洛陽欒川鉬業集團股份有限公司
CMOC Group Limited*

(a joint stock company incorporated in the People's Republic of China with limited liability)

(Stock Code: 03993)

ANNUAL RESULTS ANNOUNCEMENT FOR THE YEAR ENDED 31 DECEMBER 2022

The board (the "**Board**") of directors (the "**Directors**") of CMOC Group Limited* (the "**Company**") is pleased to announce the consolidated financial results of the Company and its subsidiaries (collectively, the "**Group**") for the year ended 31 December 2022.

The financial information set out in this announcement does not constitute the Group's complete set of the consolidated financial statements for the year ended 31 December 2022, but represents an extract from those consolidated financial statements.

The financial information has been reviewed by the Audit and Risk Committee of the Company and the auditor of the Company.

Note: This announcement was prepared in both Chinese and English versions. Where there is discrepancy between the Chinese and English versions, the Chinese version shall prevail.

Summary

- In 2022, the Company overcame the cyclical fluctuations of commodities and further tapped its endogenous potential. The Company's operating performance increased steadily, and its operating revenue reached approximately RMB172.991 billion. During the year, the net profit attributable to the parent company amounted to approximately RMB6.067 billion, representing a year-on-year increase of 18.82%; EBITDA reached approximately RMB18.147 billion, and the net operating cash flow reached approximately RMB15.454 billion. The Board proposed to distribute a cash dividend of RMB0.8508 per 10 shares (tax inclusive) to all shareholders of the Company.

- In 2022, the Company maintained stable production and operation and basically achieved its production targets. In the DRC, copper and cobalt production volumes were 254,286 tonnes and 20,286 tonnes, respectively, representing a year-on-year increase of approximately 22% and 10%, respectively; in China, molybdenum and tungsten production volumes were 15,114 tonnes and 7,509 tonnes, respectively; in Brazil, niobium and phosphate production volumes were 9,212 tonnes and 1.14 million tonnes, respectively; copper and gold production volumes of Australia NPM (80% equity interest) were 22,706 tonnes and 16,221 ounces, respectively. IXM accomplished 3.118 million tonnes of physical trading volume (sales volume) of metal concentrates and 3.137 million tonnes of physical trading volume (sales volume) of refined metals.

- In 2022, the Company's key projects proceeded steadily. The construction of the first phase of KFM project is expected to be put into operation in the second quarter of 2023, and the TFM mixed ore project is expected to be put into operation in 2023.

- In 2022, the Company continued to optimize and improve its ESG management level, and the MSCI ESG rating remained A class. The Company rolled out its carbon neutral roadmap and joined the UN Global Compact, thus further enhancing the Group's strategic image. The Company's HSE performance this year remained stable with no fatality, no major environmental incident, nor new case of occupational disease. During the reporting period, Total Recordable Incident Rate (TRIR) was 0.76.

- In 2022, the Company continued to optimize its balance sheet and maintained a healthy asset-liability structure. At the end of the reporting period, the total balance of cash and cash equivalents was approximately RMB32.648 billion. There were a total of 80 state-owned banks, large joint-stock commercial banks and large foreign banks in cooperation with the Company. The total credit facility granted to the Company exceeded RMB160.0 billion.

- In 2022, Phase I of the SAP project of the Company was completed with success. A globally unified digital intelligence platform was established with ERP, OA, procurement platform, sales platform, expense control, and shared financial services functions covering the core business modules including centralized procurement, sales, production and supply, and project management. The organization upgrade of the Company's headquarters was successfully completed, and the function construction has been properly improved, further strengthening the strategic guarantee of the Company.

LETTER FROM THE CEO

Dear Shareholders,

On behalf of CMOC, I am honored to have this opportunity to express my heartfelt gratitude for your long-term trust and support during this time every year.

During this year, the frequent occurrence of international geopolitical conflicts brought great uncertainty, which deeply affected our business. In the face of major changes unseen in a century, we still maintained a good momentum of development.

We achieved record performance supported by stable production and operations, continuous technical upgrade, and rise in both commodity prices and production of key varieties. We accelerated the conversion of resources into production capacity and reached the milestones for the two world-class projects of TFM mixed ore and KFM, both ready to put into production this year. CATL became our new strategic shareholder, which marked our breakthrough in the layout of lithium resources. We completed the organizational upgrade at our headquarters and continued to improve IT, human resources, and headquarters function development. The project of the SAP Phase I was launched successfully to build a foundation for global digital management and we have steadily improved our global governance capabilities.

2023 is likely to see continued global economic uncertainties amid the Russia-Ukraine conflict, rising inflation, tightening macro policies, and great power conflicts, despite of the accelerating recovery of Chinese economy. The mineral market is prone to supply disruption caused by rising resources nationalism and geopolitical turbulence. To navigate these profound changes, "Stick to the original heart, Grasp the law, Continuous evolution" will be our response.

"Stick to the original heart" means to always maintain the passion for the ancient industry of mining, and we are proud that we provide the raw materials that are the building blocks for the world's technological progress, industrial upgrading, and daily life improvement. We will walk through the volatility in overseas markets with the commitment along our journey of becoming a world-class company. Difficulties and challenges are not scary, what kind of mental state to face will test the true quality of the Company. We believe that as long as we uphold the concept of "responsible mining, make the world a better place" and continue to create the greatest value for all stakeholders, we will be able to deal with various risks and challenges.

"Grasp the law" means to have a deep understanding of the nature of mining competition, eliminate interference, be calm and do the right thing quietly. "Don't be afraid of floating clouds to cover your eyes, it's just because you are at the highest level." As all players in the mining industry sell the same products, the competitiveness of a company lies in cost, which is determined by resources and management abilities. We will continue to focus on acquiring high-quality resources and improving management to sustain our strength in industry competition and commodity cycle.

"Continuous evolution" means to stick to the existing strategy, improve international operations, promote cost and efficiency initiatives, increase ESG performance, strengthening the connection with stakeholders and making firm efforts to respond to the uncertainty of the external environment.

2023 marks the tenth year since CMOC started its global journey. Ten years ago, even the most optimistic mind would never have imagined that today CMOC is one of the players in the center of the global new energy revolution. It is remarkable that we are now fully ready to achieve stellar growth with a global development presence and world-class resources. Guided by the three-step strategy of "laying the foundation, moving up the ladder, and achieving stellar growth", we will focus on the following aspects this year:

Production and operations

TFM mixed ore and KFM will start production in 2023. The two projects, both independently operated by CMOC, show the spirit of "challenging the impossible" of all CMOC employees. We are proud to say we have made significant progress on building a top-performing team and delivering international operations abilities based on our experience of constructing world-class projects within over two years. We will see tremendous incremental production capacity and strong potential for future development once TFM mixed ore project and KFM ramp up to full production.

We also aim for major breakthroughs in Brazil's management improvement and CMOC China's strategic shift in 2023. We must unswervingly adhere to the coordination of "mining + trade" and take the road of modern mining. The transition of IXM's management will bring further dynamism to both of our organic and inorganic growth. The closer we are to fulfilling our strategic goal of building a world-class resources company, the stronger the commitment and efforts are required.

Resources acquisition

The world's mining industry is built on M&As and it is continuous acquisitions of quality resources that keep companies competitive. In recent years, the rapid growth in the new energy sector has prompted a surge of M&As in new energy metals, and consequently, the rising market zeal towards related resources. Though it's always easier to go with the tide, we stay calm and conscious and stick to our disciplines amid market heat, being patient when no good opportunity is available and being quick to take actions when there is one, as demonstrated by the important move we made in lithium resources in 2022. In 2023, in response to the ongoing global energy transition, we will focus on new energy metals to acquire key varieties in key regions. We will actively involve ourselves in the new energy revolution by cooperating with upstream and downstream partners, seeking global opportunities, and investing in new projects.

Corporate governance

We are well aware of the gaps between us and industry-leading players in terms of resources and reserves, size of operations, profitability, and management capabilities. We have a long way to go before becoming a "respected" company. We have been exploring a more effective international operations and management approach to match our growing business footprint. We believe that the purpose of management is to inspire employees to reach their full potential and seek success, a rule works for employees of all nationalities. This is why we keep on track to practice the management principles integrating the strengths of both Eastern and Western styles, bring into play the virtues of hard work of the Chinese people and the pursuit of cost control while respecting local history and culture, and motivate the creativity and initiative of people. This is not going to be easy, but we are on the right track and will chart a course to a more globalized management method for a Chinese company.

This year, we will roll out incentive programs to align personal growth with company development and to allow more sharing with employees. We will continue to implement tailored and dedicated incentive plans for key tasks and projects to reflect our concept of achievement sharing.

ESG development

ESG has come to the forefront of the mining industry and is integral to what constitutes a respectable international player. A resources company, inherently exposed to high environmental and social risks, bears greater responsibility to improve ESG management and disclosure transparency to mitigate risks and address the concerns of stakeholders, including investors, communities, and host governments. This has become a firm-wide priority of the Company.

We will relentlessly pursue improvements in our top ESG performance to enhance our soft power. The ultimate goal of ESG management is to echo the global pursuit of green and harmonious development and reach sustainable and high-quality development through structural transformation, industrial upgrading, environmental-friendly efforts, and harmony with community. In 2023, we developed our carbon-neutral roadmap and identified the carbon neutral goal by 2050. We are pleased to honor the commitment and to make a meaningful contribution to the carbon neutral dialogue of the world.

Corporate culture

We presented our vision of becoming "a respected, world-class, and modern resources company" in 2022 based on reflections of the lessons learned over past years. We are also nurturing a corporate culture pillared by the time-honored Chinese style of simplicity, honesty and humbleness while embracing our major shareholder CFC's aspiration for excellence and truth-seeking. This culture incorporates the ideas of cost control and lean management of a mining company and is embedded with a modern inclination for utilizing financial tools and industry cycle. We are shaping values of CMOC that boasts industry characteristics and supports our international development. CMOC culture and spirit, as they are refined over time, will be the force driving the sustainability and robustness of our business growth.

According to our strategic planning, 2023 will be a critical year of transition from "laying the foundation" to "moving up the ladder". 2023 will be the year of advancement and will see our all-rounded improvement in management, cost, technology, M&A, production capacity, efficiency, and comprehensive protection. I would like to thank CMOC employees for their dedication and hard work and our investors, clients and partners for your support and encouragement during this process.

A smooth sea never made a skilled sailor. As long as we rise against all the challenges and changes with commitment, adaptability, and progress, we will come out stronger and greater!

CEO
Ruiwen Sun

I. SUMMARIZED FINANCIAL INFORMATION

Unit: Yuan Currency: RMB

Major accounting information	2022	2021	Increase or decrease as compared to last year (%)	2020
Operating revenue	**172,990,857,221.36**	173,862,586,154.82	-0.50	112,981,018,624.55
Net profit attributable to shareholders of listed company	**6,066,946,564.19**	5,106,017,249.81	18.82	2,328,787,511.92
Net profit after deduction of non-recurring profits or losses attributable to shareholders of listed company	**6,066,908,349.50**	4,103,233,118.22	47.86	1,090,576,448.35
Net cash flow from operating activities	**15,453,761,072.68**	6,190,648,051.98	149.63	8,492,453,630.20

	At the end of 2022	At the end of 2021	Increase or decrease as compared to last year (%)	At the end of 2020
Net assets attributable to shareholders of listed company	**51,698,562,059.68**	39,845,286,626.30	29.75	38,891,780,788.15
Total assets	**165,019,219,538.77**	137,449,772,623.15	20.06	122,441,249,889.87

Major Financial Indicators

Item	2022	2021	Increase or decrease as compared to last year *(%)*	2020
Basic earnings per share *(RMB Yuan per Share)*	**0.28**	0.24	16.67	0.11
Diluted earnings per share *(RMB Yuan per Share)*	**0.28**	0.24	16.67	N/A
Basic earnings per share after deduction of non-recurring profits or losses *(RMB Yuan per Share)*	**0.28**	0.19	47.37	0.05
Weighted average return on net assets *(%)*	**13.41**	12.93	increased by 0.48 percentage point	5.83
Weighted average return on net assets after deduction of non-recurring profits or losses *(%)*	**13.41**	10.39	increased by 3.02 percentage points	2.78

ITEMS AND AMOUNTS OF NON-RECURRING PROFITS OR LOSSES

Unit: Yuan Currency: RMB

Items	2022	Notes	2021	2020
Profits or losses from disposal of non-current assets	**29,128,043.33**		-5,274,617.13	-812,670.82
Government grants included in profit and loss for the current period, except for those closely relevant to the Company's normal business and in compliance with national policies and regulations and granted continuously according to certain standardized amounts or quotas	**85,350,604.54**		58,214,845.39	38,232,080.76
Capital utilization fess received from non-financial institutions included in profit or loss for the current period	**23,307,175.31**		–	–

Items	**2022**	Notes	2021	2020
Profit and loss of changes in fair value arising from holding of held-for-trading financial assets, derivative financial assets, held-for-trading financial liabilities, derivative financial liabilities, and investment gains from disposal of held-for-trading financial assets, derivative financial assets, held-for-trading financial liabilities, derivative financial liabilities, and other debt investments, except for effective hedging activities associated with normal business operations of the Company	**-1,684,640,006.66**	Including RMB-1,340 million change in fair value of derivative financial instruments of IXM metal trading business	-3,663,615,218.75	-1,934,640,418.79
Other non-operating income or expenses other than the above items	**-84,589,768.19**		-33,359,535.00	-71,108,615.99
Other profit/loss items falling within the definition of non-recurring profit and loss	**1,697,549,933.24**	Including RMB1,602 million profit or loss in relation to IXM metal trading business other than the above items	4,845,052,558.31	3,425,280,730.73
Less: Income tax effects	**66,688,586.86**		198,826,642.76	241,903,714.24
Effects of non-controlling interests (after tax)	**-620,819.98**		-592,741.53	-23,163,671.92
Total	**38,214.69**		1,002,784,131.59	1,238,211,063.57

CONSOLIDATED BALANCE SHEET

Unit: Yuan Currency: RMB

Item	31 December 2022	31 December 2021	Increase (decrease)
Current assets:			
Cash and bank balances	**32,647,565,268.28**	24,318,024,989.56	34.25%
Held-for-trading financial assets	**4,236,792,942.19**	7,117,297,565.38	-40.47%
Derivative financial assets	**1,944,853,567.32**	1,830,819,434.83	6.23%
Accounts receivables	**800,256,289.83**	745,903,478.74	7.29%
Financing receivables	**388,389,728.54**	662,973,657.80	-41.42%
Prepayments	**2,129,545,006.22**	1,473,068,744.38	44.57%
Other receivables	**5,017,084,484.19**	2,158,421,687.51	132.44%
Including: Interests receivable	**618,379,463.56**	409,454,105.99	51.03%
Dividends receivable	**–**	900,000.00	-100.00%
Inventories	**32,254,722,426.64**	26,959,964,452.91	19.64%
Non-current assets due within one year	**1,757,787,239.02**	573,733,642.62	206.38%
Other current assets	**4,504,795,377.38**	5,115,673,898.16	-11.94%
Total current assets	**85,681,792,329.61**	70,955,881,551.89	20.75%
Non-current assets:			
Long-term equity investment	**1,933,910,294.77**	1,249,467,501.47	54.78%
Other investments in equity instruments	**14,827,558.48**	67,772,733.31	-78.12%
Other non-current financial assets	**3,554,476,351.83**	3,912,404,655.76	-9.15%
Fixed assets	**28,055,742,014.75**	24,959,306,845.68	12.41%
Construction in progress	**13,659,085,249.76**	3,882,051,384.27	251.85%
Right-of-use assets	**264,313,360.66**	358,652,931.81	-26.30%
Intangible assets	**19,447,513,419.29**	19,398,989,322.92	0.25%
Inventory	**7,001,735,495.28**	6,111,544,354.19	14.57%
Goodwill	**422,968,781.50**	387,204,155.33	9.24%
Long-term prepaid expenses	**217,666,607.09**	178,843,869.89	21.71%
Deferred tax assets	**1,111,487,581.86**	987,702,345.62	12.53%
Other non-current assets	**3,653,700,493.89**	4,999,950,971.01	-26.93%
Total non-current assets	**79,337,427,209.16**	66,493,891,071.26	19.32%
Total assets	**165,019,219,538.77**	137,449,772,623.15	20.06%

Item	31 December 2022	31 December 2021	Increase (decrease)
Current liabilities:			
Short-term borrowings	**20,107,509,714.04**	26,911,899,635.42	-25.28%
Held-for-trading financing liabilities	**3,651,811,361.47**	4,402,513,686.53	-17.05%
Derivative financial liabilities	**2,350,847,071.76**	2,636,505,095.30	-10.83%
Notes payable	**2,409,419,326.42**	2,906,023,727.49	-17.09%
Accounts payable	**1,547,305,043.03**	1,260,247,972.87	22.78%
Contract liabilities	**1,689,792,175.08**	637,933,776.57	164.89%
Employee benefits payable	**1,017,993,590.42**	897,749,900.38	13.39%
Taxes payable	**804,749,758.78**	2,704,678,920.67	-70.25%
Other payables	**6,861,265,106.60**	2,918,190,968.03	135.12%
Including: Interests payable	**234,561,190.61**	161,655,596.08	45.10%
Dividends payable	**27,885,796.67**	27,885,796.67	0.00%
Non-current liabilities due within one year	**6,905,036,819.39**	4,954,382,332.64	39.37%
Other current liabilities	**2,715,386,791.93**	429,943,105.54	531.57%
Total current liabilities	**50,061,116,758.92**	50,660,069,121.44	-1.18%
Non-current liabilities:			
Long-term borrowings	**18,975,172,198.88**	13,610,578,855.09	39.41%
Bonds payable	**2,150,000,000.00**	1,150,000,000.00	86.96%
Non-current derivative financial liabilities	**230,168,848.27**	357,204,494.71	-35.56%
Lease liabilities	**209,349,065.29**	233,937,993.67	-10.51%
Long-term employee benefits payable	**356,539,615.25**	308,472,990.96	15.58%
Provision	**3,167,361,155.32**	3,081,821,758.57	2.78%
Deferred income	**45,713,239.10**	53,103,694.70	-13.92%
Deferred tax liabilities	**6,092,532,551.64**	6,136,296,210.55	-0.71%
Other non-current liabilities	**21,693,849,406.96**	13,594,075,166.39	59.58%
Total non-current liabilities	**52,920,686,080.71**	38,525,491,164.64	37.37%
Total liabilities	**102,981,802,839.63**	89,185,560,286.08	15.47%

Item	**31 December 2022**	31 December 2021	Increase (decrease)
Owners' equity (or shareholders' equity)			
Paid-in capital (or share capital)	**4,319,848,116.60**	4,319,848,116.60	0.00%
Other equity instruments	**1,000,000,000.00**	–	100.00%
Including: Perpetual bonds	**1,000,000,000.00**	–	100.00%
Capital reserve	**27,681,918,087.25**	27,645,855,518.39	0.13%
Less: Treasury share	**1,325,021,131.22**	876,357,019.96	51.20%
Other comprehensive income	**294,879,708.74**	-6,406,227,030.65	104.60%
Special reserve	**22,655,587.06**	487,314.82	4,549%
Surplus reserve	**1,684,388,527.69**	1,463,370,956.65	15.10%
Retained profits	**18,019,893,163.56**	13,698,308,770.45	31.55%
Total equity attributable to owners of the parent company	**51,698,562,059.68**	39,845,286,626.30	29.75%
Non-controlling interests	**10,338,854,639.46**	8,418,925,710.77	22.80%
Total owners' equity (or shareholders' equity)	**62,037,416,699.14**	48,264,212,337.07	28.54%
Total liabilities and owners' equity (or shareholders' equity)	**165,019,219,538.77**	137,449,772,623.15	20.06%

CONSOLIDATED INCOME STATEMENT

Unit: Yuan Currency: RMB

Item		2022	2021	Increase (decrease)
I.	**Total operating revenue**	**172,990,857,221.36**	173,862,586,154.82	-0.50%
	Including: Operating revenue	**172,990,857,221.36**	173,862,586,154.82	-0.50%
II.	**Total operating costs**	**162,246,417,529.62**	161,808,822,844.14	0.27%
	Including: Operating costs	**156,926,248,131.67**	157,539,542,348.74	-0.39%
	Taxes and levies	**1,235,110,800.28**	1,256,077,808.20	-1.67%
	Selling expenses	**97,171,422.69**	89,749,939.10	8.27%
	Administrative expenses	**1,790,812,081.35**	1,556,010,571.73	15.09%
	Research and development expenses	**388,609,726.55**	272,384,715.46	42.67%
	Financial expenses	**1,808,465,367.08**	1,095,057,460.91	65.15%
	Including: Interest expenses	**2,795,047,621.88**	1,764,472,539.36	58.41%
	Interest income	**1,189,038,307.66**	748,777,605.00	58.80%
	Add: Other income	**85,350,604.54**	58,214,845.39	46.61%
	Investment income (losses are indicated by"-")	**725,919,489.77**	110,295,857.36	558.16%
	Including: Income from investments in associates and joint ventures	**645,307,049.56**	-2,281,770.77	28,380.98%
	Gains from changes in fair value (losses are indicated by"-")	**-1,610,830,289.45**	-3,367,748,632.59	52.17%
	Gains from credit impairment (losses are indicated by"-")	**-19,677,971.29**	148,459.55	-13,354.77%
	Gains from impairment of assets (losses are indicated by"-")	**-65,273,094.66**	-60,725,346.54	-7.49%
	Gains from disposal of assets (losses are indicated by"-")	**29,128,043.33**	-5,274,617.13	652.23%
III.	**Operating profit (loss is indicated by "-")**	**9,889,056,473.98**	8,788,673,876.72	12.52%
	Add: Non-operating income	**19,666,081.51**	19,162,108.50	2.63%
	Less: Non-operating expenses	**104,255,849.70**	52,521,643.50	98.50%
IV.	**Total profit (total loss is indicated by "-")**	**9,804,466,705.79**	8,755,314,341.72	11.98%
	Less: Income tax expenses	**2,612,765,878.42**	3,327,700,999.16	-21.48%

Item	2022	2021	Increase (decrease)
V. Net profit (net losses are indicated by "-")	**7,191,700,827.37**	5,427,613,342.56	32.50%
(I) Classified by operation continuity			
1. Net profit from continuing operations (net losses are indicated by"-")	**7,191,700,827.37**	5,427,613,342.56	32.50%
(II) Classified by ownership			
1. Net profit attributable to owners of the parent company (net losses are indicated by"-")	**6,066,946,564.19**	5,106,017,249.81	18.82%
2. Non-controlling interests (net losses are indicated by"-")	**1,124,754,263.18**	321,596,092.75	249.74%
VI. Other comprehensive income, net of tax	**7,493,237,348.93**	-3,066,390,685.93	344.37%
(I) Other comprehensive income attributable to owners of the parent company, net of tax	**6,701,106,739.39**	-2,885,808,367.60	332.21%
1. Other comprehensive income that cannot be reclassified subsequently to profit or loss	**-28,675,646.01**	17,782,366.26	-261.26%
(1) Remeasurement of changes in defined benefit plans	**10,901,976.24**	31,667,410.20	-65.57%
(2) Changes in fair value of other equity instrument investments	**-39,577,622.25**	-13,885,043.94	-185.04%
2. Other comprehensive income that will be reclassified subsequently to profit or loss	**6,729,782,385.40**	-2,903,590,733.86	331.77%
(1) Cash flow hedge reserve	**3,064,856,969.64**	-2,094,684,175.28	246.32%
(2) Foreign exchange differences from translation of financial statements	**3,664,925,415.76**	-808,906,558.58	553.07%
(II) Other comprehensive income, net of tax attributable to non-controlling shareholders	**792,130,609.54**	-180,582,318.33	538.65%
VII. Total comprehensive income	**14,684,938,176.30**	2,361,222,656.63	521.92%
(I) Attributable to owners of the parent company	**12,768,053,303.58**	2,220,208,882.21	475.08%
(II) Attributable to non-controlling shareholders	**1,916,884,872.72**	141,013,774.42	1,259.36%
VIII. Earnings per share:			
(I) Basic earnings per share (RMB Yuan per Share)	**0.28**	0.24	16.67%
(II) Diluted earnings per share (RMB Yuan per Share)	**0.28**	0.24	16.67%

CONSOLIDATED STATEMENT OF CASH FLOW

Unit: Yuan Currency: RMB

Item		2022	2021	Increase (decrease)
I.	**Cash flows from operating activities:**			
	Cash received from sales of goods and rendering services	**181,115,607,819.21**	178,911,705,871.18	1.23%
	Cash received from tax refund	**179,958,356.30**	210,603,969.12	-14.55%
	Cash received related to other operating activities	**5,824,961,505.57**	755,068,590.12	671.45%
	Sub-total of cash inflows from operating activities	**187,120,527,681.08**	179,877,378,430.42	4.03%
	Cash paid for purchasing goods and receiving labour services	**158,344,577,825.15**	164,689,040,889.30	-3.85%
	Cash paid to employees and paid for employees	**3,036,911,440.69**	2,821,176,646.71	7.65%
	Taxes and fees paid	**9,598,244,714.12**	4,441,568,895.75	116.10%
	Cash paid for other operating activities	**687,032,628.44**	1,734,943,946.68	-60.40%
	Sub-total of cash outflow from operating activities	**171,666,766,608.40**	173,686,730,378.44	-1.16%
	Net cash flow from operating activities	**15,453,761,072.68**	6,190,648,051.98	149.63%
II.	**Cash flows from investing activities:**			
	Cash received from investment contribution	**7,994,947,087.13**	9,357,480,545.74	-14.56%
	Cash received from investment income	**1,599,113,255.66**	202,617,528.10	689.23%
	Net cash received from disposals of fixed assets, intangible assets and other long-term assets	**48,037,339.88**	21,282,617.12	125.71%
	Net cash received from disposals of subsidiaries and other operating units	**73,757,200.00**	55,505,000.00	32.88%
	Cash received related to other investing activities	**1,910,915,060.38**	1,077,853,530.69	77.29%
	Sub-total of cash inflows from investing activities	**11,626,769,943.05**	10,714,739,221.65	8.51%
	Cash paid for acquiring or construction of fixed assets, intangible assets and other long-term assets	**10,517,759,270.88**	4,281,675,570.51	145.65%
	Cash paid for acquiring investments	**6,264,524,646.22**	9,239,478,169.67	-32.20%
	Cash paid for other investing activities	**2,216,140,264.62**	2,085,385,035.55	6.27%
	Sub-total of cash outflow from investing activities	**18,998,424,181.72**	15,606,538,775.73	21.73%
	Net cash flows from investing activities	**-7,371,654,238.67**	-4,891,799,554.08	-50.69%

Item		2022	2021	Increase (decrease)
III.	**Cash flows from financing activities:**			
	Cash received from investment contribution	**997,034,823.00**	1,004,559,574.00	-0.75%
	Including: Cash received from minority shareholders' investments obtained by subsidiaries	**34,823.00**	–	100.00%
	Cash received from borrowings	**59,482,719,800.04**	45,430,966,241.84	30.93%
	Cash received from other financing activities	**5,076,200,366.50**	11,762,118,200.00	-56.84%
	Sub-total of cash inflows from financing activities	**65,555,954,989.54**	58,197,644,015.84	12.64%
	Cash repayments of borrowings	**61,359,033,301.53**	45,227,614,462.85	35.67%
	Cash paid for distribution of dividends, profits and interest	**4,791,671,968.37**	2,600,708,171.47	84.24%
	Including: Dividends and profits paid by subsidiaries to minority shareholders	**–**	165,166,381.80	-100.00%
	Cash paid for other financing activities	**1,501,795,631.15**	2,480,683,943.05	-39.46%
	Sub-total of cash outflow from financing activities	**67,652,500,901.05**	50,309,006,577.37	34.47%
	Net cash flow from financing activities	**-2,096,545,911.51**	7,888,637,438.47	-126.58%
IV.	**Effect of exchange rate changes on cash and cash equivalents**	**2,667,296,884.74**	-243,745,530.93	1,194.30%
V.	**Net increase of cash and cash equivalents**	**8,652,857,807.24**	8,943,740,405.44	-3.25%
	Add: Balance of cash and cash equivalents at the beginning of year	**20,392,690,843.69**	11,448,950,438.25	78.12%
VI.	**Balance of cash and cash equivalents at the end of year**	**29,045,548,650.93**	20,392,690,843.69	42.43%

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. ACCOUNTING REQUIREMENTS NEWLY IMPLEMENTED THIS YEAR

Interpretation No. 15 of the Accounting Standards for Business Enterprises

On 30 December 2021, the Ministry of Finance issued the Interpretation No. 15 of the Accounting Standards for Business Enterprises ("**Interpretation No. 15**"), which regulated the accounting treatment of external sales of products or by-products produced before the fixed assets are ready for their intended use or during the research and development (the "**R&D**") process and the determination of onerous contracts.

Accounting Treatment of External Sales of Products or By-products Produced Before the Fixed Assets are Ready for Their Intended Use or During the R&D Process

As stipulated under Interpretation No. 15, in case an enterprise conducts external sales of products or by-products produced before the fixed assets are ready for their intended use or during the R&D process, the income and costs related to the trial operation sales shall be accounted for separately and included in the current profit and loss in accordance with the Accounting Standards for Business Enterprises No. 14 – Revenue and Accounting Standards for Business Enterprises No. 1 – Inventory. The net amount after the income related to the sales of the trial operation which has been offset against the relevant costs shall not be written off against the cost of fixed assets or R&D expenditures. At the same time, the enterprise shall separately disclose the relevant information such as the relevant income and cost amount of the trial operation sales, the specific presentation items, and the major accounting estimates used in determining the relevant costs of the trial operation sale and other relevant information in the notes. This regulation has been implemented from 1 January 2022. Retrospective adjustments shall be made for trial operation occurred during the period from the beginning of the earliest period for presentation of financial statements until 1 January 2022.

Upon assessment, the Group is of the view that the application of such regulation will not have any significant impact on the financial statements of the Group.

Determination of Onerous Contracts

Interpretation No. 15 clarifies that the "cost of performing the contract" considered by an enterprise in determining whether a contract constitutes an onerous contract shall include both the incremental cost of performing the contract and the apportioned amount of other costs directly related to the performance of the contract. This regulation has come into effect since 1 January 2022. Enterprises shall implement the regulation for contracts that have not yet fulfilled all obligations as at 1 January 2022. In respect of the cumulative effect adjustment on retained earnings and other related financial statement projects at the beginning of the year, no adjustment shall be made on comparable figures in financial statements for prior periods.

Upon assessment, the Group is of the view that the application of such regulation will not have any significant impact on the financial statements of the Group.

Interpretation No. 16 of the Accounting Standards for Business Enterprises

On 30 November 2022, the Ministry of Finance issued the Interpretation No. 16 of the Accounting Standards for Business Enterprises ("**Interpretation No. 16**"), which regulated the accounting treatments of the income tax effects of dividends in relation to financial instrument classified as equity instrument and the replacement of cash-settled share-based payment with equity-settled share-based payment.

Accounting Treatment of the Income Tax Effects of Dividends in relation to Financial Instrument Classified as Equity Instrument

Interpretation No. 16 clarifies that for financial instrument classified as equity instrument in accordance with regulations including the Accounting Standards for Business Enterprises No. 37 – Presentation of Financial Instruments, in case relevant dividend expenses shall be eventually deducted from income tax in accordance with relevant tax laws and policies, income tax effects of dividends shall be included in profit or loss for the current period or ownership interest when recognizing dividend payables in accordance with the same accounting treatment as adopted in prior transactions or events that incurred distributable profits. This regulation has come into effect since 30 November 2022. If the recognition of dividend payables in relation to financial instrument classified as equity instrument occurs during the period from 1 January 2022 until the date of implementation of this regulation, and relevant income tax effects have not been treated in accordance with the aforesaid rules, adjustments shall be made in accordance with the aforesaid rules. If the recognition of dividend payables in relation to financial instrument classified as equity instrument occurred before 1 January 2022, and relevant financial instrument has not been derecognized as at 1 January 2022, retrospective adjustment shall be made for income tax effects that have not been treated in accordance with the aforesaid rules.

The Group is of the view that the application of such regulation will not have any significant impact on the financial statements of the Group.

Accounting Treatment of the Replacement of Cash-Settled Share-Based Payment with Equity-Settled Share-Based Payment

Interpretation No. 16 stipulates that if an enterprise replaces cash-settled share-based payment with equity-settled share-based payment in accordance with terms and conditions under cash-settled share-based payment agreement, on the date of change, equity-settled share-based payment shall be measured at the fair value as at the date of grant of such equity instrument, with services received to be included in capital reserve. Meanwhile, recognized liability in relation to cash-settled share-based payment as at the date of change shall be derecognized, with difference thereof to be included in profit or loss for the current period. This regulation has come into effect since 30 November 2022. If the aforesaid transaction occurred during the period from 1 January 2022 until the date of implementation of this regulation, adjustments shall be made in accordance with the aforesaid rules. If the aforesaid transaction occurred prior to 1 January 2022 and not yet been treated in accordance with aforesaid rules, adjustments shall be made. Retained profits and other relevant items in the financial statements as at 1 January 2022 shall be adjusted based on the cumulative effects, while comparable figures are not subject to adjustment.

The Group is of the view that the application of such regulation will not have any significant impact on the financial statements of the Group.

2. FINANCING RECEIVABLES

RMB

Category	**31 December 2022**	31 December 2021
Notes receivable	**388,389,728.54**	662,973,657.80
Including: Bank acceptances	**388,389,728.54**	662,544,587.40
Others	**–**	429,070.40
Total	**388,389,728.54**	662,973,657.80

Part of notes receivable are endorsed or discounted by the Group in accordance with daily fund requirement, therefore they are classified as financial assets with FVTOCI.

As at 31 December 2022, the Group measured bad debt provision at lifetime ECL. The Group considers that there is minor possibility of significant loss arising from the default of banks, therefore it has no significant credit risk on bank acceptances.

(1) Endorsed or discounted financing receivables by the Group but still outstanding at balance sheet date at the end and beginning of the year respectively are as follows:

RMB

Category	**Amount derecognized at the end of 2022**	Amount derecognized at the end of 2021
Bank acceptances	**2,134,119,780.31**	1,511,576,931.98
Total	**2,134,119,780.31**	1,511,576,931.98

Note: Since major risks and rewards including the interest rate risks related to such bank acceptance have been substantially transferred to the bank or another party, the Group ceased to recognize the discounted or endorsed bank acceptances.

(2) As at 31 December 2022, the amount of financing receivables of the Group pledged to issue notes payable was RMB255,797,055.59 (2021: RMB430,703,171.04).

(3) At the end and beginning of the year, none of the Group's notes was transferred to accounts receivable due to the drawers' failure in performing the agreements.

3. ACCOUNT RECEIVABLES

(1) Disclosure by aging

RMB

Aging	**31 December 2022**		
	Accounts receivable	**Bad debt provision**	**Proportion** *(%)*
Within 1 year	**818,672,585.69**	**35,816,949.44**	**4.38**
1-2 years	**19,540,745.67**	**2,164,593.52**	**11.08**
2-3 years	**59,384.78**	**34,883.35**	**58.74**
Over 3 years	**20,636,571.91**	**20,636,571.91**	**100.00**
Total	**858,909,288.05**	**58,652,998.22**	**6.83**

RMB

Aging	**31 December 2021**		
	Accounts receivable	**Bad debt provision**	**Proportion** *(%)*
Within 1 year	731,349,277.13	6,036,864.55	0.83
1-2 years	3,897,385.05	405,317.22	10.40
2-3 years	28,000,979.25	10,901,980.92	38.93
Over 3 years	18,682,996.91	18,682,996.91	100.00
Total	781,930,638.34	36,027,159.60	4.61

(2) Credit risk of accounts receivable

As the Group has a long-term and stable relationship with the customers with high credit rating in respect of the niobium business in Brazil, and acid and quicklime business in the DRC and metal trading business in Switzerland, the management believes that the credit risk is low. The Group classifies the customers of tungsten and molybdenum business in China and phosphate business in Brazil into different groups in accordance with their aging and historical repayments at the balance sheet date, and determines the expected loss rate of accounts receivable of various groups. As at the balance sheet date, the Group recognized the expected credit loss allowance for accounts receivables based on impairment matrix.

RMB

	31 December 2022				31 December 2021			
Internal credit rating	**Expected average loss rate**	**Book balance**	**Provision for loss**	**Book value**	Expected average loss rate	Book balance	Provision for loss	Book value
Low risk	**0.09%**	**417,676,924.84**	**390,328.82**	**417,286,596.02**	0.04%	623,785,238.20	263,044.42	623,522,193.78
Normal	**2.59%**	**158,382,584.69**	**4,103,048.24**	**154,279,536.45**	2.54%	49,637,331.37	1,260,825.22	48,376,506.15
Attention	**6.86%**	**228,194,762.60**	**15,664,851.04**	**212,529,911.56**	6.45%	69,601,340.76	4,488,581.80	65,112,758.96
Doubtful (impaired)	**52.50%**	**34,018,444.02**	**17,858,198.22**	**16,160,245.80**	51.24%	18,236,556.11	9,344,536.26	8,892,019.85
Loss (impaired)	**100.00%**	**20,636,571.90**	**20,636,571.90**	**–**	100.00%	20,670,171.90	20,670,171.90	–
Total		**858,909,288.05**	**58,652,998.22**	**800,256,289.83**		781,930,638.34	36,027,159.60	745,903,478.74

The expected average loss rate is measured based on historical actual impairment rate with reference to the current situation and prediction on future economy. There are no changes in evaluation approach and significant assumption in 2022 and 2021.

(3) Changes in expected credit loss provision for accounts receivable

RMB

	Lifetime ECL
1 January 2022	36,027,159.60
Provision of ECL for the period	61,447,963.77
Reversal of ECL for the period	-41,769,819.86
Changes in exchange rate	2,947,694.71
31 December 2022	58,652,998.22

(4) Top five accounts receivable balances at the end of the reporting period based on debtors:

RMB

Name of entity	**Amount**	**Proportion of the amount to the total accounts receivable** *(%)*	**Credit impairment loss**
31 December 2022			
Company B	**94,479,430.46**	**11.00**	**109,806.26**
Company BA	**74,652,318.58**	**8.69**	**86,762.72**
Company BB	**42,797,049.62**	**4.98**	**429,101.19**
Company BC	**39,448,979.65**	**4.59**	**1,002,964.88**
Company BD	**33,798,846.29**	**3.94**	**39,281.83**
Total	**285,176,624.60**	**33.20**	**1,667,916.88**

RMB

Name of entity	Amount	Proportion of the amount to the total accounts receivable (%)	Credit impairment loss
31 December 2021			
Company X	74,079,411.00	9.48	–
Company F	47,782,876.51	6.11	68,510.40
Company B	45,682,896.49	5.84	65,499.50
Company H	41,891,527.41	5.36	5,002,814.21
Company Y	33,492,106.91	4.28	3,349.22
Total	242,928,818.32	31.07	5,140,173.33

4. PREPAYMENTS

(1) Aging analysis of prepayments is as follows

RMB

Aging	**31 December 2022**		31 December 2021	
	Amount	**Proportion (%)**	Amount	Proportion (%)
Within 1 year	**2,111,763,603.37**	**99.17**	1,456,806,903.44	98.90
1 to 2 years	**15,643,210.42**	**0.73**	12,735,523.50	0.86
2 to 3 years	**1,894,588.39**	**0.09**	298,364.08	0.02
Over 3 years	**243,604.04**	**0.01**	3,227,953.36	0.22
Total	**2,129,545,006.22**	**100.00**	1,473,068,744.38	100.00

(2) Top five of prepayments balances at the end of year based on debtors

RMB

	31 December 2022		31 December 2021		
Name of entity	**Amount**	**Proportion of the amount to the total prepayments (%)**	Name of entity	Amount	Proportion of the amount to the total prepayments (%)
Company BE	**169,594,265.25**	**7.96**	Company O	196,175,272.41	13.32
Company BF	**125,347,717.30**	**5.89**	Company P	137,800,698.53	9.35
Company BG	**104,591,145.10**	**4.91**	Company Q	103,866,981.63	7.05
Company G	**97,945,710.24**	**4.60**	Company R	85,742,172.53	5.82
Company BH	**73,201,128.00**	**3.44**	Company S	57,647,861.64	3.91
Total	**570,679,965.89**	**26.80**	Total	581,232,986.74	39.45

5. RETAINED PROFITS

RMB

Item	**31 December 2022**	31 December 2021
Retained profits at the end of current year	**13,698,308,770.45**	9,472,838,365.96
Add: Net profit attributable to shareholders of the parent company for the year	**6,066,946,564.19**	5,106,017,249.81
Less: Appropriation to statutory surplus reserve	**221,017,571.04**	167,771,905.11
Ordinary shares dividends payable *(Note 1)*	**1,524,344,600.04**	712,774,940.21
Retained profits at the end of current year	**18,019,893,163.56**	13,698,308,770.45

Note 1: Cash dividend has been approved at the annual general meeting during the current year.

As resolved at the Company's 2021 annual general meeting on 10 June 2022, the Company distributed to all shareholders a cash dividend of RMB0.7125 per 10 shares (tax inclusive), totaling to RMB1,524,344,600.04 (2021: RMB712,774,940.21).

Note 2: Profit distribution declared after the balance sheet date.

According to a proposal of the Board, the Company proposed a distribution of a cash dividend to all shareholders at RMB0.8508 for every 10 shares in 2022 (tax inclusive) (2021: RMB0.7125 for every 10 shares (tax inclusive)), on the basis of 21,394,310,176 issued shares (net of the number of shares in the Company's dedicated repurchase account) (with par value of RMB0.2 per share).

6. DIVIDENDS

Implementation of the cash dividend policy

The 2021 annual general meeting of the Company convened on 10 June 2022 reviewed and approved the 2021 profit distribution plan for a cash dividend of RMB0.7125 per 10 shares (tax inclusive). Subsequently, a total cash dividend of RMB1,524,344,600.04 (tax inclusive) was distributed to the Shareholders based on the total share capital of the Company of 21,599,240,583 shares prior to the implementation of the plan, excluding the 204,930,407 A shares of the Company in the Company's dedicated repurchase securities account. The cash dividend distribution had been completed during the Reporting Period.

7. OPERATING REVENUE AND OPERATING COSTS

(1) Operating revenue (by category)

RMB

Item	2022 Revenue	2022 Costs	2021 Revenue	2021 Costs
Principal operating activities	**172,682,807,359.00**	**156,634,041,102.69**	173,351,399,660.10	157,100,249,285.38
Including: Sales of goods	**25,374,732,583.49**	**14,813,769,671.95**	25,358,304,123.52	14,131,177,405.58
Metal trading	**147,308,074,775.51**	**141,820,271,430.74**	147,993,095,536.58	142,969,071,879.80
Other operating activities	**308,049,862.36**	**292,207,028.98**	511,186,494.72	439,293,063.36
Including: Income from hotel services	**35,810,084.10**	**40,507,807.78**	54,707,548.40	43,623,819.61
Other income	**272,239,778.26**	**251,699,221.20**	456,478,946.32	395,669,243.75
Total	**172,990,857,221.36**	**156,926,248,131.67**	173,862,586,154.82	157,539,542,348.74

(2) Principal operating activities (by products)

RMB

Name of products	2022 Operating revenue	2022 Operating costs	2021 Operating revenue	2021 Operating costs
Molybdenum, tungsten related products	**6,965,368,091.42**	**4,020,610,663.20**	5,350,413,902.79	3,162,552,021.69
Niobium, phosphate related products	**7,368,147,038.65**	**4,566,124,333.17**	5,086,841,778.80	3,615,904,038.10
Copper, cobalt related products	**9,748,225,331.68**	**5,183,855,582.32**	13,268,256,624.20	6,241,622,321.72
Copper, gold related products	**1,292,786,434.09**	**1,042,987,983.36**	1,652,687,869.50	1,111,003,201.84
Metal concentrates trading	**39,916,885,676.01**	**38,361,690,395.27**	42,477,651,076.36	39,714,777,592.69
Refined metal trading	**107,391,189,099.50**	**103,458,581,035.47**	105,515,444,460.22	103,254,294,287.11
Others	**205,687.65**	**191,109.90**	103,948.23	95,822.23
Total	**172,682,807,359.00**	**156,634,041,102.69**	173,351,399,660.10	157,100,249,285.38

(3) Performance obligation

Sales of goods and metal trading:

The Group sells mineral products including molybdenum, tungsten, niobium, phosphate, copper, cobalt and gold, copper, lead and zinc concentrates, refined metals, aluminum and other metals to customers. In general, relevant sales contracts will only contain the obligation of goods delivery. The consideration for sales of products is determined based on the fixed price agreed in the sales contract or provisional pricing arrangement. Revenue is recognized upon transfer of control to the client. Revenue from sales in the provisional pricing arrangement is recognized based on the fair value of products upon recognition of sales.

At the same time, the Group conducts business by way of prepayment or credit sales according to the credit status of the counterparty.

Income from hotel services:

The Group renders services to and receive income from clients through its own hotels, and relevant revenue is recognized in the period when clients receives and consumes relevant services.

Other income:

The Group sells ancillary materials and obsolete materials to customers. In general, contracts on sales of relevant products solely contain one performance obligation, i.e., delivery of goods. The consideration for sales of products is determined based on the fixed price in the sales contract or temporary pricing arrangement. Revenue is recognized upon transfer of control to the client.

8. FINANCIAL EXPENSES

RMB

Item	**2022**	2021
Interest expenses on bonds	**160,152,211.17**	215,050,342.93
Interest expenses on lease liabilities	**14,155,868.23**	24,356,158.94
Bank loans and other interest expenses	**2,508,544,973.03**	1,416,456,949.36
Metal streaming financing costs	**112,194,569.45**	108,609,088.13
Total interest expenses	**2,795,047,621.88**	1,764,472,539.36
Less: Interest income	**1,189,038,307.66**	748,777,605.00
Exchange differences	**128,024,089.36**	-38,501,323.00
Gold lease charges	**12,167,370.39**	39,947,120.58
Others	**62,264,593.11**	77,916,728.97
Total	**1,808,465,367.08**	1,095,057,460.91

9. INVESTMENT INCOME

RMB

Item	**2022**	2021
Gain (Loss) on long-term equity investment under equity method	**645,307,049.56**	-2,281,770.77
Investment income from holding held-for-trading financial assets	**75,482.70**	33,204,166.53
Investment income from holding other non-current financial assets	**59,023,405.87**	116,574,573.13
Investment income from disposal of subsidiaries	**52,011,903.43**	1,165,641.55
Investment loss from disposal of other non-current financial assets	**–**	-4,774,325.41
Others	**-30,498,351.79**	-33,592,427.67
Total	**725,919,489.77**	110,295,857.36

There are no significant restrictions on remittance of investment income.

10. INCOME TAX EXPENSES

Item	**2022**	2021
		RMB
Current tax expenses calculated according to tax laws and relevant requirements	**3,206,035,984.64**	3,577,912,612.40
Differences arising on settlement of income tax for the previous year	**64,839,105.05**	82,925,243.43
Adjustments to deferred income tax	**-658,109,211.27**	-333,136,856.67
Total	**2,612,765,878.42**	3,327,700,999.16

Reconciliation of income tax expenses to the accounting profit is as follows:

	2022	2021
		RMB
Accounting profit	**9,804,466,705.79**	8,755,314,341.72
Income tax expenses calculated at 15% (2021: 15%)	**1,470,670,005.87**	1,313,297,151.26
Tax impact of non-deductible expenses	**68,978,876.23**	38,156,004.72
Tax impact of tax free income/extra deductible expenses	**-351,561,772.11**	-151,204,719.11
Tax impact of utilizing deductible loss and deductible temporary difference previously not recognized	**-622,779.30**	-192,686.38
Tax impact of unrecognized deductible loss and deductible temporary difference	**4,660,276.29**	8,812,647.39
Exchange rate impact of non-currency monetary items and corporate restructuring for tax purpose	**-71,286,637.30**	50,888,005.73
Deductible losses arising from tax return	**64,979,731.97**	59,020,911.41
Impact of different tax rate in subsidiaries in other jurisdictions	**1,298,530,815.90**	1,813,376,863.16
Difference arising on settlement of income tax for the previous year	**64,839,105.05**	82,925,243.43
Withholding income tax due to dividends from subsidiaries	**63,578,255.82**	112,621,577.55
Total	**2,612,765,878.42**	3,327,700,999.16

11. CALCULATION PROCESS OF BASIC EARNINGS PER SHARE AND DILUTED EARNINGS PER SHARE

For the purpose of calculating basic earnings per share, net profit for the current year attributable to ordinary shareholders is as follows:

		RMB
	2022	2021
Net profit attributable to ordinary shareholders for the current year	**6,066,946,564.19**	5,106,017,249.81

In calculating basic earnings per share, the cash dividends for holders of restricted shares expected to be unlocked in the future are:

		RMB
	2022	2021
Cash dividends for holders of restricted shares expected to be unlocked in the future	**51,335,885.06**	1,600,938.47

In calculating the basic earnings per share, the denominator is the weighted average number of the issued and outstanding ordinary shares and its calculation process is as follows:

	2022	2021
Number of ordinary shares issued at the beginning of year	**21,450,727,332**	21,550,727,296
Less: Weighted average number of ordinary shares repurchased during the year	**58,821,517**	22,578,516
Add: Weighted average number of restricted shares unlocked during the year	**6,151,993**	–
Weighted average number of ordinary shares issued at the end of year	**21,398,057,808**	21,528,148,780

Earnings per share:

		RMB
	2022	2021
Calculated based on net profit attributable to shareholders of the parent company:		
Basic earnings per share	**0.28**	0.24
Diluted earnings per share	**0.28**	0.24

II. FINANCIAL REVIEW

Overview

During the reporting period, the Company's net profit increased from RMB5,428 million in 2021 to RMB7,192 million in 2022, increased by RMB1,764 million or 32.50%. Among them: net profit attributable to shareholders of the parent company amounted to RMB6,067 million, representing an increase of RMB961 million or 18.82% from RMB5,106 million in 2021. This was mainly due to the increase in market prices of our major products, including molybdenum, tungsten, niobium and phosphate, during the year, resulting in a year-on-year increase in profits.

Principal Businesses by Industry, Product and Region

Unit: Yuan Currency: RMB

Principal businesses by industry						
By industry	Operating revenue	Operating cost	Gross profit margin *(%)*	Increase or decrease in operating revenue as compared to last year *(%)*	Increase or decrease in operating cost as compared to last year *(%)*	Increase or decrease in gross profit margin as compared to last year *(%)*
Mineral exploration and processing	25,374,526,895.84	14,813,578,562.05	41.62	0.06	4.83	Decreased by 2.65 percentage points
Mineral trading *(Note)*	147,308,074,775.51	141,820,271,430.74	3.73	-0.46	-0.80	Increased by 0.34 percentage point
Others	205,687.65	191,109.90	7.09	97.88	99.44	Decreased by 0.73 percentage point

Principal businesses by region

By region	Operating revenue	Operating cost	Gross profit margin *(%)*	Increase or decrease in operating revenue as compared to last year *(%)*	Increase or decrease in operating cost as compared to last year *(%)*	Increase or decrease in gross profit margin as compared to last year *(%)*
Mineral exploration and processing						
Molybdenum and tungsten	6,965,368,091.42	4,020,610,663.20	42.28	30.18	27.13	Increased by 1.39 percentage points
Copper and gold	1,292,786,434.09	1,042,987,983.36	19.32	-21.78	-6.12	Decreased by 13.46 percentage points
Niobium and phosphate	7,368,147,038.65	4,566,124,333.17	38.03	44.85	26.28	Increased by 9.11 percentage points
Copper and cobalt	9,748,225,331.68	5,183,855,582.32	46.82	-26.53	-16.95	Decreased by 6.14 percentage points
Mineral trading *(Note)*						
Concentrate products	39,916,885,676.01	38,361,690,395.27	3.90	-6.03	-3.41	Decreased by 2.60 percentage points
Refined metal products	107,391,189,099.50	103,458,581,035.47	3.66	1.78	0.20	Increased by 1.52 percentage points
Others	205,687.65	191,109.90	7.09	97.88	99.44	Decreased by 0.73 percentage point

Principal businesses by region

By region	Operating revenue	Operating cost	Gross profit margin *(%)*	Increase or decrease in operating revenue as compared to last year *(%)*	Increase or decrease in operating cost as compared to last year *(%)*	Increase or decrease in gross profit margin as compared to last year *(%)*
Mineral exploration and processing						
China	6,965,368,091.42	4,020,610,663.20	42.28	30.18	27.13	Increased by 1.39 percentage points
Australia	1,292,786,434.09	1,042,987,983.36	19.32	-21.78	-6.12	Decreased by 13.46 percentage points
Brazil	7,368,147,038.65	4,566,124,333.17	38.03	44.85	26.28	Increased by 9.11 percentage points
DRC	9,748,225,331.68	5,183,855,582.32	46.82	-26.53	-16.95	Decreased by 6.14 percentage points
Mineral trading *(Note)*						
China	41,138,537,588.69	36,075,415,133.25	12.31	-11.15	-18.68	Increased by 8.13 percentage points
Overseas	106,169,537,186.82	105,744,856,297.49	0.40	4.40	7.24	Decreased by 2.64 percentage points
Others						
China	205,687.25	191,109.90	7.09	97.88	99.44	Decreased by 0.73 percentage point

Note: IXM engages in metal trading business that combines futures and spot trading. The Group only included the corresponding cost of the trading inventories of commodities in accordance with the requirements of the Accounting Standards for Enterprises when calculating the operating cost of the metal trading; the profit and loss related to the futures business is reported in gains from changes in fair value. The gross profit margin for the period for IXM trading business under International Accounting Standards was 1.00%.

Analysis of Production and Sales Volume of Principal Products

Principal products	Unit	Production volume	Sales volume	Inventory volume	YoY increase or decrease of production volume as compared to last year (%)	YoY increase or decrease of sales volume as compared to last year (%)	Increase or decrease of inventory volume as compared to the end of last year (%)
Mineral exploration and processing *(Note 1)*							
Molybdenum	Tonnes	15,114	16,044	761	-7.76	-3.13	-48.59
Tungsten	Tonnes	7,509	7,745	971	-13.27	-7.43	-17.88
Niobium	Tonnes	9,212	9,105	694	7.29	7.26	13.77
Phosphate fertilizer (HA+LA)	Tonnes	1,142,235	1,157,340	89,970	2.26	2.44	-32.57
Copper (TFM)	Tonnes	254,286	130,414	135,573	21.60	-36.41	137.06
Cobalt	Tonnes	20,286	12,560	11,318	9.65	-26.48	25.09
Copper (80% equity interest of NPM)	Tonnes	22,706	21,866	1,310	-3.52	-7.18	1,210.00
Gold (80% equity interest of NPM)	Ounces	16,221	16,141	N/A	-18.68	-17.86	N/A

Principal products	Unit	Purchase volume	Sales volume	Inventory volume	YoY increase or decrease of purchase volume as compared to last year (%)	YoY increase or decrease of sales volume as compared to last year (%)	Increase or decrease of inventory volume as compared to the end of last year (%)
Mineral trading							
Concentrate products *(Note 2)*	Tonnes	3,185,639	3,117,694	337,593	14.10	8.10	0.94
Refined metal products *(Note 3)*	Tonnes	3,115,585	3,136,596	505,112	-14.28	-13.19	-4.30

Note 1: Data relating to production volume, sales volume and inventory volume in the mining and processing sector of the mines is the self-production data of mines of the Company, and the inventory volume of TFM copper and cobalt includes the inventory volume of self-production held by IXM. The increase was attributable to the restriction in export during the second half of 2022.

Note 2: It represents the primary products of metal minerals, which are mainly the concentrates.

Note 3: Refined metals and chemical products.

Component of Cost of Principal Products

Unit: Thousand Yuan Currency: RMB

By industry	Component of cost	Amount for the current year	Percentage over total cost for the current year (%)	Amount for last year	Percentage over total cost for last year (%)	Percentage of changes in amount as compared to last year (%)	Explanation
Mineral exploration and processing	Materials	8,926,135	48.24	6,081,319	41.46	46.78	
	Labour	1,661,350	8.98	1,558,382	10.62	6.61	
	Depreciation	4,219,702	22.80	3,926,159	26.76	7.48	
	Energy	918,615	4.96	767,905	5.23	19.63	
	Manufacturing fees	2,779,339	15.02	2,337,102	15.93	18.92	
Mineral trading	Purchase cost	157,913,251	100.00	157,835,380	100.00	0.05	

By product

By product	Component of cost	Amount for the current year	Percentage over total cost for the current year (%)	Amount for last year	Percentage over total cost for last year (%)	Percentage of changes in amount as compared to last year (%)	Explanation
Mineral exploration and processing							
Molybdenum and tungsten related products	Materials	1,189,923	41.11	1,180,659	44.70	0.78	
	Labour	356,052	12.30	356,798	13.51	-0.21	
	Depreciation	222,316	7.68	169,443	6.41	31.20	Year-on-year increase in consideration for mining right amortization
	Energy	318,554	11.00	274,996	10.41	15.84	
	Manufacturing fees	807,954	27.91	659,613	24.97	22.49	
Copper and gold related products	Materials	194,759	20.01	232,634	21.86	-16.28	
	Labour	182,791	18.78	174,400	16.39	4.81	
	Depreciation	318,927	32.77	393,639	36.99	-18.98	
	Energy	117,043	12.02	111,151	10.44	5.30	
	Manufacturing fees	159,846	16.42	152,406	14.32	4.88	

By product	Component of cost	Amount for the current year	Percentage over total cost for the current year (%)	Amount for last year	Percentage over total cost for last year (%)	Percentage of changes in amount as compared to last year (%)	Explanation
Niobium and phosphate related products	Materials	1,811,850	39.87	1,150,077	33.08	57.54	Year-on-year increase in prices of sulfur
	Labour	504,301	11.09	433,809	12.48	16.25	
	Depreciation	689,580	15.17	692,459	19.92	-0.42	
	Energy	145,082	3.19	119,268	3.43	21.64	
	Manufacturing fees	1,394,811	30.68	1,080,859	31.09	29.05	
Copper and cobalt related products	Materials	5,729,603	56.77	3,517,949	46.98	62.87	Year-on-year increase in material prices
	Labour	618,206	6.13	593,375	7.92	4.18	
	Depreciation	2,988,879	29.62	2,670,618	35.66	11.92	
	Energy	337,936	3.35	262,490	3.51	28.74	
	Manufacturing fees	416,728	4.13	444,224	5.93	-6.19	
Mineral trading							
Concentrate products	Purchase cost	38,361,690	100.00	39,714,778	100.00	-3.41	
Refined metal products	Purchase cost	119,551,561	100.00	118,120,602	100.00	1.21	

Research and Development Expenses

For the year ended 31 December 2022, research and development expenses of the Group amounted to approximately RMB388.61 million, representing an increase of approximately RMB116.23 million or 42.67% from approximately RMB272.38 million for the same period in 2021, mainly due to a year-on-year increase in research and development expenses during the period.

Financial Expenses

For the year ended 31 December 2022, the financial expenses of the Group amounted to approximately RMB1,808.47 million, representing an increase of approximately RMB713.41 million or 65.15% from approximately RMB1,095.06 million for the same period in 2021, mainly due to the year-on-year increase in interest expenses during the period.

Investment Income

For the year ended 31 December 2022, investment income of the Group amounted to approximately RMB725.92 million, representing an increase of approximately RMB615.62 million or 558.13% from approximately RMB110.30 million for the same period in 2021, mainly due to the commencement of production of Huayue Nickel Cobalt Co., Ltd., an associate, at the end of last year, resulting in a significant year-on-year increase in investment income during the current period.

Gains from Changes in Fair Value

For the year ended 31 December 2022, gains from changes in fair value of the Group amounted to approximately RMB-1,610.83 million, representing an increase of approximately RMB1,756.92 million or 52.17% from approximately RMB-3,367.75 million for the same period in 2021, mainly due to a year-on-year increase in changes in fair value of derivative financial instruments of the base metal trading business during the current period.

Financial Position

As at 31 December 2022, the total assets of the Group amounted to approximately RMB165,019.22 million, comprising non-current assets of approximately RMB79,337.43 million and current assets of approximately RMB85,681.79 million. Equity attributable to shareholders of the parent company increased by approximately RMB11,853.27 million or 29.75% from approximately RMB39,845.29 million as at 31 December 2021 to approximately RMB51,698.56 million as at 31 December 2022.

Current Assets

The current assets of the Group increased by approximately RMB14,725.91 million or 20.75% to approximately RMB85,681.79 million as at 31 December 2022 from approximately RMB70,955.88 million as at 31 December 2021.

Non-current Assets

The non-current assets of the Group increased by approximately RMB12,843.54 million or 19.32% to approximately RMB79,337.43 million as at 31 December 2022 from approximately RMB66,493.89 million as at 31 December 2021.

Current Liabilities

The current liabilities of the Group decreased by approximately RMB598.95 million or 1.18% to approximately RMB50,061.12 million as at 31 December 2022 from approximately RMB50,660.07 million as at 31 December 2021.

Non-current Liabilities

The non-current liabilities of the Group increased by approximately RMB14,395.20 million or 37.37% to approximately RMB52,920.69 million as at 31 December 2022 from approximately RMB38,525.49 million as at 31 December 2021.

Explanation to the Balance Sheet Items

Unit: Yuan Currency: RMB

Items	**Balance as at the end of the current period**	**Balance as at the end of the current period as a percentage of total assets** *(%)*	Balance as at the end of the corresponding period of last year	Balance as at the end of the corresponding period of last year as a percentage of total assets *(%)*	Change in balance as at the end of the current period as compared with balance as at the end of the corresponding period of last year *(%)*	Explanation
Cash and cash equivalents	**32,647,565,268.28**	**19.78**	24,318,024,989.56	17.69	34.25	Increase in operating inflows during the current period
Construction in progress	**13,659,085,249.76**	**8.28**	3,882,051,384.27	2.82	251.85	Increase in investment in construction in progress of copper-cobalt business during the current period
Held-for-trading financial assets	**4,236,792,942.19**	**2.57**	7,117,297,565.38	5.18	-40.47	Decrease in trade receivables measured at fair value of base metal trading business during the current period
Other receivables	**5,017,084,484.19**	**3.04**	2,158,421,687.51	1.57	132.44	Increase in deductible contribution tax of niobium-phosphate business and VAT refunds receivable of copper-cobalt business during the current period

Items	**Balance as at the end of the current period**	**Balance as at the end of the current period as a percentage of total assets** *(%)*	Balance as at the end of the corresponding period of last year	Balance as at the end of the corresponding period of last year as a percentage of total assets *(%)*	Change in balance as at the end of the current period as compared with balance as at the end of the corresponding period of last year *(%)*	Explanation
Non-current assets due within one year	**1,757,787,239.02**	**1.07**	573,733,642.62	0.42	206.38	Transfer of large long-term certificates of deposit pledged by the Company from other non-current assets to non-current assets due within one year during the current period
Other payables	**6,861,265,106.60**	**4.16**	2,918,190,968.03	2.12	135.12	Increase in payables of construction in progress projects for copper-cobalt business during the current period
Other current liabilities	**2,715,386,791.93**	**1.65**	429,943,105.54	0.31	531.57	Increase in receipt from convertible financial instruments during the current period
Other non-current liabilities	**21,693,849,406.96**	**13.15**	13,594,075,166.39	9.89	59.58	Increase in long-term advance receipt during the current period
Other comprehensive income	**294,879,708.74**	**0.18**	-6,406,227,030.65	-4.66	104.60	Changes in the translation differences of financial statements denominated in foreign currencies and cash flow hedging reserve

CONTINGENCIES

(1) Pending litigation

Copper-Cobalt business of the Group in the DRC

The Group's Copper-Cobalt business in the DRC involves some lawsuits, claims and liability claims in the daily business activities. The management considers that the results of such contingencies will not have a material adverse effect on the financial position, operating performance or cash flows of the business based on the information currently available.

Niobium-Phosphate business of the Group in Brazil

The Group's Niobium-Phosphate business in Brazil may be involved in various litigations in its daily operation. The management determines the possibility of losing the litigations and consequent economic benefits outflow in accordance with the information available and the professional advice of external legal experts. If the possibility of economic benefits outflow is low, the management would determine them as contingencies. The results of such contingencies will not have a material adverse effect on the financial position, operating performance or cash flows of the relevant business .

(2) Guarantees

As at 31 December 2022, the Group provides guarantees for the Australian Northparkes copper and gold mine business to New South Wales government of Australia, with guaranteed amount of AUD46,940,000 (equivalent to RMB221,270,000). As at 31 December 2022, no material guarantee liability has arisen.

(3) Matters relating to the additional royalty for additional reserves of copper metal of TFM copper and cobalt business in the DRC

The Group has always been calculating and paying the additional royalty for additional reserves of copper metal (hereinafter referred to as the "**additional royalty**") to minority shareholder, Gecamines, in accordance with the Amended and Restated Mining Convention signed on 28 September 2005 and the Addendum No.1 to the Amended and Restated Mining Convention signed on 11 December 2010 by and between the DRC government, Gecamines, Lundin Holdings Limited (subsequently renamed as TF Holdings Limited) and TFM (hereinafter referred to as the "**Mining Convention**"), and the Amended and Restated Shareholders Agreement signed on 28 September 2005 and the Addendum No.1 to the Amended and Restated Shareholders Agreement signed on 11 December 2010 by and between TFM, Lundin Holdings Limited (subsequently renamed as TF Holdings Limited), Chui LTD, Faru LTD, Mboko LTD, Mofia LTD, Tembo LTD and Gecamines (together referred to as the "**Shareholders Agreement**"). Since the third quarter of 2021, the management teams of the Group and its TFM copper and cobalt business have been conducting continuous meetings and communications with relevant DRC parties to discuss the intended increase of mineral reserves for the TFM Mixed Ore Development Project under implementation belonging to the TFM copper and cobalt business in the DRC, as well as the corresponding additional royalty payable to the minority shareholder, Gecamines, based on such reserves.

This communication process has been complicated and dynamic. Gecamines pursued its claims through various means including legal approaches, and the Group has also been defending persistently its interests in the TFM copper and cobalt business in the DRC through various means including multi-level communications with the DRC government and Gecamines. As of 31 December 2022 and the date of the announcement of these financial statements, the parties have not been able to completely resolve the divergence in respect of the additional royalty, and since the third quarter of 2022, TFM's exportation has been disrupted thus affecting its sales.

The Mining Convention and the Shareholders Agreement clearly stipulate the basis for calculating the additional reserves of copper metal of TFM and the payment standard of additional royalty to Gecamines. The management of the Group considers that the Group's previous operations and payments of additional royalty comply with the provisions of the Mining Convention and the Shareholders Agreement as well as the local laws and regulations. As of December 31, 2022 and the date of the announcement of these financial statements, this matter gives rise to no additional significant present obligations for the Group, apart from the relevant additional royalty that have been accrued or paid by the end of the year.

As of 31 December 2022, the feasibility study of the TFM Mixed Ore Development Project has been completed and approved by the DRC Ministry of Mines. In addition, TFM plans to engage an international independent third party to verify the reserve increase. Upon reaching a conclusion recognized by all the relevant parties, the Group will negotiate the additional royalty with Gecamines based on such verified additional copper metal reserves. Given the current market practice in the DRC and the negotiations between the parties, the Group anticipates that the additional royalty may be significantly higher than those agreed in the Mining Convention and the Shareholders Agreement.

The Group has been keeping constant communications with relevant DRC parties to defend its legitimate and reasonable interests and to seek a consensus as soon as possible. However, at present, the Group is unable to accurately predict or estimate the timing and payment arrangement on which a final agreement would be concluded with Gecamines in respect of the additional royalty. Nevertheless, the Group expects that the settlement of the matters will not have a significant impact on the financial position and the ability of going concern of the Group.

Gearing Ratio

The gearing ratio (total liabilities divided by total assets) of the Group decreased to 62.41% as at 31 December 2022 from 64.89% as at 31 December 2021.

CASH FLOW

As at 31 December 2022, cash and cash equivalents of the Group increased by approximately RMB8,652.86 million or 42.43% to approximately RMB29,045.55 million from approximately RMB20,392.69 million as at 31 December 2021. For the year ended 31 December 2022, net cash inflow generated from operating activities of the Group was approximately RMB15,453.76 million; net cash outflow from investment activities was approximately RMB7,371.65 million; and net cash outflow generated from financing activities was approximately RMB2,096.55 million.

The following table sets forth the cash flow position of the Group:

Unit: Yuan Currency: RMB

Item	Amount of the current year	Amount of last year	Change	Percentage of Change (%)	Explanation
Net cash flow from operating activities	15,453,761,072.68	6,190,648,051.98	9,263,113,020.70	149.63	Significant year-on-year increase in net inflow from operating activities of the base metal trading business during the current period
Net cash flow from investment activities	-7,371,654,238.67	-4,891,799,554.08	-2,479,854,684.59	-50.69	Year-on-year increase in expenses for acquisition and construction of fixed assets for copper-cobalt business during the current period
Net cash flow from financing activities	-2,096,545,911.51	7,888,637,438.47	-9,985,183,349.98	-126.58	Year-on-on decrease in long-term advance receipt during the current period

CAPITAL STRUCTURE

The Group maintains sound capital structure and credit rating by equity and debt financing to ensure normal production and operating activities. The Group might make adjustments to the capital structure in due course in light of changes in the economic environment by way of borrowing new debts or issuing new shares.

As at 31 December 2022, the equity interests of shareholders of the Company amounted to approximately RMB62.037 billion, among which the equity attributable to shareholders of the parent company was approximately RMB51.699 billion. There was no change in the capital of the Company during 2022.

As at 31 December 2022, the Company issued 21,599,240,583 shares, comprising 17,665,772,583 A shares and 3,933,468,000 H shares.

RISK WARNING

1. As the Russian-Ukrainian war continues, uncertainty about global economic recovery has increased, which could lead to financial and economic risks.

2. The Company has a large number of overseas investment projects, mainly located in the DRC, Brazil, Australia, Switzerland and other countries and regions. As there are major discrepancies in state politics and economy development level among different countries, we may face policies, political, legal and community risks of different countries.

3. The Company is mainly engaged in mineral mining and processing and mineral trading business, and may face risks such as decline in the grade of mineral resources, safe production, fluctuations in product spot and futures prices as well as natural disasters.

4. The estimated results of mine resources and reserves are related to various factors such as the complexity of the geological characteristic of ore body, the degree of control of the ore body, the selection of technical indicators as well as the selection of rules and standards in different regions, and may be subject to a risk of deviation from the original prediction.

5. The Company held the assets and liabilities denominated in non-functional currencies and IXM B.V. Group conducted international business, of which the assets and liabilities are denominated in functional currencies different from those of the entities. Therefore, the Company is subject to fluctuation in foreign exchange rates. As the Company manages its exchange rates risks with the principle of matching the currencies of assets/revenue with those of liabilities, the exchange rates risks exposure arising from financing is relatively insignificant. Since currencies used for denominating revenue and cost may be different for certain businesses, the fluctuation in the short-term exchange rates of different settlement currencies may affect the operating results of the Company to a certain extent. The Company pays close attention to the impacts of the fluctuation in exchange rates on the Group, and will make use of financial instruments, such as forward foreign exchange contracts, to hedge against foreign exchange rates risks in due course.

6. During the reporting period, the Group and the TFM management team have been conducting continuous meetings and communications with various DRC parties to discuss the intended increase in the copper metal reserves for Mixed Ore Development Project, and the additional royalty calculated based on the incremental metal reserves which should be paid to the minority shareholder, Gecamines. This communication process was complicated and dynamic. As of the date of this announcement, the Company and Gecamines have not reached an agreement on the relevant discussed matters, and the export of TFM's products was affected since the third quarter of 2022. The Company intends to engage an international independent third party to verify the increase in the copper metal reserves. Upon the completion of the aforesaid verification, the Company will negotiate with Gecamines regarding the determination of additional royalty based on the corresponding increased copper metal reserves. Based on current market practices in the DRC and negotiations between the parties, the Company anticipates that additional royalty increase may be higher than what were stipulated in the Mining Convention and Shareholders Agreement.

   For details of other "possible risks" of the Company, please refer to the contents disclosed in relevant sections of the Company's previous periodic reports.

EMPLOYEES AND PENSION PLAN

As at 31 December 2022, the Group had approximately 12,754 full-time employees, classified as follows:

Professional composition

Category of professional composition	**Number of professionals**
Production staff	8,056
Technical staff	860
Finance staff	336
Administration staff	1,257
Sales and other supporting staff	2,245
Total	12,754

The remuneration policy for the employees of the Company principally consists of a broadbanding salary system, based on employees' positions and responsibilities and their quantified performance evaluation. The employees' remuneration is evaluated in line with the Company's operating results and personal performance in order to provide a consistent, fair and equitable remuneration system for all employees. The employees of the Company domiciled in China have participated in the social insurance contribution plans introduced by China's local governments. In accordance with the laws and regulations regarding the national and local labour and social welfares in China, the Company is required to pay on behalf of its employees a monthly social insurance premium covering pension insurance, health insurance, unemployment insurance, work injury insurance and housing provident fund. Pursuant to current applicable local regulations in China, the percentages of certain insurances are as follows: the pension insurance, health insurance, unemployment insurance, work injury insurance and the contribution to housing provident fund of our Chinese employees represent 16%, 7.5%, 0.7%, 0.4% to 1.90% (health insurance for the whole year of 2022 was levied 1% lower) and 7% to 12% of his or her total basic monthly salary respectively.

The overseas employees of the Company participate in pension and healthcare plans under the requirement of the laws in the countries where they reside. In the DRC, the Company pays a monthly social insurance contribution of 13%, and undertakes all medical treatment for employees and their families. At the same time, in line with the local situation in the DRC, a loyalty award has been set up in order to stabilise the workforce in the DRC, such as a loyalty bonus for employees who have worked for five years, construction materials for building their own houses after 10 years of service, a school subsidy for employees' children to help their children's education, and a retirement subsidy for employees upon retirement. In Brazil, the Company makes monthly contribution of 37% to social insurance and Length-of-Service Guarantee Fund for employees. Employees enjoy vacation allowances after one year of service (double pay during annual leave), and the Company provides medical support, dental insurance, employee childcare allowance and other allowances for employees and their families.

The Company conducts measures such as monthly and annual assessments, implements production and construction task assessments, and labour competition assessments, implements "wage-performance linkage", and encourages employees to "work more and get more" and "get paid based on workload".

ANALYSIS ON MAJOR SUBSIDIARIES

Basic information of major subsidiaries

Company name	Principal business	Shareholding method	Shareholding proportion
CMOC Mining Pty Limited	Copper and gold mine assets/business	Indirect	80%
TF Holdings Limited	Copper and cobalt mine assets/business	Indirect	80%
CMOC Brasil	Niobium and phosphates mine assets/business	Indirect	100%
IXM	Trading business	Indirect	100%

FINANCIAL INDICATORS OF MAJOR SUBSIDIARIES DURING THE REPORTING PERIOD

Unit: Thousand Yuan Currency: RMB

Company name	Operating revenue	Operating profit	Net profit attributable to shareholders of the parent company	Total assets	Net assets
CMOC Mining Pty Limited	1,387,761	178,462	107,090	5,746,442	2,890,355
TF Holdings Limited	9,777,844	3,502,506	2,048,671	59,781,881	42,065,927
CMOC Brasil	7,106,705	2,178,445	1,636,871	14,043,592	7,407,084
IXM	160,933,496	209,970	128,215	35,242,732	6,662,220

Resources and Reserve

1. BASIC INFORMATION OF PROPRIETARY MINES

As at 31 December 2022, the information about the Company's ore resources and ore reserves is as follows:

Name of mine	Main category	Resources Ore *(mt)*	Resources Grade *(%)*	Resources Metal *(kt)*	Reserves Ore *(mt)*	Reserves Grade *(%)*	Reserves Metal[9] *(kt)*	Throughput *(mt)*	Remaining years of mining life for the resources *(years)*	Validity period of the exploration right/license
TFM copper and cobalt mine in the DRC	Copper	1,374.9	2.26	31,010.4	277.5	2.84	7,894.8	8.83	31.4	3-12 years
	Cobalt	1,374.9	0.26	3,537.4	277.5	0.30	822.6			
KFM copper and cobalt mine in the DRC	Copper	199	2.13	4,238.7	66.5	2.91	1,935.2	0	10	24 years
	Cobalt	199	1.01	2,009.9	66.5	1.19	791.4			
Brazil Mine area I	Niobium	143.00	1.01	1,450.9	40.06	0.97	389.8	3.3	12	According to the Brazilian mining law which has been revising, mining concessions have no expiration date
Brazil Mine area II	Niobium	168.80	0.34	573.8	33.76	0.50	170.3	5.5	35	
Brazil Mine area II	Phosphate	791.75	10.35	81,914.2	191.33	12.62	24,150.7			
Sandaozhuang Molybdenum and Tungsten Mine	Molybdenum	295.72	0.087	257.3	51.30	0.100	51.3	12.6	4.1	3 months
	Tungsten	69.11	0.168	116.1	17.26	0.189	32.6			
Shangfanggou Molybdenum Mine	Molybdenum	445.49	0.139	619.4	26.96	0.199	53.6	5.1	5.3	11 years
	Iron	20.82	19.33	4,024.5	1.35	30.01	405.1			
Donggebi Molybdenum Mine	Molybdenum	441	0.115	507.2	141.58	0.139	196.8	0	38	22 years

Basic information about NPM copper and gold mine:

Category	Resource *(mt)*	Grade Copper *(%)*	 Gold *(g/t)*	 Silver *(g/t)*	Throughput *(mt)*	Remaining years of mining life for the resources *(years)*	Validity period of the exploration right/license
Measured	255.9	0.56	0.22	1.99	6.84	14.82	6-14 years
Indicated	213.4	0.53	0.16	1.77			
Inferred	57.5	0.57	0.19	1.7			
Total	526.9	0.55	0.19	1.87			
Category	**Reserve** *(mt)*	**Grade** **Copper** *(%)*	 **Gold** *(g/t)*	 **Silver** *(g/t)*			
Proven	28.1	0.48	0.31	1.25			
Probable	73.2	0.54	0.26	2.11			
Proven and probable	101.4	0.53	0.27	1.87			

Notes:

(1) The estimation on copper and cobalt reserves of TFM was determined in accordance with the relevant standards of the Chinese mining industry. The current reserves include oxidized ores and mixed ores. The source of information is "China Molybdenum Co., Ltd. Mixed Ore Development Project of Tenke Fungurume Copper & Cobalt Mine, D.R.C Feasibility Study" (《洛陽鉬業集團剛果(金)Tenke Fungurume銅鈷礦混合礦開發項目可行性研究》) issued by China Nerin Engineering Co., Ltd. (中國瑞林) and Northern (Dalian) Engineering and Technology (中冶北方), which has been approved by the DRC Ministry of Mines. The Group and the TFM management team are conducting continuous meetings and communications with various DRC parties to discuss the intended increase in the copper metal reserves for Mixed Ore Development Project, and the royalties calculated based on the incremental metal reserves which should be paid to the minority shareholder, Gecamines.

As of December 31, 2022, the Company and Gecamines have not reached an agreement on the relevant discussed matters. The Company intends to engage an international independent third party to verify the increase in the copper metal reserves and may update the reserve information upon completion of such work.

(2) During the reporting period, the development of KFM copper and cobalt mine was approved by the Board and the preliminary design has been commenced in accordance with the relevant Chinese standards. There are differences between the estimated resources and reserves and the results obtained under overseas standards (mainly due to the differences in resource results caused by the delineation of ore bodies under Chinese standards and the delineation of mineralized zones under JORC standards). The current reserves only include oxide ore and mixed ore, which are those that will be utilized in the first ten years of the mine as designed in the preliminary design report, and the design of deeper ore bodies will be launched in due course as mining and exploration work go further.

(3) The throughput is the actual ore consumption during the reporting period. The niobium in Brazil Mine area II came from the utilization of tailings of phosphate in Brazil Mine area II, and other mines did not include the comprehensive utilization of tailings.

(4) During the reporting period, the verification of the resources and reserves in the Sandaozhuang Mine of the Company was completed and the relevant verification report on resources and reserves was reviewed and approved by the Ministry of Natural Resources, and the renewal of the mining right of Sandaozhuang Mine is underway. The above data of Sandaozhuang Mine is from the latest verification report. The changes in the data were mainly due to: a) reduction in the area of the mining licenses; b) changes in the estimated cut-off grade; c) difference in domestic and foreign standards; and d) throughput of Sandaozhuang Mine refers to the throughput of industrial ores in Chinese standards, excluding low-grade ores.

(5) The Shangfanggou Molybdenum Mine is owned by Luoyang Fuchuan Mining Company Limited, a joint venture of the Company. With the approval of the general meeting of Fuchuan Mining, its operation was entrusted to CMOC.

(6) Calculation of remaining years of mining life for resources: calculated by dividing the recoverable reserves at the end of 2022 by actual annual throughput in 2022 for operating mines. Update on the reserves and changes in the actual throughput (due to technology, equipment, etc.) of the Company will affect the changes in the remaining years of mining life of resources of the Company. Of which, the remaining years of mining life of resources of KFM Copper and Cobalt Mine is based on design life of phase I of the mine, while the remaining years of mining life of resources of Donggebi Molybdenum Mine is based on design life of mine.

(7) Throughput was the actual ore consumption during the reporting period. The niobium in Brazil Mine area II was derived from the tailings utilization of phosphate in Brazil Mine area II, while other mines do not include comprehensive utilization of tailings.

(8) Overseas mines are prepared in accordance with the standards of the Joint Ore Reserves Committee, and domestic mines and KFM Copper and Cobalt Mine are prepared in accordance with the Chinese standards. The above mineral resources are inclusive of reserves and have been confirmed by internal expert of the Company.

(9) If the metallurgy recovery rate is considered, the amount of metal contained in the reserves will be affected.

2. EXPLORATION, DEVELOPMENT AND MINING ACTIVITIES

(1) Exploration

① *Copper and Cobalt Mine in the DRC*

TFM Copper and Cobalt Mine: During the reporting period, geological exploration work mainly focused on copper-cobalt and limestone deposits. A large-scale surface geological detailed survey of 26.7 square kilometers was completed mainly in the Mofya limestone area. A total of 49,796 meters of drilling was completed mainly in DDPN, Fungurume Hill, Mambilima South, Kapangu, Lumapuya and other copper-cobalt mining areas, Mofya limestone area and other verification areas of dump sites, including MUDI, TENK, FWAL, MKDC, ZORO, MAMB, FGVI, FGME.

KFM Copper and Cobalt Mine: During the reporting period, the exploration mainly focused on the 3-year mining area for grid infill drilling and production prospecting drill construction with exploration towards boundaries and bottoms with 25 designed drilling holes and an engineering volume of 3,600 meters, and 29 drilling holes have been completed eventually, with a total footage of 4,329 meters. The exploration performed well and all met expectations.

② *Niobium and Phosphate Mine in Brazil*

Niobium: During the reporting period, diamond drilling (DDH) activities were carried out at the Boa Vista Mine and the Morro do Padre Ore Body. A total of 15 diamond drilling holes were constructed at the Boa Vista Mine, with a total footage of 4,856 meters, for the purpose of detailed investigation of mineral resources, which not only improved reliability, but also converted and increased mineral resources. At the same time, the geomechanical parameters of the Boa Vista deposit were measured to establish rock and soil mechanics test samples. The annual focus of the work was to investigate the continuity of niobium mineralization in the northeastern part of the pit based on surface geophysical anomalies (magnetic surveys) and previous drilling results. 11 new hydrogeological instruments were constructed to monitor groundwater in accordance with our operating permit and the environmental requirements of the dump site. For the brownfield project at the Morro do Padre Ore Body, a project of the long-term geotechnical team, 20 diamond drilling holes were constructed, with a total footage of 5,550 meters, to increase and convert resources into ore reserves. Technically, a borehole geophysical survey was carried out at 4,484 meters to determine density (gamma-gamma), in addition to other technical methods such as a magnetic susceptibility survey (MAGSUS) at 3,401 meters, a resistivity survey and porosity survey at 2,918 meters, and OTV-Optical Televiewer/ATV-Acustical Televiewer imagings at 670 meters and 684 meters, respectively, to collect and provide petrophysical parameters to improve understanding and refinement of the geological model.

Phosphate: During the reporting period, geological exploration activities were carried out in the Chapadão Mine Area to meet short-term, medium-term and long-term technical and production needs. Diamond drilling (DDH), geological description (logging), chemical analysis, technical characteristics description and borehole geophysical surveys were conducted in the Chapadão Mine Area to support geological modeling and convert controlled mineral resources to measured mineral reserves to raise awareness and confidence in mineral resources. A total of 31 holes, a total footage of 2,896.25 meters of diamond drilling, 19,664 meters of trenching and grid grade control were constructed. As for the greenfield exploration projects during the year, several projects (Iraí de Minas, Monjolos and Morro Preto Oeste) were carried out. At the Monjolos Target Mine, a total of 105.175 km (29 lines) of surface geophysical surveys (magnetic and gamma spectroscopy) were conducted. At the Iraí de Minas Target Mine, a total of 36.3 km (16 lines) of surface geophysical surveys (magnetic and gamma spectroscopy) were carried out to delineate anomalies and select target areas for drilling verification. Based on the definition of the surface geophysical anomaly, 6 drill holes totaling 636.29 meters were constructed in the Iraí de Minas target area. In Morro Preto (MPW-Morro Preto Oeste), a total of 5 diamond drilling holes were constructed with a total length of 705.09 meters in preparation for the final positive exploration report to be submitted to the National Mining Agency in Brazil ("**Agência Nacional de Mineração**"/"**ANM**").

③ *Mines in the PRC*

Sandaozhuang Molybdenum and Tungsten Mine: During the reporting period, exploration of mines was conducted in the northern, central and southern areas, with drilling work conducted on the surface of the open pit, using core drilling rigs to conduct 62 drill holes with a depth of 8,353 meters. In order to prevent geological disasters and ensure the safety of open-pit mining, mined-out exploration of mines were carried out in the northern and southern areas, with drilling on the surface of the open pit using reverse circulation drill rigs to construct 54 drilling holes, with a depth of 2,950 meters.

Shangfanggou Molybdenum Mine: During the reporting period, exploration has been carried out in key production area, and dig drilling has been carried out on the surface of the open pit, using core drilling rigs to conduct 74 drill holes to a depth of 19,478 meters. In order to ensure the production safety, mined-out area exploration were carried out in the horizontal mined-out areas 1,154 meters deep, using the reverses circulation drill rigs to construct 63 exploration holes for mined-out area, with a total footage of 6,448 meters.

Donggebi Molybdenum Mine: No exploration activities were conducted during the reporting period.

④ *NPM Copper and Gold Mine in Australia*

During the reporting period, a total of 49 diamond and reverse circulation drilling holes were constructed at ML1247 and ML1367, with a footage of 13,608.5 meters. Exploration areas include: 10 in-pit drilling at ML1247 for infilling and evaluating E26 MJH, 3 holes testing the target areas of E26 CLJ, and 4 holes testing the target areas of E48 Bodkin. The surface exploration plan was completed at ML1247 – Major Tom Prospect (1 hole), GRP314 Lift 2 (1 hole), the target area of GD540 (1 hole), White Rock Quarry (2 holes), the resource area of E28 (3 infill holes) and monitoring holes of block N of E26 Lift1 (4 holes). 16 holes were constructed in the area identified for the proposed Rocklands tailings dam at ML1367.

In addition to the drilling activities, HCOV Global, a consulting firm, completed a review of the exploration activities and prospect assessments for the northern exploration mining rights (EL5800) and the general area of the E44 deposit, including EL5323, EL5801 and EL8377 sections. Deep GPR tests were completed in 4 exploration areas within the mining rights. Drill testing on the DGPR response will be completed in the next phase. The resource model for E26 (MJH Zone) was revised and updated by H&S Consultants, a consulting firm.

(2) Development

① Copper and Cobalt Mine in the DRC

TFM Copper and Cobalt Mine: During the reporting period, stripping and preparation for exploration were completed at pits Mwan Mixed, Fwal Mixed, Kato3, Kato1 Mixed, Kato2 Mixed, Mudi, Kasa Mixed, Zoro Mixed, Fgme Mixed, Fgvi Mixed, Mamb Mixed and Kwat Mixed for development and expansion, and the external roadway construction at Kato3, Kato2-Mudi and Kato2-Tenk have been completed; the surface extension and stripping at Kwat, Mwan, Mamb, Fgme, Mudi, Fwal, Kasa and Zoro have been completed, and the earthworks for railway relocation were completed with an amount of 2.70 million cubic meters. Infrastructure works are underway for mixed ore development. 23 dewatering wells have been completed, totaling 3,544 meters. 6 monitoring holes were completed, totaling 725 meters. The management of surface water was carried out in the vicinity of the mining area, the dumps and the communities in the mining area. A total of 4,336 meters of protective embankment controlling surface water and 672 meters of roads and drainage culverts were installed to effectively control the impact of water environment and resolve the problem of puddle on roads in the mining area.

KFM Copper and Cobalt Mine: During the reporting period, according to the annual mining and stripping plan, the production and stripping tasks and the amount of by-product ore for 2022 were overfulfilled, with a total of 17 million cubic meters of mining and stripping. Infrastructure exploration and hydrological observation hole drilling were carried out. Construction of 7 drainage wells was completed and the drainage capacity of 10 drainage wells was formed. An operation system for secondary drainage pumping station was formed in the pit, with a maximum displacement of 40,000 cubic meters per day. The lowest point of the funnel curve of the groundwater level drop was about 15 meters lower than the bottom of the pit, which reduced the seepage of the slope and the water inflow at the bottom of the pit, creating better operating conditions for mining and stripping.

② *Niobium and Phosphate Mine in Brazil*

Niobium: In the first half of 2022, a project to relocate the power grid to expand the mine pit and dump was launched, the drainage system at the bottom of the pit was optimized, and infrastructure works such as road repairs were carried out to ensure the safe operation of the transportation system. In terms of environment, 160,000 square meters of dump site slopes have been greened to comply with current environmental regulations. In the second half of 2022, the development focus was on the infrastructure project of the new dump site, which accounted for 73% of the development cost. Priority was given to clearing the organic soil on the surface and re-greening the slope of the original dump site of 55,000 square meters. Pumps were purchased for the relocation of the pit drainage system, which will be completed by April 2023. In the first half of 2022, the Company has replaced the company providing mine operation services for the niobium business with another company. After 3 months of adjustment, the transportation capacity increased significantly, breaking the record of the total historical handling volume twice in a row, and has now achieved normal operation.

Phosphate: During this period, Phase 3A of the dump expansion project was launched, and 11 drill holes were drilled according to the requirements, with a footage of 143.15 meters, and 4 rock and soil test samples were collected. Ouvidor Phosphate Mine has completed its annual mining and stripping plan, exceeding the plan by 3%. At the same time, the Company has optimized the ore transportation plan for phosphate ore, reduced certain waste rock transportation, greatly reduced diesel consumption, and saved mining costs.

③ *Mines in China*

Sandaozhuang Molybdenum and Tungsten Mine: During the reporting period, the ecological restoration work was further strengthened with the area of greening restoration up to 226,600 square meters. Besides, we have reclaimed the land on the slope control area of the dispatch center with a total area of 12,893 square meters; hardened road of 4,346 meters; and constructed new interception ditches of 5,400 meters.

Shangfanggou Molybdenum Mine: During the reporting period, in accordance with the national green mine construction requirements, the ecological restoration work was further strengthened, with the ecological restoration area of the mine amounted to about 61,500 square meters. We have reclaimed the land on the slope with an area of 9,346 square meters, conducted asphalt pavement of 56,686.22 square meters, and constructed new interception ditches of 2,909 meters.

Donggebi Molybdenum Mine: No development activities were conducted during the reporting period.

④ *NPM Copper and Gold Mine in Australia:* Underground mining at E48 and E26L1N has been performing well during 2022. The production rate and blending ratio between E48 and E26L1N has been optimized to maximize the ore grade of the plant's feed ore. The annual underground output was 5.96 million tonnes, and the average copper grade of the mixed underground mine was 0.49%.

The E26L1N block cave mine project completed at the end of February 2022 and entered the production stage on 1 March 2022, 5 months ahead of schedule. Since then, the E26L1N block cave mine has performed well, producing 2.7 million tonnes of ore. Regular and on-going monitoring of the caving activity was underway to ensure optimal production. A number of studies have been completed for new mining projects such as E31/31N open-pit mine and E22 underground mining to align with future production development.

(3) *Mining Activities*

Unit: '0,000 tonnes

Domestic mining activities	
Mining volume of Sandaozhuang Molybdenum and Tungsten Mine[1]	1,262.7
Mining volume of Shangfanggou Molybdenum Mine	507.75
Overseas mining activities	
Mining volume of TFM Copper and Cobalt Mine in the DRC	1,596.9
Mining volume of KFM Copper and Cobalt Mine in the DRC	212.2
Mining volume of Niobium Mine in Brazil	330.37
Mining volume of Phosphate Mine in Brazil	536.82
Mining volume of NPM Copper and Gold Mine in Australia	760.4

Note: 1. The mining volume of Sandaozhuang Molybdenum and Tungsten Mine refers to the throughput of industrial-grade ores under Chinese Standard, excluding the volume of low-grade ores.

(4) *Costs of Exploration, Development and Mining*

Projects	**Mining costs**	**Exploration costs**	**Development costs**
Domestic mines *(RMB'0,000)*			
Sandaozhuang Molybdenum and Tungsten Mine	62,651.23	358.29	3,206.66
Shangfanggou Molybdenum Mine	21,459.16	808.25	1,729.79
Overseas mines *(USD million)*			
TFM Copper and Cobalt Mine in the DRC	299.01	12.80	294.62
KFM Copper and Cobalt Mine in the DRC	78.51	0.00	0.00
Niobium Mine in Brazil	29.55	2.83	3.83
Phosphate Mine in Brazil	12.55	3.24	0.17
NPM Copper and Gold Mine in Australia	29.35	36.29	28.37

III. MARKET REVIEW

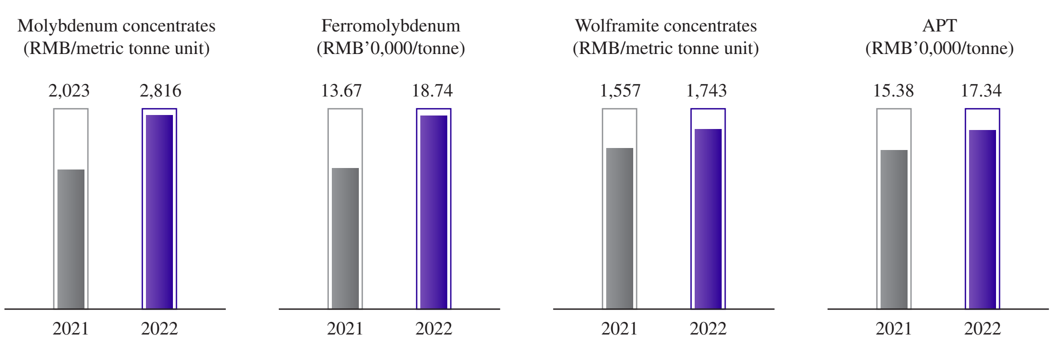
During the reporting period, the Company's revenue mainly came from copper, cobalt, molybdenum, tungsten, niobium, phosphate and related products, and the operating performance was mainly affected by the price fluctuations of the aforesaid resources. At the same time, the Company also sold gold as a by-product in NPM, and the price fluctuations of which also had a certain impact on the Company's performance.

1. Price comparison of metal products related to the major products of the Company in 2022 over the same period

Domestic market price of the relevant products of the Company

	Products	**2022**	2021	**Increase/ decrease on a year-on-year basis** *(%)*
Molybdenum	Molybdenum concentrates *(RMB/metric tonne unit)*	**2,816**	2,023	39.20
	Ferromolybdenum *(RMB0'000/tonne)*	**18.74**	13.67	37.09
Tungsten	Wolframite concentrates *(RMB/metric tonne unit)*	**1,743**	1,557	11.95
	APT *(RMB0'000/tonne)*	**17.34**	15.38	12.74

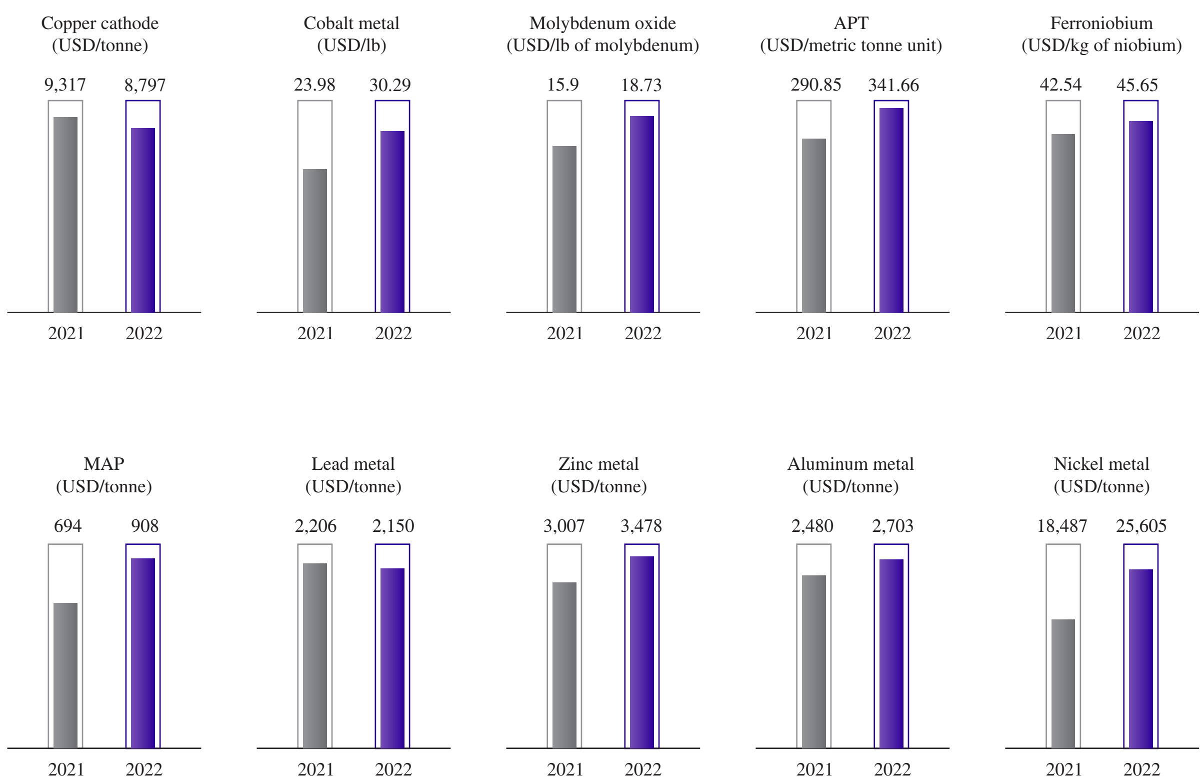
Note: Data from the average prices quoted on the website of Comelan (product standard: 47.5% for molybdenum concentrate, 60% for ferromolybdenum, grade I for wolframite concentrate, APT GB-0).



International market price of relevant products of the Company

	Products	2022	2021	Increase/ decrease on a year-on-year basis *(%)*
Copper	Copper cathode *(USD/tonne)*	**8,797**	9,317	-5.58
Cobalt	Cobalt metal *(USD/lb)*	**30.29**	23.98	26.31
Molybdenum	Molybdenum oxide *(USD/lb of molybdenum)*	**18.73**	15.9	17.80
Tungsten	APT *(USD/metric tonne unit)*	**341.66**	290.85	17.47
Niobium	Ferroniobium *(USD/kg of niobium)*	**45.65**	42.54	7.31
Phosphate	MAP *(USD/tonne)*	**908**	694	30.84
Lead	Lead metal *(USD/tonne)*	**2,150**	2,206	-2.54
Zinc	Zinc metal *(USD/tonne)*	**3,478**	3,007	15.66
Aluminum	Aluminum metal *(USD/tonne)*	**2,703**	2,480	8.99
Nickel	Nickel metal *(USD/tonne)*	**25,605**	18,487	38.50

Note: The price of molybdenum oxide is the average price quoted on the Metals Week (MW); the prices of copper, lead, zinc, aluminum and nickel are the spot average price on LME (London Metal Exchange); cobalt price is the average low price of MB (Metal Bulletin) standard grade cobalt; phosphate fertilizer price is from Argus Media; ferroniobium price is from Asian Metal.



MARKET REVIEW ON EACH METAL SEGMENT IN 2022

(1) Copper market

The Company mainly sells copper cathode and copper concentrate to the international markets. In 2022, the annual average LME copper spot settlement price was USD8,797 per tonne, representing a year-on-year decrease of 5.58%. In the first quarter, the domestic economy performed well, and the conflict between Russia and Ukraine overseas caused concerns about the limited supply of Russian copper, pushing copper prices to the highest point of the year at USD10,730 per tonne. In the second quarter, operation and production of some factories suspended in Eastern China, which affected downstream consumption and market sentiment. The US dollar index continued to strengthen since the US Federal Reserve and other overseas central banks in Europe and the United States began to raise interest rates, and copper prices fell sharply. In the third quarter, the full resumption of operation and production in Eastern China combined with incentive policies spurred copper prices. In addition, the market expected that the pace of interest rate hikes by the US Federal Reserve would slow down, and LME copper inventories remained low. These factors together supported a slight rebound in copper prices. In the fourth quarter, the performance of the domestic manufacturing industry weakened. However, the pace of interest rate hikes by the US Federal Reserve aboard slowed down, with slow and slight rise in copper prices.

(2) Cobalt market

The Company sells intermediate products of cobalt hydroxide to the international markets. In 2022, the annual average low price of MB metal cobalt was USD30.29 per lb, representing a year-on-year increase of 26.31%. In the first quarter, the prosperity of the new energy sector continued to improve, and the port of Durban in South Africa, the transportation route for African cobalt raw materials, had low turnover efficiency due to the impact of heavy rains and floods, constantly driving up the cobalt price. In the second quarter, the production of the new energy vehicle industry chain in Eastern China slowed down, and the price of downstream products continued to decline, which dragged down the cobalt raw materials price, and the payable of cobalt hydroxide dropped from a high of 88 to 63. In the third quarter, there was a short-term metal cobalt stock-up after the end of the overseas summer break. Meanwhile, the prosperity of downstream centralized procurement improved in the peak season of the domestic new energy vehicle sector, and cobalt prices rose slightly. In the fourth quarter, cobalt prices fell again since overseas metal cobalt stock-up ended, and the domestic new energy sector turned into an off-season with a persistent weak 3C sector.

(3) Molybdenum market

The major molybdenum product of the Company is ferromolybdenum, which is mainly sold in China. In 2022, the annual average ferromolybdenum price was RMB187,400 per tonne, representing a year-on-year increase of 37.09%. In the first quarter, the price of ferromolybdenum took off riding on the sound performance of domestic economy as well as the restricted production of ferromolybdenum companies during the Winter Olympics. In the second quarter, the production and raw material procurement of some steel mills in Eastern China was sluggish, and the end consumption was greatly affected. The market sentiment was depressed, and the price of ferromolybdenum weakened sharply. In the third quarter, after the full resumption of operation and production, the price of ferromolybdenum continued to weaken after a brief recovery due to high–temperature weather and low profits of steel mills, and then the price of ferromolybdenum began to soar due to the shortage of raw material molybdenum concentrate and the improvement in the utilization rate of steel mills. In the fourth quarter, supply of raw material molybdenum concentrate remained tight. However, as the steel mills successively entered the intensive stocking period before the Spring Festival, coupled with the boost in molybdenum demand as driven by faster resumption of work and production of enterprises, the price of ferromolybdenum was continuously pushed up in a rapid pace.

(4) Tungsten market

The major tungsten products of the Company are ammonium paratungstate (APT), which are sold in the domestic market in China. In 2022, the annual average APT price was RMB173,400 per tonne, representing a year-on-year increase of 12.74%. In the first quarter, the domestic economy performed well, and the APT price rose to the highest level of the year at RMB182,000 per tonne attributable to the stocking before the Spring Festival in combination with robust overseas demand. In the second quarter, there was a significant contraction in downstream demand for tungsten in the Yangtze River Delta region, with poor market sentiment and a nosedive in APT price. In the third quarter, the downstream demand for tungsten recovered after the full resumption of operation and production in the Yangtze River Delta region. The downstream enterprises in the industrial chain started to ramp up their operations, and the purchase of APT increased, driving up tungsten prices. In the fourth quarter, the demand for tungsten weakened, and the price entered the down range. Nevertheless, in the later stage, downstream enterprises entered the market in advance to purchase raw materials with concerns that the transportation of goods would be hindered, causing the APT price to rebound from the low point of RMB165,000 per tonne in the year to more than RMB170,000 per tonne.

(5) Niobium market

The major niobium product of the Company is ferroniobium, which is sold to the international market. In 2022, the annual average ferroniobium price was USD45.65 per kg of niobium, representing a year-on-year increase of 7.31%. In the first quarter, heavy rains in Brazil affected port delivery efficiency, and global supply was relatively tight. While the domestic economy performed well, and the conflict between Russia and Ukraine overseas restricted the flow of steel between Russia and the EU so that steel mills in overseas and domestic market were more willing to purchase ferroniobium, driving prices to continue to rise. In the second quarter, the price of ferroniobium continued its upward trend in the previous period to the highest point of USD48.5 per kg of niobium, and then began to fall back slowly. In the third quarter, the price of ferroniobium had a relatively long period of stability. Later, as the overseas macroeconomy weakened and European energy prices remained high, some overseas steel mills suspended production, driving the price of ferroniobium to accelerate downward. In the fourth quarter, with the increase in purchase inquiries from overseas steel mills, the price of ferroniobium rose temporarily, but the overall downward trend remained as the recovery of actual demand was less than expected.

(6) Phosphate market

The major phosphate products of the Company are phosphate fertilizer (MAP, DAP), phosphoric acid and DCP, which are sold in the Brazilian market. In 2022, MAP Brazilian delivered price was USD908 per tonne, representing a year-on-year increase of 30.84%. In the first quarter, the Russia-Ukraine conflict triggered concerns about the food and fertilizer crisis in global markets, and the price of MAP once soared to a historical high of USD1,300 per tonne. In the second quarter, as global central banks began to raise interest rates, food prices fell sharply and downstream profits shrank, the willingness to purchase fertilizers was affected, leading to a sharp drop in MAP prices. Although the third quarter is the peak season for phosphate fertilizers in the Brazilian market, due to the overstocking of the downstream during the Russia-Ukraine conflict, and the lack of profit support after the fall of grain prices, the enthusiasm of the downstream to purchase phosphate fertilizers was less than expected, and the price of MAP continued to fall. In the fourth quarter, the price of MAP fell back to the level before the Russia-Ukraine conflict, traded sideways at USD600 per tonne. By the end of the year, trading volume was boosted by fertilizer winter storage in the PRC, leading to slight price rise of phosphate fertilizer in international market.

(7) Nickel market

The major nickel product of the subsidiaries invested in by the Company is mixed nickel-cobalt hydroxide (MHP), which is mainly sold to the domestic market. In 2022, the annual average LME nickel spot settlement price was USD25,605 per tonne, representing a year-on-year increase of 38.50%. In the first quarter, under the influence of the conflict between Russia and Ukraine, the market worried that the supply of Russian nickel would be limited, and the price fluctuated sharply. In the second quarter, the market sentiment gradually calmed down. The ramp-up of the Indonesian nickel project brought an increase in production. Along with high global inflation and lowered economic growth expectations, the nickel price dropped drastically to a relatively normal range. In the third quarter, nickel prices fluctuated under the influence of factors in anticipation of the market such as LME's restriction on Russian nickel and Indonesia's imposition of tariffs on low-grade nickel products. In the fourth quarter, nickel prices continued to strengthen dramatically against the background that the pace of the US Federal Reserve's rate hike slowed down.

(8) Mineral trading market

Aluminum market: In 2022, the aluminum market fluctuated greatly as the conflict between Russia and Ukraine greatly affected the aluminum market. The market worried about the uncertainty of Russian supply. Meanwhile, the European energy markets were affected, and the output of European electrolytic aluminum dropped drastically. As affected by power shortages, the demand in Chinese market decreased, resulting in decline in output of electrolytic aluminum. As the interest rates of overseas central banks raised, the cost of obtaining goods increased, and participants in all links of the supply chain were pressured to reduce inventory.

Lead and zinc market: In 2022, the lead market presented a regional imbalance between supply and demand. Due to the limited supply of overseas lead concentrate, frequently disturbed production of metallic lead, and great demand for batteries, supply of both the overseas lead concentrate and metallic lead markets were relatively tight. Nevertheless, the domestic lead metal inventory was high while the market performance was relatively weak, and the export of lead metal and batteries increased. Both zinc concentrate and zinc metal markets demonstrated high volatility in 2022. The processing fee increased from USD80 per tonne at the end of 2021 to USD270 per tonne. In particular, the premium went up from USD220 per tonne to USD500 per tonne in Europe, and rose from USD240 per tonne to USD970 per tonne in the United States. The main reasons were: firstly, the Russia-Ukraine conflict led to record high energy prices in Europe, which had a significant impact on concentrate consumption and metal supply; secondly, the market demand in China was sluggish. At the end of 2022, central banks in western countries raised interest rates in response to high inflation, European energy prices also fell sharply, and the concentrate and metal markets began to return to rationality.

IV. BUSINESS REVIEW

BUSINESS REVIEW ON EACH METAL SEGMENT IN 2022

Major products	**Production volume of 2022**	Production volume of 2021
TFM copper metal *(tonne)*	**254,286**	209,120
TFM cobalt metal *(tonne)*	**20,286**	18,501
Molybdenum metal *(tonne)*	**15,114**	16,385
Tungsten metal (excluding Yulu Mining) *(tonne)*	**7,509**	8,658
Niobium metal *(tonne)*	**9,212**	8,586
Phosphate fertilizer (HA+LA) *(0'000 tonne)*	**114**	112
NPM copper metal (80% equity interest) *(tonne)*	**22,706**	23,534
NPM gold (80% equity interest) *(ounce)*	**16,221**	19,948
Concentrate products *(0'000 tonne)* (trade volume)	**311.8**	288.4
Refined metal products *(0'000 tonne)* (trade volume)	**313.7**	361.3

OPERATION REVIEW FOR THE YEAR OF 2022

(1) Record business results pillared by the focus on value creation

The Company captured cyclical opportunities of metal market with a focus on value creation, maximized its production efficiency and improved the production through enhancement of management with higher-than-planned production results of key mineral products in 2022, including record output of copper and cobalt by TFM and of phosphate fertilizer by Brazil operations since start of its production facility. Underpinned by the strong production, the Company has made revenue of RMB173 billion and net profit attributable to the parent company of over RMB6 billion for the year, a new record with a YoY growth of 19%. Trading business maintained its resilience despite the changing market environment and worked closely with the mining business units to capture positive market windows.

(2) Quicker conversion of resources with key projects on top of agenda

The Company worked in unity to ensure services and provisions of supplies around key projects to speed up conversion of resources into production and realization of financial contribution. Across the mining business units, over 200 engineering initiatives were rolled out throughout the year with an approximately 141% YoY growth of capex. During the reporting period, progress of TFM mixed ore project included completion of infrastructure stripping and civil works, 90% completion of installation of the central zone, and 30% completion of construction of the eastern zone, and progress of KFM, which is expected to start production in Q2 2023, included completion of producing facilities and living quarters, completion of key equipment installation, and safe high-quality and efficient commissioning.

(3) Continued efforts in cost and efficiency to unleash strength in business potential

Different business segments of the Company continuously exploited organic potential, and adhered to reducing cost and improving efficiency through various means. TFM's copper and cobalt segment was committed to re-engineering management and technology innovation continuously; for the molybdenum and tungsten segment, costs were reduced by improving various indicators such as on-site management and recovery rate, and economic benefits were created by exporting waste rock pile, rebellious ore, ore with low molybdenum and high iron content, molybdenum and iron slag; for the niobium and phosphate segment, potential of cost reduction was exploited through various means such as contracted cleaning, cost control and technology management, and phosphogypsum, wet-and-fine phosphate concentrates and strong magnetic tailings were sold instead of being wasted, thus increasing sales revenue.

(4) Stronger commitment in sustainable development

The Company maintained its A Class MSCI ESG rating, a continued representation of global its industry-leading ESG performance. During the reporting period, the Company kicked off a broad ESG framework-building system, set up an independent ESG Development Department, and appointed a Vice President responsible for work related to sustainable development. The Company rolled out its carbon-neutral roadmap and joined the UN Global Compact, thus further enhancing the Group's strategic image and offering a strong defense for the Company to achieve financing, obtain approvals and achieve high-quality growth. The cobalt supply-chain initiative advanced together with Glencore and ERG which enabled the traceability of mineral products from mine to battery and is one of the first two pilots of the Global Battery Alliance Electric Vehicle Battery Passport. At the same time, the HSE oversight system was built, and relevant reviews were performed to ensure effective coverage of all mining business units. HSE performance remained stable with zero fatality, zero major environmental incident, and zero new case of occupational disease, keeping the historical best record and providing strong defense to production.

(5) Multiple steps forward in inorganic growth

During the reporting period, the Company kept searching, screening, and studying quality potential assets at various stages centering around the new energy sector. In January 2023, the Company worked with CATL to jointly develop two large brines within the border of Bolivia and build lithium extraction plants, demonstrating one important step towards expansion of the new energy business. Leveraging on the existing network in Africa, South America, and Southeast Asia, the Company further integrated into the new energy comprehensive value chain and extended coverage of its marketing footprint with an aim to secure new projects.

(6) Improved global oversight enabled by digitalization

Phase I of the SAP project of the Company was rolled out successfully. A global unified digital intelligence platform was built with ERP, OA, procurement platform, sales platform, expense control, and shared financial services functions covering business modules including centralized procurement, sales, production and supply, and project management. Phase I of global center of shared financial services was successfully launched, offering a prototype of shared financial and taxation, global procurement, and cooperative work platform. The Company continued to concentrate on its strategic missions and enhanced its regional planning to support fulfilment of its strategies.

(7) Robust governance structure

During the reporting period, the headquarters of the Company completed its organizational upgrade with full-fledged functions constructions and clear division of responsibilities between the headquarters and core business units. The Company built a comprehensive audit and supervision system to identify risks and facilitate initiatives to reduce cost, a risk prevention and control system to improve risk screening and internal control review, and a credit risk management framework with credit lines management rules to ensure financial safety. The firm-wide anti-corruption framework was also established to define things of zero tolerance, smooth global report channels and audits in key areas, and disciplinary reviews were conducted to create transparency management.

(8) Promote core values as guided by corporate culture

The Company continued to build a stronger team bonded by its core values. It promoted the cooperation between Chinese and overseas teams, and improved the cohesion and strength of the team. The Company updated its English name and enhanced its international communications to represent the broader vision and mission of the Company and its brand value.

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MATERIAL EVENTS

I. MATERIAL EVENTS

1. The mixed ore development project of TFM Copper and Cobalt Mine has been filed and approved by the National Development and Reform Commission and the Ministry of Commerce

On 6 August 2021, the Company held the second extraordinary meeting of the sixth session of the Board to consider and passed the "Resolution on the Mixed Ore Development Project in relation to TFM Copper and Cobalt Mine in the DRC", which approved that the Company would invest US$2.51 billion to develop the mixed ore project of the TFM Copper and Cobalt Mine.

On 17 May 2022, the Company published an announcement on the progress of the Mixed Ore Development Project in relation to TFM Copper and Cobalt Mine in the DRC. The project has obtained the filing and approval documents of the National Development and Reform Commission and the Ministry of Commerce on the mixed ore development project in relation to TFM Copper and Cobalt Mine. At present, the construction project is progressing smoothly according to the milestone node plan, and the Company is actively facilitating relevant works of the mixed ore project of TFM Copper and Cobalt Mine. After the commencement of production in the future, it is estimated that the average annual production capacity of copper will be increased by about 200,000 tonnes, and the average annual production capacity of cobalt will be increased by about 17,000 tonnes.

For details, please refer to relevant announcements published on the Company's website, designated media and the websites of the Shanghai Stock Exchange (the "**SSE**") and The Stock Exchange of Hong Kong Limited (the "**Hong Kong Stock Exchange**").

2. Completion of implementation of A Share repurchase (phase III)

On 24 May 2022, the Company held the fourth extraordinary meeting of the sixth session of the Board, at which it considered and passed the "Resolution in relation to the Repurchase of A Shares of the Company through Centralized Price Bidding (Phase III)", which approved that the Company would use no more than RMB500 million to repurchase certain A shares of the Company at a price of no more than RMB7.25 per share, and the shares will be subsequently used for employee stock ownership or share incentive plan or other purposes as permitted by laws and regulations.

On 9 June 2022, the Company published an announcement on the completion of implementation of share repurchase (phase III). During the period, the Company repurchased a total of 104,930,443 A shares through centralized price bidding, representing 0.49% of the current total share capital of the Company. The highest transaction price was RMB5.00 per share and the lowest transaction price was RMB4.60 per share, with an average repurchase price of RMB4.76 per share and a total transaction amount of RMB499,934,733 (excluding transaction fees).

For details, please refer to relevant announcements published on the Company's website, designated media and the websites of the SSE and the Hong Kong Stock Exchange.

3. The unlocking conditions of the first unlocking period for the 2021 first phase of the employee share ownership plan were reached

In recent years, the Company paid consistent efforts in upgrading its management and organizational structure and expanding its talent team. In order to realize the medium and long-term development strategy, the Board considered and approved the resolution on "2021 First Phase of Employee Share Ownership Plan (Draft) of CMOC Group Limited." and its summary on 5 May 2021, pursuant to which an interest-sharing mechanism for employees and shareholders will be gradually established and improved.

On 10 June 2002, the fifth extraordinary meeting of the sixth session of the Board of the Company considered and approved the resolution on the accomplishment of the performance appraisal indicators regarding the first tranche of interest allocation period of the 2021 First Phase of Employee Share Ownership Plan. The Company's gearing ratio (excluding cash and and cash equivalents (including RMI)) at the end of 2021 was 49%, which was lower than 60% as stipulated in the appraisal indicator. The CAGR of return on net assets for 2021 was 122%, which was higher than 12% as stipulated in the appraisal indicator. According to the "2021 First Phase of Employee Share Ownership Plan of the Company", the management committee of the Employee Share Ownership Plan may assign the units and corresponding interests unlocked during first tranche of interest allocation period to the incentive participants.

For details, please refer to relevant announcements published on the Company's website, designated media and the websites of the SSE and the Hong Kong Stock Exchange.

4. KFM Copper and Cobalt project will be put into operation in the second quarter of 2023

On 30 June 2022, the sixth extraordinary meeting of the sixth session of the Board of the Company considered and passed the "Resolution in relation to Investment and Construction of the KFM Development Project in the DRC", which approved to develop the KFM project (phase I) within a proposed budget of no more than US$1.826 billion. The products of this project are mainly copper cathode, crude cobalt hydroxide and a small amount of copper and cobalt sulfide concentrate. After the commencement of production, the average annual production capacity is converted into about 90,000 tonnes of copper metal and about 30,000 tonnes of cobalt metal. The project has been undergoing preparation since March 2021 and is expected to be put into operation in the second quarter of 2023.

For details, please refer to relevant announcements published on the Company's website, designated media and the websites of the SSE and the Hong Kong Stock Exchange.

5. CATL as the second largest shareholder

On 30 September 2022, Luoyang Guohong, Sichuan CATL and CATL entered into the Investment Framework Agreement, pursuant to which Luoyang Guohong subscribed for the increased share capital in Sichuan CATL with its 100% equity interests in LMG (the "**Capital Increase Assets**") (the "**Transaction**"). Before the Transaction, LMG directly held 24.68% equity interests in the Company, Luoyang Guohong indirectly held 24.68% equity interests in the Company through LMG, and Sichuan CATL did not hold any equity interest in the Company. Upon completion of the Transaction, Luoyang Guohong would no longer hold any equity interest in the Company directly or indirectly through entities under its control, and Sichuan CATL, a subsidiary controlled by CATL, would indirectly hold 5,329,780,425 shares of the Company through LMG, representing 24.68% of the total share capital of the Company.

On 31 October 2022, Luoyang Guohong, Sichuan CATL and CATL entered into the Investment Agreement, pursuant to which Luoyang Guohong agreed to subscribe for the increased share capital in Sichuan CATL with its 100% equity interests in LMG to Sichuan CATL. Upon completion of the capital increase, Luoyang Guohong would hold 20.8% equity interests in Sichuan CATL, and Sichuan CATL would hold 100% equity interests in LMG.

The aforesaid equity transaction was officially completed on 6 March 2023.

For details, please refer to relevant announcements published on the Company's website, designated media and the websites of the SSE and the Hong Kong Stock Exchange.

II. HONOURS

During the reporting period, the Company was awarded the First Prize of Liaoning Science and Technology Achievement (遼寧省科學技術進步一等獎) with its "Key Technology and Application of Integrated Low-carbon Ecological Design and Intelligent Mining of Metal Open Pit Mine" (金屬露天礦低碳生態化設計與智能開採一體化關鍵技術與應用).

"Research on Key Technology for the Integration of Low-carbon Optimization – Intelligent Production – Safety Warning in Metal Open Pit Mine" (金屬露天礦低碳優化－智能生產－安全預警一體化關鍵技術研究) was honoured the First Prize of China Metallurgical Mining Science and Technology (中國冶金礦山科技技術一等獎).

"First Phase of CMOC Secaohu Tailings Pond (Replacement Pond for Luchanggou Tailings Pond of Jiuyang)" (洛鉬集團澀草湖尾礦庫(九揚公司爐場溝尾礦庫接替庫)一期工程) was honoured the First Prize of Engineering Design Achievement in Non-ferrous Metal Construction Industry in China (中國有色金屬建設行業工程設計成果一等獎).

"Research on Key Technology for Efficient Scheduling of Multi-point Cluster Operation of Metal Open Pit Mine Truck" (金屬露天礦卡多點集群作業高效調度關鍵技術研究) was honoured the First Prize of Scientific and Technological Achievement of Henan Occupational Health and Safety Association (河南省職業健康安全協會科技成果一等獎).

The Company was honoured with titles including "Excellent (Outstanding) Private Enterprise in Henan Province (Industry Leader)" (河南省優秀(傑出)民營企業(行業領軍型)), "Green Technology Innovation Demonstration Enterprise in Henan Province" (河南省綠色技術創新示範企業), and "2022 Top Manufacturing Enterprises in Henan Province" (二零二二年河南省製造業頭雁企業).

III. DOMESTIC AND OVERSEAS INDUSTRY POLICIES

1. Within the PRC

The "Notice on Strengthening Safety Education on Mining Work of the National Mine Safety Administration" (Kuang An [2022] No. 84) (《國家礦山安全監察局關於加強安全宣教進礦山工作的通知》(礦安[2022]84號)) was issued and implemented on 15 June 2022. Such notice provided guidance on strengthening safety education on mining work, facilitating mining enterprises to establish a solid concept of safe development, ensuring the principal responsibilities of production safety being assumed, enhancing on-site safety management, improving the competence of employees in terms of safety and reinforcing mine safety.

On 10 August 2022, the Ministry of Emergency Management and the National Mine Safety Administration jointly promulgated the "14th Five-Year Plan for Mine Safety Production" (Ying Ji [2022] No. 64) (《「十四五」礦山安全生產規劃》(應急[2022]64號)). It provided certain guidance on the production and construction safety in mines.

On 18 November 2022, the Ministry of Natural Resources issued the "Notice on Securing Land Use for Mining of the Ministry of Natural Resources" (Zi Ran Zi Fa [2022] No. 202) (《自然資源部關於做好採礦用地保障的通知》(自然資發[2022]202號)). Such Notice encouraged the use of rehabilitation, restoration and vacation indicators for land use procedures, and allowed the newly added cultivated land upon reclamation and restoration to be used for land requisition-compensation balance, which alleviated the shortage of mining land to a certain extent.

2. Overseas

Within Brazil

In Brazil, the operations (mines and plants) are regulated by the ANM together with labour, environmental and other agencies. The municipal, state and federal governments and the public prosecutor's office and other administrative departments and judicial authorities at all levels are responsible for the enforcement of the relevant laws and regulations.

In terms of labour law, Brazil has adopted several labour-related laws and regulations to streamline the relevant processes and optimize the labour legal landscape since 2017. In line with these changes, the Brazilian Federal Supreme Court, in a published labour case in June 2022, confirmed that labour agreements signed between companies and employees have precedence over laws and regulations, even if the content of such agreements are not in compliance with the law, saved for those contradicted to constitutional labour rights.

As for the legislation of the mineral sector, after the dam accidents in Mariana/MG and Brumandinho/MG, Brazilian government and relevant agencies have given much more attention to the legislation of mineral sector. In February 2022, the Brazilian National Mining Agency (ANAM) issued a decree raising the safety standards for tailings dams and related facilities. In December 2022, ANAM issued another decree increasing the amount and percentage of penalties for non-compliant mining operations. Throughout 2022, CMOC Brazil's production and operations were in compliance with all tailings dam safety-related laws and regulations.

Enterprises only have a short period of time to adapt to new laws and regulations, but the Company has put all measures in place and its production and operations fully comply with the restrictive requirements of Brazil's prevailing laws and regulations.

V. OUTLOOK

1. Copper market

The global copper mines will see a more concentrated release of incremental production capacity, with smelting capacity also increasing but at a slower rate than the mining side. In 2023, the TC/RC benchmark hit a record high since 2017, indicating a relatively consistent market expectation for future copper easing. Demand for copper in relation to new energy is expected to grow rapidly against the backdrop of carbon neutrality and carbon peaking. The pace of interest rate hikes by the US Federal Reserve and other European and US central banks may slow down, alleviating the dampening effect of the US dollar on copper prices, while global copper inventories remain at low levels, supporting higher copper prices.

2. Cobalt market

The global cobalt raw material supply continues to increase, mainly from the production expansion of cobalt hydroxide in the DRC. The MHP production ramp-ups in Indonesia also boost the supply of cobalt raw materials to a certain extent. Power battery continues to be the main source of incremental cobalt demand. Despite the rapid development of lithium iron phosphate and the trend of high-nickel ternary battery, the overall growth rate of power battery remains considerable as driven by the high-speed growth of new energy vehicles, which will support cobalt demand.

3. Molybdenum market

Global molybdenum supply is relatively stable as a whole. The production volume of domestic copper and molybdenum-associated ores has increased slightly, but the quality of some of the existing mines has downgraded, and the production disturbance of part of the copper and molybdenum-associated ores in South America has not fully recovered. The global economic slowdown may drag down the growth rate of molybdenum demand, but the expected further growth in production of stainless steel containing molybdenum and alloy steel by virtue of domestic steel industry structural reform and further development of high-end manufacturing will support the further growth of demand for molybdenum.

4. Tungsten market

The large uncertainty on commencement of production of overseas tungsten mining projects, the tightening of domestic environmental protection policies, the closure of unqualified mines and the decline in the grade of some mines have restricted the supply of tungsten raw materials. With the recovery of production in the Yangtze River Delta region where the downstream tungsten enterprises are concentrated, it is expected that the downstream enterprises will be able to have more stable production. Considering that the replacement of cemented carbide tools will enter its peak, the demand for tungsten will be stimulated.

5. Niobium market

Global niobium supply is highly concentrated and new production capacity has been kept within a moderate range. Although the risk of global economic slowdown may dampen overseas production of steel mills, demand for niobium is expected to present stable growth in view of the restructuring of the domestic steel industry, the further development of high-end manufacturing and the expected increase in the proportion of alloy structural steel to be used in infrastructure projects.

6. Phosphates market

The global phosphate fertilizer market is gradually returning to a normal price range after the huge volatility caused by the Russia-Ukraine conflict in 2022. Although the price of agricultural products has also experienced a comeback, the extent of which has been less than that of phosphate fertilizers, which will support the resurgence of willingness to purchase of downstream enterprises. Considering that the Brazilian crop planting area continues to increase, it is expected that phosphate fertilizer demand will be able to maintain growth.

7. Nickel market

The global nickel supply has increased significantly, mainly from the MHP and NPI products in Indonesia, and these projects are expected to have further production ramp-ups, contributing to the further significant increase in nickel supply. The growth rate of nickel demand for stainless steel is relatively stable, while the nickel demand for power battery is the main source of growth. Despite the rapid development of lithium iron phosphate, the advantage of high nickel ternary in terms of energy density makes it more competitive, which is expected to support the demand for nickel. Meanwhile, the nickel inventories on the exchanges remain at a relatively low level, which will provide underlying support for nickel prices.

8. Mineral trading

Aluminum market: In view of the persistent conflict between Russia and Ukraine, coupled with high interest rates in a highly inflationary environment, the aluminum market in 2023 remains uncertain. Fundamentally, there are certain production and supply risks in China, and it is uncertain as to whether smelters will increase production in 2023 after the restricted production caused by power shortage in 2022. LME inventories were at low levels at the beginning of the year, but over-the-counter inventories have increased. In terms of macroeconomic background, overseas demand for electrolytic aluminum is subject to downside risk. As logistics bottleneck is diminishing, logistics management will become more controllable.

Lead and zinc markets: Overseas lead and zinc metal markets will remain tight in 2023, but it will mainly depend on the specific performance of end-use demand in a high interest rate environment. The domestic metal market is expected to be relatively weaker due to lower demand and better smelter margins, which will encourage smelters to maximize capacity utilization. The market is still worried about the lead and zinc metal inventories which are at historic lows. In the concentrate market, zinc concentrate is expected to be broadly balanced as European smelters are expected to resume production, but political and social factors may still affect supply from mines. The lead concentrate market is expected to remain tight, mainly due to strong competition among traders for high silver lead concentrates, which are blended with other quality lead concentrates and exported to China as silver concentrates.

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2023 BUSINESS PROSPECT

1. Based on future economic and market dynamics, the production guidance set by the Company are as follows:

Major products	**Production guidance for 2023** *(0'000 tonnes)*
TFM copper metal	29.00-33.00
TFM cobalt metal	2.10-2.40
KFM copper metal	7.00-9.00
KFM cobalt metal	2.40-3.00
Molybdenum metal	1.20-1.50
Tungsten metal (excluding Yulu Mining)	0.65-0.75
Niobium metal	0.84-1.00
Phosphate fertilizer (HA+LA)	105.00-125.00
NPM copper metal (80% equity interest)	2.40-2.70
NPM gold (80% equity interest)	25,000-27,000 ounces
Physical trade volume	570-670

The above budgeted targets are based on the judgement of current economic environment and expected economic development trend. Whether it may realize or not depends on the macro-economic environment, industry development, market circumstance and other factors, which is subject to uncertainty.

The above production plans do not constitute substantive commitments to investors, and investors shall exercise caution about investment risk.

2. Priorities of the Company for 2023:

(1) Advancement of work from all aspects

As the Company progresses along the "three-step" strategy from "laying the foundation" to "climbing up the ladder", 2023 will be a year of advancement and will require overall improvement in every aspect including management, cost, technical, extension, production capacity, financial performance, and logistics to solidify the foundation for growth. All segments, centering on strategic planning of the Company, will take ownership with the five functions "5233" of the Group's headquarters in consolidating resources to build regional value chain, supply chain, and marketing chain in support of the Group's strategy and the full completion of the annual production and operation indicators.

(2) Advance project construction

2023 will be a year witnessing start of production of key projects. In Africa, construction of KFM copper-cobalt mine and TFM mixed ore projects will be advanced at full speed in line with milestones and first production is expected in 2023. Teams from China operations will continue to tap the potential of Sandaozhuang, improve the mining capacity of Shangfanggou and speed up development of Donggebi Molybdenum Mine. In Australia, NPM will focus on planning of ore sources and supply, including early production of E31 and E31N, reduction of E48 supply, higher supply from E26, and feasibility study of E22, and on increasing ore grade. At Brazil operations, with the aim to seize market opportunities, put into production quickly, increase capacity efficiency and reduce capital expenditure, mining of southwest of the phosphate mine will be accelerated and ore grade will be improved. The Company will push for early production of key projects, improve operating performance, and reduce capital expenditure to capture favorable market windows.

(3) Relying on the advantages of the mines with focus on the breakthrough

Greater value creation will be realized by technical innovation. In 2023, as TFM mixed ore project starts production, utilization of sulfide, oxide, and mixed ores will be studied in advance to design and optimize technical processes specific to different orebody characteristics and maximize values of resources. China operations and NPM will work closer with industry research institutes to testify full-process trial results and ensure stability of technical performance despite falling ore grade. Niobium segment in Brazil will also leverage strengths of both China and overseas research institutes to improve recovery rate, as well as to review study of recovery of iron ore from tailings of magnetic floatation and recovery of rare earth elements, driving for new breakthroughs and additional profit drivers.

(4) Strengthening modernization and reshaping trading engineer with high quality

The Company will continue to reshape IXM towards a business model integrating physical trading, execution and arbitrage, create an independent physical trading system strengthen the risk control ability of self-operated business, and inovate the overall risk management and control system. Focuses on managing financing cost and increasing utilization of working capital will be stressed to reduce financial cost. The coordination between IXM and other operating business units will be enhanced in particular to create greater synergy in production and sales, business with the Group, investment and financing opportunities with financial institutions, and network and human resources from up and downstream clients. The Company is committed to building a first-class sal and physical trading platform.

(5) Stronger soft-power based on leading ESG performance

In 2023, a firm-wide ESG system will be built up covering all business units with a set of CMOC standards and more integration of ESG into business operations by embedding ESG concepts into all business processes including major constructions, M&A, production, and financing, promoting high-quality corporate development with ESG, striving to maintain its position as a world-class mining company with top ESG performance as the carbon neutral target is announced and commitment to the UN Global Compact and five-year strategic planning of ESG to be fulfilled.

(6) Expansion into new territories

The Company will further explore extension growth opportunities and work closer with CATL to promote the battery value chain project in Africa and the lithium brine project in Bolivia, trying to kick off relevant works within the year. The Company will focus on new energy metals and other key metals where we have advantage in by exploring market opportunities and seeking to make important moves this year to consolidate our strength in M&A, boost market confidence, and broaden the foundation for future growth.

(7) Attract and retain talents

The Company will attract more talent by launching various recruitment and referral campaigns and will continue to build up its talent pool to bolster rapid growth of the Company as key projects are to be completed, expansionary activities continue, and the headquarters management keep improving. Meanwhile, multiple incentive plans will also be launched to motivate people including pushing forward the roll-out of long-term incentive plan and the phase II employee share ownership plan will be rolled out to share with the teams the achievements they make together.

VI. MATERIAL ACQUISITION AND DISPOSAL OF SUBSIDIARIES, JOINT VENTURES AND ASSOCIATES

Other than disclosed in this announcement, the Group did not have any material acquisition and disposal of subsidiaries, joint ventures and associates during the year ended 31 December 2022.

VII. PURCHASE, SALE AND REDEMPTION OF LISTED SECURITIES OF THE COMPANY

On 24 May 2022, the Company convened the fourth extraordinary meeting of the sixth session of the Board, at which the "Resolution in relation to the Repurchase of A Shares of the Company through Centralized Price Bidding (Phase III)" was considered and approved, agreeing the Company to use self-owned funds of no more than RMB500 million to repurchase A shares of the Company at the price of no more than RMB7.25 per share. On 8 June 2022, the Company issued an announcement concerning the completion of implementation of share repurchase (phase III). The Company repurchased a total of 104,930,443 A shares at the Shanghai Stock Exchange through centralized price bidding, accounting for 0.49% of the total issued share capital of the Company. The highest transaction price was RMB5.00 per share and the lowest transaction price was RMB4.60 per share, with an average repurchase price of RMB4.76 per share and a total transaction amount of RMB499,934,733 (excluding transaction fees).

During the year ended 31 December 2022, the repurchased A shares will be used for the implementation of employee share ownership or equity incentive plans or other purposes as permitted by laws, and details of the repurchase are as follows:

Month	**Repurchased A shares volume** *(shares)*	**The highest repurchase price** *(RMB/share)*	**The lowest repurchase price** *(RMB/share)*	**Total consideration** *(RMB)*
25 May 2022	20,656,500	4.75	4.60	97,086,245
31 May 2022	55,619,041	4.81	4.60	264,023,142.52
8 June 2022	28,654,902	5.00	4.60	138,825,345.48

References are made to the announcement of the Company dated 29 January 2019 in relation to the issuance of USD300,000,000 guaranteed bonds (the "**US Bonds**") due 2022 at an interest rate of 5.48% by CMOC Capital Limited ("**CMOC Capital**"), an indirect subsidiary of the Company, the notice dated 1 February 2019 in relation to the listing of US Bonds on the Hong Kong Stock Exchange and the announcement dated 21 July 2020 in relation to the partial repurchase and cancellation of the US Bonds.

On 13 July 2020, CMOC Capital repurchased a total of USD50,000,000 of US Bonds (the "**Repurchased Bonds**") in the public market, accounting for 16.67% of outstanding amount of USD300,000,000. The Repurchased Bonds had been cancelled on 21 July 2020. Upon the cancellation of the Repurchased Bonds, there was a total of USD250,000,000 of outstanding US Bonds, accounting for 83.33% of the initial US Bonds.

The US Bonds were due on 1 February 2022, and CMOC Capital had deposited a total amount of USD256.58 million in the trustee's designated bank account in full, including outstanding principle amount of the notes of USD250,000,000 together with accumulated interests as at the maturity date and the payment was made as schedule. The US Bonds were cancelled and delisted from the Stock Exchange on 4 February 2022.

Pursuant to the "Resolution on the Granting of Authorization to the Board to Decide on the Issuance of Debt Financing Instruments" (《關於給予董事會決定發行債務融資工具授權的議案》) and other bond issuance-related resolutions considered and approved at the 2021 annual general meeting of the Company, it was agreed to issue debt financing instruments with a total nominal amount not exceeding RMB20 billion or equivalents in foreign currencies and to authorize the Board to handle all matters related to this corporate bonds issue.

On 22 August 2022, upon the approval of Zheng Jian Xu Ke [2022] No. 1901 (「證監許可[2022]1901號」) issued by the CSRC, the Company was approved to issue corporate bonds to qualified investors with a total nominal amount not exceeding RMB10 billion. On 16 December 2022, the Company issued the first tranche of renewable corporate bonds on the Shanghai Stock Exchange, with a total amount of RMB1 billion and a final nominal rate of 5.62%. After deducting the issuing expenses from the principal and interest of the raised funds of the issued bonds of the Company, the proceeds will be used for the optimization of debt structure, the repayment of corporate loans, the replenishment of liquidity and other purposes as permitted by laws, regulations and relevant requirements.

Save as disclosed above, neither the Company nor any of its subsidiaries purchased, sold or redeemed any listed securities of the Company or any of its subsidiaries during the year ended 31 December 2022.

VIII. CORPORATE GOVERNANCE PRACTICES OF THE COMPANY

The Group has strived to uphold high standards of corporate governance to safeguard the interests of shareholders, to enhance corporate value and to implement accountability for the Group.

The Company has applied the principles and code provisions as set out in the Corporate Governance Code contained in Appendix 14 to the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange (the "**Hong Kong Listing Rules**").

In the opinion of the Board, the Company has adopted and complied with all applicable code provisions as set out in the Corporate Governance Code throughout the year ended 31 December 2022.

The Company reviews its corporate governance practices regularly to ensure compliance with the Corporate Governance Code.

IX. AUDIT AND RISK COMMITTEE

The Audit and Risk Committee has reviewed with the management and external auditor the audited consolidated results of the Group for the year ended 31 December 2022, according to the accounting principles and practices adopted by the Group, and discussed auditing, internal controls and financial reporting matters.

X. MODEL CODE FOR SECURITIES TRANSACTIONS BY DIRECTORS, SUPERVISORS AND EMPLOYEES

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers (the "**Model Code**") as set out in Appendix 10 to the Hong Kong Listing Rules in respect of dealings in the Company's securities by Directors and Supervisors. Having made specific enquiries, all Directors and Supervisors confirmed that the required standards set out in the Model Code have been complied with during the year ended 31 December 2022.

The Company has also formulated written guidelines (the "**Employees Written Guidelines**") on terms no less exacting than the Model Code for securities transactions by employees of the Company who are likely to be in possession of unpublished inside information of the Company. No incident of non-compliance against the Employees Written Guidelines by the employees has been noted by the Company after making reasonable enquiry.

XI. FURTHER ANNOUNCEMENT ON THE DATE OF ANNUAL GENERAL MEETING AND THE CLOSURE OF REGISTER OF MEMBERS OF H SHARES

The Board authorized Mr. Yuan Honglin, the Chairman, to determine the date of the Company's forthcoming annual general meeting (the "**AGM**") and the closure of register of members of H shares pursuant to the relevant laws, regulations and articles of association of the Company.

Upon determination of the date of the above meeting and the closure of register of members of H shares, the Company will publish relevant notice and despatch the circular containing further information to H shareholders as soon as possible.

XII. DIVIDEND

On basis of the total share capital (deducting shares in the Company's repurchase account) at the share registration date for profit distribution, the Company will distribute a cash dividend of RMB0.8508 (tax inclusive) per 10 shares to all shareholders of the Company, with an expected total cash dividend distribution of RMB1,820,227,909.77 (tax inclusive), accounting for approximately 30% of the net profit attributable to shareholders of the parent company. During the period between the disclosure date of profit distribution plan and the share registration date for profit distribution, if there are changes in the total share capital of the Company due to conversion of convertible shares/repurchase of shares/cancellation or repurchase of shares granted under equity incentives/cancellation or repurchase of shares due to material asset restructuring, the Company proposes to remain the total distribution amount unchanged, while adjusting the per share distribution proportion accordingly.

The proposal has been considered and approved at the 8th meeting of the sixth session of the Board, and is subject to approval of shareholders of the Company at the AGM. The dividend distribution is expected to be completed within two months after the AGM.

The Company will dispatch a circular containing, among others, further information in relation to the proposed distribution of final dividend and the AGM to the shareholders of the Company in due course.

XIII. AUDITOR'S OPINIONS

The consolidated financial statements of the Company for the year ended 31 December 2022 have been audited by Deloitte Touche Tohmatsu Certified Public Accountants LLP and an auditor's report for 2022 prepared under the PRC accounting standards with unqualified opinion has been issued.

XIV. SUBSEQUENT EVENTS

The Group did not have any material subsequent events after 31 December 2022.

XV. PUBLICATION OF ANNUAL RESULTS ANNOUNCEMENT AND ANNUAL REPORT

This results announcement has been published on the websites of the Hong Kong Stock Exchange at www.hkexnews.hk, the SSE at www.sse.com.cn and the Company at www.cmoc.com. The 2022 annual report of the Company will be despatched to the shareholders of the Company and published on the aforesaid websites in due course.

By Order of the Board
CMOC Group Limited*
Yuan Honglin
Chairman

Luoyang City, Henan Province, the People's Republic of China, 17 March 2023

As at the date of this announcement, the Company's executive Directors are Mr. Sun Ruiwen and Mr. Li Chaochun; the Company's non-executive Directors are Mr. Yuan Honglin, Mr. Guo Yimin and Mr. Cheng Yunlei; and the Company's independent non-executive Directors are Mr. Wang Gerry Yougui, Ms. Yan Ye and Mr. Li Shuhua.

* *For identification purposes only*