,710	–	6,710
(4) Others	139,169	–	139,169
4. 31 December 2022	8,774,008	625,364	9,399,372
II. Accumulated depreciation and amortization			
1. 31 December 2021	1,147,697	156,246	1,303,943
2. Increase	194,425	22,498	216,923
(1) Provision	184,556	13,984	198,540
(2) Transferred from fixed assets	5,582	–	5,582
(3) Transferred from intangible assets	–	8,514	8,514
(4) Changes of exchange rates	4,287	–	4,287
3. Decrease	11,096	5,872	16,968
(1) Disposal	2,619	5,872	8,491
(2) Transferred to fixed assets	7,067	–	7,067
(3) Transferred to inventories	1,410	–	1,410
4. 31 December 2022	1,331,026	172,872	1,503,898
III. Provision for impairment			
1. 31 December 2021	23,111	–	23,111
2. Increase	485	–	485
(1) Changes of exchange rates	485	–	485
3. Decrease	17	–	17
(1) Disposal	17	–	17
4. 31 December 2022	23,579	–	23,579
IV. Total carrying amount			
1. 31 December 2022	7,419,403	452,492	7,871,895
2. 31 December 2021	6,867,245	460,552	7,327,797

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

17. Investment properties (Continued)

Investment properties of which certificates of title have not been obtained:

All amounts in RMB '000

Item	Carrying amount	Reasons for title certificates outstanding
Buildings and structures	1,215,301	In process

Investment properties with title restriction as at 31 December 2022 are set out in Note VII 71.

18. Fixed assets

(1) Changes in fixed assets

All amounts in RMB '000

Items	Buildings and structures	Machinery and equipment	Transportation vehicles	Office equipment and others	Total
I. Total historical cost:					
1. 31 December 2021	25,525,876	21,007,292	2,224,186	4,290,332	53,047,686
2. Increase	1,702,640	1,952,795	300,934	442,993	4,399,362
(1) Purchase	260,320	608,939	172,455	226,715	1,268,429
(2) Transferred from investment properties	466,337	-	-	-	466,337
(3) Transferred from construction in progress	447,797	551,585	86,357	13,730	1,099,469
(4) Transferred from right-of-use assets	872	70,733	-	-	71,605
(5) Changes of the scope of consolidation	79,368	17,524	2,309	5,588	104,789
(6) Changes of exchange rates	435,125	578,654	38,555	177,741	1,230,075
(7) Others	12,821	125,360	1,258	19,219	158,658
3. Decrease	390,070	606,970	272,289	436,089	1,705,418
(1) Disposal or write-off	169,366	583,918	268,330	375,011	1,396,625
(2) Transferred to investment properties	8,708	-	-	-	8,708
(3) Changes of exchange rates	2,465	5,658	1,096	1,020	10,239
(4) Others	209,531	17,394	2,863	60,058	289,846
4. 31 December 2022	26,838,446	22,353,117	2,252,831	4,297,236	55,741,630

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

18. Fixed assets (Continued)

(1) Changes in fixed assets (Continued)

Items	Buildings and structures	Machinery and equipment	Transportation vehicles	Office equipment and others	Total
II. Accumulated depreciation					
1. 31 December 2021	8,264,226	13,951,883	1,458,390	2,067,809	25,742,308
2. Increase	1,061,036	1,699,537	209,140	325,333	3,295,046
(1) Provision	909,423	1,135,498	182,035	266,564	2,493,520
(2) Transferred from investment properties	7,067	-	-	-	7,067
(3) Transferred from right-of-use assets	166	43,261	-	-	43,427
(4) Changes of exchange rates	133,757	419,598	25,587	45,902	624,844
(5) Others	10,623	101,180	1,518	12,867	126,188
3. Decrease	127,749	538,772	250,356	340,666	1,257,543
(1) Disposal or write-off	110,139	516,055	248,928	298,120	1,173,242
(2) Transferred to investment properties	5,582	-	-	-	5,582
(3) Changes of exchange rates	1,340	2,412	1,061	175	4,988
(4) Others	10,688	20,305	367	42,371	73,731
4. 31 December 2022	9,197,513	15,112,648	1,417,174	2,052,476	27,779,811
III. Provision for impairment					
1. 31 December 2021	991,366	1,062,123	26,551	107,529	2,187,569
2. Increase	221,113	461,446	1,917	10,043	694,519
(1) Provision	200,563	430,259	765	437	632,024
(2) Changes of exchange rates	20,550	31,187	1,152	9,606	62,495
3. Decrease	-	330,340	809	233	331,382
(1) Disposal or write-off	-	13,345	809	233	14,387
(2) Changes of exchange rates	-	316,787	-	-	316,787
(3) Others	-	208	-	-	208
4. 31 December 2022	1,212,479	1,193,229	27,659	117,339	2,550,706
IV. Total carrying amount					
1. 31 December 2022	16,428,454	6,047,240	807,998	2,127,421	25,411,113
2. 31 December 2021	16,270,284	5,993,286	739,245	2,114,994	25,117,809

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

18. Fixed assets (Continued)

(2) Temporary idle fixed assets

All amounts in RMB '000

Items	Historical cost	Accumulated depreciation	Provision for impairment	Carrying amount	Notes
Buildings and structures	85,263	14,010	60,839	10,414	Idle or seasonal suspension
Machinery and equipment	600,834	278,156	307,599	15,079	Idle or seasonal suspension
Office equipment and others	22,830	15,091	1,680	6,059	Idle or seasonal suspension

(3) Fixed assets under operating leases

All amounts in RMB '000

Item	31 December 2022 Carrying amount
Machinery equipment and others	30,080

(4) Fixed assets of which certificates of title have not been obtained

Fixed assets of which certificates of title have not been obtained as at 31 December 2022 are as follows:

All amounts in RMB '000

Items	Carrying amount	Reasons for title certificates outstanding
Buildings and structures	519,580	In the process

(5) Fixed assets with title restriction as at 31 December 2022 are set out in Note VII 71.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

19. Construction in progress

(1) Construction in progress analysed by category

All amounts in RMB '000

Category	31 December 2022	31 December 2021
Construction in progress	3,999,932	4,318,897
Materials for construction	77,415	60,293
Total	4,077,347	4,379,190

(2) Construction in progress

(a) Significant items construction in progress

All amounts in RMB '000

Items	31 December 2022			31 December 2021		
	Book value	Provision for impairment	Carrying amount	Book value	Provision for impairment	Carrying amount
Infrastructure Project of MCC JCL Anak Mining Co., Ltd.	1,204,083	-	1,204,083	1,071,482	-	1,071,482
MCC Guangdong Shenzhen Qianhai Technology Building Project	526,727	-	526,727	350,101	-	350,101
Electronic information material transformation and upgrading project of Luoyang, Henan Province	499,336	-	499,336	6,430	-	6,430
Courtyard Development and Reform Project of Central Research Institute of Building and Construction Co., Ltd.	487,881	-	487,881	441,016	-	441,016
Baotou Jiaerba New Village Project	334,095	-	334,095	-	-	-
Sichuan Chengdu MCC CISDI R&D and Design Centre	235,812	-	235,812	235,789	-	235,789
MCC 17 Technology Centre Building Project	199,523	-	199,523	154,409	-	154,409
Pakistan Mining Project	623,245	603,202	20,043	623,296	603,202	20,094
Others	503,658	11,226	492,432	2,051,627	12,051	2,039,576
Total	4,614,360	614,428	3,999,932	4,934,150	615,253	4,318,897

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

19. Construction in progress (Continued)

(2) Construction in progress (Continued)

(b) Changes of significant items of construction in progress

All amounts in RMB '000

Items	Budgeted amount	Carrying amount at 31 December 2021	Increase	Transfer to fixed assets/ Intangible assets	Other transferred out	Carrying amount at 31 December 2022	Cost incurred as a percentage of budgeted amount (%)	Construction progress (%)	Accumulated capitalized borrowing costs	Including: Capitalized borrowing costs for the current year	Rate of borrowing costs capitalized for the current year (%)	Sources of funds
Infrastructure Project of MCC JCL Anak Mining Co., Ltd.	23,847,800	1,071,482	132,601	-	-	1,204,083	5.11	5.11	-	-	-	Self-funding
MCC Guangdong Shenzhen Qianhai Technology Building Project	3,382,174	350,101	176,626	-	-	526,727	57.70	57.70	193,551	41,293	4.19	Self-funding and loan
Electronic information material transformation and upgrading project of Luoyang City, Henan Province	1,083,383	6,430	492,906	-	-	499,336	67.02	67.02	10,154	10,154	4.05	Self-funding and loan
Courtyard Development and Reform Project of Central Baotou Jiaerba New Village Project	1,000,000	441,016	46,865	-	-	487,881	95.00	95.00	15,476	-	-	Self-funding and loan
Sichuan Chengdu MCC CISDI R&D and Design Centre	354,595	-	334,095	-	-	334,095	94.22	94.22	-	-	-	Self-funding
MCC 17 Technology Centre Building Project	766,550	235,789	23	-	-	235,812	32.45	32.45	-	-	-	Self-funding
Pakistan Mining Project	200,000	154,409	45,114	-	-	199,523	99.76	99.76	-	-	-	Self-funding
Others	654,962	623,296	1,937	1,988	-	623,245	96.30	96.30	1,198	-	-	Self-funding and loan
Total	5,701,493	2,051,627	721,947	1,115,998	1,153,918	503,658	/	/	-	4,248	/	/
Total	36,990,957	4,934,150	1,952,114	1,117,986	1,153,918	4,614,360	/	/	220,379	55,695	/	/

As at 31 December 2022, impairment allowance of construction in progress accrued by the Group was nil (2021: nil). The provision for impairment of construction in progress of the Group amounted to RMB 614,428,000 (As at 31 December 2021: RMB 615,253,000).

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

19. Construction in progress (Continued)

(3) Materials for construction

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Materials	33,400	14,195
Equipment	43,343	45,482
Tools and instruments prepared for production	648	594
Others	24	22
Total	77,415	60,293

20. Right-of-use assets

All amounts in RMB '000

Items	Buildings and structures	Transportation vehicles	Machinery and equipment	Others	Total
I. Total historical cost:					
1. 31 December 2021	855,412	43,506	368,158	26,092	1,293,168
2. Increase	559,866	252	6	28,998	589,122
(1) New leases	549,376	252	-	28,469	578,097
(2) Changes of the scope of consolidation	5,585	-	-	-	5,585
(3) Changes of exchange rates	4,905	-	6	529	5,440
3. Decrease	212,048	5,312	100,292	2,360	320,012
(1) Disposal	211,144	2,543	7,921	2,360	223,968
(2) Transferred to fixed assets	872	-	70,733	-	71,605
(3) Others	32	2,769	21,638	-	24,439
4. 31 December 2022	1,203,230	38,446	267,872	52,730	1,562,278
II. Accumulated depreciation					
1. 31 December 2021	373,631	41,726	272,831	13,102	701,290
2. Increase	238,882	947	17,725	13,799	271,353
(1) Amortization	237,398	947	17,724	13,363	269,432
(2) Changes of exchange rates	1,484	-	1	436	1,921
3. Decrease	191,299	5,312	72,589	1,401	270,601
(1) Disposal	182,131	2,543	7,690	1,401	193,765
(2) Transferred to fixed assets	166	-	43,261	-	43,427
(3) Others	9,002	2,769	21,638	-	33,409
4. 31 December 2022	421,214	37,361	217,967	25,500	702,042
III. Carrying amount					
1. 31 December 2022	782,016	1,085	49,905	27,230	860,236
2. 31 December 2021	481,781	1,780	95,327	12,990	591,878

For the current year, the Group's short-term leasing fee and assets with low value leasing fee, which are simplified and charged to current profits and losses, totaled RMB 127,829,000.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

21. Intangible assets

(1) Intangible assets

All amounts in RMB '000

Items	Land use rights	Mining rights	Franchise	Software	Patent and proprietary technology	Trademark right	Total
I. Total historical cost							
1. 31 December 2021	7,975,340	3,778,214	15,182,539	899,078	225,701	270	28,061,142
2. Increase	151,883	233,797	1,739,169	154,479	15,297	-	2,294,625
(1) Purchase	121,087	67,554	1,475,878	114,444	11,054	-	1,790,017
(2) Transferred from construction in progress	-	-	-	18,517	-	-	18,517
(3) Changes of the scope of consolidation	-	-	263,291	-	-	-	263,291
(4) Change of exchange rate	30,796	166,243	-	665	1,002	-	198,706
(5) Others	-	-	-	20,853	3,241	-	24,094
3. Decrease	160,133	5,573	63,758	55,125	5,609	-	290,198
(1) Disposal or write-off	134,803	-	51,334	50,752	1,391	-	238,280
(2) Transferred to investment properties	25,330	-	-	-	-	-	25,330
(3) Others	-	5,573	12,424	4,373	4,218	-	26,588
4. 31 December 2022	7,967,090	4,006,438	16,857,950	998,432	235,389	270	30,065,569
II. Accumulated amortization							
1. 31 December 2021	1,799,704	66,338	2,217,298	588,394	88,556	270	4,760,560
2. Increase	168,291	1,706	599,963	121,380	28,403	-	919,743
(1) Provision	168,291	748	599,963	100,834	27,538	-	897,374
(2) Change of exchange rate	-	958	-	663	616	-	2,237
(3) Others	-	-	-	19,883	249	-	20,132
3. Decrease	46,667	9,162	42,186	45,393	640	-	144,048
(1) Disposal or write-off	38,153	-	42,186	44,454	162	-	124,955
(2) Transferred to investment properties	8,514	-	-	-	-	-	8,514
(3) Others	-	9,162	-	939	478	-	10,579
4. 31 December 2022	1,921,328	58,882	2,775,075	664,381	116,319	270	5,536,255
III. Provision for impairment							
1. 31 December 2021	20,233	2,397,444	-	250	4,508	-	2,422,435
2. Increase	183,670	47,211	-	-	-	-	230,881
(1) Amortization	181,293	-	-	-	-	-	181,293
(2) Change of exchange rate	2,377	47,211	-	-	-	-	49,588
3. Decrease	150,295	-	-	-	-	-	150,295
4. 31 December 2022	53,608	2,444,655	-	250	4,508	-	2,503,021
IV. Carrying amount							
1. 31 December 2022	5,992,154	1,502,901	14,082,875	333,801	114,562	-	22,026,293
2. 31 December 2021	6,155,403	1,314,432	12,965,241	310,434	132,637	-	20,878,147

As at 31 December 2022, the percentage of the internally developed intangible assets of the total intangible assets of the Group was 0.40% (as at 31 December 2021: 0.48%).

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

21. Intangible assets (Continued)

(1) Intangible assets (Continued)

As at 31 December 2022, the accumulated impairment provision for the Cape Lambert Iron Project intangible assets amounted to RMB 2,424,157,000, including the provision for the decrease of exchange fluctuation of Australian dollars of RMB 126,820,000. The related intangible assets belong to the resource development segment.

Intangible assets with title restriction as at 31 December 2022 are set out in Note VII 71.

22. Goodwill

(1) Change of original historical amount

All amounts in RMB '000

Name of investee	31 December 2021	Increase	31 December 2022
MCC Finance Corporation Ltd.	105,032	-	105,032
Chengde Tiangong Architectural Design Co., Ltd.	33,460	-	33,460
MCC Minera Sierra Grande S.A.	16,772	-	16,772
China Metallurgical Construction Engineering Group Chongqing Heyuan Concrete Co., Ltd.	18,533	-	18,533
Qingdao JinZe HuaDi Real Estate Development Co., Ltd.	9,779	-	9,779
Beijing HaiKe Real Estate Development Co., Ltd.	6,477	-	6,477
Beijing Tianrun Construction Co., Ltd.	5,142	-	5,142
Shanghai WuGang Equipment Engineering Co., Ltd.	1,114	-	1,114
Chengdu Yexingrunda New Building Materials Co., Ltd.	-	1,162	1,162
Sub-total	196,309	1,162	197,471
Less: Provision for impairment	140,413	/	143,156
Total	55,896	/	54,315

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

22. Goodwill (Continued)

(2) Provision for impairment of goodwill

All amounts in RMB '000

Name of investee	31 December 2021	Increase	31 December 2022
MCC Finance Corporation Ltd.	105,032	-	105,032
MCC Minera Sierra Grande S.A.	16,772	-	16,772
Qingdao JinZe HuaDi Real Estate Development Co., Ltd.	9,779	-	9,779
Beijing HaiKe Real Estate Development Co., Ltd.	6,477	-	6,477
China Metallurgical Construction Engineering Group Chongqing Heyuan Concrete Co., Ltd.	2,353	2,743	5,096
Total	140,413	2,743	143,156

When the Group performs impairment assessment on goodwill arising from business combination, the Group allocates the book value of goodwill to the asset group or portfolio that is expected to benefit from the synergistic effect of enterprise merger and evaluates the recoverable amount of the asset group or portfolio that contains the apportioned goodwill.

The recoverable value of the asset groups is calculated based on the present value of future cash flows which is approved by the management. The pre-tax discount rate of Chengde Tiangong Construction and Design Co., Ltd. is 15.00% (As at 31 December 2021: 15.00%). Cash flow projections during the forecast year for the asset groups are based on the expected growth rates and gross margins during the forecast year. Forecast growth rate is determined based on the expected growth rate of the industry. Forecast gross margin is determined based on past performance of the market and management's expectations. The recoverable value of the asset groups of the other subsidiaries is calculated based on the present value of future cash flows but is not significant to the Group.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

23. Long-term prepayments

All amounts in RMB '000

Items	31 December 2021	Increase	Amortization	Other decreases	31 December 2022
Expenditure on improvement of leased assets	55,064	70,553	16,021	1,695	107,901
Insurance expenditures	8,639	518	1,637	75	7,445
Repair expenditures	27,229	26,112	7,424	8,297	37,620
Others	202,859	99,990	59,593	22	243,234
Total	293,791	197,173	84,675	10,089	396,200

24. Deferred tax assets/deferred tax liabilities

(1) *Deferred tax assets without taking into consideration the offsetting of balances within the same tax jurisdiction*

All amounts in RMB '000

Items	31 December 2022		31 December 2021	
	Deductible temporary differences/tax losses	Deferred tax assets	Deductible temporary differences/tax losses	Deferred tax assets
Impairment provision	30,220,123	5,137,206	26,042,528	4,678,860
Unrealized profit on inter- company transactions	1,842,682	425,316	2,457,094	582,642
Defined benefit plans	813,223	185,989	939,337	218,036
Deductible tax losses	532,428	91,548	995,248	159,178
Accrued expenses	875,543	159,112	641,562	134,288
Employee benefits payable	439,310	69,938	390,759	62,475
Changes in the fair values	364,391	58,452	263,185	45,791
Others	947,422	173,934	1,347,243	245,946
Total	36,035,122	6,301,495	33,076,956	6,127,216

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

24. Deferred tax assets/Deferred tax liabilities (Continued)

(2) *Deferred tax liabilities without taking into consideration the offsetting of balances within the same tax jurisdiction*

All amounts in RMB '000

Items	31 December 2022		31 December 2021	
	Taxable temporary differences	Deferred tax liabilities	Taxable temporary differences	Deferred tax liabilities
Fair value adjustments upon business combination not under common control	4,861	1,215	6,690	2,342
Changes in the fair value of investments of other equity instruments	173,741	24,470	142,099	24,236
Others	820,126	194,218	416,877	100,016
Total	998,728	219,903	565,666	126,594

(3) *Deferred tax assets and deferred tax liabilities presented on a net basis after offsetting*

All amounts in RMB '000

Items	31 December 2022		31 December 2021	
	The offset amount of deferred tax assets and liabilities	Deferred tax assets and liabilities after offset	The offset amount of deferred tax assets and liabilities	Deferred tax assets and liabilities after offset
Deferred tax assets	41,380	6,260,115	70,411	6,056,805
Deferred tax liabilities	41,380	178,523	70,411	56,183

(4) *Details of the Group's unrecognized deferred tax assets*

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Deductible temporary differences	14,248,270	11,896,406
Deductible tax losses	6,849,549	7,472,290
Total	21,097,819	19,368,696

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VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

24. Deferred tax assets/Deferred tax liabilities (Continued)

(5) *Deductible tax losses that are not recognized as deferred tax assets will expire in the following years*

All amounts in RMB '000

Year	31 December 2022	31 December 2021
2022	-	1,226,432
2023	831,677	1,720,834
2024	1,253,410	1,623,539
2025	1,000,863	1,023,446
2026	1,431,377	1,878,039
2027	2,332,222	-
Total	6,849,549	7,472,290

25. Other non-current assets

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Contract assets for PPP project	1,920,848	-
Warranty deposit	4,284,401	-
Pending treatment of foreclosed assets	798,988	152,401
Prepayment for acquisition of self-use assets	33,822	15,554
Others	59,999	72,410
Total	7,098,058	240,365

Other non-current assets with title restriction as at 31 December 2022 are set out in Note VII 71.

26. Short-term borrowings

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Mortgaged loans (a)	635,518	661,616
Guaranteed loans (b)	-	1,141,250
Credit loans	19,557,360	19,592,982
Total	20,192,878	21,395,848

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

26. Short-term borrowings (Continued)

- (a) As at 31 December 2022, the mortgaged loans of RMB 635,518,000 (as at 31 December 2021: RMB 661,616,000) were secured by the mortgage of the Group's investment properties, intangible assets and fixed assets in an aggregate carrying amount of RMB 964,014,000 (as at 31 December 2021: RMB 812,325,000).
- (b) As at 31 December 2022, there was no guaranteed loans (as at 31 December 2021: RMB 1,141,250,000 were guaranteed by CMGC).

For the current year, the weighted average interest rate of short-term borrowings was 3.25% per annum (for the period ended 31 December 2021: 3.40% per annum).

27. Derivative financial liabilities

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Forward exchange contracts	34,216	4,413
Currency swap contracts	166,454	–
Total	200,670	4,413

28. Bills payable

All amounts in RMB '000

Category	31 December 2022	31 December 2021
Bank acceptance bills	36,020,220	34,781,032
Commercial acceptance bills	1,166,160	2,835,500
Total	37,186,380	37,616,532

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

29. Accounts payable

(1) Presentation of accounts payable

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Project fees	118,541,390	95,991,899
Purchases	51,211,608	43,764,628
Labor fees	13,065,735	11,633,071
Retention money	1,383,682	1,395,095
Design fees	522,101	354,893
Others	2,435,618	2,125,455
Total	187,160,134	155,265,041

(2) Aging analysis of accounts payable

All amounts in RMB '000

Aging	31 December 2022	31 December 2021
Within 1 year	141,713,545	116,689,113
1 to 2 years	25,759,751	20,849,638
2 to 3 years	8,001,616	7,486,816
Over 3 years	11,685,222	10,239,474
Total	187,160,134	155,265,041

On 31 December 2022, accounts payable of RMB 45,446,589,000 (31 December 2021: RMB 38,575,928,000) aged over one year were mainly due to project and materials payable, as both parties remained business transactions and the amount has not been settled.

30. Receipts in advance

All amounts in RMB '000

Item	31 December 2022	31 December 2021
Lease receipts in advance	92,382	135,118
Total	92,382	135,118

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

31. Contract liabilities

(1) Presentation of Contract liabilities

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Contract liabilities relating to engineering contracting service contracts	64,682,231	73,477,762
Contract liabilities relating to pre-sales deposits	4,992,691	9,067,067
Contract liabilities relating to sales contracts	2,663,036	2,602,022
Contract liabilities relating to contracts of other customers	1,678,254	1,945,315
Total	74,016,212	87,092,166

(2) Contract liabilities analyzed by category

The contract liabilities of the Group mainly derives from engineering contracting service contracts, property sales contracts and sales contracts.

- (a) As presented in Note VII 10, the engineering contracting services provided by the Group require regular settlements with the customers. Under normal circumstances, there are some time differences among the implementation and settlement progress of the engineering contracting service contracts or the progress of receipt. As at 31 December 2022, the implementation progress of some engineering contracting service contracts lagged behind the settlement progress or receipt progress, which means the Group has acquired the contract consideration or the right to gain contract consideration unconditionally, thus forming the contract liabilities relating to engineering contracting services. For the year ended 31 December 2022, the Group recognized RMB 65,159,692,000 in RMB 73,477,762,000 of contract liabilities related to the engineering contracting service on 31 December 2021 as the engineering contracting income for the current year based on the performance of engineering contracting service contracts signed with clients, and the remaining amounts will be recognized when the Group performs its obligations for its clients in subsequent years.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

31. Contract liabilities (Continued)

(2) Contract liabilities analyzed by category (Continued)

(b) Property sales contracts and the sales contracts of the Group are normally satisfied at a point in time. The Group will recognize revenue at the time of acquiring the control of the related goods. As at 31 December 2022, the implementation time of performance obligation of the Group in property sales contracts and the sales contracts were later than the payment time of the customers, thus forming the related contract liabilities of property sales contracts and the sales contracts.

(c) Contract liabilities formed by receipt of property sales amount in advance

All amounts in RMB '000

Items	31 December 2022	31 December 2021	Pre-sale percentage	Estimated completion date
MCC Port Mansion	845,940	889,512	/	Completed
Shanghai Jinshan District – MCC Fengjunyuan	659,584	893,242	/	Completed
Cuiyuan Project	542,035	–	/	Completed
Guangzhou Wanbao Project	424,730	–	62.50%	2023–03–31
Shijiazhuang-MCC Dexian Mansion	277,868	–	100.00%	2024–06–30
Wuhan, Hubei – MCC Huangshi Park	162,546	326,256	/	Completed
Shijiazhuang Zhaotuo Park	124,697	106,313	/	Completed
MCC Xinglong New City Hongshijun	103,520	119,747	92.25%	2027–12–31
Zhongye Yijing Mansion	58,149	2,971,783	/	Completed
MCC Dexian Mansion	31,400	738,019	/	Completed
Others	1,762,222	3,022,195		
Total	4,992,691	9,067,067		

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

32. Employee benefits payable

(1) Employee benefits payable

All amounts in RMB '000

Items	31 December 2021	Increase	Decrease	31 December 2022
I. Short-term employee benefits	1,700,485	24,484,392	24,271,348	1,913,529
II. Post-employment benefits – defined contribution plan	259,040	3,469,409	3,473,986	254,463
III. Termination benefits	6,121	39,645	23,130	22,636
IV. Other benefits	90,127	3,532,161	3,558,190	64,098
Total	2,055,773	31,525,607	31,326,654	2,254,726

(2) Short-term employee benefits

All amounts in RMB '000

Items	31 December 2021	Increase	Decrease	31 December 2022
I. Salaries, bonuses, allowances and subsidies	528,233	19,390,175	19,300,829	617,579
II. Staff welfare	14,262	1,145,643	1,141,828	18,077
III. Social insurance premiums	28,161	1,639,776	1,637,781	30,156
Including: Medical insurance	26,277	1,492,026	1,490,547	27,756
Work-related injury insurance	1,701	108,282	107,823	2,160
Maternity insurance	183	39,468	39,411	240
IV. Housing provident funds	89,943	1,774,395	1,767,835	96,503
V. Labor union expenditures and employees' education expenses	1,039,886	534,403	423,075	1,151,214
Total	1,700,485	24,484,392	24,271,348	1,913,529

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

32. Employee benefits payable (Continued)

(3) Defined contribution plan

All amounts in RMB '000

Items	31 December 2021	Increase	Decrease	31 December 2022
1. Basic retirement insurance	89,154	2,384,429	2,383,393	90,190
2. Unemployment insurance	5,992	81,675	80,766	6,901
3. Supplementary pension	163,894	1,003,305	1,009,827	157,372
Total	259,040	3,469,409	3,473,986	254,463

The Group participated in the social insurance premiums plans set up by the government according to the regulations. According to the plan, the Group makes deposits into the plans according to the regulations. Other than the deposits mentioned above, the Group does not need to make any further payments. The corresponding expenses shall be charged to the profit or loss in the period as and when incurred.

For the current year, the Group made deposits amounting to RMB 3,469,409,000 (for the year ended 31 December 2021: RMB 3,106,377,000) to the defined contribution plans. As at 31 December 2022, there was a payable amount of RMB 254,463,000 (as at 31 December 2021: RMB 259,040,000).

33. Taxes payable

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Value added tax	912,760	933,986
Enterprise income tax	1,734,309	1,560,647
Individual income tax	503,592	499,874
City maintenance and construction tax	70,150	75,510
Education surcharges	47,102	51,574
Land appreciation tax	1,805,090	1,654,274
Others	452,950	321,441
Total	5,525,953	5,097,306

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

34. Other payables

(1) *Other payables disclosed by nature*

All amounts in RMB '000

Categories	31 December 2022	31 December 2021
Interest payable	11,139	8,609
Dividends payable	452,635	495,521
Other payables	27,765,084	27,078,250
Total	28,228,858	27,582,380

(2) *Interest payable*

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Interests payable on long-term borrowings	-	4,192
Interests payable on short-term borrowings	7,136	-
Others	4,003	4,417
Total	11,139	8,609

As at 31 December 2022, the Group had no material outstanding interest payable.

(3) *Dividends payable*

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Interest on perpetual bonds classified as equity instrument	117,676	165,567
Other dividends	334,959	329,954
Total	452,635	495,521

Dividends aged over one year but not settled yet amounted to RMB 167,549,000. relevant subsidiaries are discussing with the relevant shareholders for the payments schedule.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

34. Other payables (Continued)

(4) Other payables

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Security deposits	12,919,347	11,147,526
Current accounts	8,290,054	9,565,704
Guarantee deposits	1,269,546	1,466,045
Others	5,286,137	4,898,975
Total	27,765,084	27,078,250

On 31 December 2022, other payables aged over one year of RMB 11,784,214,000 (31 December 2021: RMB 11,885,998,000) were mainly guarantees and deposits payable collected by the Group. Since both parties remained business transactions, the amount has not been settled.

35. Non-current liabilities due within one year

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Long-term borrowings due within one year (Note VII 37)	10,981,364	12,049,664
Bonds payable due within one year (Note VII 38)	275,862	582,334
Lease liabilities due within one year (Note VII 39)	241,956	158,826
Long-term payables due within one year (Note VII 40)	119,285	96,562
Employee benefits payable due within one year (Note VII 41)	353,030	331,166
Provisions due within one year (Note VII 42)	10,247	–
Total	11,981,744	13,218,552

36. Other current liabilities

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Amounts to be transferred to output VAT	19,004,712	9,426,537
Total	19,004,712	9,426,537

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

37. Long-term borrowings

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Pledged loans (a)	8,267,993	5,941,592
Mortgaged loans (b)	7,338,285	3,774,553
Guaranteed loans (c)	1,375,070	2,924,794
Credit loans	22,840,689	24,741,258
Total	39,822,037	37,382,197
Less: Long-term borrowings due within one year (Note VII 35)	10,981,364	12,049,664
Including: Pledged loans	1,873,081	519,869
Mortgaged loans	2,648,802	953,426
Guaranteed loans	1,368,218	1,677,585
Credit loans	5,091,263	8,898,784
Long-term borrowings due over one year	28,840,673	25,332,533

(a) As at 31 December 2022, long-term borrowings of RMB 8,267,993,000 (as at 31 December 2021: RMB 5,941,592,000) were secured by the pledge of the Group's accounts receivable, other receivables, long-term receivables, intangible assets and long-term equity investments in amount of RMB 8,428,472,000 (as at 31 December 2021: RMB 3,274,988,000).

(b) As at 31 December 2022, long-term borrowings of RMB 7,338,285,000 (as at 31 December 2021: RMB 3,774,553,000) were secured by the mortgage of the Group's intangible assets, fixed assets, investment properties, inventories and other assets in amount of RMB 14,437,361,000 (as at 31 December 2021: RMB 6,236,150,000).

(c) As at 31 December 2022, long-term borrowings of RMB 1,375,070,000 were guaranteed by CMGC and the third party (as at 31 December 2021: RMB 2,924,794,000).

All amounts in RMB '000

Maturity Date of long-term borrowings due over one year	31 December 2022	31 December 2021
1 to 2 years	8,463,854	9,485,108
2 to 5 years	11,590,926	8,139,159
Over 5 years	8,785,893	7,708,266
Total	28,840,673	25,332,533

For the year ended 31 December 2022, the weighted average interest rate of long-term borrowings was 4.30% per annum (for the year ended 31 December 2021: 4.75% per annum).

As at 31 December 2022, the Group did not have any significant overdue long-term borrowings.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

38. Bonds payable

(1) Bonds payable

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Corporate debentures	227,083	802,334
Non-public targeted bond financing instruments	1,348,779	–
Total	1,575,862	802,334
Less: Bonds payable due within one year (Note VII 35)	275,862	582,334
Bonds payable due over one year	1,300,000	220,000

(2) For the year ended 31 December 2022, the movements of bonds payable as follows:

All amounts in RMB '000

Name of bonds	Face value	Issue date	Term	Issue amount	31 December 2021	Issued in the current year	Interest accrued based on face value	Repaid in the current year	31 December 2022
Corporate debentures publicly issued by the Company in 2017 (first tranche) (a)	570,000	2017-10-24 to 2017-10-25	5 years	570,000	575,220	–	23,223	598,443	–
Corporate debentures publicly issued by the Company in 2018 (first tranche) (b)	220,000	2018-05-07 to 2018-05-08	5 years	220,000	227,114	–	10,926	10,957	227,083
2022 first tranche of target bond financing instruments of MCC Real Estate Group Co., Ltd. (c)	1,300,000	2022-03-23 to 2022-03-24	3 years	1,300,000	–	1,300,000	48,779	–	1,348,779
Total	2,090,000	/	/	2,090,000	802,334	1,300,000	82,928	609,400	1,575,862

- (a) The Company issued corporate debentures publicly from 24 October 2017 to 25 October 2017, at an equal price with the face value of RMB 570,000,000, a term of five years from issuance. The debentures bear interest at a fixed rate of 4.99% per annum. Interest will be paid every year and principal will be paid upon maturity date.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

38. Bonds payable (Continued)

- (b) The Company issued corporate debentures on a public issuance basis from 7 May 2018 to 8 May 2018 at an equal price with the face value of RMB 220,000,000 with a term of five years from issuance and interest bearing at a fixed rate of 4.98%. Interest will be paid every year and principal will be paid upon maturity date.
- (c) MCC Real Estate Group Co., Ltd., one of the Company's subsidiaries, issued bond financing instruments on a non-public issuance basis from 23 March 2022 to 24 March 2022 at an equal price with the face value of RMB 1,300,000,000 with a term of three years from issuance and interest bearing at a fixed rate of 4.79%. Interest will be paid every year and principal will be paid upon maturity date.

39. Lease liabilities

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Lease of buildings and structures	643,222	441,398
Other leases	167,734	86,573
Total	810,956	527,971
Less: Lease liabilities due within one year (Note VII 35)	241,956	158,826
Lease liabilities due over one year	569,000	369,145

All amounts in RMB '000

Maturity Date of lease liabilities	31 December 2022	31 December 2021
1st year after the balance sheet date	265,675	181,423
2nd year after the balance sheet date	198,779	129,909
3rd year after the balance sheet date	108,562	75,285
Subsequent years	331,758	221,050
Total minimum lease payments	904,774	607,667
Less: Unrecognized financing cost	93,818	79,696
Total lease liabilities	810,956	527,971

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

40. Long-term payables

(1) Presentation of long-term payables

All amounts in RMB '000

Categories	31 December 2022	31 December 2021
Long-term payables	579,566	1,010,194
Special payables	35,443	39,887
Total	615,009	1,050,081

(2) Long-term payables

(a) Long-term payables disclosed by nature

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Housing maintenance fund	42,417	41,844
Amounts due to funds	376,858	376,858
Others	279,576	688,054
Total	698,851	1,106,756
Less: Long-term payables due within one year (Note VII 35)	119,285	96,562
Long-term payables due over one year	579,566	1,010,194

(b) Analysis of the maturity profile of long-term payables due over one year

All amounts in RMB '000

Maturity Date	31 December 2022	31 December 2021
1 to 2 years	37,293	560,634
2 to 5 years	97,838	38,804
Over 5 years	444,435	410,756
Total	579,566	1,010,194

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

40. Long-term payables (Continued)

(3) Special payables

All amounts in RMB '000

Items	31 December 2021	Increase	Decrease	31 December 2022
Special payables for water/ power/gas supply and property (Note)	34,146	–	3,509	30,637
Others	5,741	590	1,525	4,806
Total	39,887	590	5,034	35,443

Note: The Group has commenced the transfer of water/power/gas supply and property with the received special payables for water/power/gas supply and property aggregated to the special payables for settlement, in accordance with the Notice of Rewarding the Guidance on the Separation and Transfer of Water/Power/Gas Supply and Property in Residential Quarters for Employees of the State-owned Enterprises by State-owned Assets Supervision and Administration Commission of the State Council, the MoF from the General Office of the State Council (Guo Ban Fa [2016] No.45), and the Management of Central Government Grants on the Separation and Transfer of Water/Power/Gas Supply and Property to Employees and Their Relatives of Central Enterprises (Cai Zi [2016] No.38) and other related management documents.

41. Long-term employee benefits payable

(1) Long-term employee benefits payable

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Post-employment benefits -Net liabilities arising from defined benefit plans	3,859,784	4,219,145
Total	3,859,784	4,219,145
Less: Long-term employee benefits payable due within one year (Note VII 35)	353,030	331,166
Long-term employee benefits payable due over one year	3,506,754	3,887,979

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

41. Long-term employee benefits payable (Continued)

(2) Movements in the defined benefit plans

All amounts in RMB '000

Items	2022	2021
I. Opening balance	4,219,145	4,444,692
II. Defined benefit costs recognized in profit or loss	137,443	175,173
1. Past service cost	16,022	33,074
2. Net interest expense	121,421	142,099
III. Defined benefit costs recognized in other comprehensive income	(107,556)	(6,651)
1. Actuarial gains	(107,556)	(6,651)
IV. Other movements	(389,248)	(394,069)
1. Benefits paid	(389,248)	(394,069)
V. Closing balance	3,859,784	4,219,145

The balance of RMB 2,393,048,000 of defined benefit plan is a supplementary retirement benefit for employees who retired before 31 December 2007 and RMB 1,466,736,000 is a supplementary retirement benefit for employees who retire before 31 December 2023. The retirement benefits received depend on the position, seniority, salary of the staff when the staff retires. The Group's supplementary retirement benefits obligation at the balance sheet date are calculated by an external independent actuary "Towers Watson Consulting (Shanghai) Co., Ltd." using projected unit credit actuarial cost method.

Defined benefits plan exposes the Group to various risks, mainly including the risk of change of interest rate of treasury bonds, inflation rate risk, and risk of the increase in life expectancy. The decrease of the interest rate of treasury bonds will increase the defined benefit plan obligations. The Group is of the view that the interest rate of treasury bonds will not have significant fluctuations in the future. The changes of inflation rate will have impact on the significant assumptions of the living costs of the underlying staff and dependents, and the growth rate of the staff medical expense reimbursements. The Group believes these risks are not significant. The increase of the life expectancy will increase the defined benefit plan obligations.

The principal assumptions used for the purposes of the actuarial valuations are as below:

Items	31 December 2022	31 December 2021
Discount rate	3.00%	3.00%
Mortality rate	CLA CL5/CL6 up 3	CLA CL5/CL6 up 3
Annual growth rate of living cost for retirement staff and survivors	4.50%	4.50%
Annual growth rate of various employee medical expense reimbursement	8.00%	8.00%

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

41. Long-term employee benefits payable (Continued)

(2) Movements in the defined benefit plans (Continued)

The sensitivity analysis of the major actuarial assumptions used for calculating the present value of the defined benefit obligations are as below:

Items	Assumed changes	Impact on present value of the defined benefit obligations	
		Assumed increase	Assumed decrease
Discount rate	0.25%	2.20% down	2.30% up
Annual growth rate of living cost for retirement staff and survivors	1.00%	0.60% up	0.50% down
Annual growth rate of various employee medical expense reimbursement	1.00%	4.10% up	3.40% down

The sensitivity analysis above has been determined based on a method that extrapolates the impact on defined benefit obligations as a result of reasonable changes in key assumptions occurring at the balance sheet date. The sensitivity analysis is based on a change in a significant assumption, keeping all other assumptions constant. The sensitivity analysis may not be representative of an actual change in the defined benefit obligations as it is unlikely that changes in assumptions would occur in isolation of one another.

42. Provisions

All amounts in RMB '000

Items	31 December 2021	Increase	Decrease	31 December 2022
Pending litigations (a)	229,442	154,214	31,451	352,205
Product quality warranties (b)	16,020	5,733	4,147	17,606
Restoration, rehabilitation and environmental provision (c)	182,873	27,098	-	209,971
Onerous contract to be performed (d)	173,717	207,487	67,368	313,836
The separation and hand-over cost of "Special payables for water/power/gas supply and property" (e)	131,465	-	8,042	123,423
Others	78,280	16,107	19,438	74,949
Total	811,797	410,639	130,446	1,091,990
Less: Provisions due within one year (Note VII 35)	-	-	-	10,247
Provisions due over one year	811,797	-	-	1,081,743

- (a) Because of the verdict of losing a lawsuit, the Group needed to bear the present obligations of the pending litigations, and that an outflow of resources would be required to settle these obligations and the amount had been reliably estimated.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

42. Provisions (Continued)

- (b) According to the sales contract, the Group needed to bear the present obligations of the product quality warranties, and an outflow of resources would be required to settle this obligation and the amount had been reliably estimated.
- (c) According to the resource development contract, the Group needed to bear the present obligations of the restoration of the environment, and that an outflow of resources would be required to settle this obligation and the amount had been reliably estimated.
- (d) According to the onerous contract to be performed, the Group needed to bear the present obligations arising from the Group's payment for expected contract loss, and an outflow of economic benefits would be required to settle this obligation and the amount could be reliably estimated.
- (e) In accordance with the requirement of Guo Ban Fa [2016] No.45, Cai Zi [2016] No.38, and other related management documents, the Group shall bear the current obligation formed during the separation and hand-over of "Special payables for water/power/gas supply and property". An outflow of resources would be required to settle this obligation and the amount had been reliably estimated.

43. Deferred Income

All amounts in RMB '000

Items	31 December 2021	Increase	Decrease	31 December 2022
Government grants	1,395,739	93,896	519,556	970,079
Others	69,265	61,391	22,182	108,474
Total	1,465,004	155,287	541,738	1,078,553

The government grants related to assets mainly include the investment subsidies for the purchase of new equipment and other production infrastructure; the government grants related to profits mainly include research subsidies.

44. Other non-current liabilities

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Land demolition compensation	380,000	—
Others	80,361	—
Total	460,361	—

45. Share Capital

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Unrestricted shares		
RMB ordinary shares	17,852,619	17,852,619
Foreign shares listed overseas	2,871,000	2,871,000
Total	20,723,619	20,723,619

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VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

46. Other equity instruments

All amounts in RMB '000

Name of outstanding financial instruments	31 December 2022		31 December 2021	
	Number (ten thousand)	Carrying amount	Number (ten thousand)	Carrying amount
Renewable Financing Instruments of Generali China Asset Management in 2019	/	3,000,000	/	3,000,000
Renewable Financing Instruments of Kunlun Trust in 2019	/	8,000,000	/	8,000,000
2019 Second Tranche of Renewable Financing Instrument of ICBC	-	-	/	500,000
Public Offering of Renewable Corporate Bonds in 2020 (First Tranche)	2,000	2,000,000	2,000	2,000,000
Public Offering of Renewable Corporate Bonds in 2020 (Second Tranche)	1,000	1,000,000	1,000	1,000,000
Renewable Financing Instruments of Bairui Trust in 2020	/	1,500,000	/	1,500,000
Renewable Financing Instruments of Zhongyuan Wealth Growth No.1152 Tranche in 2021	/	500,000	/	500,000
No.778 Renewable Financing Instruments of Barry Hengyi in 2021	/	500,000	/	500,000
No.778 (02) Renewable Financing Instruments of Barry Hengyi in 2021	/	200,000	/	200,000
2021 MCC MTN001	2,000	2,000,000	2,000	2,000,000
2021 MCC MTN002	2,000	2,000,000	2,000	2,000,000
2021 MCC MTN003	2,000	2,000,000	2,000	2,000,000
2021 MCC MTN004	500	500,000	500	500,000
2022 MCC MTN001	2,000	2,000,000	-	-
2022 MCC MTN002	2,000	2,000,000	-	-
2022 MCC MTN003	1,300	1,300,000	-	-
Total	/	28,500,000	/	23,700,000

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VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

46. Other equity instruments (Continued)

All amounts in RMB '000

Name of outstanding financial instruments	Issue date	Dividend rate or interest rate	Issue amount	Maturity date or renewal	Condition for share conversion	Conversion
Renewable Financing Instruments of Generali China Asset Management in 2019	2019-06-28, 2019-07-09	5.30%	3,000,000	Not yet due	None	No
Renewable Financing Instruments of Kunlun Trust in 2019	2019-09-05	5.20%	8,000,000	Not yet due	None	No
Public Offering of Renewable Corporate Bonds in 2020 (First Tranche)	2020-06-22 to 2020-06-23	3.90%	2,000,000	Not yet due	None	No
Public Offering of Renewable Corporate Bonds in 2020 (Second Tranche)	2020-06-24, 2020-06-28 to 2020-06-29	3.89%	1,000,000	Not yet due	None	No
Renewable Financing Instruments of Bairui Trust in 2020	2020-12-17	4.99%	1,500,000	Not yet due	None	No
Renewable Financing Instruments of Zhongyuan Wealth Growth No.1152 Tranche in 2021	2021-12-29	4.95%	500,000	Not yet due	None	No
No.778 Renewable Financing Instruments of Barry Hengyi in 2021	2021-12-17	4.90%	500,000	Not yet due	None	No
No.778 (02) Renewable Financing Instruments of Barry Hengyi in 2021	2021-12-30	4.90%	200,000	Not yet due	None	No
2021 MCC MTN001	2021-07-26 to 2021-07-27	3.55%	2,000,000	Not yet due	None	No
2021 MCC MTN002	2021-08-17 to 2021-08-18	3.47%	2,000,000	Not yet due	None	No
2021 MCC MTN003	2021-08-24 to 2021-08-25	3.50%	2,000,000	Not yet due	None	No
2021 MCC MTN004	2021-12-28 to 2021-12-29	3.30%	500,000	Not yet due	None	No
2022 MCC MTN001	2022-12-7 to 2022-12-8	4.18%	2,000,000	Not yet due	None	No
2022 MCC MTN002	2022-12-14 to 2022-12-15	4.23%	2,000,000	Not yet due	None	No
2022 MCC MTN003	2022-12-21 to 2022-12-22	4.12%	1,300,000	Not yet due	None	No
Total	/	/	28,500,000	/	/	/

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

46. Other equity instruments (Continued)

As it is at the discretion of the Company to decide whether to redeem the above-mentioned medium-term notes or defer payments on the above-mentioned renewable corporate bonds and renewable financing instruments (hereinafter referred to as “renewable financing instruments”), the above-mentioned renewable financing instruments’ perpetuity remains in effect. Unless otherwise dictated by a compulsory interest payment occurrence that is independently decided and consequently controlled by the Company, the Company can choose, at its own discretion, to defer the current interest payment and previous deferred interests and related yields to next interest payment date without any limitation on the number of deferred interest payments, and the repayment order of such renewable financing instruments at the settlement is inferior to that of ordinary bonds and other debts issued by the Company. The Company believes that such renewable financing instruments do not meet the definition of financial liabilities and are accounted for as other equity instruments subsequent to deduction of related transaction costs from the total issue amount.

China Second Metallurgical Group Corp. Ltd., a subsidiary of the Company, issued perpetual bonds in 2020. The actual amounts RMB 800,000,000 received after deducting the relevant transaction costs from the total issuance were accounted for as other equity instruments and presented under the item of non-controlling interests in the consolidated financial statements. China Second Metallurgical Group Corp. Ltd. redeemed the perpetual bonds in 2022, resulting in a reduction in non-controlling interests in the Group’s consolidated financial statements of RMB 800,000,000 as at 31 December 2022.

MCC Holding (Hong Kong) Corporation Limited, one of the Company’s subsidiaries, issued overseas perpetual bonds in 2020 and 2021. The amounts received after deducting relative transaction costs are recognized in other equity instruments and presented under the item of non-controlling interests in the consolidated financial statements. At 31 December 2022, the closing balance of this non-controlling interests are RMB 10,138,871,000.

47. Capital reserve

All amounts in RMB '000

Items	31 December 2021	Increase	Decrease	31 December 2022
Share premium	22,467,142	-	-	22,467,142
Other capital reserve	145,777	9,409	20,736	134,450
Total	22,612,919	9,409	20,736	22,601,592

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

48. Other comprehensive income

Accumulated balance of other comprehensive income attributable to the parent company in the consolidated balance sheet:

All amounts in RMB '000

Items	1 January 2022	Attributable to owners of the Company, net of income tax	Less: Retained earnings transferred from other comprehensive income	Less: Others	31 December 2022
Other comprehensive income that will not be reclassified to profit or loss					
Changes in re-measurement of defined benefit obligations	11,692	92,481	–	–	104,173
Other comprehensive income that cannot be transferred to profit or loss under equity method	55	(12)	–	–	43
Fair value changes in investments in other equity instruments	(90,630)	(28,836)	5,595	–	(125,061)
Sub-total	(78,883)	63,633	5,595	–	(20,845)
Other comprehensive income that may be reclassified to profit or loss					
Other comprehensive income that may be transferred to profit or loss under equity method	53,571	(35,827)	–	–	17,744
Changes in fair value of receivables at FVTOCI	(120,296)	25,232	–	–	(95,064)
Exchange differences on translating foreign operations	(56,016)	1,336,295	–	97,643	1,182,636
Sub-total	(122,741)	1,325,700	–	97,643	1,105,316
Total	(201,624)	1,389,333	5,595	97,643	1,084,471

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

48. Other comprehensive income (Continued)

Other comprehensive income incurred:

All amounts in RMB '000

Items	Other comprehensive income before tax for the current year	Less: Income tax expenses	Attributable to owners of the Company, net of income tax	Attributable to non-controlling interests, net of income tax
Other comprehensive income that will not be reclassified to profit or loss				
Changes in re-measurement of defined benefit obligations	107,556	13,939	92,481	1,136
Other comprehensive income that cannot be transferred to profit or loss under equity method	(12)	-	(12)	-
Fair value changes in investments in other equity instruments	(31,074)	(7,122)	(28,836)	4,884
Other comprehensive income that may be reclassified to profit or loss				
Other comprehensive income that may be transferred to profit or loss under equity method	(47,751)	-	(35,827)	(11,924)
Changes in fair value of receivables at FVTOCI	31,936	3,414	25,232	3,290
Exchange differences on translating foreign operations	1,452,094	-	1,336,295	115,799
Total	1,512,749	10,231	1,389,333	113,185

49. Special reserve

All amounts in RMB '000

Item	31 December 2021	Increase	Decrease	31 December 2022
Safety production expenses	12,550	9,253,421	9,146,158	119,813
Total	12,550	9,253,421	9,146,158	119,813

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

50. Surplus reserve

All amounts in RMB '000

Item	31 December 2021	Increase	Decrease	31 December 2022
Statutory surplus reserve	2,692,992	283,432	-	2,976,424
Total	2,692,992	283,432	-	2,976,424

In accordance with the *Company Law of the PRC and the Company's Articles of Association*, the Company appropriated 10% of the net profit to the statutory surplus reserve. When the accumulated amount of statutory surplus reserve reaches 50% of the Company's registered capital, further appropriation will not be mandatory. Upon the approval of the board, the statutory surplus reserve can be used to offset previous years' losses or increase the share capital.

51. Retained earnings

All amounts in RMB '000

Items	2022	2021
Retained earnings at the beginning of the year	37,954,521	32,461,495
Add: Net profit attributable to shareholders of the parent company	10,272,357	8,374,970
Other comprehensive income carried forward to retained earnings	5,595	124,291
Less: Appropriation to surplus reserve (a)	283,432	676,224
Distribution of dividends on ordinary shares (b)	1,616,442	1,554,272
Distribution of interest on perpetual bonds classified as equity instrument (c)	1,038,650	775,739
Other	191,534	-
Retained earnings at the end of the year	45,102,415	37,954,521

As at 31 December 2022, retained earnings of the Group included statutory surplus reserve of subsidiaries of the parent company amounting to RMB 17,341,284,000 (as at 31 December 2021: RMB 16,312,563,000).

- (a) In 2022, the Company appropriated 10% of the net profit to the statutory surplus reserve amounting to RMB 283,432,000 (2021: RMB 676,224,000).
- (b) In accordance with the resolution at the 2021 annual general meeting of shareholders on 30 June 2022, a final cash dividend of RMB 0.78 (inclusive of tax) for every ten shares was approved after the appropriation to statutory surplus reserve, which amounted to RMB 1,616,442,000. This dividend has been paid as of 29 August 2022.
- (c) In 2022, the Company distributed interest on perpetual bonds amounting to RMB 1,038,650,000 (2021: RMB 775,739,000). As at 31 December 2022, retained earnings included no interest belonging to the perpetual bond holders (as at 31 December 2021: Nil).

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

52. Operating revenue and operating costs

(1) Operating revenue and operating costs

All amounts in RMB '000

Items	2022		2021	
	Operating revenue	Operating costs	Operating revenue	Operating costs
Principal business	591,626,764	534,867,307	499,163,634	446,531,020
Other business	1,042,308	649,611	1,408,013	904,126
Total	592,669,072	535,516,918	500,571,647	447,435,146

All amounts in RMB '000

Items	2022 Revenue	2021 Revenue
Revenue from contracts with customers	592,010,575	499,941,717
Leasing income	658,497	629,930
Total	592,669,072	500,571,647

(2) The segment information of operating revenue

All amounts in RMB '000

Reporting segment	Engineering contracting	Property development	Equipment manufacture	Resource development	Other	Sub-total
Major product type						
Engineering construction	525,000,985	3,511,951	6,241,959	-	371,433	535,126,328
Design and consulting services	7,755,936	-	349,070	-	461,487	8,566,493
Product sales	4,499,150	17,895,531	3,676,107	6,844,479	448,896	33,364,163
Others	8,508,561	947,251	1,838,579	1,992,224	1,666,976	14,953,591
Total	545,764,632	22,354,733	12,105,715	8,836,703	2,948,792	592,010,575
Time of revenue recognition						
Recognition of revenue at a certain point in time	17,843,861	18,334,427	5,859,693	8,836,703	2,206,120	53,080,804
Recognition of revenue within a certain period of time	527,920,771	4,020,306	6,246,022	-	742,672	538,929,771
Total	545,764,632	22,354,733	12,105,715	8,836,703	2,948,792	592,010,575

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

52. Operating revenue and operating costs (Continued)

(2) The segment information of operating revenue (Continued)

The engineering contracting services provided by the Group generally constitutes a single performance obligation as a whole and is performed over time. As at 31 December 2022, some of the Group's engineering contracting service contracts were still in the process of performance, the transaction price allocated to the outstanding (or partially unperformed) performance obligations are related to the performance progress of each service contract, and will be recognized as revenue in the future performance period of each contract based on the performance progress.

(3) Operating revenue from the five largest customers of the Group

The total amount of operating revenue from the five largest customers of the Group is RMB 21,343,343,000 (for the year ended 31 December 2021: RMB 17,754,579,000), accounting for 3.60% of the total operating revenue of the Group (for the period ended 31 December 2021: 3.55%). The details are set out below:

All amounts in RMB '000

Customers	Operating revenue	As a percentage of total operating revenue of the Group (%)
Party 1	5,281,428	0.89
Party 2	4,409,435	0.74
Party 3	4,332,940	0.73
Party 4	3,889,165	0.66
Party 5	3,430,375	0.58
Total	21,343,343	3.60

53. Taxes and levies

All amounts in RMB '000

Items	2022	2021
City construction and maintenance tax	362,150	347,777
Education surcharges	278,762	160,123
Stamp duty	414,030	334,605
Property tax	227,736	237,192
Land appreciation tax	155,790	971,133
Land use tax	100,694	111,075
Others	331,609	353,649
Total	1,870,771	2,515,554

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

54. Selling expenses

All amounts in RMB '000

Items	2022	2021
Employee benefits	1,426,462	1,249,215
Advertising and sales service expenses	686,974	602,009
Travelling expenses	219,523	230,777
Office expenses	172,189	220,036
Packing charges	25,453	9,611
Depreciation of fixed assets	15,299	16,967
Transportation expenses	7,893	87,973
Others	329,330	326,201
Total	2,883,123	2,742,789

55. Administrative expenses

All amounts in RMB '000

Items	2022	2021
Employee benefits	7,874,619	7,384,071
Depreciation of fixed assets	502,983	512,248
Office expenses	713,510	742,442
Professional service fees	363,081	497,395
Travelling expenses	345,285	364,543
Lease rentals	199,781	173,362
Amortization of intangible assets	183,798	180,462
Depreciation of right of use assets	138,291	121,721
Repairs and maintenance expenses	108,544	106,061
Others	844,077	839,564
Total	11,273,969	10,921,869

For the current year, the above administrative expenses include audit fee of RMB 17,500,000 (for the year ended 31 December 2021: RMB 9,380,000), among which internal control audit fee of RMB 1,500,000 (for the year ended 31 December 2021: RMB 1,500,000).

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

56. Research and development expenditure

All amounts in RMB '000

Items	2022	2021
Research and development material expenditure	12,559,003	10,768,976
Employee benefits	5,388,874	4,460,189
Depreciation of fixed assets	125,291	102,255
Amortization of intangible assets	33,280	34,912
Others	626,184	534,866
Total	18,732,632	15,901,198

57. Financial expenses

All amounts in RMB '000

Items	2022	2021
Interest expenses	3,786,310	4,053,429
Less: Capitalized interests	1,153,236	1,912,977
Less: Interest income	2,423,313	2,667,996
Exchange (gains)/losses	(206,181)	356,153
Bank charges	799,390	962,234
Interest expenses of lease liabilities	37,101	27,667
Others	100,770	236,605
Total	940,841	1,055,115

58. Other income

All amounts in RMB '000

Items	2022	2021
Tax returns	109,479	126,203
Research subsidies	144,386	104,363
Others	179,359	197,468
Total	433,224	428,034

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

59. Investment losses

All amounts in RMB '000

Items	2022	2021
Gains/(losses) from long-term equity investments under equity method	177,712	(131,052)
Investment income on disposal of long-term equity investments	76,921	148,070
Investment income generated by the remeasurement of the equity held before the acquisition date of the business combinations not involving enterprises under common control according to the fair value	146,349	-
Investment income on disposal of financial assets held-for-trading	-	9,344
Investment income from disposal of other non-current financial assets	-	6,716
Investment loss from disposal of receivables at FVTOCI (Note)	(331,713)	(457,765)
Investment income from holding investments in other equity instruments	21,585	23,338
Investment income from holding other non-current financial assets	33,323	54,110
Losses from derecognition of financial assets at amortized cost (Note)	(1,273,573)	(1,491,538)
Others	(373,818)	45,355
Total	(1,523,214)	(1,793,422)

Note: For the current year, the Group's investment losses due to the transfer of receivables at FVTOCI to financial institutions in the form of discounted financing, and the transfer of accounts receivable measured by amortized cost to financial institutions in the form of non-recourse protection factoring and asset securitization were RMB 331,713,000 and RMB 1,273,573,000 (for the year ended 31 December 2021: RMB 457,765,000 and RMB 1,491,538,000).

60. (Losses)/gains from changes in fair values

All amounts in RMB '000

Sources	2022	2021
Gains arising on changes in fair value of financial assets held for trading	733	23,644
(Losses)/Gains arising on changes in fair value of derivative financial assets	(114,790)	138,784
Losses arising on changes in fair value of derivative financial liabilities	(196,257)	(4,413)
(Losses)/Gains arising on changes in fair value of other non-current financial assets	(7,464)	19,919
Total	(317,778)	177,934

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

61. Credit impairment losses

All amounts in RMB '000

Items	2022	2021
Loss from impairment of bills receivable (Note VII 4(4))	(21,918)	(380,960)
Loss from impairment of accounts receivable (Note VII 5(3))	(2,291,504)	(1,843,968)
Loss from impairment of other receivables (Note VII 8(4))	(1,003,296)	(1,530,642)
Loss/(reversal) from impairment of long-term receivables (Note VII 13(2))	(285,156)	40,756
Total	(3,601,874)	(3,714,814)

62. Asset impairment losses

All amounts in RMB '000

Items	2022	2021
Loss from impairment of contract assets (Note VII 10(2))	(313,950)	(824,007)
Loss from impairment of inventories (Note VII 9(2))	(24,334)	(125,680)
Loss from impairment of long-term equity investments (Note VII 14)	(74,476)	(553,808)
Loss from impairment of fixed assets (Note VII 18(1))	(632,024)	(15,895)
Loss from impairment of goodwill (Note VII 22)	(2,743)	(105,032)
Loss from impairment of intangible assets (Note VII 21)	(181,293)	–
Loss from impairment of other non-current assets	(130,832)	–
Total	(1,359,652)	(1,624,422)

63. Gains on disposal of assets

All amounts in RMB '000

Items	2022	2021
Gains on disposal of fixed assets	221,745	435,591
Gains on disposal of intangible assets	34,770	251,500
Gains on disposal of other long-term assets	46,840	2,137
Total	303,355	689,228

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

64. Non-operating income

All amounts in RMB '000

Items	2022	2021	Recognized in non-recurring profit or loss for the current year
Income from penalty	28,300	31,187	28,300
Government grants irrelevant to routine activities	47,161	133,718	47,161
Unpayable balances	81,727	75,064	81,727
Others	165,867	59,590	165,867
Total	323,055	299,559	323,055

65. Non-operating expenses

All amounts in RMB '000

Items	2022	2021	Recognized in non-recurring profit or loss for the current year
Litigation Estimated Liabilities	137,705	101,565	137,705
Compensation and default payments	90,266	294,544	90,266
Loss on damage and retirement of non-current assets	38,050	17,575	38,050
Fines and surcharges for overdue payments	22,733	32,109	22,733
Donations	14,997	2,460	14,997
Others	12,067	1,641	12,067
Total	315,818	449,894	315,818

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

66. Expenses categorized by nature

The supplementary information on the Group's operating costs, selling expenses, administrative expenses as well as research and development expenses by nature is summarized as follows:

All amounts in RMB '000

Items	2022	2021
Subcontracting costs	252,589,867	227,813,917
Consumed raw materials	192,216,640	142,645,579
Labor costs	39,309,238	31,881,909
Employee benefits	31,525,607	29,528,766
Carry-forward of cost of property development products	16,348,064	20,190,040
Other construction costs	8,966,046	7,807,500
Depreciation and amortization expenses	3,931,444	3,545,691
Other product sales costs	587,888	808,460
Others	22,931,848	12,779,140
Total	568,406,642	477,001,002

67. Income tax expenses

(1) Income tax expenses

All amounts in RMB '000

Items	2022	2021
Current year tax expenses	2,819,274	2,923,906
Deferred tax expenses	(354,630)	(518,921)
Total	2,464,644	2,404,985

(2) Reconciliation of income tax expenses to the accounting profit

All amounts in RMB '000

Items	2022	2021
Total profit	15,392,116	14,012,179
Income tax expenses calculated at the tax rate of 25%	3,848,029	3,503,045
Effect of difference between applicable tax rate and statutory tax rate	(920,534)	(856,452)
Income not subject to tax	(241,265)	(265,424)
Expenses not deductible for tax purposes	304,492	209,898
Utilization of tax losses and other temporary differences for which no deferred income tax assets were recognized previously	(700,706)	(327,912)
Tax losses and other temporary differences for which no deferred income tax assets were recognized	1,323,957	1,036,861
Others	(1,149,329)	(895,031)
Income tax expense	2,464,644	2,404,985

FINANCIAL STATEMENTS

For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

67. Income tax expenses (Continued)

(2) Reconciliation of income tax expenses to the accounting profit (Continued)

Most of the companies now comprising the Group are subject to PRC enterprise income tax, which have been provided based on the statutory income tax rate of 25% on the assessable income during the current period as determined in accordance with the relevant PRC income tax rules and regulations except for certain subsidiaries which were exempted from tax or taxed at preferential rate.

Taxation of overseas subsidiaries within the Group has been calculated on the estimated assessable profit of these subsidiaries for the current period at the rates of taxation prevailing in the countries or jurisdictions in which these companies operate.

68. Earnings per share

(1) When calculating earnings per share, net profit for the current period attributable to ordinary shareholders

All amounts in RMB '000

Items	2022	2021
Net profit for the current period attributable to shareholders of the Company	10,272,357	8,374,970
Including: Net profit from continuing operations	10,272,357	8,374,970
Less: The effect of other equity instruments interest	1,038,650	1,085,693
Net profit for the current period attributable to ordinary shareholders	9,233,707	7,289,277

(2) For the purpose of calculating basic earnings per share, the denominator is the weighted average number of outstanding ordinary shares

All amounts in thousand shares

Items	2022	2021
Number of ordinary shares outstanding at the beginning of the year	20,723,619	20,723,619
Add: Weighted average number of ordinary shares issued during the year	–	–
Less: Weighted average number of ordinary shares repurchased during the year	–	–
Number of ordinary shares outstanding at the end of the year	20,723,619	20,723,619

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VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

68. Earnings per share (Continued)

(3) *Earnings per share*

Items	RMB/share	
	2022	2021
Calculated based on net profit attributable to ordinary shareholders:		
Basic earnings per share	0.45	0.35
Diluted earnings per share	0.45	0.35
Calculated based on net profit from continuing operations attributable to ordinary shareholders:		
Basic earnings per share	0.45	0.35
Diluted earnings per share	0.45	0.35
Calculated based on net profit from discontinued operations attributable to ordinary shareholders:		
Basic earnings per share	N/A	N/A
Diluted earnings per share	N/A	N/A

69. Notes to items in the cash flow statements

(1) *Other cash receipts relating to operating activities*

Items	All amounts in RMB '000	
	2022	2021
Receipts of deposits and guarantee funds	2,489,712	2,731,257
Interest income	1,338,788	995,423
Government grants received	417,640	585,857
Petty cash funds returned by employees	54,872	31,879
Others	1,412,682	1,211,430
Total	5,713,694	5,555,846

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

69. Notes to items in the cash flow statements (Continued)

(2) Other cash payments relating to operating activities

All amounts in RMB '000

Items	2022	2021
Payments of deposits and guarantee funds	1,409,555	1,266,012
Research and development expenses	13,343,758	12,434,226
Payments for retirement benefits	411,633	394,070
Travelling expenses	564,809	631,040
Office expenses	393,142	1,196,403
Repair and maintenance expenses	111,783	377,236
Advertising and sales service expenses	482,661	638,130
Others	3,790,389	1,196,530
Total	20,507,730	18,133,647

(3) Other cash receipts relating to investing activities

All amounts in RMB '000

Item	2022	2021
Repayment of loans from related parties	1,783,585	–
Net cash receipts from acquisition of subsidiaries	113,323	–
Interest income from loans	1,104,326	801,548
Others	268,567	–
Total	3,269,801	801,548

(4) Other cash payments relating to investing activities

All amounts in RMB '000

Item	2022	2021
Providing loans to related parties and others	993,145	9,042,539
Total	993,145	9,042,539

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

69. Notes to items in the cash flow statements (Continued)

(5) Other cash receipts relating to financing activities

All amounts in RMB '000

Item	2022	2021
Loans to related parties	371,220	–
Decrease in restricted deposits	–	322,886
Total	371,220	322,886

(6) Other cash payments relating to financing activities

All amounts in RMB '000

Items	2022	2021
Redemption of perpetual medium-term notes	500,000	7,725,750
Payments for lease liabilities	301,513	308,378
Transactions with non-controlling interests	2,683,722	15,218
Repayment of loans to related parties	2,249,920	–
Total	5,735,155	8,049,346

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

70. Supplementary information to the cash flow statements

(1) *Supplementary information to the cash flow statements*

All amounts in RMB '000

Supplementary information	2022	2021
1. Reconciliation of net profit to cash flows from operating activities		
Net profit	12,927,472	11,607,194
Add: Provision for impairment losses of assets and credit losses	4,961,526	5,339,236
Depreciation of fixed assets and right-of-use assets, and amortization of investment properties	2,961,492	2,842,739
Amortization of intangible assets	897,368	614,193
Amortization of long-term prepayments	72,584	88,759
Gains on disposal of fixed assets, intangible assets and other long-term assets	(303,355)	(689,228)
Losses on write-off of fixed assets	29,083	11,739
Losses/(gains) from changes in fair value	317,778	(177,934)
Financial expenses	1,775,884	1,903,897
Investment losses	(82,073)	(155,881)
Increase in deferred tax assets	(182,011)	(510,494)
Decrease in deferred tax liabilities	(172,619)	(8,427)
Decrease/(increase) in inventories	12,405,241	(1,362,015)
Increase in contract assets	(16,621,814)	(8,834,156)
(Decrease)/Increase in contract liabilities	(20,821,073)	1,438,434
Increase in receivables from operating activities	(15,752,292)	(17,083,528)
Increase in payables from operating activities	35,739,870	22,615,480
 Net cash flows from operating activities	 18,153,061	 17,640,008
2. Net changes in cash and cash equivalents		
Closing balance of cash	33,468,217	31,216,824
Less: Opening balance of cash	31,216,824	42,165,302
Net increase/(decrease) in cash and cash equivalents	2,251,393	(10,948,478)

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VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

70. Supplementary information to the cash flow statements (Continued)

(2) Net cash received from disposal of subsidiaries in the current year

Items	2022
Cash and cash equivalents received from disposal of subsidiaries in the current year	4,591
Less: cash and cash equivalents held by subsidiaries on the date of loss of control	935
Add: cash and cash equivalents received from disposal of subsidiaries in the previous year	–
Net cash received from disposal of subsidiaries	3,656

(3) The composition of cash and cash equivalents

All amounts in RMB '000

Items	2022	2021
I. Cash	33,468,217	31,216,824
Including: Cash on hand	11,004	11,136
Bank deposits without restriction	33,457,213	30,905,299
Other cash and bank balances without restriction	–	300,389
II. Closing balance of cash and cash equivalents	33,468,217	31,216,824

71. Assets with title or right-of-use restrictions

All amounts in RMB '000

Items	31 December 2022	Reasons
Cash and bank balances	12,017,196	Freeze/Regulated
Bills receivable	136,643	Pledge
Bills receivable	3,061,970	Endorsed or discounted
Accounts receivable	1,414,388	Pledge
Other receivables	805,549	Pledge
Long-term receivables	1,745,351	Pledge
Receivables at FVTOCI	1,944,201	Pledge
Inventories	13,044,307	Mortgage
Investment properties	1,002,002	Mortgage
Fixed assets	99,802	Mortgage/Freeze
Intangible assets	3,674,824	Mortgage/Freeze
Other non-current assets	170,028	Pledge
Total	39,116,261	/

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

72. Foreign currencies denominated items

(1) Foreign currencies denominated items

All amounts in RMB '000

Items	Foreign currency at 31 December 2022	Exchange rate	RMB at 31 December 2022
Cash and bank balances			5,037,332
Including: USD	441,261	6.9646	3,073,206
IDR	943,805,197	0.00045	424,712
AUD	48,690	4.7138	229,515
EUR	22,429	7.4229	166,488
HKD	96,801	0.8933	86,472
Others	/	/	1,056,939
Accounts receivable			3,756,110
Including: USD	329,152	6.9646	2,292,412
GBP	1,193	8.3941	10,014
Others	/	/	1,453,684
Other receivables			2,549,707
Including: USD	13,831	6.9646	96,327
Others	/	/	2,453,380
Short-term borrowings			2,970,491
Including: USD	318,082	6.9646	2,215,314
Others	/	/	755,177
Accounts payable			3,083,513
Including: USD	324,787	6.9646	2,262,012
HKD	53,968	0.8933	48,210
EUR	1,996	7.4229	14,816
Others	/	/	758,475
Other payables			14,030,141
Including: USD	1,454,898	6.9646	10,132,783
HKD	243,170	0.8933	217,224
AUD	39,466	4.7138	186,035
Others	/	/	3,494,099
Long-term borrowings			1,354,365
Including: SGD	261,304	5.1831	1,354,365

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

72. Foreign currencies denominated items (Continued)

(2) Notes for the foreign business entities

Full name of the major foreign operations	Place of business	Representation currency	The basis of select functional currency
MCC Minera Sierra Grande S.A	Argentina	Argentine Peso	The functional currency of the overseas subsidiary is based on the primary economic environment where it operates.
Western Australia	Australia	USD	
MCC Australia Holding Pty Ltd.	Australia	Australian dollar	
MCC Tongsin Resources Ltd.	Pakistan	USD	
MCC Holding (Hong Kong) Corporation Limited	Hong Kong, China	USD	
MCC Ramu NiCo Ltd.	Papua New Guinea	USD	

The functional currencies of the Group's major foreign operations have not changed during the reporting period.

73. Government grants

(1) Basic information of government grants

All amounts in RMB '000

Government grants	Category	Amount received for 2022	Presenting items	Amount recognized in profit or loss
Dalian High-Tech Industrial Zone index-based subsidies under science and technology support fund program	Income-related	45,621	Operating cost	45,621
Operation grants from Department of Resource Allocation and Management of the Ministry of Science and Technology	Income-related	32,787	Administrative expenses	22,221
Tax returns for comprehensive resource to utilization projects	Income-related	25,999	Other income	25,999
Operating grants before transformation allocated by the Ministry of Science and Technology	Income-related	15,040	Non-operating income	15,040
Special subsidies for infrastructure construction expenses in Yantai City	Income-related	14,005	Other income	14,005
Chongqing Yuzhong District Carbon Neutrality Public Service Platform Project	Income-related	10,720	Other income	10,720
Special subsidies from the Jiangbei District Government	Income-related	10,000	Other income	10,000
Fiscal supporting funds from Luodian Town People's Government	Income-related	10,000	Other income	10,000
Enterprise development funds from Beijing Miyun District	Income-related	6,394	Other income	6,394
Special fund for scientific and technological innovation of Chongqing High-tech Zone	Income-related	6,076	Other income	6,076
Others	Asset-related/ Income-related	324,558	Deferred income/Operating cost/Administrative expenses/Other income/Non-operating income/Research and development expenses	379,786
Total	/	501,200	/	545,862

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For the year ended 31 December 2022

VII. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

73. Government grants (Continued)

(2) During the reporting period, the Group has no returned government grants.

VIII. CHANGES OF THE SCOPE OF CONSOLIDATION

1. Business combinations not involving enterprises under common control

During the reporting period, the information on the Group's business combinations not involving enterprises under common control is as follows:

All amounts in RMB '000

Combining entity	Name of acquiree	Acquisition date	Ownership at the end of period (%)
MCC Real Estate Group Co., Ltd.	Zhuhai MCC Jianxin Investment Management Partnership (LP)	2022-03-31	50.99
MCC Real Estate Group Co., Ltd.	Guangzhou MCC Mingjie Real Estate Co., Ltd.	2022-03-31	100.00
MCC Real Estate Group Co., Ltd.	Tianjin MCC Mingrui Real Estate Co., Ltd.	2022-03-31	100.00
Nanjing Linjiang Old City Reconstruction and Investment Co., Ltd.	Nanjing MCC Zhenghuai Real Estate Co., Ltd.	2022-03-31	100.00
MCC Real Estate Group Co., Ltd.	Shijiazhuang MCC Mingguan Real Estate Development Co., Ltd.	2022-03-31	100.00
MCC Capital Engineering & Research Incorporation Limited	Hebei Jinghuan Expressway Co., Ltd.	2022-04-01	99.00
MCC South China Construction and Engineering Co., Ltd.	MCC South China (Shenzhen) Construction & Technology Innovation Co., Ltd.	2022-04-29	70.00
MCC Real Estate Group Co., Ltd.	Guangzhou MCC Minghui Real Estate Co., Ltd.	2022-08-29	100.00
China MCC20 Group Co., Ltd.	MCC Group (Shenzhen) Construction Development Co., Ltd.	2022-10-14	100.00
Shanghai Baoye Group Co., Ltd.	Shanghai Baoye Municipal Construction Development Co., Ltd.	2022-11-01	70.00
MCC Real Estate Group Co., Ltd.	Nanjing MCC Minghan Real Estate Co., Ltd.	2022-12-22	100.00
MCC Real Estate Group Co., Ltd.	Sanya MCC Minglan Development Co., Ltd.	2022-12-29	100.00
MCC Real Estate Group Co., Ltd.	Hangzhou MCC Mingjin Real Estate Development Co., Ltd.	2022-12-30	100.00
China MCC5 Group Co., Ltd.	Chengdu Yexingrunda New Building Materials Co., Ltd.	2022-12-30	51.00
Huatian Engineering & Technology Corporation, MCC	Huai'an Huaguang Construction Investment Co., Ltd.	2022-12-31	90.00

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VIII. CHANGES OF THE SCOPE OF CONSOLIDATION (CONTINUED)

1. Business combinations not involving enterprises under common control (Continued)

For the current period, the Group acquired the substantial control over entities listed above through cash, or through amending the partnership agreement. These entities were included in consolidation scope since the acquisition date.

The fair value and carrying amount of the identifiable assets and liabilities of companies listed above as at the dates of acquisition were as follows:

All amounts in RMB '000

Items	Fair value on the acquisition date	Carrying amount on the acquisition date
Cash and bank balances	357,852	357,852
Bills receivable	5,876	5,876
Accounts receivable	443,570	443,570
Prepayments	279,660	279,660
Other receivables	7,594,785	7,594,785
Inventories	28,418,438	28,048,599
Other current assets	791,937	791,937
Investment properties	604,083	604,083
Fixed assets	104,789	99,232
Right-of-use assets	5,585	5,585
Intangible assets	263,291	262,906
Long-term prepayments	15	15
Deferred tax assets	890	890
Other non-current assets	170,028	170,028
Accounts payable	(1,244,716)	(1,244,716)
Contract liabilities	(6,697,395)	(6,697,395)
Employee benefits payable	(405)	(405)
Taxes payable	(42,088)	(42,088)
Other payables	(22,959,718)	(22,959,718)
Non-current liabilities due within one year	(200,000)	(200,000)
Other current liabilities	(54,155)	(54,155)
Long-term borrowings	(2,584,595)	(2,584,595)
Lease liabilities	(4,639)	(4,639)
Deferred tax liabilities	(94,566)	(2,106)
Fair value of net identifiable assets on the acquisition date	5,158,522	4,875,201
Less: Non-controlling interests	101,704	
Add: Goodwill from purchases	(105,560)	
Including : Goodwill	1,162	
Other income	(106,722)	
Consideration of acquisition	4,951,258	Note

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VIII. CHANGES OF THE SCOPE OF CONSOLIDATION (CONTINUED)

1. Business combinations not involving enterprises under common control (Continued)

Note: Such amount includes the cash of RMB 306,591,000 paid by the Company for business combinations, fair values of Zhuhai MCC Jianxin Investment Management Partnership (LP), Guangzhou MCC Mingjie Real Estate Co., Ltd., Tianjin MCC Mingrui Real Estate Co., Ltd., Nanjing MCC Zhenghui Real Estate Co., Ltd., Shijiazhuang MCC Mingguan Real Estate Development Co., Ltd., Guangzhou MCC Minghui Real Estate Co., Ltd., Sanya MCC Minglan Development Co., Ltd., Nanjing MCC Minghan Real Estate Co., Ltd. and Hangzhou MCC Mingjin Real Estate Development Co., Ltd. owned by MCC Real Estate Group Co., Ltd. before the acquisition date in the amount of RMB 4,465,940,000, fair value of Hebei Jinghuan Expressway Co., Ltd. owned by MCC Capital Engineering & Research Incorporation Limited in the amount of RMB 130,295,000, fair value of Chengdu Yexingruna New Building Materials Co., Ltd. owned by China MCC5 Group Co., Ltd. in the amount of RMB 34,422,000, as well as fair value of Huai'an Huaguang Construction Investment Co., Ltd. owned by Huatian Engineering & Technology Corporation, MCC in the amount of RMB 14,010,000.

The operating results and cash flows of the above companies from the acquisition date till the end of period are listed as follows:

All amounts in RMB '000

Items	From the acquisition date till 31 December 2022
Operating revenue	5,680,741
Net profit	(271,293)
Net cash flows	146,637

Net cash received for acquisition of subsidiaries:

All amounts in RMB '000

Items	2022
Consideration for acquisition of subsidiaries	4,951,258
Cash and cash equivalents paid for acquisition of subsidiaries	244,529
Less: Cash and cash equivalents held by the acquiree	357,852
Net cash received for acquisition of subsidiaries	113,323

2. Change of consolidation scope for other reasons

For this reporting period, the Group did not invest and establish any important subsidiaries other than MCC Great Wall Investment Co., Ltd.

In September 2022, Central Research Institute of Building and Construction Co., Ltd., a subsidiary of the Company, transferred its 45% equity interest in Shenzhen Qianhai Public Safety Research Institute Co., Ltd. with a total consideration of RMB 4,591,000. The Group no longer has control over Shenzhen Qianhai Public Safety Research Institute Co., Ltd. and excluded it from the consolidation scope accordingly.

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IX. INTERESTS IN OTHER ENTITIES

1. Interests in subsidiaries

(1) The constitution of the Group

Details of subsidiaries of the Group:

Name of subsidiary	Place of business	Place of establishment/ incorporation	Business scope	Registered capital	Proportion of ownership interest/%		Method of obtaining interests in the subsidiary
					Direct	Indirect	
Central Research Institute of Building and Construction Co., Ltd.	China	Beijing	EPC	2,905,110	100.00	-	Invested by shareholders
Beijing Metallurgical Equipment Research Design Institute Co., Ltd.	China	Beijing	EPC	761,816	100.00	-	Invested by shareholders
China ENFI Engineering Co., Ltd.	China	Beijing	EPC	2,346,730	100.00	-	Invested by shareholders
MCC Capital Engineering & Research Incorporation Limited	China	Beijing	EPC	3,283,104	88.89	-	Invested by shareholders
CISDI Group Co., Ltd.	China	Chongqing	EPC	2,300,000	100.00	-	Invested by shareholders
WISDRI Engineering & Research Incorporation Limited	China	Wuhan	EPC	3,350,000	83.08	-	Invested by shareholders
Huatian Engineering & Technology Corporation, MCC	China	Ma'anshan	EPC	823,259	85.10	-	Invested by shareholders
ACRE Coking & Refractory Engineering Consulting Corporation, MCC	China	Anshan	EPC	1,296,600	87.81	-	Invested by shareholders
Zhong Ye Chang Tian International Engineering Co., Ltd.	China	Changsha	EPC	677,301	92.61	-	Invested by shareholders
Northern Engineering & Technology Corporation, MCC	China	Anshan	EPC	528,511	91.26	-	Invested by shareholders
Shen Kan Engineering & Technology Corporation, MCC	China	Shenyang	Investigation, design	346,264	100.00	-	Invested by shareholders
Wuhan Surveying Geotechnical Research Institute Co., Ltd. of MCC	China	Wuhan	Investigation, design	500,000	100.00	-	Invested by shareholders

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IX. INTERESTS IN OTHER ENTITIES (CONTINUED)

1. Interests in subsidiaries (Continued)

(1) The constitution of the Group (Continued)

Details of subsidiaries of the Group (Continued):

Name of subsidiary	Place of business	Place of establishment/ incorporation	Business scope	Registered capital	Proportion of ownership interest/(%)		Method of obtaining interests in the subsidiary
					Direct	Indirect	
China First Metallurgical Group Co., Ltd.	China	Wuhan	Engineering contracting	2,019,027	98.26	-	Invested by shareholders
China Second Metallurgical Group Co., Ltd.	China	Baotou	Engineering contracting	1,500,000	100.00	-	Invested by shareholders
China MCC 3 Group Co., Ltd.	China	Anshan	Engineering contracting	1,500,000	100.00	-	Invested by shareholders
China MCC 5 Group Co., Ltd.	China	Chengdu	Engineering contracting	5,004,178	98.58	-	Invested by shareholders
MCC TianGong Group Corporation Limited	China	Tianjin	Engineering contracting	2,050,000	98.53	-	Invested by shareholders
China MCC 17 Group Co., Ltd.	China	Ma'anshan	Engineering contracting	2,050,000	72.39	-	Invested by shareholders
China Metallurgical Construction Engineering Group Co., Ltd.	China	Chongqing	Engineering contracting	2,100,000	100.00	-	Invested by shareholders
China MCC 19 Group Co., Ltd.	China	Panzhuhua	Engineering contracting	3,010,000	100.00	-	Invested by shareholders
China MCC 20 Group Co., Ltd.	China	Shanghai	Engineering contracting	2,050,000	73.14	-	Invested by shareholders
China 22MCC Group Co., Ltd.	China	Tangshan	Engineering contracting	2,780,000	100.00	-	Invested by shareholders
Shanghai Baoye Group Co., Ltd.	China	Shanghai	Engineering contracting	5,285,230	97.93	0.80	Invested by shareholders
China Huaye Group Co., Ltd.	China	Beijing	Engineering contracting	1,434,900	100.00	-	Invested by shareholders
MCC Baosteel Technology Services Co., Ltd.	China	Shanghai	Repair work	1,200,000	59.65	20.69	Invested by shareholders
MCC Communication Construction Group Co., Ltd.	China	Beijing	Infrastructure contractor	9,312,258	100.00	-	Invested by shareholders
MCC (Guizhou) Construction Investment Development Co., Ltd.	China	Guizhou	Engineering contracting	1,000,000	100.00	-	Established through investments
MCC Road&Bridge Construction Co., Ltd.	China	Inner Mongolia	Engineering contracting	2,000,000	100.00	-	Established through investments
MCC Zhongyuan Construction Investment Co., Ltd.	China	Zhengzhou	Engineering contracting	500,000	100.00	-	Established through investments
MCC Integrated Pipe Network Technology & Development Co., Ltd.	China	Baoding	Project contracting, Integrated pipe network technology development	200,000	100.00	-	Established through investments
MCC South China Construction Investment Co., Ltd.	China	Shenzhen	Engineering contracting	500,000	51.00	-	Established through investments

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IX. INTERESTS IN OTHER ENTITIES (CONTINUED)

1. Interests in subsidiaries (Continued)

(1) The constitution of the Group (Continued)

Details of subsidiaries of the Group (Continued):

Name of subsidiary	Place of business	Place of establishment/ incorporation	Business scope	Registered capital	Proportion of ownership interest (%)		Method of obtaining interests in the subsidiary
					Direct	Indirect	
MCC (Hainan) Investment Development Co., Ltd.	China	Hainan	Engineering consulting, Investment management, etc.	100,000	60.00	39.30	Established through investments
MCC Urban Investment Holding Co., Ltd.	China	Guangdong	Engineering consulting, Investment management, etc.	1,000,000	60.00	-	Established through investments
MCC (Yunnan) Engineering Investment and Construction Co., Ltd.	China	Yunnan	Engineering contracting	250,000	60.00	-	Established through investments
MCC Fujian Investment and Construction Co., Ltd.	China	Fujian	Engineering contracting	1,000,000	60.00	-	Established through investments
MCC (Shanghai) Steel Structure Technology Co., Ltd.	China	Shanghai	Engineering contracting	1,000,000	42.56	54.79	Investment by shareholders
MCC Ecological Environmental Protection Group Co., Ltd.	China	Beijing	Water resource management	3,000,000	12.20	80.06	Established through investments
MCC Great Wall Investment Co., Ltd.	China	Beijing	Investment management	15,000,000	100.00	-	Established through investments
MCC Real Estate Group Co., Ltd. <i>(Note 1)</i>	China	Beijing	Property development	5,000,000	100.00	-	Investment by shareholders
MCC Tongsin Resources Ltd.	Pakistan	British Virgin Islands	Resource development	2,830,103	100.00	-	Investment by shareholders
MCC Australia Holding Pty Ltd.	Australia	Australia	Resource development	49,016	100.00	-	Investment by shareholders
MCC-JJJ Mining Development Company Limited	China	Beijing	Resource development	3,095,703	67.02	-	Investment by shareholders
Ramu NiCo Management (MCC) Ltd.	Papua New Guinea	Papua New Guinea	Nickel cobalt ore mining and smelting	3	100.00	-	Investment by shareholders
MCC Finance Corporation Ltd. <i>(Note 2)</i>	China	Beijing	Finance	1,800,000	86.13	12.48	Investment by shareholders
MCC Financial Leasing Co., Ltd.	China	Zhuhai	Finance lease	1,000,000	51.00	49.00	Established through investments
MCC International Incorporation Ltd.	China	Beijing	Engineering contracting	100,000	100.00	-	Investment by shareholders
MCC Overseas Ltd.	China	Beijing	Engineering contracting	429,126	100.00	-	Investment by shareholders
MCC Vietnam Engineering Technology Co., Ltd.	Vietnam	Vietnam	Engineering contracting	-	100.00	-	Established through investments
China MCC International Economic and Trade Co., Ltd.	China	Shanghai	Trading	120,000	54.58	40.89	Investment by shareholders

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IX. INTERESTS IN OTHER ENTITIES (CONTINUED)

1. Interests in subsidiaries (Continued)

(1) The constitution of the Group (Continued)

Details of subsidiaries of the Group (Continued):

Name of subsidiary	Place of business	Place of establishment/ incorporation	Business scope	Registered capital	Proportion of ownership interest/(%)		Method of obtaining interests in the subsidiary
					Direct	Indirect	
MCC Holding (Hong Kong) Corporation Limited	China	Hong Kong, China	Others	6,485	100.00	-	Established through investments
MCC-SFRE Heavy Industry Equipment Co., Ltd.	China	Xi'an	Manufacture of metallurgy equipment	1,286,000	71.47	-	Investment by shareholders
Western Australia	Australia	Australia	Resource development	124,382	100.00	-	Investment by shareholders
China 13th Metallurgical Construction Corporation	China	Taiyuan	Engineering contracting	111,663	100.00	-	Investment by shareholders
Tianjin United Huitong Investment Partnership (Limited Partnership)	China	Tianjin	Investment with own funds	5,000,200	20.00	-	Established through investments
Tianjin United Huixin Investment Partnership (Limited Partnership)	China	Tianjin	Investment with own funds	7,500,200	20.00	-	Established through investments
Tianjin Hongxin Investment Partnership (Limited Partnership)	China	Tianjin	Investment with own funds	7,500,200	20.00	-	Established through investments

Note 1: At 31 December 2022, except for the Company and MCC Real Estate Group Co., Ltd., other subsidiaries have not issued any bond. None of the subsidiaries of the Company has issued share capital.

Note 2: On 24 December 2021, the resolution of the dissolution and liquidation of MCC Finance Corporation Ltd was passed in the No.33 meeting of the third Board of Directors. After the dissolution in 2023, the number of subsidiaries included in the consolidated financial statements will reduce by one.

(a) The grounds for controlling the investees of which the Group is holding half or less than half of the equity interest, and the grounds for not controlling the investees of which the Group is holding more than half of the equity interest

(i) The grounds for controlling the investees of which the Group is holding half or less than half of the equity interest

The Group has several investees in which it holds half or less than half of equities, and these investees are incorporated in the scope of consolidation of the Group, mainly in accordance with shareholder agreements, the rules of procedures for the articles of association of investees or agreements of shareholding entrustment and other arrangements, the Group has the control over these investees.

(ii) The grounds for not controlling the investees in which the Group holds more than half of the equity interest

The Group has several investees in which it holds more than half of equities. As there is a consistent action arrangement between the Group and another shareholder, and that shareholder has one vote with the right to veto or can determine independently the investees' related activities, the Group has no control over the investees, but it has the joint control or can exercise significant influence over the investees, therefore the investees are accounted for and managed as joint ventures or associates.

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IX. INTERESTS IN OTHER ENTITIES (CONTINUED)

1. Interests in subsidiaries (Continued)

(2) Material non-controlling interests

All amounts in RMB '000

Company name	Proportion of equity interest held by non-controlling interests (%)	Comprehensive income attributable to non-controlling interests in the current year	Declaration of cash dividends to non-controlling interests in the current year	Non-controlling interests at the end of the year
WISDRI Engineering & Research Incorporation Limited	16.92	331,665	53,898	2,376,508
China MCC 17 Group Co., Ltd.	27.61	386,242	–	2,017,175
China MCC 20 Group Co., Ltd.	26.86	76,092	115,059	1,410,907
MCC Ecological Environmental Protection Group Co., Ltd.	7.74	121,232	–	1,051,366
MCC Baosteel Technology Services Co., Ltd.	19.66	150,874	40,990	989,268
Huatian Engineering & Technology Corporation, MCC	14.90	15,585	5,009	634,176

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IX. INTERESTS IN OTHER ENTITIES (CONTINUED)

1. Interests in subsidiaries (Continued)

(2) Material non-controlling interests (Continued)

The following tables provide significant financial information of significant non-wholly owned subsidiaries. All amounts are before elimination:

All amounts in RMB '000

Name of subsidiary	31 December 2022						31 December 2021					
	Current assets	Non-current assets	Total assets	Current liabilities	Non-current liabilities	Total liabilities	Current assets	Non-current assets	Total assets	Current liabilities	Non-current liabilities	Total liabilities
WISDRI Engineering & Research Incorporation Limited	23,045,904	4,799,719	27,845,623	18,168,538	228,908	18,397,446	22,798,675	4,561,157	27,359,832	18,858,563	282,350	19,140,913
China MCC 17 Group Co., Ltd.	22,248,409	5,717,001	27,965,410	18,668,602	2,002,846	20,671,448	20,115,624	3,882,694	23,998,318	17,128,548	974,664	18,103,212
China MCC 20 Group Co., Ltd.	28,118,751	4,290,470	32,409,221	26,623,150	572,111	27,195,261	27,167,913	3,595,518	30,763,431	24,919,231	486,823	25,406,054
MCC Ecological Environmental Protection Group Co., Ltd.	1,685,956	4,277,250	5,963,206	1,713,485	1,289,061	3,002,546	1,292,602	4,094,049	5,386,651	1,459,663	1,461,142	2,920,805
MCC Baosteel Technology Services Co., Ltd.	6,682,923	1,166,658	7,849,581	2,798,865	106,877	2,905,742	6,114,306	1,048,479	7,162,785	2,737,624	101,718	2,839,342
Huatian Engineering & Technology Corporation, MCC	5,464,168	5,524,436	10,988,604	5,878,944	2,621,299	8,500,243	6,264,996	4,946,277	11,211,273	5,979,100	2,796,325	8,775,425

All amounts in RMB '000

Name of subsidiary	2022				2021			
	Operating revenue	Net profit	Total comprehensive income	Cash flows from operating activities	Operating revenue	Net profit	Total comprehensive income	Cash flows from operating activities
WISDRI Engineering & Research Incorporation Limited	28,247,086	1,449,504	1,439,390	866,922	21,121,687	1,020,963	1,011,043	1,157,235
China MCC 17 Group Co., Ltd.	48,330,569	1,405,624	1,398,855	1,262,369	40,180,580	1,154,597	1,153,128	1,196,435
China MCC 20 Group Co., Ltd.	45,897,412	208,159	287,123	1,065,873	38,725,988	204,330	231,017	1,690,918
MCC Ecological Environmental Protection Group Co., Ltd.	1,559,226	330,066	330,066	524,752	1,582,490	316,071	316,071	231,507
MCC Baosteel Technology Services Co., Ltd.	8,095,610	758,830	764,664	561,095	7,312,290	641,322	640,538	521,667
Huatian Engineering & Technology Corporation, MCC	6,094,715	73,048	77,722	101,813	4,548,736	58,575	57,809	193,895

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IX. INTERESTS IN OTHER ENTITIES (CONTINUED)

2. Interests in joint ventures and associates

(1) Details of the Group's material joint ventures and associates

All amounts in RMB '000

Name of joint ventures and associates	Principal place of operation	Place of establishment	Principal activities	Registered capital	Proportion of ownership interest held by the Group		Accounting method
					Direct(%)	Indirect(%)	
Guizhou Sanli Highway Construction Co., Ltd.	China	Qiannan Buyei and Miao Autonomous Prefecture	Highway investment and development	2,832,800	59.95	-	Equity method
Guizhou Ziwang Highway Construction Co., Ltd.	China	Anshun	Highway investment and development	3,190,000	59.96	-	Equity method
Guizhou Sanshi Highway Construction Co., Ltd.	China	Qiandongnan Miao and Dong Autonomous Prefecture	Highway investment and development	1,584,375	59.90	-	Equity method
Chongqing Yuxiang Double Track Expressway Co., Ltd.	China	Chongqing	Highway investment and development	500,000	4.99	-	Equity method
Zhuhai Hengqin Headquarters Building Development Co., Ltd.	China	Zhuhai	Property investment and development	1,000,000	51.00	-	Equity method
Yinchuan Huaiyuan Road Integrated Pipe Network Construction and Management Co., Ltd.	China	Yinchuan	Construction and operation of comprehensive pipe network	348,229	70.00	-	Equity method
Zhongshan MCC Cuicheng Street Integrated Pipe Network Co., Ltd.	China	Zhongshan	Construction and operation of comprehensive pipe network	300,000	60.00	-	Equity method
Beijing City Vice-Center Investment Fund Partnership (Limited Partnership)	China	Beijing	Investment management	14,410,000	13.88	-	Equity method
Shigang Jingcheng Equipment Development and Manufacturing Co., Ltd.	China	Yingkou	Special steel production and equipment manufacturing	3,166,297	48.96	-	Equity method
Yunnan Mangliang Expressway Investment and Development Co., Ltd.	China	Mangshi	Highway investment and development	100,000	39.97	-	Equity method
Chongqing Yunkai Expressway Co., Ltd.	China	Chongqing	Highway investment and development	100,000	30.00	-	Equity method
Lanzhou Lianhuo Highway Qingzhong Section Construction and development Co., Ltd.	China	Lanzhou	Highway investment and development	500,000	17.00	-	Equity method
Tangshan Stainless Steel Co., Ltd.	China	Tangshan	Smelting and pressing of ferrous metals	2,080,000	23.89	-	Equity method
Hebei Steel Luan County Sijiyang Iron Ore Co., Ltd.	China	Tangshan	Processing of ferrous metal ores	563,710	14.45	-	Equity method
Xiamen International Trade Exhibition Center Co., Ltd.	China	Xiamen	Conference and exhibition services	3,120,000	26.00	-	Equity method
Hangzhou Fuchunwan Baofu Construction & Management Co., Ltd.	China	Hangzhou	Construction project construction	200,000	30.00	-	Equity method

The Group has no significant interest in any single joint venture or associate above.

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IX. INTERESTS IN OTHER ENTITIES (CONTINUED)

2. Interests in joint ventures and associates (Continued)

(1) Details of the Group's material joint ventures and associates (Continued)

(a) The grounds for having common control or significant influence over the investees while holding less than 20% of the voting rights, and the grounds for not having significant influence over the investees while holding 20% or more of the voting rights in the investees.

(i) The grounds for having common control or significant influence over the investees while holding less than 20% of the voting rights.

The Group has several investees in which it holds less than 20% of equities but has the joint control or significant influence over the investees. As the Group has assigned directors of the board of directors of the investees, the Group has the joint control or can exercise significant influence over the investees, therefore the investees are accounted for and managed as joint ventures or associates.

(ii) The grounds for not having significant influence over the investees while holding 20% or more of the voting rights in the investees.

The Group has several investees in which it holds more than 20% of equities but has no joint control or significant influence over the investees. As the Group has neither assigned directors of the board of directors of the investees, nor involved in or influenced the financial and operating decisions or normal operating activities of the investees in any other forms, so these investees are not accounted for and managed as joint ventures or associates.

(2) Summarized financial information of material joint ventures and associates

All amounts in RMB '000

Items	31 December 2022/Amount recognized in the current year	31 December 2021/Amount recognized in the prior year
Joint ventures		
Total carrying amount	8,393,806	6,656,880
The Group's share of the following items		
– Net profits/(losses)	24,721	(98,079)
– Other comprehensive income	(27)	1
– Total comprehensive income	24,694	(98,078)
Associates		
Total carrying amount	23,469,889	23,671,886
The Group's share of the following items		
– Net profits/(losses)	152,991	(32,973)
– Other comprehensive income	(47,736)	41,759
– Total comprehensive income	105,255	8,786

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For the year ended 31 December 2022

IX. INTERESTS IN OTHER ENTITIES (CONTINUED)

2. Interests in joint ventures and associates (Continued)

- (3) In the reporting period, there were no significant restrictions on the realization of long-term equity investments, or on the remittance of cash arising from the investment income in joint ventures and associates.

3. Equity in structured entities included in the consolidated financial statements

As at 31 December 2022, the total amount of main structured entities included in the consolidated financial statements of the Group was approximately RMB 36,275,680,000, of which the amount subscribed by the Group was approximately RMB 12,171,120,000. As at 31 December 2022, the amount paid by the Group was approximately RMB 8,380,234,000, and the amount paid by other investors was approximately RMB 20,176,858,000, of which approximately RMB 16,000,000,000 was accounted for in minority interests, approximately RMB 3,800,000,000 was accounted for in other payables and approximately RMB 376,858,000 was accounted for in the long-term payables. The Group has no obligation or intention to provide financial support to these structured entities.

4. Equity in structured entities not included in the consolidated financial statements

As at 31 December 2022, the Group has cumulatively issued asset-backed securities and asset-backed notes of RMB 30,155,100,000, and the subordinated tranches of the related asset-backed securities and asset-backed notes were RMB 1,507,755,000. For the purpose of liquidity, the Company is obligated to make up the difference between the principal and fixed income of senior asset-backed securities and asset-backed notes in the amount of RMB 28,647,345,000 and the distributable funds of the special asset-backed securities plan and asset-backed note trust in each phase. These special plans and trusts are not consolidated as the Group does not hold inferior shares and the probability of future liquidity supplement is assessed to be low.

As at 31 December 2022, the total amount of main structured entities not included in the consolidated financial statements participated by certain subsidiaries of the Group was approximately RMB 55,182,656,000, of which approximately RMB 6,396,402,000 was subscribed by the Group and approximately RMB 48,786,254,000 was subscribed by other investors. Such structured entities were not consolidated as the Group does not have control over them. As at 31 December 2022, the Group's paid-in amount was approximately RMB 4,528,191,000, of which approximately RMB 317,540,000 was accounted for in long-term equity investments and approximately RMB 4,210,651,000 was accounted for in other non-current financial assets. The Group's maximum exposure to these structured entities is the Group's paid-in capital contribution as of the balance sheet date. The Group has no obligation or intention to provide financial support to these structured entities.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

X. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

1. Financial instruments by category

Carrying amounts of each category of financial instruments at the balance sheet date are as follows:

31 December 2022

(1) Financial assets

All amounts in RMB '000

Items	Financial assets at fair value through profit or loss Required by the standard	Financial assets at amortised cost	Financial assets at fair value through other comprehensive income		Total
			Required by the standard	Designated	
Cash and bank balances	-	45,485,413	-	-	45,485,413
Financial assets held for trading	178,026	-	-	-	178,026
Bills receivable	-	5,127,425	-	-	5,127,425
Accounts receivable	-	93,439,673	-	-	93,439,673
Receivables at FVTOCI	-	-	10,346,388	-	10,346,388
Other receivables	-	48,071,717	-	-	48,071,717
Non-current assets due within one year	-	4,896,108	-	-	4,896,108
Long-term receivables	-	35,841,643	-	-	35,841,643
Investments in other equity instruments	-	-	-	939,925	939,925
Other non-current financial assets	4,477,895	-	-	-	4,477,895
Total	4,655,921	232,861,979	10,346,388	939,925	248,804,213

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For the year ended 31 December 2022

X. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT (CONTINUED)

1. Financial instruments by category (Continued)

(2) Financial liabilities

All amounts in RMB '000

Items	Financial liabilities at fair value through profit or loss Required by the standard	Financial liabilities at amortised cost	Total
Short-term borrowings	–	20,192,878	20,192,878
Derivative financial liabilities	200,670	–	200,670
Bills payable	–	37,186,380	37,186,380
Accounts payable	–	187,160,134	187,160,134
Other payables	–	28,228,858	28,228,858
Non-current liabilities due within one year	–	11,376,511	11,376,511
Long-term borrowings	–	28,840,673	28,840,673
Bonds payable	–	1,300,000	1,300,000
Long-term payables	–	615,009	615,009
Total	200,670	314,900,443	315,101,113

2. Transfer of financial assets

Details are set out in Note VII 4(3), Note VII 5(5) and Note VII 6.

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For the year ended 31 December 2022

X. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT (CONTINUED)

3. Financial instruments and risk management

The Group's operating activities expose to a variety of financial risks: market risk (mainly including foreign exchange risk and interest rate risk), credit risk and liquidity risk. Management monitors these exposures to ensure appropriate measures are implemented in a timely and effective manner to address the uncertainty of financial market and to reduce the potential negative impact on the operating results of the Group.

(1) Market risk

(a) Foreign exchange risks

The functional currency of a majority of the entities within the Group is RMB and most of the transactions are settled in RMB. However, there are also foreign currencies denominated transactions. The Group's exposure to foreign exchange risk relates principally to United States Dollars ("USD"). To monitor the impact of exchange rate fluctuations, the Group continually assesses and monitors its exposure to foreign exchange risk. Management continuously monitors foreign exchange exposure and will prudently consider hedging significant foreign exchange exposure should the need arises. The Group uses foreign exchange forward contracts and currency swap contracts to offset part of the foreign exchange risk. The management is of the view that the reasonable fluctuation of the exchange rate in the near future will not have a significant impact on the operating results of the Group.

Details of the Group's foreign currencies denominated financial assets and financial liabilities (amount translated into RMB) as at 31 December 2022 are set out in Note VII 72.

As at 31 December 2022, for financial assets and financial liabilities in foreign currencies, mainly influenced by the exchange rate of RMB against USD, if RMB had strengthened/weakened by 5% against USD with all other variables held constant, the profit after tax of the Group would have been approximately RMB 361,774,000 lower/higher (as at 31 December 2021: RMB 239,769,000 lower/higher).

FINANCIAL STATEMENTS

For the year ended 31 December 2022

X. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT (CONTINUED)

3. Financial instruments and risk management (Continued)

(1) Market risk (Continued)

(b) Interest rate risk

The interest bearing debts at fixed rates expose the Group to fair value interest-rate risk, relating to bank borrowings at fixed rates and bonds payable at fixed rates, etc. The differences between the fair values and the carrying amounts of the above fixed rate financial instruments are set out in Note XI 2.

The interest bearing debts at floating rates expose the Group to cash flow interest-rate risk. The Group chooses the relative proportion of borrowing contracts with floating rates and those with fixed rates according to current market conditions. As at 31 December 2022, short-term borrowings of the Group were RMB 20,192,878,000 (as at 31 December 2021: RMB 21,395,848,000); long-term interest bearing debts at floating rates due within one year were RMB 4,436,303,000 (as at 31 December 2021: RMB 4,164,775,000); long-term interest bearing debts at floating rates due over one year were RMB 16,016,610,000 (as at 31 December 2021: RMB 13,410,306,000); long-term interest bearing debts at fixed rates due within one year were RMB 7,062,879,000 (as at 31 December 2021: RMB 8,626,049,000); and long-term interest bearing debts at fixed rates due over one year were RMB 14,693,063,000 (as at 31 December 2021: RMB 12,511,372,000) (Notes VII 26, 35, 37, 38, 39).

The treasury department of the headquarters of the Group continually monitors the level of interest rates. Any rise in interest rate would increase the cost of new borrowings and interest installments of existing loans with floating interest arrangements and generate significant negative financial effects on the Group's overall financial performance. The management would make timely strategic adjustments according to latest market conditions; the adjustments of reducing interest rate risk may include the interest rate swap arrangement included in the Group's currency swap contracts during the reporting year.

During the current year, if the respective interest rates on RMB-denominated floating-rate borrowings had been 100 basis points higher/lower with all other variables held constant and no interest capitalization involved, profit after income tax of the Group would have been RMB 212,194,000 lower/higher (2021: approximately RMB 222,399,000).

During the current year, if the interest rates on USD and other foreign currency-denominated floating-rate borrowings had been 100 basis points higher/lower with all other variables held constant, profit after income tax of the Group would have been RMB 17,113,000 lower/higher (2021: approximately RMB 78,762,000).

FINANCIAL STATEMENTS

For the year ended 31 December 2022

X. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT (CONTINUED)

3. Financial instruments and risk management (Continued)

(2) Credit risk

As at 31 December 2022, the Group's maximum exposure to credit risk which could cause a financial loss to the Group due to failure to discharge an obligation by the counterparties is arising from: the carrying amount of bank deposits, bills receivable and accounts receivable, contract assets, other receivables and long-term receivables recognized in the balance sheet of the Group.

To reduce credit risk, the Group has policies in place to ensure that services are rendered and products are sold to customers with appropriate credit history and the Group performs periodic credit evaluations of its customers according to their financial conditions, the likelihood of obtaining guarantee from the third party, credit history and others such as the current market conditions. The Group regularly monitors its customers' credit history, and for customers with bad credit history, the Group shall issue reminder notices, shorten or cancel the credit period to make sure that the Group's overall credit risk is under control.

The credit risk on the bank deposits of the Group is limited because they are deposited with national banks and other large and medium listing banks.

In addition, external guarantees incurred by the Group may also result in financial losses. As at 31 December 2022, the Group's external guarantee refers to Note XIII 2(1) (b).

In addition to separately determining the credit loss of individual amounts with significant credit impairment incurred, the Group evaluates the expected credit loss of receivables by using an impairment matrix on a portfolio basis. The Group's accounts receivable involve a large number of customers, and the aging information can reflect the solvency of these customers. The Group divided accounts receivable into several portfolios based on the credit risk characteristics of different types of customers, calculated the historical actual loss rate of every portfolio in different ages according to the historical data, and then adjusted the expected credit loss rate after considering the current and future economic forecast, such as national GDP growth, consumer price index and other forward-looking information. For contract assets and long-term receivables, the Group reasonably evaluates the expected credit loss after considering the settlement period, the payment period of the contract, the financial position and the economic situation of the debtor and considering the above forward-looking information. For other financial assets, the Group calculates the expected credit loss rate through its default exposure and the rate of expected credit loss over the next 12 months or for the entire duration.

Please refer to Note V 10(2) in respect of the specific methods to assess whether the credit risk has been increased remarkably since initial recognition, the basis to determine whether a credit impairment has happened to the financial assets, the combination methods to divide the financial instruments in a combination as base assessment of anticipated credit risk, and the policies to write down the financial instruments directly.

The Group's risk exposure is distributed among multiple contract parties and multiple customers, so the Group has no significant credit concentration risk. As of 31 December 2022, the five largest accounts receivable and other receivables of the Group's balances owed by the arrears are shown in Note VII 5(4) and Note VII 8(4)(d).

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For the year ended 31 December 2022

X. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT (CONTINUED)

3. Financial instruments and risk management (Continued)

(3) Liquidity risk

Subsidiaries of the Group take responsibility of their own cash flow forecast. On the basis of summarizing cash flow forecasts from subsidiaries, the treasury department at the headquarters continuously monitors both short-term and long-term financing needs on the Group level in order to obtain adequate cash reserve and quoted securities. Meanwhile, the treasury department will constantly monitor any non-compliance of borrowings and obtain sufficient loan facilities from major financial institutions to meet both short-term and long-term financing needs.

Analysis of the maturity profile of financial liabilities and lease liabilities of the Group based on the undiscounted remaining contractual obligations as at 31 December 2022 were as follows:

All amounts in RMB '000

Items	Within 1 year	1 to 2 years	2 to 5 years	Over 5 years	Total
Financial liabilities					
Short-term borrowings	20,508,415	–	–	–	20,508,415
Derivative financial liabilities	200,670	–	–	–	200,670
Bills payable	37,186,380	–	–	–	37,186,380
Accounts payable	187,160,134	–	–	–	187,160,134
Other payables	28,228,858	–	–	–	28,228,858
Non-current liabilities due within one year	13,384,816	–	–	–	13,384,816
Long-term borrowings	–	9,703,539	13,411,864	9,163,386	32,278,789
Bonds payable	–	62,270	1,315,568	–	1,377,838
Lease liabilities	–	157,829	251,272	165,867	574,968
Long-term payables	–	37,293	97,838	444,435	579,566
Total	286,669,273	9,960,931	15,076,542	9,773,688	321,480,434

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For the year ended 31 December 2022

X. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT (CONTINUED)

4. Capital management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares and other equity instruments, or sell assets to reduce debt.

The Group monitors capital on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as the total borrowings (including short-term borrowings, long-term borrowings, bonds payable and lease liabilities) less cash and cash equivalents. Total capital is calculated as "equity" as shown in the consolidated balance sheet, plus net debt. The Group aims to maintain the gearing ratio at a reasonable level.

The gearing ratios of the Group as at 31 December 2022 and 31 December 2021 are as follows:

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Total borrowings:		
Short-term borrowings (Note VII 26)	20,192,878	21,395,848
Long-term borrowings (inclusive of those due within one year) (Note VII 37)	39,822,037	37,382,197
Bonds payable (inclusive of those due within one year) (Note VII 38)	1,575,862	802,334
Lease liabilities (inclusive of those due within one year) (Note VII 39)	810,956	527,971
Less: Cash and cash equivalents (Note VII 70(3))	33,468,217	31,216,824
Net debt	28,933,516	28,891,526
Shareholders' equity	161,909,125	151,387,759
Total capital	190,842,641	180,279,285
The gearing ratio	15.16%	16.03%

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For the year ended 31 December 2022

XI. FAIR VALUE DISCLOSURES

1. Fair value of the Group's financial assets and financial liabilities that are measured at fair value at the end of the year

All amounts in RMB '000

Items	Fair value as at 31 December 2022			Total
	Level 1 of the fair value hierarchy(a)	Level 2 of the fair value hierarchy(b)	Level 3 of the fair value hierarchy(c)(d)	
Assets that are measured at fair value on a recurring basis				
Financial assets held for trading				
– Investments in equity instruments	1,514	–	176,512	178,026
Other non-current financial assets				
– Investments in unquoted funds and trust products	–	4,397,366	–	4,397,366
– Others	–	–	80,529	80,529
Receivables at FVTOCI	–	10,346,388	–	10,346,388
Investments in other equity instruments				
– Listed equity investments	280,999	–	–	280,999
– Unlisted equity investments	–	–	658,926	658,926
TOTAL	282,513	14,743,754	915,967	15,942,234
Liabilities that are measured at fair value on a recurring basis				
Derivative financial liabilities	–	200,670	–	200,670
TOTAL	–	200,670	–	200,670

(a) *The basis of market prices determined on level 1 of the fair value hierarchy*

Fair values of held-for-trading financial assets and non-tradable equity instruments of listed companies regarded as investments in other equity instruments are based on their closing prices of publicly traded market on the last trading day of the reporting period.

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XI. FAIR VALUE DISCLOSURES (CONTINUED)

1. Fair value of the Group's financial assets and financial liabilities that are measured at fair value at the end of the year (Continued)

(b) *Qualitative and quantitative information of valuation techniques and key inputs on level 2 of the fair value hierarchy*

Items	Valuation techniques	Key inputs
Other non-current financial assets – Investments in unquoted funds and trust products	Discounted cash flow method	Average yield rate of similar products of the same term
Derivative financial instruments	Discounted cash flow method	The forward rate
Receivables at FVTOCI	Discounted cash flow method	Discounting rate of bank acceptance for the same period

(c) *Qualitative and quantitative information of valuation techniques and key inputs on level 3 of the fair value hierarchy*

Items	Valuation techniques	Key inputs
Financial assets held for trading-Unlisted equity investments, – other equity instrument investments – Investments in non-trading equity instruments in unlisted companies, other non-current financial assets – Investments in unquoted fund and trust products and others	Cost method/ Market method/ Income method	Future cash flows, discount rate and key financial ratios of comparable listed companies of the same industry

(d) *Reconciliation information of the opening balance and the closing balance on level 3 of the fair value hierarchy*

All amounts in RMB '000

Items	31 December 2021	Additions for the period	Fair value changes for the current year	Disposal for the year	31 December 2022
Financial assets held for trading – Non listed equity investments	–	176,512	–	–	176,512
Other equity instrument investments – Investments in non-trading equity instruments in unlisted companies	485,398	255,324	(11,814)	(69,982)	658,926
Other non-current financial assets – Non listed equity investments	78,263	–	2,266	–	80,529

There was no transfer between any levels of the fair value hierarchy in the reporting period. There was no change in the valuation techniques in the reporting period.

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XI. FAIR VALUE DISCLOSURES (CONTINUED)

2. Fair value of financial assets and financial liabilities that are measured at fair value on a non-recurring basis

Bills receivables, accounts receivables, other receivables, long-term receivables, non-current assets due within one year, short-term borrowings, bills payables, accounts payables, other payables, long-term borrowings, bonds payable, long-term payables and non-current liabilities due within one year included in the financial assets/liabilities are measured at fair value on a non-recurring basis.

Except for the items listed in the table below, the Group considers that the fair value of the financial assets and liabilities measured at amortized cost method are approximate to their carrying amounts.

All amounts in RMB '000

Items	Carrying amount as at 31 December 2022	Fair value as at 31 December 2022			Total
		Level 1 of the fair value hierarchy	Level 2 of the fair value hierarchy(a)	Level 3 of the fair value hierarchy	
Financial liabilities measured at amortized cost:	20,944,986	-	20,915,870	-	20,915,870
Long-term borrowings at fixed interest rate	19,369,124	-	19,332,677	-	19,332,677
Bonds payable at fixed interest rate	1,575,862	-	1,583,193	-	1,583,193

All amounts in RMB '000

Items	Carrying amount as at 31 December 2021	Fair value as at 31 December 2021			Total
		Level 1 of the fair value hierarchy	Level 2 of the fair value hierarchy(a)	Level 3 of the fair value hierarchy	
Financial liabilities measured at amortized cost:	20,609,450	-	20,193,548	-	20,193,548
Long-term borrowings at fixed interest rate	19,807,116	-	19,389,698	-	19,389,698
Bonds payable at fixed interest rate	802,334	-	803,850	-	803,850

(a) Quantitative information determined in accordance with the level 2:

Items	Valuation techniques	Key inputs
Long-term borrowings at fixed interest rate	Discounted cash flow method	Benchmark lending rate with corresponding maturity released by the People's Bank of China
Bonds payable at fixed interest rate	Discounted cash flow method	Benchmark lending rate with corresponding maturity released by the People's Bank of China

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XII. RELATED PARTIES AND TRANSACTIONS

1. Details of the parent company of the Company

All amounts in RMB '000

Parent Company Name	Place of registration	Principal activities	Registered capital	Percentage of ownership interest in the Company (%)	Percentage of voting rights in the Company (%)
China Metallurgical Group Corporation	Beijing	Engineering contracting, property development, equipment manufacture, resource development and others	10,338,556	49.18	49.18

As stated in Note III, CMC together with its other subsidiaries other than the Company are the Group's related party.

Related party transactions between the Company and CMC together with its other subsidiaries other than the Company also constitute connected transactions or continuing connected transactions as defined in Chapter 14A of Listing Rules of the Hong Kong Stock Exchange.

SASAC is the ultimate controlling party of the Group.

2. Subsidiaries of the Company

Details of the subsidiaries of the Company are set out in Note IX 1.

3. Joint ventures and associates of the Group

Details of the principal joint ventures and associates of the Group are set out in Note IX 2.

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

3. Joint ventures and associates of the Group (Continued)

Joint ventures and associates entered into transactions with the Group during the year, or during the prior year with remaining closing balances were as follows:

<u>Name of joint ventures and associates</u>	<u>Relationship with the Group</u>
Beijing Tiancheng Guyun Property Management Co., Ltd.	Joint venture
Beijing MCC Mingding Real Estate Development Co., Ltd.	Joint venture
Beijing MCC Mingying Real Estate Development Co., Ltd.	Joint venture
Chengdu Chuanye Construction and Development Co., Ltd.	Joint venture
Shijiazhuang MCC Mingguan Real Estate Development Co., Ltd. (Note)	Joint venture
Hangzhou MCC Mingjin Real Estate Development Co., Ltd. (Note)	Joint venture
Guangzhou MCC Minghui Real Estate Co., Ltd.(Note)	Joint venture
Nanjing MCC Minghan Real Estate Co., Ltd.(Note)	Joint venture
Suzhou Zhongyuanrui Real Estate Development Co., Ltd.	Joint venture
Tangshan Fengrun District Runfeng Municipal Infrastructure Development and Construction Co., Ltd.	Joint venture
Xuzhou MCC Chengdong Express Way Co., Ltd.	Joint venture
MCC 1 Xuzhou Construction Engineering Co., Ltd.	Joint venture
MCC Baotou Mingyang Real Estate Development Co., Ltd.	Joint venture
Zhuhai Hengqin Headquarters Building Development Co., Ltd.	Joint venture
Qingdao Baoye Zhixing Science and Education Construction and Operation Co., Ltd.	Joint venture
Tangshan Caofeidian Twenty-two Ouzhi Engineering Co., Ltd.	Joint venture
Guizhou Ziwang Expressway Construction Co., Ltd.	Joint venture
Yibin Xinye New Energy Automobile Industrial Park Construction Management Co., Ltd.	Joint venture
Cccc-sjc Chengdu Prefabricated Building Technology Development Co., Ltd.	Joint venture
Tianjin MCC Mingjin Real Estate Co., Ltd.	Joint venture
Lanzhou New Area Pipe Gallery Operation Management Co., Ltd.	Joint venture
Zibo Chengxin Construction Investment Engineering Management Co., Ltd.	Joint venture

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

3. Joint Ventures and Associates of the Group (Continued)

Joint ventures and associates entered into transactions with the Group during the year, or during the prior year with remaining closing balances were as follows: (Continued)

Name of joint ventures and associates	Relationship with the Group
Baotou MCC Real Estate Co., Ltd.	Associate
Cangzhou Tianyun Construction and Management Co., Ltd.	Associate
Chongzuo MCC Investment and Development Co., Ltd.	Associate
Dancheng Zhongyi Ecological Environment Management Co., Ltd.	Associate
Ezhou Xinsheng Construction Engineering Co., Ltd.	Associate
China 22 MCC Corporation Industrial Technology Service Co., Ltd.	Associate
Gansu Jingli Expressway Longnan Management Co., Ltd.	Associate
Guizhou MCC Infrastructure Investment Co., Ltd.	Associate
Handan Guorui Construction Engineering Management Co., Ltd.	Associate
Huaining County Huaiye Construction and Development Co., Ltd.	Associate
Jintang Yejian Vocational Education Town Construction Engineering Management Co., Ltd.	Associate
Liuzhou Guoye Road and Bridge Investment and Development Co., Ltd.	Associate
Qiqihar North MCC Real Estate Co., Ltd.	Associate
Shandong Expressway Jiqing Middle Line Highway Co., Ltd.	Associate
Shanghai Union Automobile Avenue Development and Construction Co., Ltd.	Associate
Shanghai Yuepu South Concrete Co., Ltd.	Associate
Shanghai MCC Xiangqi Investment Co., Ltd.	Associate
Suining Kaihong Construction Development Co., Ltd.	Associate
Wuzhou Guoye Investment and Development Co., Ltd.	Associate
Xichang Anmin City Construction Investment Co., Ltd.	Associate

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For the year ended 31 December 2022

XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

3. Joint Ventures and Associates of the Group (Continued)

Joint ventures and associates entered into transactions with the Group during the year, or during the prior year with remaining closing balances were as follows: (Continued)

<u>Name of joint ventures and associates</u>	<u>Relationship with the Group</u>
Yancheng Chengtou Huaying Real Estate Co., Ltd.	Associate
Yibin Dingye Highway Engineering Co., Ltd.	Associate
Yinchuan Mancheng Street Underground Comprehensive Pipe Network Construction and Management Co., Ltd.	Associate
Yunnan Yongmeng Expressway Construction and Development Co., Ltd.	Associate
Zhejiang MCC Investment Management Co., LTD	Associate
MCC Baoding Development and Construction Co., Ltd.	Associate
Yibin Chuanye Construction Engineering Co., Ltd.	Associate
Yibin Xueye Construction Engineering Co., Ltd.	Associate
Shi Gang Jing Cheng Equipment Development and Manufacturing Co., Ltd.	Associate
MCC Huaihai Construction Industry (Jiangsu) Co., Ltd.	Subsidiaries of Associate
Lanzhou Lianhuo Qingzhong Expressway Construction Development Co., Ltd.	Associate
Chongqing Yunkai Expressway Co., Ltd.	Associate
Yunnan Mangliang Expressway Investment Development Co., Ltd.	Associate
Chongqing Yuxiang Double Track Expressway Co., Ltd.	Associate
Xiamen International Trade Exhibition Center Co., Ltd.	Associate
Hangzhou Fuyu Construction Management Co., Ltd.	Associate
Wuhan Huangwu Expressway Construction Management Co., Ltd.	Associate
Gansu Gonghanglv Jiujia Expressway Management Co., Ltd.	Associate
Gansu Gonghang Lvtianzhuang Expressway Management Co., Ltd.	Associate
Chongqing Yutao Shengye Big Data Co., Ltd.	Associate
Ezhou Yiye Airport Investment and Construction Co., Ltd.	Associate
Lingbi Lingma Construction Investment Co.,Ltd.	Associate

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

3. Joint Ventures and Associates of the Group (Continued)

Joint ventures and associates entered into transactions with the Group during the year, or during the prior year with remaining closing balances were as follows: (Continued)

Name of joint ventures and associates	Relationship with the Group
Binhai Panxi Public Infrastructure Investment and Construction Co., Ltd.	Associate
Bonan Real Estate Co., Ltd	Associate
Sichuan Development Shuoou Construction Engineering Co., Ltd.	Associate
Bengbu Jin'an Real Estate Co., Ltd.	Associate
Zhengzhou Huituo Urban Rural Construction Co., Ltd.	Associate
Nanchong Smcc Jiangdong BiaoMei Construction Investment Management Co., Ltd.	Associate
Baiyin City Utility Tunnel Management Co., Ltd.	Associate
Ma'anshan Chengnan Real Estate Development Co., Ltd.	Associate
Puyang MCC Longhu Construction Development Co., Ltd.	Associate
MCC(Xiangtan)HEAVY Industrial Equipment Co., Ltd.	Associate
Siping Sponge City Construction Operation Management Co., Ltd.	Associate
Tianjin MCC Heyuan Real Estate Co., Ltd.	Associate
Baoding Mingbao Real Estate Development Co., Ltd.	Associate
Guangzhou Guanlang Construction Investment Co., Ltd.	Associate
Anyang Baoye Sports Center Project Management Co., Ltd.	Associate

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

3. Joint Ventures and Associates of the Group (Continued)

Joint ventures and associates entered into transactions with the Group during the year, or during the prior year with remaining closing balances were as follows: (Continued)

<u>Name of joint ventures and associates</u>	<u>Relationship with the Group</u>
Henan Huitai Urban and Rural Construction Co., Ltd.	Associate
Changzhi Zhonghui Sanguan Yiyuan Construction Co., Ltd.	Associate
Henan Ruzhou Science and Education Park Investment and Development Co., Ltd.	Associate
Leshan LEGO Urban Construction Engineering Co., Ltd.	Associate
Fuzhou Cangshan Zhongmin Sangcheng Water Environment Technology Co., Ltd.	Associate
Luoyang Kaidao Engineering Project Management Co., Ltd.	Associate
Sichuan Yichengda Air Railway Technology Co., Ltd.	Associate
Gansu Gonghang Lvdinglin Expressway Management Co., Ltd.	Associate
Chengde MCC Construction Development Co., Ltd.	Associate
Guiyang Hongyuan Yongsheng Rail Transit Line II Phase II Engineering Construction Management Co., Ltd	Associate
Nanchong Zhongjian Shijiu Road Construction Investment Co., Ltd.	Associate
Nanjing Lishui Baoye Urban Construction Development Co., Ltd.	Associate
Dazhou Kaiye Engineering Project Management Co., Ltd.	Associate

Note: Shijiazhuang MCC Mingguan Real Estate Development Co., Ltd., Hangzhou MCC Mingjin Real Estate Development Co., Ltd., Guangzhou MCC Minghui Real Estate Co., Ltd. and Nanjing MCC Minghan Real Estate Co., Ltd. have been transformed into a subsidiary of the Company during this period. For more details, please refer to Note VIII 1.

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

4. Other related parties of the Group

Other related parties entered into transactions with the Group during the year, or during the prior year with closing balance were as follows, such transactions also constitute connected transactions or continuing connected transactions as defined in Chapter 14A of Listing Rules of the Hong Kong Stock Exchange:

Name of other related parties	Relationship with the Group
MCC Ruimu Ampere Technology Limited Jiuquan Iron and Steel (Group) Co., Ltd. and all its subsidiaries	Controlled by MCC group Shareholders hold more than 10% of the shares of an important subsidiary of MCC
Subsidiaries of China Minmetals Corporation:	
Minmetals Steel Chengdu Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Steel Shanghai Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Steel Tianjin Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Steel Lanzhou Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Steel (Wuhan) Limited Company	Under common control of China Minmetals Corporation
Minmetals Steel Beijing Co., Ltd.	Under common control of China Minmetals Corporation
The 23rd Metallurgical Construction Group Co., Ltd. of Minmetals	Under common control of China Minmetals Corporation
Minmetals Steel Guangzhou Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Steel Xi'an Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Steel Chongqing Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Steel Qingdao Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Logistics Group Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Trading Co., Ltd.	Under common control of China Minmetals Corporation
Northern Europe Metal Minerals Co., Ltd.	Under common control of China Minmetals Corporation
Minera Las Bambas S.A.	Under common control of China Minmetals Corporation

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

4. Other related parties of the Group (Continued)

Other related parties entered into transactions with the Group during the period, or during the prior year with closing balance were as follows, such transactions also constitute connected transactions or continuing connected transactions as defined in Chapter 14A of Listing Rules of the Hong Kong Stock Exchange: (Continued)

Name of other related parties	Relationship with the Group
Anshan Minmetals Chentaigou Mining Co., Ltd.	Under common control of China Minmetals Corporation
Shanghai MCC Hospital	Under common control of China Minmetals Corporation
China National Foreign Trade Financial & Leasing Co., Ltd.	Under common control of China Minmetals Corporation
Jinchi Energy and Material Co., Ltd.	Under common control of China Minmetals Corporation
Zhuzhou Smelter Nonferrous Metals Industrial Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals International Engineering Technology Co., Ltd.	Under common control of China Minmetals Corporation
Luobei Yunshan Graphite New Material Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Securities Co., Ltd.	Under common control of China Minmetals Corporation
China Minmetals Corporation Limited	Under common control of China Minmetals Corporation
Minmetals Nonferrous Metals Co., Ltd.	Under common control of China Minmetals Corporation
Guangzhou Pincheng Real Estate Development Co., Ltd.	Under common control of China Minmetals Corporation
Chengdu Kuangyi Real Estate Co., Ltd.	Under common control of China Minmetals Corporation
Beijing Dongxing Metallurgical New Technology Development Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Hanxing Mining (Anhui) Property Management Co., Ltd.	Under common control of China Minmetals Corporation
Jianhe Innovation Technology (Hainan) Co., Ltd.	Under common control of China Minmetals Corporation
Hunan Huangshaping Lead-Zinc Mine	Under common control of China Minmetals Corporation
Minmetals Shengshi Guangye (Beijing) Co., Ltd.	Under common control of China Minmetals Corporation
Huabei Aluminum New Material Technology Co., Ltd.	Under common control of China Minmetals Corporation

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

4. Other related parties of the Group (Continued)

Other related parties entered into transactions with the Group during the period, or during the prior year with closing balance were as follows, such transactions also constitute connected transactions or continuing connected transactions as defined in Chapter 14A of Listing Rules of the Hong Kong Stock Exchange: (Continued)

Name of other related parties	Relationship with the Group
Minmetals Salt Lake Co., Ltd.	Under common control of China Minmetals Corporation
Minzhong Real Estate Nanjing Co., Ltd.	Under common control of China Minmetals Corporation
Luobei Yunshan Longxing Graphite Development Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Luzhong MINING Co., Ltd.	Under common control of China Minmetals Corporation
CHINA NATIONAL METAL PRODUCTS (HK) CORPORATION LIMITED	Under common control of China Minmetals Corporation
Minmetals (Yingkou) Industrial Park Real Estate Development Co., Ltd.	Under common control of China Minmetals Corporation
Jin'ao International (Hunan) Construction Decoration Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Finance Company	Under common control of China Minmetals Corporation
China National METAL Products Co., Ltd.	Under common control of China Minmetals Corporation
Minmetals Steel Harbin Co., Ltd.	Under common control of China Minmetals Corporation
ShuiKouShan Nonferrous Metal Co., Ltd.	Under common control of China Minmetals Corporation
Changsha Research Institute of Mining and Metallurgy Co., Ltd.	Under common control of China Minmetals Corporation
Hunan Zhuzhou Smelter Nonferrous Metals Co., Ltd.	Under common control of China Minmetals Corporation
Tangshan Runda Property Service Co., Ltd.	Minmetals holds more than 30% of the equity of a significant impact but is not consolidated
Nanyang FuYe Urban Development Co., Ltd.	Minmetals holds more than 30% of the equity of a significant impact but is not consolidated
Puyang Guoye Chengfa Construction Co., Ltd.	Minmetals holds more than 30% of the equity of a significant impact but is not consolidated

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

5. Related party transactions

(1) Purchase or sales of goods, provision or receipt of services

(a) Purchase of goods and receipt of services

All amounts in RMB '000

Related parties	Related party transactions	2022	2021
Transactions of companies under common control by CMGC (Note 1):	/	19,994	39,097
China Metallurgical Group Corporation	Receipt of services	19,994	39,097
Transactions of companies under common control by CMC (Note 1):	/	11,964,957	13,043,825
Minmetals Steel Chengdu Co., Ltd.	Purchase of goods	4,366,994	3,689,890
Minmetals Steel Shanghai Co., Ltd.	Purchase of goods	2,265,024	2,808,368
Minmetals Steel Tianjin Co., Ltd.	Purchase of goods	1,198,211	1,180,393
Minmetals Steel (Wuhan) Limited Company	Purchase of goods	642,146	1,018,076
Minmetals Steel Lanzhou Co., Ltd.	Purchase of goods	619,488	986,893
Minmetals Steel Guangzhou Co., Ltd.	Purchase of goods	448,226	423,522
Minmetals Trading Co., Ltd.	Purchase of goods	387,540	385,090
Minmetals Steel Beijing Co., Ltd.	Purchase of goods	369,257	598,251
Minmetals Steel Chongqing Co., Ltd.	Purchase of goods	321,341	301,900
Minmetals Steel Xi'an Co., Ltd.	Purchase of goods	277,560	115,890
Minmetals Logistics Group Co., Ltd	Purchase of goods and receipt of services	212,136	1,410
Jin'ao International (Hunan) Construction Decoration Co., Ltd.	Purchase of goods and receipt of services	150,403	9,237
The 23rd Metallurgical Construction Group Co., Ltd. of Minmetals	Purchase of goods and receipt of services	115,798	258,527
Minmetals Steel Qingdao Co., Ltd.	Purchase of goods	115,058	191,446
Changsha Research Institute of Mining and Metallurgy Co., Ltd.	Receipt of services	104,899	-
Minmetals Nonferrous Metals Co., Ltd.	Purchase of goods	99,507	494,124
Others	Purchase of goods and receipt of services	271,369	580,808

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

5. Related party transactions (Continued)

(1) Purchase or sales of goods, provision or receipt of services (Continued)

(a) Purchase of goods and receipt of services (Continued)

Related parties	Related party transactions	2022	2021
Transactions with joint ventures and associates / (Note 2):		1,022,644	627,385
Cccc-sjc Chengdu Prefabricated Building Technology Development Co., Ltd.	Purchase of goods	289,573	6,520
China 22 MCC Corporation Industrial Technology Service Co., Ltd.	Receipt of services	198,459	170,115
Chengdu Chuanye Construction and Development Co., Ltd.	Purchase of goods	124,854	185,110
MCC Capital (Xiangtan) Heavy Industry Equipment Co., Ltd.	Purchase of goods and receipt of services	86,811	17,723
Yibin Xinye New Energy Automobile Industrial Park Construction Management Co., Ltd.	Receipt of services	62,429	-
Yibin Chuanye Construction Engineering Co., Ltd.	Receipt of services	59,200	-
Yibin Xueye Construction Engineering Co., Ltd.	Receipt of services	45,800	-
Shigang Jingcheng Equipment Development and Manufacturing Co., Ltd.	Purchase of goods and receipt of services	37,601	35,116
Shanghai Yuepu South Concrete Co., Ltd.	Purchase of goods	26,065	26,520
MCC Huaihai Construction Industry (Jiangsu) Co., Ltd.	Purchase of goods and receipt of services	15,685	-
Others	Purchase of goods and receipt of services	76,167	186,281

Note 1: These related party transactions also constitute continuing connected transactions as defined in Chapter 14A of Listing Rules of the Hong Kong Stock Exchange. The Cap for such related transactions in 2022 is RMB 30,543,870,000.

Note 2: The Cap for such related transactions in 2022 does not apply.

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

5. Related party transactions (Continued)

(1) Purchase or sales of goods, provision or receipt of services (Continued)

(b) Sales of goods and provision of services

All amounts in RMB '000

Related parties	Related party transactions	2022	2021
Transactions with companies under common control of CMGC (Note 1):	/	179,679	1,509,949
MCC Ruimu Ampere Technology Limited	Sale of goods and provision of services	179,679	1,509,949
Transactions with shareholders holding more than 10% of the shares of a significant subsidiary of MCC:	/	102	-
Jiuquan Iron and Steel (Group) Co., Ltd. and all its subsidiaries	Sale of goods	102	-
Transactions of companies under common control by CMC (Note 1):	/	5,550,479	2,216,402
Minmetals Nonferrous Metals Co., Ltd	Sale of goods and provision of services	2,277,795	897,982
Luobei Yunshan Graphite New Material Co., Ltd.	Provision of services	688,587	-
Northern Europe Metal Minerals Co., Ltd	Sale of goods	652,441	300,602
Chengdu Kuangyi Real Estate Co., Ltd.	Provision of services	267,749	81,674
Guangzhou Pincheng Real Estate Development Co., Ltd.	Provision of services	230,620	-
Minmetals Shengshi Guangye (Beijing) Co., Ltd	Provision of services	155,365	51,650
ShuiKouShan Nonferrous Metal Co., Ltd	Sale of goods and provision of services	146,953	-
Minera Las Bambas S.A.	Provision of services	144,576	92,200
Huabei Aluminum New Material Technology Co., Ltd.	Provision of services	126,585	-
Minmetals Salt Lake Co., Ltd.	Provision of services	86,374	21,874
Minzhong Real Estate Nanjing Co., Ltd.	Provision of services	65,864	-
Luobei Yunshan Longxing Graphite Development Co., Ltd.	Provision of services	65,224	849
The 23rd Metallurgical Construction Group Co., Ltd of Minmetals	Sale of goods and provision of services	59,333	11,892
Minmetals Luzhong MINING Co., Ltd.	Provision of services	57,439	248
Others	Sale of goods and provision of services	525,574	757,431

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

5. Related party transactions (Continued)

(1) Purchase or sales of goods, provision or receipt of services (Continued)

(b) Sales of goods and provision of services (Continued)

Related parties	Related party transactions	2022	2021
Transactions with companies in which Minmetals holds more than 30% of the equity interest but are not consolidated (Note 1):	/	1,033,454	-
Nanyang FuYe Urban Development Co., Ltd.	Provision of services	831,997	-
Puyang Guoye Chengfa Construction Co., Ltd.	Provision of services	201,457	-
Transactions with joint ventures and associates (Note 2):	/	53,057,918	44,719,007
MCC Baoding Development and Construction Co., Ltd.	Provision of services	3,677,115	-
Jintang Yejian Vocational Education Town Construction Engineering Management Co., Ltd.	Provision of services	1,980,891	1,216,441
Lanzhou Lianhuo Qingzhong Expressway Construction Development Co., Ltd.	Provision of services	1,856,141	444,179
Liuzhou Guoye Road and Bridge Investment Development Co., Ltd.	Provision of services	1,777,092	590,748
Chongqing Yunkai Expressway Co., Ltd.	Provision of services	1,658,533	1,588,621
Zibo Chengxin Construction Investment Engineering Management Co., Ltd.	Provision of services	1,549,143	-
Yunnan Mangliang Expressway Investment and Development Co., Ltd.	Provision of services	1,297,634	1,453,286
Dazhou Kaiye Engineering Project Management Co., Ltd.	Provision of services	1,251,526	-
Shandong Expressway Jiqing Middle Line Highway Co., Ltd.	Provision of services	1,213,219	778,433
Yibin Dingye Highway Engineering Co., Ltd.	Provision of services	965,067	278,681
Yunnan Yongmeng Expressway Construction and Development Co., Ltd.	Provision of services	880,484	1,917,549
Cangzhou Tianyun Construction Management Co., Ltd.	Provision of services	827,206	-
Chongqing Yuxiang Double Track Expressway Co., Ltd.	Provision of services	742,013	266,115
Gansu Jingli Expressway Longnan Management Co., Ltd.	Provision of services	741,284	471,533

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

5. Related party transactions (Continued)

(1) Purchase or sales of goods, provision or receipt of services (Continued)

(b) Sales of goods and provision of services (Continued)

Related parties	Related party transactions	2022	2021
Xiamen International Trade Exhibition Center Co., Ltd.	Provision of services	740,415	–
Hangzhou Fuyu Construction Management Co., Ltd.	Provision of services	733,932	547,276
Wuhan Huangwu Expressway Construction and Management Co., Ltd.	Provision of services	643,760	653,238
Gansu Gonghanglv Jiujia Expressway Management Co., Ltd.	Provision of services	630,024	627,572
Chongzuo Guoye Investment Development Co., Ltd.	Provision of services	606,047	333,485
Gansu Public Traffic Tianzhuang Expressway Management Co., Ltd.	Provision of services	573,638	656,019
Chongqing Yutao Shengye Big Data Co., Ltd.	Provision of services	571,468	243,138
Ezhou Yiye Airport Investment and Construction Co., Ltd.	Provision of services	566,485	208,559
Lingbi Lingma Construction Investment Co., Ltd.	Provision of services	540,211	16,841
Qingdao Baoye Zhixing Science and Education Construction and Operation Co., Ltd.	Provision of services	533,584	477,917
Binhai Panxi Public Infrastructure Investment and Construction Co., Ltd.	Provision of services	533,406	245,510
Other	Sale of goods and provision of services	25,967,600	31,703,866

Note 1: These related party transactions also constitute continuing connected transactions as defined in Chapter 14A of Listing Rules of the Hong Kong Stock Exchange. The Cap for such related transactions in 2022 is RMB 27,644,530,000.

Note 2: The Cap for such related transactions in 2022 does not apply.

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

5. Related party transactions (Continued)

(2) Leases

(a) As lessor

All amounts in RMB '000

Name of lessee	Type of leased assets	Leasing income recognized 2022	Leasing income recognized 2021
Anshan Minmetals Chentaigou Mining Co., Ltd. (Note)	Buildings, structures	754	754
Shanghai MCC Hospital (Note)	Buildings, structures	160	261
Beijing Tiancheng Guyun Property Management Co., Ltd.	Buildings, structures	-	1,016
Tangshan Caofeidian 22nd Metallurgical Construction Technique Co., Ltd.	Buildings, structures	-	211
Total	/	914	2,242

(b) As lessee

All amounts in RMB '000

Name of lessor	Type of leased assets	Lease liabilities at 31 December 2022	Increase of historical cost of right-of-use assets for 2022	Leasing expense recognized for 2022
China Metallurgical Group Corporation (Note)	Buildings, structures	104,639	57,646	70,964
Tangshan Runda Property Management Co., Ltd. (Note)	Buildings, structures	-	-	14,669
Beijing Dongxing Metallurgical New Technology Development Co., Ltd. (Note)	Buildings, structures	30,395	34,649	8,842
Beijing Tiancheng Guyun Property Management Co., Ltd.	Buildings, structures	-	-	3,394
Minmetals Hanxing Mining (Anhui) Property Management Co., Ltd. (Note)	Buildings, structures	-	-	1,256
MCC Ruimu Amperex Technology Limited (Note)	Buildings, structures	-	-	708
Total	/	135,034	92,295	99,833

Note: These related party transactions also constitute continuing connected transactions as defined in Chapter 14A of Listing Rules of the Hong Kong Stock Exchange.

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For the year ended 31 December 2022

XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

5. Related party transactions (Continued)

(3) Guarantee

(a) Grant guarantee

All amounts in RMB '000

Guarantor	Guaranteed amount	Inception date of guarantee	Expiration date of guarantee	Whether the execution of guarantee has been completed
Zhuhai Hengqin Headquarters Building Development Co., Ltd.	370,624	2019-09-04	2024-09-04	No
Zhuhai Hengqin Headquarters Building Development Co., Ltd.	574,467	2019-09-04	2024-09-04	No

(b) Guarantees be granted

All amounts in RMB '000

Guarantor	Guaranteed amount	Inception date of guarantee	Expiration date of guarantee	Whether the execution of guarantee has been completed
China Metallurgical Group Corporation	1,347,606	2020-05-05	2023-05-05	No

(c) Credit be granted

All amounts in RMB '000

Creditor	Types of credit	Line of credit	Credit start date	Credit maturity date	The credit line has been used
Minmetals Finance Company	Loan	10,000,000	2022-11-11	2024-11-11	-
Minmetals Finance Company	Acceptance	500,000	2022-11-11	2024-11-11	49,545
Minmetals Finance Company	Guarantee	500,000	2022-11-11	2024-11-11	-
Minmetals Finance Company	Bill discounting, trade financing and others	500,000	2022-11-11	2024-11-11	-
Total	/	11,500,000	/	/	49,545

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For the year ended 31 December 2022

XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

5. Related party transactions (Continued)

(4) Loans from/to related parties

All amounts in RMB '000

Related party	Amount	Inception date	Expiration date	Notes
Borrowing				
China Metallurgical Group Corporation (Note)	457,050	2022-09-22	2025-09-22	Borrowings General
China National Foreign Trade Financial & Leasing Co., Ltd. (Note)	123,000	2022-06-28	2030-06-28	Borrowings General
China National Metal Products Co., Ltd. (Note)	40,000	2022-01-13	2022-06-27	Borrowings General
Jianhe Innovation Technology (Hainan) Co., Ltd (Note)	15,000	2022-06-06	2025-06-05	Borrowings General
Total	635,050	/	/	/

Related party	Amount	Inception date	Expiration date	Notes
Lending				
Shijiazhuang MCC Mingguan Real Estate Development Co., Ltd.	40,000	2022-02-01	No fixed maturity date	Borrowings General
Zhejiang MCC Investment Management Co., LTD	3,582	2022-01-10	No fixed maturity date	Borrowings General
Total	43,582	/	/	/

Note: These related party transactions also constitute continuing connected transactions as defined in Chapter 14A of Listing Rules of the Hong Kong Stock Exchange.

Certain of the loans from/to related parties mentioned above are interest bearing. The interest rates ranged from 1.35% to 9.00%.

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For the year ended 31 December 2022

XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

5. Related party transactions (Continued)

(5) Compensation of key management personnel

Key management include director (executive director and non-executive director), supervisor, president, vice president, board secretary and chief accountant. Compensation as employee services paid or to be paid to key management personnel is as follows:

All amounts in RMB '000

Items	2022	2021
Salaries, housing benefits, other allowances and benefits in kind	10,897	10,450
Pension scheme contributions	605	580
Discretionary bonus	7,766	6,439
Total	19,268	17,469

(a) Directors' and supervisors' remunerations

All amounts in RMB '000

Items	2022	2021
Salaries, housing benefits, other allowances and benefits in kind	4,738	4,642
Pension scheme contributions	249	260
Discretionary bonus	3,033	3,011
Total	8,020	7,913

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For the year ended 31 December 2022

XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

5. Related party transactions (Continued)

(5) Compensation of key management personnel (Continued)

(a) Directors' and supervisors' remunerations (Continued)

Compensations for directors and supervisors respectively for the year ended 31 December 2022 were as follows:

All amounts in RMB '000

	Salaries, housing benefits, other allowances and benefits in kind	Pension scheme contributions	Discretionary bonus	Total
Executive director:				
Chen Jian Guang (Starting from 26 January 2022) (i)	–	–	–	–
Guo Wen Qing (Until 26 January 2022) (i)	–	–	–	–
Zhang Meng Xing	1,129	58	843	2,030
Independent non-executive director:				
Zhou Ji Chang	294	–	–	294
Liu Li (Starting from 26 January 2022)	276	–	–	276
Wu Jian ning	291	–	–	291
Yu Hai Long (Until 26 January 2022)	18	–	–	18
Non-executive director:				
Lang Jia (Starting from 26 January 2022)	258	–	–	258
Employee representative director:				
Yan Ai Zhong	1,022	58	758	1,838
Supervisor:				
Yin Si Song	903	57	709	1,669
Zhang Yan Di (ii)	147	18	240	405
Chu Zhi Qi	400	58	483	941
Total	4,738	249	3,033	8,020

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For the year ended 31 December 2022

XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

5. Related party transactions (Continued)

(5) Compensation of key management personnel (Continued)

(a) Directors' and supervisors' remunerations (Continued)

Compensations for directors and supervisors respectively for the year ended 31 December 2022 were as follows: (Continued)

- (i) Chen Jian Guang and Guo Wen Qing had not received any compensation in the Group in 2022.
- (ii) The salary relationship of Zhang Yan Di has been transferred out from the Group since May 2022, and only received compensation as a supervisor from January 2022 to April 2022.

Compensations for directors and supervisors respectively for the year ended 31 December 2021 were as follows:

All amounts in RMB '000

	Salaries, housing benefits, other allowances and benefits in kind	Pension scheme contributions	Discretionary bonus	Total
Executive director:				
Guo Wen Qing (i)	–	–	–	–
Zhang Meng Xing (Starting from 15 October 2020)	1,114	52	912	2,078
Independent non-executive director:				
Zhou Ji Chang	283	–	–	283
Yu Hai Long (iii)	266	–	–	266
Wu Jian ning (Starting from 29 April 2020)	268	–	–	268
Employee representative director:				
Yan Ai Zhong (Starting from 31 August 2020)	1,007	52	733	1,792
Supervisor:				
Yin Si Song (Starting from 15 October 2020)	900	52	201	1,153
Zhang Yan Di	420	52	628	1,100
Chu Zhi Qi	384	52	537	973
Total	4,642	260	3,011	7,913

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For the year ended 31 December 2022

XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

5. Related party transactions (Continued)

(5) Compensation of key management personnel (Continued)

(a) Directors' and supervisors' remunerations (Continued)

Compensations for directors and supervisors respectively for the year ended 31 December 2021 were as follows: (Continued)

- (i) Guo Wenqing started to work in CMC in July 2016, since when their personal relationship had been transferred to CMC, and he had not received any compensation in the Group in 2021.
- (ii) Yu Hailong started to work as an independent non-executive director from 13 November 2014 to 12 November 2020, and was reappointed consecutively for 6 years. According to relevant regulations of CSRC on Guidelines for Introducing Independent Directors to the Board of Directors of Listed Companies and SSE on Guidance on Filing and Training of Independent Directors of Listed Companies, Mr. Yu continued to work as an independent director until the new independent director was elected by the Shareholders' Meeting, since the expiration-outgoing shall result in the proportion of independent director being lower than the minimum laws and requirements. The company's Shareholders' elected a new independent director at the first Extraordinary Shareholders' Meeting held on 26 January 2022, and then Mr. Yu left his post (referred to the relevant announcement of the Company issued on 27 January 2022).

(b) Five highest paid individuals' remunerations

None of the Directors and Supervisors as disclosed in the note above was included in the five highest paid individuals of the Group. The five individuals whose remunerations were the highest in the Group during the year are as follows:

All amounts in RMB '000

Items	2022	2021
Salaries, housing benefits, other allowances and benefits in kind	2,343	3,661
Pension scheme contributions	256	122
Discretionary bonus	8,539	6,671
Total	11,138	10,454

	Number of individuals for 2022	Number of individuals for 2021
Nil to HK\$ 1,000,000	—	—
HK\$ 1,000,001 to HK\$ 1,500,000	—	—
HK\$ 1,500,001 to HK\$ 2,000,000	—	—
HK\$ 2,000,001 to HK\$ 2,500,000	3	4
HK\$ 2,500,001 to HK\$ 3,000,000	1	1
HK\$ 3,000,001 to HK\$ 3,500,000	1	—
Total	5	5

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For the year ended 31 December 2022

XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

5. Related party transactions (Continued)

(6) Other related party transactions

All amounts in RMB '000

Related party transactions	Related parties	2022	2021
Interest income	Beijing MCC Mingying Real Estate Development Co., Ltd.	244,349	189,772
Interest income	Hangzhou MCC Mingjin Real Estate Development Co., Ltd.	152,893	215,795
Interest income	Guangzhou MCC Minghui Real Estate Co., Ltd.	136,100	191,758
Interest income	Suzhou ZhongyuanRui Real Estate Development Co., Ltd.	113,629	74,639
Interest income	MCC Baotou Mingyang Real Estate Development Co., Ltd.	112,420	141,211
Interest income	Nanjing MCC Minghan Real Estate Co., Ltd.	109,405	51,822
Interest income	Beijing MCC Mingding Real Estate Development Co., Ltd.	100,629	105,175
Interest income	Bonan Real Estate Co., Ltd	34,029	11,281
Interest income	Shijiazhuang MCC Mingguan Real Estate Development Co., Ltd.	31,157	77,567
Interest income	Others	216,803	672,904
Total		1,251,414	1,731,924
Interest expense	Sichuan Developing Shu'ou Construction Engineering Co., Ltd.	96,776	-
Interest expense	China Metallurgical Group Corporation <i>(Note)</i>	1,731	10,191
Interest expense	China National Foreign Trade Financial & Leasing Co., Ltd. <i>(Note)</i>	11,949	11,654
Interest expense	China National Metal Products (HK) Corporation Limited <i>(Note)</i>	2,441	6,453
Interest expense	Jianhe Innovation Technology (Hainan) Co., Ltd. <i>(Note)</i>	227	-
Interest expense	Others	-	161,307
Total		113,124	189,605

Note: These related party transactions also constitute continuing connected transactions as defined in Chapter 14A of Listing Rules of the Hong Kong Stock Exchange.

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For the year ended 31 December 2022

XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

6. Amounts due from/due to related parties

(1) Receivables

All amounts in RMB '000

Items	Related parties	31 December 2022		31 December 2021	
		Book value	Provisions for credit losses	Book value	Provisions for credit losses
Accounts receivable	Liuzhou Guoye Road and Bridge Investment Development Co., Ltd.	446,905	4,469	-	-
Accounts receivable	MCC Baoding Development and Construction Co., Ltd.	358,802	4,751	9,343	240
Accounts receivable	Suining KaiHong Construction Development Co., Ltd.	319,869	1,599	211,797	-
Accounts receivable	Bengbu Jin'an Real Estate Co., Ltd.	231,429	2,863	194,814	-
Accounts receivable	Yancheng Chengtou Huaying Real Estate Co., Ltd.	213,214	8,529	-	-
Accounts receivable	Zhengzhou Huituo Urban Rural Construction Co., Ltd.	205,684	2,499	65,768	-
Accounts receivable	Zhuhai Hengqin Headquarters Development Co., Ltd.	203,049	3,472	226,158	6,912
Accounts receivable	Dancheng Zhongyi Ecological Environment Management Co., Ltd.	176,370	13,771	188,545	-
Accounts receivable	Yinchuan Mancheng Street Underground Utility Tunnel Construction Management Co., Ltd.	164,749	2,709	268,954	-
Accounts receivable	Baotou MCC Real Estate Co., Ltd.	145,953	145,953	145,953	124,925
Accounts receivable	Handan Guorui Construction Engineering Management Co., Ltd.	142,347	89,183	100,347	-
Accounts receivable	Nanchong Smcc Jiangdong BiaoMei Construction Investment Management Co., Ltd.	141,452	22,273	166,652	-
Accounts receivable	Ezhou Xinsheng Construction Engineering Co., Ltd.	139,059	7,183	52,661	-
Accounts receivable	Baiyin City Utility Tunnel Management Co., Ltd.	133,351	62,617	43,309	27,718
Accounts receivable	Huaining Huaiye Construction Development Co., Ltd.	126,377	5,300	175,883	-
Accounts receivable	Ma'anshan Chengnan Real Estate Development Co., Ltd.	122,698	1,491	-	-
Accounts receivable	Minmetals (Yingkou) Industrial Park Real Estate Development Co., Ltd.	118,351	-	121,896	-
Accounts receivable	MCC 1 Xuzhou Construction Engineering Co., Ltd.	111,118	3,671	85,337	2,560
Accounts receivable	Puyang MCC Longhu Construction Development Co., Ltd.	105,909	1,287	32,009	-
Accounts receivable	Others	4,837,690	801,206	5,672,719	697,487
Total		8,444,376	1,184,826	7,762,145	859,842

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For the year ended 31 December 2022

XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

6. Amounts due from/due to related parties (Continued)

(1) Receivables (Continued)

Items	Related parties	31 December 2022		31 December 2021	
		Book value	Provisions for credit losses	Book value	Provisions for credit losses
Other receivables	Beijing MCC Mingying Real Estate Development Co., Ltd.	2,242,797	-	2,785,115	-
Other receivables	Shi Gang Jing Cheng Equipment Development and Manufacturing Co., Ltd.	1,917,214	719,159	1,923,443	520,653
Other receivables	MCC Baotou Mingyang Real Estate Development Co., Ltd.	1,892,722	-	1,969,383	-
Other receivables	Suzhou ZhongyuanRui Real Estate Development Co., Ltd.	1,257,999	-	1,324,682	-
Other receivables	Beijing MCC Mingding Real Estate Development Co., Ltd.	1,211,889	-	1,241,708	-
Other receivables	Qiqihar North MCC Real Estate Co., Ltd.	1,148,914	64,451	1,160,255	-
Other receivables	Others	8,914,878	1,051,596	27,407,465	2,582,100
Total		18,586,413	1,835,206	37,812,051	3,102,753
Prepayments	Minmetals Steel Shanghai Co., Ltd.	51,871	-	-	-
Prepayments	China 22 MCC Corporation Industrial Technology Service Co., Ltd.	35,357	-	213	-
Prepayments	Minmetals Steel Chengdu Co., Ltd.	30,819	-	12,833	-
Prepayments	MCC Capital (Xiangtan) Heavy Industrial Equipment Co., Ltd.	24,234	-	29,479	-
Prepayments	Minmetals Steel Tianjin Co., Ltd.	20,228	-	-	-
Prepayments	Minmetals Logistics Group Co., Ltd.	16,021	-	-	-
Prepayments	Minmetals Steel Guangzhou Co., Ltd.	10,265	-	22	-
Prepayments	Minmetals Steel Lanzhou Co., Ltd.	10,005	-	15,000	-
Prepayments	Jinchi Energy and Material Co., Ltd.	9,452	-	9,452	-
Prepayments	Others	38,911	-	118,560	-
Total		247,163	-	185,559	-

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For the year ended 31 December 2022

XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

6. Amounts due from/due to related parties (Continued)

(1) Receivables (Continued)

Items	Related parties	31 December 2022		31 December 2021	
		Book value	Provisions for credit losses	Book value	Provisions for credit losses
Contract assets	Yunnan Yongmeng Expressway Construction and Development Co., Ltd.	981,736	9,817	416,460	-
Contract assets	Henan Huitai Urban and Rural Construction Co., Ltd.	488,495	-	488,495	-
Contract assets	Tianjin MCC Mingjin Real Estate Co., Ltd.	259,522	5,190	231,927	-
Contract assets	Changzhi Zhonghui Sanguan Yiyuan Construction Co., Ltd.	250,921	2,509	146,755	-
Contract assets	Henan Ruzhou Science and Education Park Investment and Development Co., Ltd.	239,263	6,221	216,937	5,152
Contract assets	Zhuhai Hengqin Headquarters Building Development Co., Ltd.	227,972	4,012	103,474	3,266
Contract assets	Leshan LEGO Urban Construction Engineering Co., Ltd.	191,517	3,237	-	-
Contract assets	Fuzhou Cangshan Zhongmin Sangcheng Water Environment Technology Co., Ltd.	191,491	191,491	176,832	87,776
Contract assets	Shandong Expressway Jiqing Middle Line Highway Co., Ltd.	173,268	866	155,687	893
Contract assets	Luoyang Kaidao Engineering Project Management Co., Ltd.	168,705	2,969	158,168	4,993
Contract assets	Liuzhou Guoye Road and Bridge Investment Development Co., Ltd.	166,610	1,666	-	-
Contract assets	MCC 1 Xuzhou Construction Engineering Co., Ltd.	151,914	1,519	95,079	-
Contract assets	Sichuan Yichengda Air Railway Technology Co., Ltd.	143,197	3,723	99,900	2,373
Contract assets	Gansu Gonghang Lvdinglin Expressway Management Co., Ltd.	138,320	2,766	156,413	-
Contract assets	Yunnan Mangliang Expressway Investment Development Co., Ltd.	101,641	510	-	-
Contract assets	Others	4,908,118	105,232	4,117,828	77,511
Total		8,782,690	341,728	6,563,955	181,964
Long-term receivables	Guizhou MCC Infrastructure Investment Co., Ltd.	432,615	4,326	-	-
Long-term receivables	Suining Kaihong Construction Development Co., Ltd.	367,109	947	372,775	-
Long-term receivables	Xuzhou MCC Chengdong Express Way Co., Ltd.	174,010	-	174,010	-
Long-term receivables	Chengdu Kuangyi Real Estate Co., Ltd.	118,726	-	-	-
Long-term receivables	Guizhou Ziwang Highway Construction Co., Ltd.	39,344	-	62,881	-
Long-term receivables	Siping Sponge City Construction Operation Management Co., Ltd.	16,272	234	-	-
Long-term receivables	Others	6,672	79	97,687	866
Total		1,154,748	5,586	707,353	866

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For the year ended 31 December 2022

XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

6. Amounts due from/due to related parties (Continued)

(2) Payables

All amounts in RMB '000

Items	Related parties	31 December 2022	31 December 2021
Notes payable	Minmetals Steel Shanghai Co., Ltd.	215,180	676,366
Notes payable	Minmetals Steel Guangzhou Co., Ltd.	93,516	41,148
Notes payable	Minmetals Steel Haerbin Co., Ltd.	26,361	-
Notes payable	Minmetals Trading Co., Ltd.	21,978	-
Notes payable	Minmetals Steel Beijing Co., Ltd.	14,786	-
Notes payable	Minmetals Steel Chengdu Co., Ltd.	7,895	-
Notes payable	Minmetals Steel Lanzhou Co., Ltd.	4,343	23,628
Notes payable	Others	9,761	351,712
Total	/	393,820	1,092,854
Accounts payable	Minmetals Steel Chengdu Co., Ltd.	314,909	91,922
Accounts payable	Minmetals Steel Shanghai Co., Ltd.	297,394	98,172
Accounts payable	Minmetals Steel Lanzhou Co., Ltd.	154,608	232,218
Accounts payable	Minmetals Steel (Wuhan) Limited Company	115,718	115,699
Accounts payable	Minmetals Steel Xi'an Co., Ltd.	112,371	49,438
Accounts payable	Minmetals Steel Beijing Co., Ltd.	100,558	54,940
Accounts payable	Minmetals Steel Tianjin Co., Ltd.	94,952	47,379
Accounts payable	Cccc-sjc Chengdu Prefabricated Building Technology Development Co., Ltd.	94,427	3,940
Accounts payable	Minmetals Steel Guangzhou Co., Ltd.	64,622	75,722
Accounts payable	Minmetals Trading Co., Ltd.	55,918	92,843
Accounts payable	Minmetals Engineering Co., Ltd.	42,579	42,579
Accounts payable	MCC(Xiangtan)HEAVY Industrial Equipment Co., Ltd.	42,208	3,671
Accounts payable	Others	319,187	373,530
Total	/	1,809,451	1,282,053
Other payables	China Metallurgical Group Corporation	245,646	195,030
Other payables	Zhuhai Hengqin Headquarters Building Development Co., Ltd.	177,292	636,212
Other payables	Zhuzhou Smelter Nonferrous Metals Industrial Co., Ltd.	161,761	148,083
Other payables	Minmetals International Engineering Technology Co., Ltd.	81,657	81,659
Other payables	Yunnan Mangliang Expressway Investment Development Co., Ltd.	71,840	-
Other payables	Hunan Huangshaping Lead-Zinc Mine	71,374	65,339
Other payables	Tianjin MCC Heyuan Real Estate Co., Ltd.	68,469	68,469
Other payables	China Minmetals Corporation	37,426	-
Other payables	Wuzhou Guoye Investment and Development Co., Ltd.	29,760	29,760
Other payables	Baoding Mingbao Real Estate Development Co., Ltd.	25,612	17,568
Other payables	Shanghai Union Automobile Avenue Development and Construction Co., Ltd.	24,000	24,000
Other payables	Shanghai MCC Xiangqi Investment Co., Ltd.	21,670	24,483
Other payables	Others	167,293	784,471
Total	/	1,183,800	2,075,074

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XII. RELATED PARTIES AND TRANSACTIONS (CONTINUED)

6. Amounts due from/due to related parties (Continued)

(2) Payables (Continued)

Items	Related parties	31 December 2022	31 December 2021
Contract liabilities	Minmetals Nonferrous Metals Co., Ltd.	692,309	-
Contract liabilities	Tangshan Fengrun District Runfeng Municipal Infrastructure Development and Construction Co., Ltd.	282,390	383,962
Contract liabilities	Xichang Anmin City Construction Investment Co., Ltd.	279,094	408,405
Contract liabilities	Chengde MCC Construction Development Co., Ltd.	225,134	279,397
Contract liabilities	Guiyang Hongyuan Yongsheng Rail Transit Line II Phase II Engineering Construction Management Co., Ltd	202,515	34,153
Contract liabilities	Chongqing Yunkai Expressway Co., Ltd.	157,677	18,275
Contract liabilities	Baiyin City Utility Tunnel Management Co., Ltd.	117,746	117,828
Contract liabilities	Guangzhou Guanlang Construction Investment Co., Ltd.	112,882	62,361
Contract liabilities	Nanchong Zhongjian Shijiu Road Construction Investment Co., Ltd.	106,428	-
Contract liabilities	Lanzhou New Area Pipe Gallery Operation Management Co., Ltd.	102,613	117,508
Contract liabilities	Hunan Zhuzhou Smelter Nonferrous Metals Co., Ltd.	89,252	7,912
Contract liabilities	Nanjing Lishui Baoye Urban Construction Development Co., Ltd.	82,180	3,380
Contract liabilities	Anyang Baoye Sports Center Project Management Co., Ltd.	81,094	-
Contract liabilities	Others	1,673,024	2,584,854
Total		4,204,338	4,018,035
Non-current liabilities due within one year	China National Foreign Trade Financial & Leasing Co., Ltd.	107,724	196,547
Non-current liabilities due within one year	China Metallurgical Group Corporation	189	-
Non-current liabilities due within one year	Minmetals Securities Co., Ltd.	-	12,583
Total	/	107,913	209,130
Long-term borrowings	China Metallurgical Group Corporation	457,050	-
Long-term borrowings	Minmetals Securities Co., Ltd.	-	525,258
Total	/	457,050	525,258
Long-term payables	China National Foreign Trade Financial & Leasing	87,408	85,000
Long-term payables	China Minmetals Corporation Limited	20,850	6,000
Long-term payables	Jianhe Innovation Technology (Hainan) Co., Ltd.	15,227	-
Long-term payables	China Metallurgical Group Corporation	-	457,050
Total	/	123,485	548,050

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For the year ended 31 December 2022

XIII. COMMITMENTS AND CONTINGENCIES

1. Significant commitments

(1) Capital commitments

As at the balance sheet date, the Group had capital commitments contracted but not recognized in the balance sheet were as follows:

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Buildings, structures and equipment	23,767,322	24,067,181
Intangible assets	4,287,019	4,287,019
Total	28,054,341	28,354,200

2. Contingencies

(1) Significant contingencies at the balance sheet date

(a) Pending litigation or arbitration

As at 31 December 2022, objects of pending litigation or arbitration in which the Group acted as defendant were amounting to RMB 2,844,049,000 (as at 31 December 2021: RMB 2,940,488,000).

The Group has been named in a number of lawsuits and other legal proceedings arising in the ordinary course of business. Provision will be made for the probable losses to the Group on those claims when management can reasonably estimate the outcome of the lawsuits based on management's judgments and legal advice. No provision will be made for the above pending lawsuits if management determines the outflow of resources is not probable. As at 31 December 2022, management has made provision for pending lawsuits of RMB 352,205,000, details of which are set out in Note VII 42.

(b) Financial guarantees given to banks

(i) Mortgage guarantees

All amounts in RMB '000

Guarantor	31 December 2022
Mortgage guarantees	9,261,128

The Group's subsidiaries in property development sector would provide mortgage guarantees to the property purchasers as it is a common practice in property development industry. Under such arrangements, the period of the guarantees is from the date of the contracts being signed to the date of the legal title of the properties finally being transferred to the purchasers and the certificates could be used as collaterals. The Group considers that the risk related to such guarantees is minor.

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For the year ended 31 December 2022

XIII. COMMITMENTS AND CONTINGENCIES (CONTINUED)

2. Contingencies (Continued)

(1) Significant contingencies at the balance sheet date (Continued)

(b) Financial guarantees given to banks (Continued)

(ii) Loan guarantees

All amounts in RMB '000

Guarantor	Guarantee	31 December 2022
China MCC 20 Group Co., Ltd.	Zhuhai Hengqin Headquarters Building Development Co., Ltd.	370,624
MCC Real Estate Group Co., Ltd.	Zhuhai Hengqin Headquarters Building Development Co., Ltd.	574,467

In 2019, Zhuhai Hengqin Headquarters Building Development Co., Ltd. was a subsidiary of the Group within the scope of consolidation. In 2020, other shareholders of Zhuhai Hengqin Headquarters Building Development Co., Ltd. revoked their concerted action agreement with the Group, and the Group lost control of them. Zhuhai Hengqin Headquarters Building Development Co., Ltd. became a joint venture of the Group. China Twenty Metallurgical Group Co., Ltd. provided guarantee for the loan of Zhuhai Hengqin Headquarters Building Development Co., Ltd. The actual guarantee amount was RMB 370,624,000 and the maximum guaranteed amount was RMB 600,000,000, and the guarantee period was from 4 September 2019 to 4 September 2024. MCC Real Estate Group Co., Ltd. provided a guarantee for the loan of Zhuhai Hengqin Headquarters Building Development Co., Ltd. The guarantee amount was RMB 574,467,000, and the maximum guaranteed amount was RMB 930,000,000. The guarantee period was 4 September 2019 to 4 September 2024. Zhuhai Hengqin Headquarters Building Development Co., Ltd. is in good financial condition, and the management expects that there is no major debt default risk.

(c) Others

In 2012, due to extreme adverse weather condition, including typhoon, the progress of the Sino Iron Project was behind the original planned schedule giving rise to the substantial project cost overrun. The management is of the view that the Group has implemented appropriate procedures to control project costs, shorten project delay and minimize the loss resulted from the project schedule delay. In respect of the compensation clause set out in the construction contract entered into between the Group and the customer regarding the loss to customer resulted from the project delay due to the contractor own reason, the Group had sufficient communication with CITIC Group who is the customer of the Sino Iron Project. Both the Group and CITIC Group believe that the project delay was due to various reasons. A consensus has been reached between the Group and CITIC Group that the second main process production line of the Sino Iron Project should be completed and available for trial run by 15 April 2013. Due to the technical issue of cyclo electric motors, the trial run of the second main process production line of the Sino Iron Project was further delayed. The cyclo electric motors were purchased by a subsidiary of CITIC Group from an overseas supplier. The Group is of the view that the Group has appropriately performed its duty and fulfilled its responsibility in constructing the second main process production line according to the consensus reached with CITIC Group. The reason for the delay in trial run of the second main process production line of the Sino Iron Project was principally due to quality issue of cyclo electronic motors which were not purchased by the Group.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XIII. COMMITMENTS AND CONTINGENCIES (CONTINUED)

2. Contingencies (Continued)

(1) Significant contingencies at the balance sheet date (Continued)

(c) Others (Continued)

As of the date of approving these financial statements, the customer has not lodged any compensation claims against the Group in respect of the project delay. The Group has already taken measures in shortening the project delay and had sufficient communication with the customer of this project. The Group is of the view that the risk of being claimed by the customer of this project is remote. Therefore, no provision for loss is recognized in these financial statements.

XIV. EVENTS AFTER THE BALANCE SHEET DATE

Distribution of profit

According to the decision of the 47th meeting of the third term of the Board of Directors of the Company, the Company proposed to distribute cash dividend of RMB 0.83 (tax inclusive) for every 10 shares held by the shareholders, which amounted to RMB 1,720,060,000. The total number of shares of the Company was 20,723,619,170 as at 31 December 2022. The dividend distribution is subject to the approval by the shareholders at the upcoming annual Shareholders meeting.

XV. OTHER SIGNIFICANT MATTERS

1. Segment information

(1) Accounting policies of the segment

The Group determines the operating segments based on the internal organizational structure, management requirements and internal reporting system. The reportable segments are determined based on operating segments.

Operating segment is a component of the Group which satisfied all of the following conditions:

- (a) The component is able to generate income, and expenses in daily activities;
- (b) The Group's management evaluates the operating results of that segment regularly, determines the allocation of resources, and evaluates its performance;
- (c) The Group can obtain the balance sheet, operating results, cash flow and other relevant accounting information of the segment. If two or more operating segments have similar economic characteristics and meet certain conditions, they could be combined into a single operating segment.

The management of the Group has performed assessments of the operating results of engineering contracting, property development, equipment manufacture, and resource development. The management also evaluates the operating results of the above segments generated in different geographical locations.

The information of the operating and reportable segments is derived from the information reported by the management of each respective segment. The accounting policies and measurement basis of this information are the same as the Group's accounting policies adopted in preparing these financial statements.

Intersegment transactions are based on the actual transaction price. Segment revenue and segment expenses are recognized based on the actual revenue generated and actual expenses incurred by the respective segments. Assets and liabilities are allocated to the respective segments according to the assets used or liabilities assumed in their daily operating activities.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XV. OTHER SIGNIFICANT MATTERS (CONTINUED)

1. Segment information (Continued)

(2) Summarized financial information of reporting segment

(a) Segment information for the year ended 31 December 2022 and as at 31 December 2022

All amounts in RMB '000

Items	Engineering contracting	Property development	Equipment manufacture	Resource development	Others	Unallocated amounts	Elimination between segments	Total
Operating revenue	550,440,814	22,726,736	12,319,197	8,866,005	4,751,798	-	(6,435,478)	592,669,072
Including: Revenue from external customers	546,133,307	22,617,623	12,131,885	8,836,703	2,949,554	-	-	592,669,072
Revenue between segments	4,307,507	109,113	187,312	29,302	1,802,244	-	(6,435,478)	-
Operating costs	501,113,886	20,226,222	10,892,637	5,643,306	3,763,271	-	(6,122,404)	535,516,918
Including: External costs	497,042,606	20,226,222	10,712,437	5,565,911	1,969,742	-	-	535,516,918
Costs between segments	4,071,280	-	180,200	77,395	1,793,529	-	(6,122,404)	-
Operating profit/(loss)	14,171,703	332,848	(223,826)	1,468,244	250,183	(311,035)	(303,238)	15,384,879
Including: Interest income	1,618,893	1,182,452	35,284	25,334	10,764	-	(449,414)	2,423,313
Interest expenses	1,312,625	1,264,112	122,889	218,878	163,984	-	(449,414)	2,633,074
Gains/(losses) on investments in associates and joint ventures	307,636	(113,343)	(16,673)	-	92	-	-	177,712
Non-operating income	180,350	116,541	18,001	6,334	1,829	-	-	323,055
Non-operating expenses	242,741	10,946	11,438	6,277	44,416	-	-	315,818
Total profit/(loss)	14,109,312	438,443	(217,263)	1,468,301	207,596	(311,035)	(303,238)	15,392,116
Income tax expense	2,114,539	271,166	58,790	(115,725)	135,874	-	-	2,464,644
Net profit/(net loss)	11,994,773	167,277	(276,053)	1,584,026	71,722	(311,035)	(303,238)	12,927,472
Assets	478,839,602	131,518,026	19,877,054	15,047,115	31,634,900	3,236,572	(94,768,879)	585,384,390
Including: Long-term equity investments in associates and joint ventures	30,923,622	776,321	42,712	-	121,040	-	-	31,863,695
Non-current assets	64,870,051	11,826,239	3,821,617	9,236,788	30,053,155	-	(20,148,698)	99,659,152
Liabilities	355,856,266	104,726,624	17,286,790	13,134,179	11,751,439	108,447	(79,388,480)	423,475,265
Depreciation and amortization expenses	2,339,772	286,619	261,555	780,679	262,819	-	-	3,931,444
Impairment losses of assets and impairment of credit losses	(3,375,305)	(484,699)	(389,849)	(598,826)	(112,847)	-	-	(4,961,526)
Increase in other non-current assets other than long-term equity investments	6,003,244	715,636	334,717	1,645,525	489,997	-	-	9,189,119

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For the year ended 31 December 2022

XV. OTHER SIGNIFICANT MATTERS (CONTINUED)

1. Segment information (Continued)

(2) Summarized financial information of reporting segment (Continued)

(b) Segment information for the year ended 31 December 2021 and as at 31 December 2021

All amounts in RMB '000

Items	Engineering contracting	Property development	Equipment manufacture	Resource development	Others	Unallocated amounts	Elimination between segments	Total
Operating revenue	462,290,153	21,416,034	11,623,127	6,669,327	6,161,917	-	(7,588,911)	500,571,647
Including: Revenue from external customers	458,550,611	21,409,733	11,435,613	6,656,964	2,518,726	-	-	500,571,647
Revenue between segments	3,739,542	6,301	187,514	12,363	3,643,191	-	(7,588,911)	-
Operating costs	419,814,524	16,386,721	9,865,876	3,823,828	5,047,671	-	(7,503,474)	447,435,146
Including: External costs	416,176,090	16,386,721	9,710,241	3,731,517	1,430,577	-	-	447,435,146
Costs between segments	3,638,434	-	155,635	92,311	3,617,094	-	(7,503,474)	-
Operating profit/(loss)	11,577,094	213,371	304,456	1,846,167	551,768	(249,246)	(81,096)	14,162,514
Including: Interest income	1,659,185	1,570,718	32,264	13,306	222,476	-	(829,953)	2,667,996
Interest expenses	605,677	1,685,937	143,716	228,611	306,464	-	(829,953)	2,140,452
Gains/(losses) on investments in associates and joint ventures	383,388	(522,498)	-	-	8,058	-	-	(131,052)
Non-operating income	253,584	16,372	22,951	3,526	3,126	-	-	299,559
Non-operating expenses	219,998	214,928	7,566	4,121	3,281	-	-	449,894
Total profit/(loss)	11,610,680	14,815	319,841	1,845,572	551,613	(249,246)	(81,096)	14,012,179
Income tax expense	1,333,597	750,939	81,102	27,320	212,027	-	-	2,404,985
Net profit/(net loss)	10,277,083	(736,124)	238,739	1,818,252	339,586	(249,246)	(81,096)	11,607,194
Assets	424,197,724	131,264,586	21,252,536	18,314,799	66,824,909	3,245,450	(121,629,857)	543,470,147
Including: Long-term equity investments in associates and joint ventures	26,051,931	3,818,578	222	64	457,971	-	-	30,328,766
Non-current assets	43,646,621	21,958,563	4,285,700	10,484,190	43,726,777	-	(34,888,212)	89,213,639
Liabilities	330,972,715	99,619,235	17,832,369	13,893,544	29,119,912	79,243	(99,434,630)	392,082,388
Depreciation and amortization expenses	1,984,728	178,442	268,131	866,400	247,991	-	-	3,545,692
Impairment losses of assets and impairment of credit losses	(3,446,972)	(1,706,049)	(115,201)	(65,460)	(5,554)	-	-	(5,339,236)
Increase in other non-current assets other than long-term equity investments	8,805,932	2,475,717	481,196	123,023	115,624	-	-	12,001,492

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XV. OTHER SIGNIFICANT MATTERS (CONTINUED)

1. Segment information (Continued)

(3) Other notes

- (a) Revenue from external customers classified by countries/regions and non-current assets classified by geographical locations

All amounts in RMB '000

Items	2022	2021
Revenue from external customers in China	569,649,404	480,454,381
Revenue from external customers in other countries/regions	23,019,668	20,117,266
Total	592,669,072	500,571,647

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Non-current assets in China	89,311,588	80,407,265
Non-current assets in other countries/regions	10,347,564	8,806,374
Total	99,659,152	89,213,639

Note: The above non-current assets do not include deferred tax assets and financial assets.

- (b) The dependency on major customers

No revenue was generated from sales to a single customer which amounted to 10% or more than 10% of the Group's revenue.

2. Net current assets and total assets less current liabilities

(1) Net current assets

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Current assets	438,205,660	412,315,644
Less: Current liabilities	385,844,649	358,889,666
Net current assets	52,361,011	53,425,978

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XV. OTHER SIGNIFICANT MATTERS (CONTINUED)

2. Net current assets and total assets less current liabilities (Continued)

(2) Total assets less current liabilities

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Total Assets	585,384,390	543,470,147
Less: Current liabilities	385,844,649	358,889,666
Total assets less current liabilities	199,539,741	184,580,481

XVI. NOTES TO KEY ITEMS IN THE COMPANY'S FINANCIAL STATEMENTS

1. Accounts receivable

The Company's accounts receivables are mainly receivables for engineering contracting business. The credit period of accounts receivable is generally one to three months.

(1) Aging analysis of accounts receivable

All amounts in RMB '000

Aging	31 December 2022	31 December 2021
Within 1 year	275,273	154,970
1 to 2 years	98,794	308
2 to 3 years	308	–
Over 5 years	71,545	71,545
Total book value	445,920	226,823
Less: Provisions for credit losses	54,970	53,498
Carrying amount	390,950	173,325

Settlement of trade receivables generated through engineering and construction services is made in accordance with terms specified in the contracts governing the relevant transactions. The aging of accounts receivable is calculated based on the date of issue of bill of construction service or date of revenue recognition.

(2) Provision for credit losses of accounts receivable

All amounts in RMB '000

Item	31 December 2021	Provision	31 December 2022
Provision for credit losses	53,498	1,472	54,970

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XVI. NOTES TO KEY ITEMS IN THE COMPANY'S FINANCIAL STATEMENTS (CONTINUED)

1. Accounts receivable (Continued)

(3) The five largest accounts receivable collected by arrears at the end of the year

All amounts in RMB '000

Name of entity	Relationship with the Company	31 December 2022 Book value	31 December 2022 Provision of bad debt	As a percentage of total accounts receivable (%)
Party 1	Third party	121,137	–	27.17
Party 2	Third party	119,001	–	26.69
Party 3	Third party	79,919	1,718	17.92
Party 4	Third party	54,317	–	12.18
Party 5	Third party	46,454	46,454	10.42
Total	/	420,828	48,172	94.38

(4) In the current year, the Company had no non-recourse factoring of accounts receivable and did not derecognize accounts receivable through asset securitization (For the year ended 31 December 2021: Nil).

2. Other receivables

(1) Presentation of other receivables

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Interest receivables	8,180,222	6,610,448
Dividends receivable	3,621,605	3,451,124
Other receivables	57,762,715	50,317,595
Total	69,564,542	60,379,167

(2) Interest receivables

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Subsidiaries of the Company	8,770,654	6,932,411
Less: Provisions for credit losses	590,432	321,963
Total	8,180,222	6,610,448

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XVI. NOTES TO KEY ITEMS IN THE COMPANY'S FINANCIAL STATEMENTS (CONTINUED)

2. Other receivables (Continued)

(3) Dividends receivable

All amounts in RMB '000

Item	31 December 2022	31 December 2021
Subsidiaries of the Company	3,621,605	3,451,124
Total	3,621,605	3,451,124

As at 31 December 2022, the closing balance of dividends receivable aged more than one year was RMB 3,436,787,000 (as at 31 December 2021: RMB 2,470,433,000).

(4) Other receivables

(a) Aging analysis

All amounts in RMB '000

Aging	31 December 2022	31 December 2021
Within 1 year	14,498,125	14,406,193
1 to 2 years	11,849,573	3,087,855
2 to 3 years	2,824,467	5,401,878
3 to 4 years	5,386,816	10,684,742
4 to 5 years	8,765,032	3,687,257
Over 5 Years	20,895,172	19,234,640
Total book value	64,219,185	56,502,565
Less: Provisions for credit losses	6,456,470	6,184,970
Carrying amount	57,762,715	50,317,595

(b) Classified by nature

All amounts in RMB '000

Nature of other receivables	31 December 2022	31 December 2021
Subsidiaries of the Company	63,595,820	55,939,161
Guarantees and deposits	365,990	356,159
Others	257,375	207,245
Total	64,219,185	56,502,565

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XVI. NOTES TO KEY ITEMS IN THE COMPANY'S FINANCIAL STATEMENTS (CONTINUED)

2. Other receivables (Continued)

(4) Other receivables (Continued)

(c) Provision of credit losses of other receivables

All amounts in RMB '000

Items	Phase 1 Future 12-month expected credit losses	Phase 2 Lifetime expected credit losses (Non-credit- impaired)	Phase 3 Lifetime expected credit losses (Credit- impaired)	Total
Provision for credit losses at 31 December 2021	–	–	6,184,970	6,184,970
Provision for the current year	–	–	271,500	271,500
Provision for credit losses at 31 December 2022	–	–	6,456,470	6,456,470

(d) The five largest other receivables at the end of the year

All amounts in RMB '000

Name of entity	Relationship with the Company	Nature of other receivables	Aging	31 December 2022	Provision of bad debt	As a percentage of total other receivables (%)
Party 1	Subsidiary	Advances/ internal loans	Over 5 years	37,819,259	–	58.89
Party 2	Subsidiary	Advances/ internal loans	Over 5 years	6,811,424	3,719,055	10.61
Party 3	Subsidiary	Advances/ internal loans	Over 5 years	2,662,108	–	4.15
Party 4	Subsidiary	Advances/ internal loans	Over 5 years	2,415,762	2,414,020	3.76
Party 5	Subsidiary	Advances/ internal loans	Over 5 years	1,082,200	–	1.69
Total	/	/	/	50,790,753	6,133,075	79.10

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XVI. NOTES TO KEY ITEMS IN THE COMPANY'S FINANCIAL STATEMENTS (CONTINUED)

3. Long-term receivables

(1) Long-term receivables

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Subsidiaries of the Company	380,191	771,250
Others	2,037	2,037
Total book value	382,228	773,287
Less: Provisions for credit losses of long-term receivables	138,660	138,660
Total net book value	243,568	634,627
Less: Long term receivables due within one year, net	2,037	2,037
Long term receivables due after one year, net	241,531	632,590

(2) Provision for credit losses of long-term receivables

As of 31 December 2022, the changes in the credit loss provision for long-term receivables based on 12-month expected credit losses and lifetime expected credit losses are as follows:

All amounts in RMB '000

Items	Phase 1 Future 12-month expected credit losses	Phase 2 Lifetime expected credit losses (Non- credit-impaired)	Phase 3 Lifetime expected credit losses (Credit- impaired)	Total
Provisions for credit losses at 31 December 2022 and 31 December 2021	–	–	138,660	138,660

4. Long-term equity investments

All amounts in RMB '000

Items	31 December 2022			31 December 2021		
	Carrying amount	Provision for impairment	Book value	Carrying amount	Provision for impairment	Book value
Subsidiaries	97,768,383	175,034	97,593,349	97,450,588	175,034	97,275,554
Joint ventures and associates	489,588	113,146	376,442	485,193	113,146	372,047
Total	98,257,971	288,180	97,969,791	97,935,781	288,180	97,647,601

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XVI. NOTES TO KEY ITEMS IN THE COMPANY'S FINANCIAL STATEMENTS (CONTINUED)

4. Long-term equity investments (Continued)

(1) Subsidiaries

All amounts in RMB '000

Name of investee	31 December 2021	Increase	Decrease	31 December 2022	Impairment provision at 31 December 2022	Carrying amount at 31 December 2022	Cash dividend declared
ACRE Coking & Refractory Engineering Consulting Corporation, MCC	1,898,546	-	-	1,898,546	-	1,898,546	34,785
Northern Engineering & Technology Corporation, MCC	826,271	-	-	826,271	-	826,271	11,680
China MCC 3 Group Co., Ltd.	1,219,670	-	-	1,219,670	-	1,219,670	8,577
Shen Kan Engineering & Technology Corporation, MCC	344,972	-	-	344,972	-	344,972	23,100
MCC Overseas Ltd.	475,644	-	-	475,644	-	475,644	-
MCC Communication Construction Group Co., Ltd.	9,056,533	91,490	-	9,148,023	-	9,148,023	38,710
MCC International Incorporation Ltd.	110,804	-	-	110,804	-	110,804	6,000
Ramu NiCo Management (MCC) Ltd.	3	-	-	3	-	3	-
MCC Finance Corporation Ltd.	1,583,970	-	-	1,583,970	-	1,583,970	1,121,445
MCC Tongsin Resources Ltd.	3,558,261	37,795	-	3,596,056	-	3,596,056	10,156
MCC-JJJ Mining Development Company Limited	2,849,805	-	-	2,849,805	-	2,849,805	-
MCC Capital Engineering & Research Incorporation Limited	7,175,684	-	-	7,175,684	-	7,175,684	97,846
MCC Real Estate Group Co., Ltd.	5,814,517	-	-	5,814,517	-	5,814,517	-
China 13th Metallurgical Construction Corporation	372,399	-	-	372,399	-	372,399	-
MCC TianGong Group Corporation Limited.	2,261,984	-	-	2,261,984	-	2,261,984	54,745
China 22MCC Group Co., Ltd.	3,487,199	-	-	3,487,199	-	3,487,199	120,015
China Non-ferrous Engineering Co., Ltd.	4,357,614	-	-	4,357,614	-	4,357,614	79,316
China Second Metallurgical Group Corporation Limited	1,262,835	-	-	1,262,835	-	1,262,835	149,202
Central Research Institute of Building and Construction Co., Ltd.	3,059,049	-	-	3,059,049	-	3,059,049	98,599
China Huaye Group Co., Ltd.	2,412,037	-	-	2,412,037	-	2,412,037	72,881
Beijing Metallurgical Equipment Research Design Institute Co., Ltd.	789,593	-	-	789,593	-	789,593	-
CISDI Group Co., Ltd.	4,368,886	-	-	4,368,886	-	4,368,886	105,096
China MCC5 Group Co., Ltd.	5,022,567	-	-	5,022,567	-	5,022,567	555,814
China Metallurgical Construction Engineering Group Co., Ltd.	2,085,910	-	-	2,085,910	-	2,085,910	251,977
China MCC19 Group Co., Ltd.	3,414,357	-	-	3,414,357	-	3,414,357	181,460
MCC Baosteel Technology Services Co., Ltd.	1,091,924	-	-	1,091,924	-	1,091,924	115,562
China MCC20 Group Co., Ltd.	1,680,279	-	-	1,680,279	-	1,680,279	332,411
Shanghai Baoye Group Co., Ltd.	6,710,953	-	-	6,710,953	-	6,710,953	364,993
Huatan Engineering & Technology Corporation, MCC	2,156,648	-	-	2,156,648	-	2,156,648	28,616
China MCC17 Group Co., Ltd.	1,755,361	-	-	1,755,361	-	1,755,361	-
China MCC International Economic and Trade Co., Ltd.	69,392	-	-	69,392	-	69,392	-
WISDRI Engineering & Research Incorporation Limited	5,453,492	-	-	5,453,492	-	5,453,492	156,235

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XVI. NOTES TO KEY ITEMS IN THE COMPANY'S FINANCIAL STATEMENTS (CONTINUED)

4. Long-term equity investments (Continued)

(1) Subsidiaries(Continued)

Name of investee	31 December	Increase	Decrease	Impairment		Carrying	Cash dividend declared
	2021			31 December 2022	provision at 31 December 2022	amount at 31 December 2022	
China First Metallurgical Group Co., Ltd.	2,045,090	-	-	2,045,090	-	2,045,090	194,347
MCC Changtian International Engineering Co., Ltd.	991,130	-	-	991,130	-	991,130	61,876
Wuhan Surveying Geotechnical Research Institute Co., Ltd. of MCC	523,777	-	-	523,777	-	523,777	35,210
MCC-SFRE Heavy Industry Equipment Co., Ltd.	1,110,635	-	-	1,110,635	-	1,110,635	-
Western Australia	126,807	-	-	126,807	126,807	-	-
MCC Australia Holding Pty Ltd.	48,227	-	-	48,227	48,227	-	-
MCC Holding (Hong Kong) Corporation Limited	6,485	-	-	6,485	-	6,485	-
MCC Financial Leasing Co., Ltd.	127,500	-	-	127,500	-	127,500	372
MCC South China Construction Investment Co., Ltd.	51,000	-	-	51,000	-	51,000	-
MCC Rail Transit Co., Ltd.	91,490	-	91,490	-	-	-	-
MCC Zhongyuan Construction Investment Co., Ltd.	20,000	-	-	20,000	-	20,000	-
MCC Integrated Pipe Network Technology & Development Co., Ltd.	50,000	-	-	50,000	-	50,000	-
MCC Urban Investment Holding Co., Ltd.	150,000	-	-	150,000	-	150,000	-
China Metallurgical (Hainan) Investment Development Co., Ltd.	24,000	-	-	24,000	-	24,000	-
MCC (Shanghai) Steel Structure Technology Corp., Ltd.	180,401	-	-	180,401	-	180,401	1,741
MCC Road&Bridge Construction Co., Ltd.	286,887	100,000	-	386,887	-	386,887	15,200
MCC Ecological Environmental Protection Group Co., Ltd.	50,000	200,000	-	250,000	-	250,000	-
MCC (Yunnan) Engineering Investment and Construction Co., Ltd.	60,000	-	-	60,000	-	60,000	-
MCC Fujian Investment and Construction Co., Ltd.	60,000	-	-	60,000	-	60,000	-
Tianjin United Huixin Investment Partnership. (Limited Partnership)	1,000,000	-	-	1,000,000	-	1,000,000	41,655
Tianjin United Huitong Investment Partnership. (Limited Partnership)	1,500,000	-	-	1,500,000	-	1,500,000	63,041
Tianjin Hongxin Investment Partnership (Limited Partnership)	1,500,000	-	-	1,500,000	-	1,500,000	74,892
MCC (Guizhou) Construction Investment Development Co., Ltd.	100,000	-	-	100,000	-	100,000	-
MCC International Investment Development Co., Ltd.	600,000	-	-	600,000	-	600,000	-
MCC (South Asia) Investment Development Co., Ltd.	20,000	-	20,000	-	-	-	-
Total	97,450,588	429,285	111,490	97,768,383	175,034	97,593,349	4,507,555

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XVI. NOTES TO KEY ITEMS IN THE COMPANY'S FINANCIAL STATEMENTS (CONTINUED)

4. Long-term equity investments (Continued)

(2) Joint ventures and associates

All amounts in RMB '000

Name of joint ventures and associates	Carrying amount at 31 December 2021	Movements during the current year			Carrying amount at 31 December 2022	Provision for impairment at 31 December 2022
		Investment income/(losses) under equity method	Other comprehensive income adjustment	Declaration of cash dividends		
Beijing Jingxi Travel Industry Investment Fund (limited partnership)	103,336	960	(4,276)	(2,488)	97,532	-
MCC-Huafa Integrated Pipe Network Co., Ltd.	103,588	870	-	-	104,458	-
MCC Jianxin Investment Fund Management Co., Ltd.	72,201	8,718	-	-	80,919	-
Shenzhen MCC Utility Tunnel Construction and Investment Co., Ltd.	11,670	610	-	-	12,280	-
Yingtian MCC Xinyin industry development partnership (limited partnership)	81,252	5,964	-	(5,963)	81,253	-
MCC Xiangxi Mining Industry Co., Ltd.	113,146	-	-	-	113,146	113,146
Total	485,193	17,122	(4,276)	(8,451)	489,588	113,146

In the reporting period, there were no significant restrictions on withdrawing the above long-term equity investments.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XVI. NOTES TO KEY ITEMS IN THE COMPANY'S FINANCIAL STATEMENTS (CONTINUED)

5. Short-term borrowings

Categories of short-term borrowings

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Credit loans:	8,540,913	16,032,447
RMB	6,259,898	12,862,888
USD	2,215,314	3,058,252
Others	65,701	111,307
Total	8,540,913	16,032,447

As at 31 December 2022, there were no significant short-term borrowings overdue but not yet paid (as at 31 December 2021: Nil).

For the current year, the weighted average interest rate of short-term borrowings was 2.98% per annum (for the prior year: 3.00% per annum).

6. Other payables

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Amounts due to subsidiaries	45,911,091	32,588,028
External dividends payable	117,676	165,567
Others	240,808	148,996
Total	46,269,575	32,902,591

7. Non-current liabilities due within one year

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Long-term borrowings due within one year (Note XVI 8)	181	2,002,375
Long-term employee benefits payable due within one year	4,995	3,776
Long-term payables due within one year	20,244,672	241,726
Bonds payable due within one year	227,083	582,334
Lease liabilities due within one year	21,257	513
Total	20,498,188	2,830,724

FINANCIAL STATEMENTS

For the year ended 31 December 2022

8. Long-term borrowings

All amounts in RMB '000

Items	31 December 2022	31 December 2021
Credit loans	439,261	2,002,375
Total	439,261	2,002,375
Less: Long-term borrowings due within one year (Note XVI 7)	181	2,002,375
Long-term borrowings due over one year	439,080	–

For the current year, the weighted average interest rate of long-term borrowings was 2.78% per annum (for the year ended 31 December 2021: 4.16% per annum).

9. Presentation of operating revenue and operating costs

(1) Operating revenue and operating costs

All amounts in RMB '000

Items	2022		2021	
	Operating revenue	Operating costs	Operating revenue	Operating costs
Principal business	1,864,552	1,811,477	3,396,688	3,249,219
Other business	135,244	665	156,080	498
Total	1,999,796	1,812,142	3,552,768	3,249,717

(2) Breakdown of operating revenue

(a) Classified by industry

All amounts in RMB '000

Item	2022	2021
Engineering contracting	1,864,552	3,396,688
Total	1,864,552	3,396,688

(b) Classified by geographic location

All amounts in RMB '000

Item	2022	2021
Other countries/regions	1,864,552	3,396,688
Total	1,864,552	3,396,688

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XVI. NOTES TO KEY ITEMS IN THE COMPANY'S FINANCIAL STATEMENTS (CONTINUED)

9. Presentation of operating revenue and operating costs (Continued)

(3) Information of major customers from which the revenue generated accounted for more than 10% of the total revenue

All amounts in RMB '000

Items	Relationship with the Company	Operating revenue	As a percentage of total operating revenue of the Company (%)
Party 1	Third party	848,359	42.42
Party 2	Third party	743,651	37.19
Total	/	1,592,010	79.61

The project contracting services provided by the Company usually constitute a single performance obligation as a whole and are performance obligations performed within a certain period of time. As of 31 December 2022, some of the Company's EPC contracts were still in the process of implementation. The trading price allocated to non-implemented (or partly non-implemented) performance obligations is related to the performance progress of each EPC contract. Revenue will be recognized within the future performance period of each EPC contract according to the performance progress.

Among the above operating income, revenue from contracts with customers was RMB 1,999,796,000 (for the year ended 31 December 2021: RMB 3,552,768,000).

10. Investment income

All amounts in RMB '000

Items	2022	2021
Investment income under cost method	4,507,555	6,693,947
Investment income under equity method	17,122	17,701
Investment income on disposal of long-term equity investments	246	1,713
Total	4,524,923	6,713,361

There is no major restriction of investment income repatriation to the Company.

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XVI. NOTES TO KEY ITEMS IN THE COMPANY'S FINANCIAL STATEMENTS (CONTINUED)

11. Credit impairment (losses)/reversal

All amounts in RMB '000

Items	2022	2021
Loss from impairment of accounts receivable	(1,472)	(246)
(Loss)/reversal from impairment of other receivables	(539,969)	56,978
Reversal from impairment of long-term receivables	–	11,829
Total	(541,441)	68,561

12. Supplementary information to the cash flow statement

(1) Supplementary information to the cash flow statements

All amounts in RMB '000

Supplementary information	2022	2021
Reconciliation of net profit to cash flows from operating activities:		
Net profit	2,834,321	6,762,238
Add: Credit impairment losses/(reversal)	541,441	(68,561)
Asset impairment losses	1,128	3,672
Depreciation of fixed assets and right-of-use assets	23,431	22,950
Amortization of intangible assets	1,342	1,687
Losses on write-off of fixed assets	10	287
Losses/(gains) on changes of fair value	280,779	(140,960)
Financial expenses	604,649	179,015
Gains arising from investments	(4,524,923)	(6,713,361)
Decrease/(Increase) in inventories	230	(91)
Decrease in contract assets	658,233	538,064
Decrease in contract liabilities	(453,968)	–
Increase in receivables from operating activities	(172,493)	(2,593,773)
Increase in payables from operating activities	434,475	1,507,403
Net cash flows from operating activities	228,655	(501,430)
Net changes in cash and cash equivalents:		
Cash and cash equivalents at end of year	4,551,152	5,006,514
Less: Cash and cash equivalents at beginning of year	5,006,514	9,606,574
Net decrease in cash and cash equivalents	(455,362)	(4,600,060)

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XVI. NOTES TO KEY ITEMS IN THE COMPANY'S FINANCIAL STATEMENTS (CONTINUED)

12. Supplementary information to the cash flow statement (Continued)

(2) Cash and cash equivalents

All amounts in RMB '000

Items	31 December 2022	31 December 2021
I. Cash	4,551,152	5,006,514
Including: Cash on hand	4,354	4,007
Bank deposits without restriction	4,546,798	5,002,507
II. Cash and cash equivalents at end of year	4,551,152	5,006,514

XVII. SUPPLEMENTARY INFORMATION

1. Breakdown of non-recurring profit or loss

All amounts in RMB '000

Items	Amount for the current year
Government grants recognized in profit or loss (except for the government grants that are closely related to the business of the Company and granted according to the unified national standards)	545,862
Other non-operating income or expenses other than the above items	(39,924)
Profit or loss on disposal of non-current assets	303,355
Profit or loss arising from changes in fair value of trading financial assets, derivative financial instruments and other financial assets except for those relating to the hedging transactions under the Company's normal operating business	(317,778)
Reversal of provision for credit losses individually assessed for significant accounts receivable	125,670
Profit or loss of debt restructuring	12,476
Profit or loss on disposal of long-term equity investments	76,921
Investment income generated by the remeasurement of the equity held before the acquisition date of the business combinations not involving enterprises under common control according to the fair value	146,349
Less: Impact on income tax	(164,521)
Impact on non-controlling interests (after tax)	(84,244)
Total	604,166

FINANCIAL STATEMENTS

For the year ended 31 December 2022

XVII. SUPPLEMENTARY INFORMATION (CONTINUED)

2. Return on net assets and earnings per share (“EPS”)

Profit during the reporting period	Weighted average rate of return on net assets (%)	EPS (RMB)	
		Basic EPS	Diluted EPS
Net profit attributable to ordinary shareholders of the Company	10.47	0.45	0.45
Net profit after deduction of non-recurring profits or losses attributable to ordinary shareholders of the Company	9.79	0.42	0.42

Chairman: Chen Jianguang
Date of Approval from the Board: 29 March 2023

OTHER FINANCIAL DATA

All amounts in RMB '000

Items	2022	2021	2020	2019	2018
Operating revenue	592,669,072	500,571,647	400,114,623	338,637,609	289,534,523
Operating costs	535,516,918	447,435,146	354,685,571	299,247,115	253,121,966
Taxes and levies	1,870,771	2,515,554	1,967,862	1,896,372	2,412,583
Selling expenses	2,883,123	2,742,789	2,441,204	2,315,815	2,108,541
Administrative expenses	11,273,969	10,921,869	11,011,320	9,354,662	8,569,093
R&D expenses	18,732,632	15,901,198	12,326,903	9,934,444	7,182,666
Financial expenses	940,841	1,055,115	1,767,398	2,498,264	2,614,040
Impairment losses of assets	(1,359,652)	(1,624,422)	(593,338)	(939,749)	(1,165,150)
Impairment losses of credit	(3,601,874)	(3,714,814)	(3,086,669)	(2,418,539)	(2,671,338)
Gains/(losses) on investments	(1,523,214)	(1,793,422)	(1,139,662)	(987,178)	(262,199)
Gains on disposal of assets	303,355	689,228	232,899	67,810	138,415
Other income	433,224	428,034	451,602	241,945	237,653
Operating profit	15,384,879	14,162,514	11,813,020	9,342,416	9,832,014
Non-operating income	323,055	299,559	475,004	523,777	449,866
Non-operating expenses	315,818	449,894	370,754	84,035	757,436
Total profit	15,392,116	14,012,179	11,917,270	9,782,158	9,524,444
Income tax	2,464,644	2,404,985	2,534,913	2,205,339	1,953,837
Net profit	12,927,472	11,607,194	9,382,357	7,576,819	7,570,607
Net profit attributable to shareholders of the Company	2,655,115	3,232,224	1,520,172	977,107	1,199,027
Profit or loss of minority	0.45	0.35	0.32	0.27	0.26
Shareholders	0.45	0.35	0.32	0.27	0.26

Items	As at the end of 2022	As at the end of 2021	As at the end of 2020	As at the end of 2019	As at the end of 2018
Total assets	585,384,390	543,470,147	506,392,963	458,506,213	438,915,843
Total liabilities	423,475,265	392,082,388	366,037,656	341,600,705	336,246,399
Shareholders' equity	161,909,125	151,387,759	140,355,307	116,905,508	102,669,444

Chairman: Chen Jianguang

Date of Approval from the Board: 29 March 2023



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