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中国铝业股份有限公司
ALUMINUM CORPORATION OF CHINA LIMITED*

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

(Stock Code: 2600)

2021 ANNUAL RESULTS ANNOUNCEMENT

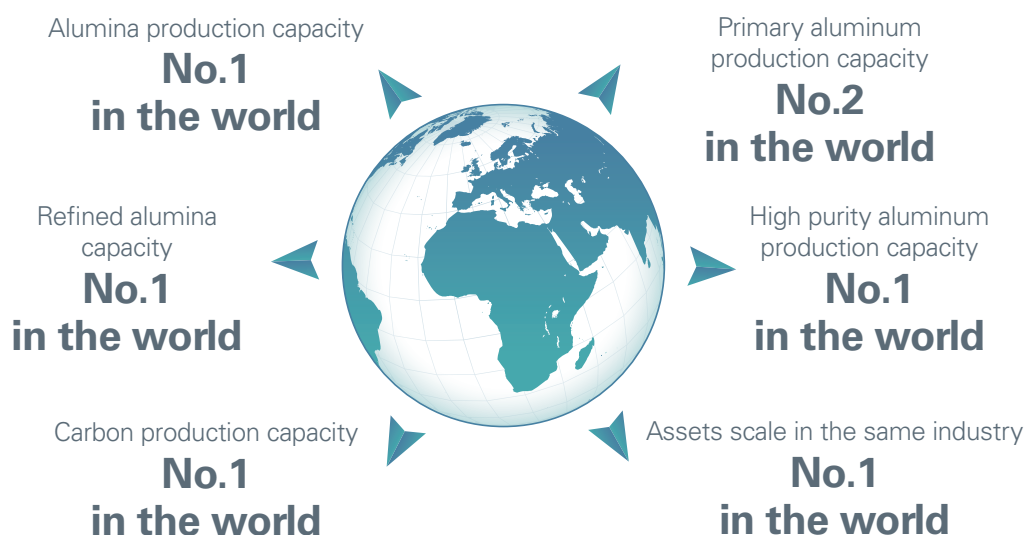
The board of directors of Aluminum Corporation of China Limited* (the “**Company**”) is pleased to announce the audited results of the Company and its subsidiaries (the “**Group**”) for the year ended 31 December 2021. This announcement, containing the main text of the 2021 annual report of the Company, complies with the relevant requirements of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited in relation to information accompanied to preliminary announcements of annual results. The 2021 annual report of the Company and its printed version will be delivered to the H shareholders of the Company and available for view on the websites of the Hong Kong Stock Exchange at <http://www.hkex.com.hk> and of the Company at <http://www.chalco.com.cn> on or before 30 April 2022.



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Corporate Profile



Aluminum Corporation of China Limited (“**Chalco**” or the “**Company**”) is a joint stock limited company established in the People’s Republic of China (the “**PRC**”); its shares are listed on The Stock Exchange of Hong Kong Limited (the “**Hong Kong Stock Exchange**”), the New York Stock Exchange and the Shanghai Stock Exchange, respectively.

The Company and its subsidiaries (collectively referred to as the “**Group**”) is a leading enterprise in aluminum industry in China, ranking among the top in the global aluminum industry in terms of overall strengths, and is a large manufacturer and operator with integration of exploration and mining of bauxite, coal and other resources; production, sales and technology research of alumina, primary aluminum, aluminum alloy and carbon products; international trade; logistics business; thermal and new energy power generation.

The core competitiveness of the Group is mainly reflected in:

- its clear and pragmatic development strategy to build itself into a top-notch aluminum company with global competitiveness in the world;
- its ownership of stable and reliable supply of bauxite resources to ensure sustainable development;
- its complete industrial chain and distinct comprehensive competitive edge;



Corporate Profile (Continued)

- its advanced management concepts to promote the realization of the operation objectives of the Company;
- its experienced professional technician team to ensure a continuous improvement in the productivity of labour of the Company;
- its excellent management team to achieve the Company's efficient operation;
- its sustainable scientific innovation capacity to achieve effective transformation of technological achievements into economic benefits;
- its combination of party building and operating management to ensure the health development of the Company.

The Group is principally comprised of the following branches, subsidiaries, joint ventures and associates:

Branches:

- Guangxi branch (mainly engaged in producing alumina products);
- Qinghai branch (mainly engaged in producing primary aluminum and alloy products);
- Guizhou branch (mainly engaged in mining bauxite and producing alloy products);





Corporate Profile (Continued)

Subsidiaries:

- Chalco Shanxi New Material Co., Ltd.* (中鋁山西新材料有限公司) (“**Shanxi New Material**”) (mainly engaged in producing alumina products, primary aluminum and alloy products);
- Fushun Aluminum Co., Ltd. (“**Fushun Aluminum**”) (mainly engaged in producing carbon products);
- Zunyi Aluminum Co., Ltd. (“**Zunyi Aluminum**”) (mainly engaged in producing alumina and primary aluminum products);
- Shandong Huayu Alloy Materials Co., Ltd. (“**Shandong Huayu**”) (mainly engaged in producing alloy and carbon products);
- Baotou Aluminum Co., Ltd. (“**Baotou Aluminum**”) (mainly engaged in producing primary aluminum and alloy products);
- Chalco Mining Co., Ltd. (“**Chalco Mining**”) (mainly engaged in mining bauxite and producing alumina products);
- China Aluminum International Trading Co., Ltd. (“**Chalco Trading**”) (mainly engaged in the trading of non-ferrous metal products);
- Chalco Hong Kong Ltd. (“**Chalco Hong Kong**”) (mainly engaged in development of overseas programs);
- Chalco Shandong Co., Ltd. (“**Chalco Shandong**”) (mainly engaged in producing alumina products);
- Chalco Zhongzhou Aluminum Co., Ltd.* (中鋁中州鋁業有限公司) (“**Zhongzhou Aluminum**”) (mainly engaged in producing alumina products);





Corporate Profile (Continued)

- Chalco Zhengzhou Research Institute of Non-ferrous Metal* (中鋁鄭州有色金屬研究院有限公司) (“**Zhengzhou Institute**”) (mainly engaged in research and development services);
- Chalco Energy Co., Ltd. (“**Chalco Energy**”) (mainly engaged in energy development);
- Chalco Ningxia Energy Group Co., Ltd. (“**Ningxia Energy**”) (mainly engaged in power generation and coal resources development);
- Guizhou Huajin Aluminum Co., Ltd. (“**Guizhou Huajin**”) (mainly engaged in producing alumina products);
- China Aluminum Logistics Group Corporation Co., Ltd (“**Chalco Logistics**”) (mainly engaged in transportation services);
- Chalco Shanghai Company Limited* (中鋁(上海)有限公司) (“**Chalco Shanghai**”) (mainly engaged in trading and engineering project management);
- Guangxi Huasheng New Material Co., Ltd. (“**Guangxi Huasheng**”) (mainly engaged in producing alumina products);
- Chalco Materials Co., Ltd. (“**Chalco Materials**”) (mainly engaged in procurement of materials including raw materials and fuels);
- Shanxi Huaxing Alumina Co., Ltd. (“**Shanxi Huaxing**”) (mainly engaged in producing alumina products);
- Chalco International Trading Group Co., Ltd. (“**Chalco International Trading Group**”) (mainly engaged in trading, importing and exporting of non-ferrous metal products);
- Shanxi Chalco China Resources Co., Ltd. (“**Shanxi Zhongrun**”) (mainly engaged in producing primary aluminum products);





Corporate Profile (Continued)

- Guizhou Huaren New Material Co., Ltd. (“**Guizhou Huaren**”) (mainly engaged in producing primary aluminum products);
- Lanzhou Aluminum Co., Ltd. (“**Lanzhou Aluminum**”) (mainly engaged in producing primary aluminum products);
- Chinalco Shanxi Jiaokou Xinghua Technology Co., Ltd.* (中鋁集團山西交口興華科技股份有限公司) (“**Xinghua Technology**”) (mainly engaged in producing alumina products);
- Gansu Hualu Aluminum Co., Ltd. (“**Gansu Hualu**”) (mainly engaged in producing carbon products);

Joint Ventures and Associates:

- Guangxi Huayin Aluminum Company Limited (“**Guangxi Huayin**”) (mainly engaged in producing alumina products);
- Chalco Steering Intelligent Technology Co., Ltd. (“**Chalco Steering**”) (mainly engaged in provision of information technology services);
- Huadian Ningxia Ling Wu Power Co., Ltd. (“**Ling Wu Power**”) (mainly engaged in coal and energy power generation);
- Guangxi Hualei New Materials Co., Ltd. (“**Guangxi Hualei**”) (mainly engaged in producing primary aluminum and aluminum processed products);
- Yunnan Aluminum Co., Ltd. (“**Yunnan Aluminum**”) (mainly engaged in producing alumina, primary aluminum and aluminium products);
- Heqing Yixin Aluminum Industry Co., Ltd. (“**Yixin Aluminum**”) (mainly engaged in producing primary aluminum, aluminum alloy and aluminum processed products).



Financial Summary

1. FINANCIAL SUMMARY PREPARED IN ACCORDANCE WITH INTERNATIONAL FINANCIAL REPORTING STANDARDS

The revenue of the Group for the year ended 31 December 2021 amounted to RMB269,748 million, representing an increase of 45.03% as compared with the same period of last year, Profit attributable to the owners of the parent for the year amounted to RMB5,080 million, and profit per share attributable to the owners of the parent for the year amounted to RMB0.286.

The following is the summary of the consolidated statements of profit or loss and other comprehensive income for the year 2021 and year 2017 to year 2020:

	For the year ended 31 December				
	2021 RMB'000	2020 RMB'000 (Restated)	2019 RMB'000 (Restated)	2018 RMB'000 (Restated)	2017 RMB'000 (Restated)
Revenue	269,748,232	185,990,577	190,215,398	180,350,912	181,116,427
Cost of sales	-243,269,910	-173,674,234	-179,283,995	-169,265,500	-168,393,339
Gross profit	26,478,332	12,316,343	10,931,403	11,085,412	12,723,088
Selling expenses	-314,926	-315,653	-447,368	-344,109	-339,137
Administrative expenses	-5,204,208	-4,157,694	-3,972,056	-3,981,521	-4,571,215
Research and development expenses	-2,362,204	-1,434,056	-940,828	-626,873	-498,234
Impairment losses on property, plant and equipment	-2,328,131	-416,842	-259,354	-46,484	-16,200
Other income	148,399	139,551	84,611	135,367	89,873
Impairment losses on financial assets	-1,384,888	-979,161	-171,016	-107,956	-
Impairment losses on investments in joint ventures	-	-	-	-216,953	-
Other gains, net	-1,623,503	903,871	1,247,509	925,100	320,548
Finance costs, net	-3,666,765	-4,193,327	-4,660,347	-4,389,311	-4,496,921
Share of profits and losses of joint ventures	164,100	180,502	270,115	-199,452	8,151
Share of profits and losses of associates	272,584	145,737	48,767	39,335	-165,249

Financial Summary (Continued)

1. FINANCIAL SUMMARY PREPARED IN ACCORDANCE WITH INTERNATIONAL FINANCIAL REPORTING STANDARDS (CONTINUED)

	For the year ended 31 December				
	2021 <i>RMB'000</i>	2020 <i>RMB'000</i> (Restated)	2019 <i>RMB'000</i> (Restated)	2018 <i>RMB'000</i> (Restated)	2017 <i>RMB'000</i> (Restated)
Profit/(loss) before income tax	10,178,780	2,189,271	2,131,436	2,272,555	3,054,704
Income tax (expense)/gain	-2,389,761	-590,023	-631,512	-826,366	-646,835
Net profit/(loss) for the year	7,789,019	1,599,248	1,499,924	1,446,189	2,407,869
Profit/(loss) for the year attributable to Owners of the Company	5,079,562	764,306	861,475	709,397	1,414,019
Non-controlling interests	2,709,457	834,942	638,699	736,792	993,850
Proposed final dividend for the year (RMB, tax inclusive)	0.032 ^{Note}	–	–	–	–

Note: The Board of Directors of the Company proposed to distribute the final dividend for 2021 at RMB0.032 (tax inclusive) per share to all shareholders. The aforesaid distribution of dividend plan is pending to submit at the general meeting of the Company for approval.

Financial Summary (Continued)

1. FINANCIAL SUMMARY PREPARED IN ACCORDANCE WITH INTERNATIONAL FINANCIAL REPORTING STANDARDS (CONTINUED)

The following is the summary of the consolidated total assets and total liabilities of the Group:

	For the year ended 31 December				
	2021 <i>RMB'000</i>	2020 <i>RMB'000</i> (Restated)	2019 <i>RMB'000</i> (Restated)	2018 <i>RMB'000</i> (Restated)	2017 <i>RMB'000</i> (Restated)
Total assets	192,376,897	195,040,911	203,237,668	201,102,404	200,083,364
Total liabilities	119,593,400	123,735,747	132,383,846	133,402,883	134,280,936
Net assets	72,783,497	71,305,164	70,853,822	67,699,521	65,802,428

2. FINANCIAL SUMMARY PREPARED IN ACCORDANCE WITH THE PRC ACCOUNTING STANDARDS FOR BUSINESS ENTERPRISES

Item	For the year ended 31 December 2021 <i>RMB'000</i>
Operating profit	11,208,076
Profit for the year	7,789,019
Profit attributable to owners of the parent	5,079,562
Profit attributable to owners of the parent after excluding gains or losses from non-recurring items	7,029,856
Net cash flows generated from the operating activities	28,306,356

Financial Summary (Continued)

2. FINANCIAL SUMMARY PREPARED IN ACCORDANCE WITH THE PRC ACCOUNTING STANDARDS FOR BUSINESS ENTERPRISES (CONTINUED)

	For the year ended 31 December 2021 <i>RMB'000</i>
Gains or losses from non-recurring items	
Gains on disposal of non-current assets	-650,711
Government subsidies included in the gains or losses for the reporting period (other than government subsidies which are closely related to the ordinary business of the Company and enjoyed on an ongoing basis under the state's policies according to certain standard amount or quantity)	154,931
Gain or loss on debt restructuring	13,508
Corporate restructuring fees such as staff resettlement expenses, consolidation charges, etc.	-232,594
Profit or loss of subsidiaries from the beginning of the year to the consolidation date arising from business combination under common control	32,315
Gains or losses arising from contingencies unrelated to the ordinary activities of the Company	-58,810
Investment income arising from fair value change or disposal gain of financial asset/liability at fair value through profit and loss, derivative financial asset/liability and other debt investments excluding those from the effective hedging activities in relation to ordinary business of the Company	-604,733
Reversal of the allowance for impairment of receivables that is individually tested for impairment	12,045
Gain or loss from external entrusted loans	-402,372
Other non-operating income and expenses, net other than above items	-311,895
Other gain or loss items within the meaning of non-recurring gain or loss	-16,492
Non-controlling interests effect	49,536
Income tax effect	64,978
Total	-1,950,294

Financial Summary (Continued)

2. FINANCIAL SUMMARY PREPARED IN ACCORDANCE WITH THE PRC ACCOUNTING STANDARDS FOR BUSINESS ENTERPRISES (CONTINUED)

Principal accounting information and financial indicators for 2021 and 2020 of the Group:

	2021 <i>RMB'000</i>	2020 <i>RMB'000</i> (Restated)	Increase/ (decrease) for the year 2021 over 2020 (%)
Revenue	269,748,232	185,990,577	45.03
Profit before income tax	10,178,780	2,189,271	364.94
Profit attributable to owners of the parent	5,079,562	764,306	564.60
Profit attributable to owners of the parent after excluding gains from non-recurring items	7,029,856	416,725	1,586.93
Basic earnings per share (<i>RMB</i>)	0.286	0.030	853.33
Diluted earnings per share (<i>RMB</i>)	0.286	0.030	853.33
Basic earnings per share after excluding gains from non-recurring items (<i>RMB</i>)	0.401	0.009	4,253.95
Weighted average rate of return on net assets (%)	9.28%	1.40%	Increased by 7.88 percentage points
Weighted average rate of return on net assets after excluding gains from nonrecurring items (%)	12.99%	0.31%	Increased by 12.68 percentage points
Net cash flows generated from operating activities	28,306,356	14,955,026	89.28
Net cash flows generated from operating activities per share (<i>RMB</i>)	1.66	0.88	89.28
Total assets	192,376,897	195,040,911	-1.37
Equity attributable to owners of the parent	57,264,687	54,449,317	5.17
Equity attributable to owners of the parent per share (<i>RMB</i>)	3.36	3.20	5.17

Financial Summary (Continued)

3. COMPARISON BETWEEN THE FINANCIAL INFORMATION PREPARED IN ACCORDANCE WITH THE INTERNATIONAL FINANCIAL REPORTING STANDARDS AND THE PRC ACCOUNTING STANDARDS FOR BUSINESS ENTERPRISES

	Profit attributable to owners of the parent for the year ended 31 December		Equity attributable to owners of the parent as of 31 December	
	2021 <i>RMB'000</i>	2020 <i>RMB'000</i> (Restated)	2021 <i>RMB'000</i>	2020 <i>RMB'000</i> (Restated)
Prepared in accordance with the PRC Accounting Standards for Business Enterprises	5,079,562	764,306	57,264,687	54,449,317
Prepared in accordance with the International Financial Reporting Standards	5,079,562	764,306	57,264,687	54,449,317

Directors, Supervisors, Senior Management and Employees

1. PROFILES OF DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT AT PRESENT AND DURING THE REPORTING PERIOD

Name	Position	Gender	Age	Start date of his/her tenure	End date of his/her tenure	Total remuneration before tax received from the Company during the reporting period (RMB'0000)	Whether receiving emolument from related parties of the Company
Ao Hong (resigned)	Acting Chairman and Non-executive Director	M	60	2019.06.25	2021.06.29	0	Yes
Liu Jianping	Chairman and Executive Director	M	54	2021.06.29	2022.06.30	0	Yes
Zhu Runzhou	Executive Director President	M	57	2019.06.25 2020.10.21	2022.06.30	126.90	No
Ou Xiaowu	Executive Director Secretary of the Discipline Inspection Committee	M	57	2021.06.29 2020.10.22	2022.06.30	106.61	No
Jiang Tao	Executive Director Vice President	M	47	2021.06.29 2021.08.24	2022.06.30	91.40	No
Zhang Jilong	Non-executive Director	M	58	2021.06.29	2022.06.30	0	Yes
Wang Jun	Non-executive Director	M	56	2019.06.25	2022.06.30	0	No
Chen Lijie (resigned)	Independent Non-executive Director	F	67	2019.06.25	2021.06.29	9.52	No
Hu Shihai (resigned)	Independent Non-executive Director	M	67	2019.06.25	2021.06.29	9.52	No
Lie-A-Cheong Tai Chong, David (resigned)	Independent Non-executive Director	M	62	2019.06.25	2021.06.29	9.52	No

Directors, Supervisors, Senior Management and Employees (Continued)

Name	Position	Gender	Age	Start date of his/her tenure	End date of his/her tenure	Total remuneration before tax received from the Company during the reporting period	Whether receiving emolument from related parties of the Company
						(RMB'0000)	
Qiu Guanzhou	Independent Non-executive Director	M	73	2021.06.29	2022.06.30	9.82	No
Yu Jinsong	Independent Non-executive Director	M	68	2021.06.29	2022.06.30	9.82	No
Chan Yuen Sau Kelly	Independent Non-executive Director	F	51	2021.06.29	2022.06.30	9.82	No
Ye Guohua	Chairman of the Supervisory Committee	M	53	2019.06.25	2022.06.30	0	Yes
Shan Shulan	Supervisor	F	50	2019.06.25	2022.06.30	0	Yes
Guan Xiaoguang (resigned)	Supervisor	M	51	2019.06.25	2022.06.30	86.29	No
Yue Xuguang	Supervisor	M	58	2019.12.10	2022.06.30	86.29	No
Lin Ni	Supervisor	F	48	2021.12.21	2022.06.30	0	Yes
Xu Shuxiang	Supervisor	F	44	2022.03.18	2022.06.30	47.79	No
Wang Jun	Chief Financial Officer and Secretary to the Board (resigned)	M	51	2019.02.20	2022.03.22	89.86	No
	Company Secretary			2019.02.20			
Wu Maosen	Vice President	M	58	2019.03.21		98.58	No
Ge Xiaolei	Chief Financial Officer and Secretary to the Board	M	56	2022.03.22		0	No
Total	/	/	/	/	/	791.74	/



Directors, Supervisors, Senior Management and Employees (Continued)

Explanation:

1. “Total remuneration before tax received from the Company during the reporting period” in the above table includes total remuneration, endowment insurance and housing provident fund (except for non-executive directors and independent non-executive directors). The year-on-year increase in the total remuneration of the Company’s directors, supervisors and senior management in 2021 compared with that in 2020 is mainly due to the change in the period and scope of personnel who received remuneration from the Company resulted by change of positions.
2. Due to the statement of voluntary waiver of emolument for director issued from Mr. Wang Jun, a non-executive director of the Company, since May 2020, Mr. Wang Jun has voluntarily waived his emolument for his position as a director of the Company. Accordingly, Mr. Wang Jun did not receive remuneration from the Company in 2021. According to the Proposal on Formulating the Remuneration Standards for directors and Supervisors of the Company for 2021 considered and approved at the 2020 annual general meeting held on 29 June 2021, the annual remuneration before tax as a non-executive director of the Company is RMB150,000.
3. Due to the resignation of Ms. Chen Lijie, Mr. Hu Shihai and Mr. Lie-A-Cheong Tai Chong, David, former independent non-executive directors of the Company, on 29 June 2021, the total remuneration listed in the above table is the remuneration before tax they received from the Company for the period from January to June 2021.
4. Mr. Qiu Guanzhou, Mr. Yu Jinsong and Ms. Chan Yuen Sau Kelly have served as independent non-executive directors of the Company since 29 June 2021. The total remuneration listed in the above table is the remuneration before tax they received from the Company for the period from July to December 2021.
5. Mr. Guang Xiaoguang resigned as an employee representative supervisor of the Company on 18 March 2022 and the total remuneration listed in the above table is the remuneration before tax he received from the Company in 2021.
6. Ms. Xu Shuxiang has served as an employee representative supervisor of the Company since 18 March 2022 and the total remuneration listed in the above table is the remuneration before tax she received from the Company as an employee of the Company in 2021.
7. Mr. Wang Jun has resigned as as the chief financial officer and secretary to the Board of the Company on 22 March 2022 and the total remuneration listed in the above table is the remuneration before tax he received from the Company in 2021.
8. Mr. Ge Xiaolei has served as the chief financial officer and secretary to the Board of the Company since 22 March 2022 and he did not receive any remuneration from the Company in 2021.

Directors, Supervisors, Senior Management and Employees (Continued)

2. DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT AS AT THE DATE OF THIS ANNUAL REPORT

Major Working Experience of Directors (“**Directors**”), Supervisors (“**Supervisors**”) and Senior Management of the Company as at the Date of this Annual Report:

Executive Directors

Mr. Liu Jianping, aged 54, is the chairman and an executive Director of the Company. Mr. Liu also serves as the director and deputy secretary of the Communist Party Committee of Aluminum Corporation of China (中國鋁業集團有限公司) (“**Chinalco**”). Mr. Liu graduated from Renmin University of China (中國人民大學) with a master’s degree in economics majoring in commodity. Mr. Liu has extensive experience in human resource and corporate management, etc. He successively worked in the department of restructuring, laws and regulations of National Food and Strategic Reserve Administration (國家糧食儲備局), the department of personnel of National Food and Strategic Reserve Administration (國家糧食儲備局), the department of personnel, the organization department of the CPC Central Committee and the First Bureau of Management of Enterprise Leaders of the State-owned Assets Supervision and Administration Commission of China Grain Reserve Group Ltd. Company (中國儲備糧管理總公司). He successively served as the deputy head and head of the department of personnel (bureau of retired veteran cadres) of Aluminum Corporation of China (中國鋁業公司), the head of the human resources department (veteran cadre work department) of the Aluminum Corporation of China (中國鋁業公司), the general manager of the human resource department of the Company, the assistant to the general manager of Aluminum Corporation of China (中國鋁業公司), a member of the Communist Party Committee, deputy general manager and general manager of copper business department (銅事業部) of Aluminum Corporation of China (中國鋁業公司), the chairman and president of China Copper Co., Ltd. (中國銅業有限公司), the chairman of Yunnan Copper (Group) Co., Ltd. (雲南銅業(集團)有限公司), and the deputy general manager, a member of the Communist Party Committee and the safety director of Chinalco.

Directors, Supervisors, Senior Management and Employees (Continued)

Mr. Zhu Runzhou, aged 57, is an executive Director and president of the Company. Mr. Zhu graduated from Wuhan University, majoring in software engineering, with a master degree in engineering. He is a professor-level senior engineer. Mr. Zhu has successively served as the deputy chief engineer of Gansu Jingyuan Power Plant* (甘肅靖遠發電廠), the chairman of Baiyin Huadian Water Supply Co., Ltd.* (白銀華電供水有限公司), head of Guodian Guizhou Kaili Power Plant* (國電貴州凱里發電廠), director of the preparatory office of the technical transformation program of Guodian in Duyun City, deputy general manager of Guodian Guizhou Branch, deputy general manager of Guodian Yunnan Branch and general manager of Guodian Power Xuanwei Power Generation Co., Ltd.* (國電電力宣威發電有限責任公司), general manager of Guodian Guangxi Branch, deputy general manager of the energy management department of the Company and deputy general manager of Chalco Energy Co., Ltd.* (中鋁能源有限公司), a director, general manager and chairman of Chalco Ningxia Energy Group Co., Ltd.* (中鋁寧夏能源集團有限公司), the general manager of Chalco Xinjiang Aluminum Power Co., Ltd.* (中鋁新疆鋁電有限公司), and an executive Director and vice president of the Company.

Mr. Ou Xiaowu, aged 57, serves as executive Director and secretary of the Discipline Inspection Committee of the Company. Mr. Ou graduated from Xiamen University (廈門大學) with a bachelor's degree in economics majoring in planning and statistics and is a senior auditor. Mr. Ou has extensive experience in auditing and financial management. He successively served as the deputy head and head of 2nd division and head of 1st division of the audit department in China Nonferrous Metals Industry Corporation (中國有色金屬工業總公司), the deputy head of the finance department and audit department of China Copper Lead Zinc Group Corporation (中國銅鉛鋅集團公司), the deputy general manager of Guizhou Branch of Aluminum Corporation of China Limited (中國鋁業股份有限公司貴州分公司), the deputy head and head of the finance department (audit department) and chief financial officer of copper business department (銅事業部) of Aluminum Corporation of China (中國鋁業公司), a director and chief financial officer of China Copper Co., Ltd. (中國銅業有限公司), the general manager of the finance department and audit department of the Company, and a deputy chief auditor and general manager of the audit department of Chinalco. Mr. Ou also served as a supervisor of China Copper Co., Ltd. (中國銅業有限公司) and China Aluminum Group High-end Manufacturing Co., Ltd. (中國鋁業集團高端製造股份有限公司), the chairman of the supervisory committee of Qinghai Yellow River Hydropower Renewable Aluminum Co., Ltd. (青海黃河水電再生鋁業有限公司), and a supervisor of Chalco Energy Co., Ltd. (中鋁能源有限公司) and a supervisor of the Company. Currently, Mr. Ou serves as a supervisor of China Aluminum International Engineering Corporation Limited (中鋁國際工程股份有限公司) and the chairman of the supervisory committee of Qinghai Yellow River Hydropower Renewable Aluminum Co., Ltd.* (青海黃河水電再生鋁業有限公司).

Directors, Supervisors, Senior Management and Employees (Continued)

Mr. Jiang Tao, aged 47, is the executive director and the vice president of the Company. Mr. Jiang graduated from Northeastern University (東北大學) with a doctor's degree in engineering majoring in nonferrous metals metallurgy, and is an excellent senior engineer. Mr. Jiang has extensive experience in corporate management and production skills. He successively served as the deputy manager of the department of production and operation, deputy head of Second Alumina Plant (第二氧化鋁廠), deputy head and head of Alumina Plant (氧化鋁廠), assistant to the general manager and head of Second Alumina Plant (第二氧化鋁廠) of Chalco Shandong, the standing member of the Party Committee of Shandong Aluminum Co., Ltd.* (山東鋁業有限公司) and deputy general manager of Shandong Company, the deputy secretary of the Party Committee of Shandong Aluminum Co., Ltd.* (山東鋁業有限公司) and director and the general manager of Shandong Company, the secretary of the Party Committee and executive director of Zhongzhou Aluminum, and the executive director of Henan Zhongzhou Aluminum Plant Co., Ltd.* (河南中州鋁廠有限公司).

Non-executive Directors

Mr. Zhang Jilong, aged 58, is a non-executive Director of the Company. Mr. Zhang graduated from Central South University (中南大學) with a doctor's degree in engineering majoring in mining engineering, and is an excellent senior engineer. Mr. Zhang has extensive experience in scientific and technological research and development, and corporate management, etc. He successively served as the deputy head of breakthrough and development division of the science and technology development of China Nonferrous Metals Industry Corporation (中國有色金屬工業總公司), the deputy head and head of science and technology division of department of planning and development of the State Bureau of Nonferrous Metal Industry (國家有色金屬工業局), the head of science and technology division of the department of production skills of Aluminum Corporation of China (中國鋁業公司), the deputy general manager of science and technology research and product development center and the manager of comprehensive department of the Company, the deputy head and head of science and technology department (military office) of Aluminum Corporation of China (中國鋁業公司) and the deputy manager of science and technology research center and product development center of the Company, the head of the department of science and technology management of Aluminum Corporation of China (中國鋁業公司) and the deputy dean of Chinalco Research Institute of Science and Technology (中鋁科學技術研究院), the general manager of science and technology management division of the Company, the general manager, secretary of the Party Committee and chairman of Xinan Aluminum (Group) Co., Ltd. (西南鋁業(集團)有限責任公司), the general manager of aluminum processing department of Aluminum Corporation of China (中國鋁業公司), the director of Chinalco Ruimin Co., Ltd. (中鋁瑞閩股份有限公司) and the general manager of aluminum processing division of Chinalco.



Directors, Supervisors, Senior Management and Employees (Continued)

Mr. Wang Jun, aged 56, is a non-executive Director of the Company. Graduated from Huazhong Institute of Engineering with a degree of industrial and civil construction, he is an engineer. He has extensive experience in financial and corporate management. Mr. Wang formerly served as the engineer in the engineering department of Babcock & Wilcox Beijing Company Ltd.; deputy manager of the real estate development department of China Yanxing Company; senior deputy manager of equity management department and senior manager of business management department, senior manager, deputy general manager, general manager of custody and settlement department in China Cinda Asset Management Co., Ltd. and general manager of the equity management department of China Cinda Asset Management Co., Ltd. Mr. Wang currently serves as the business director of China Cinda Asset Management Co., Ltd and also serves as a director of China Nuclear Engineering Corporation Limited.

Independent Non-executive Directors

Mr. Qiu Guanzhou, aged 73, is an independent non-executive Director of the Company. Mr. Qiu is an academican of Chinese Academy of Engineering, currently serving as a professor and tutor of doctoral students in Central South University. Mr. Qiu graduated from Central South University of Technology majoring in mineral processing engineering with a doctoral degree and is a famous mineral engineer. Mr. Qiu previously served as the vice-principal of Central South University of Technology (Central South University). Mr. Qiu has dedicated himself to the research of processing and utilizing low-grade, complex and refractory metallic mineral resources in China for a long time, and has obtained significant achievements in flotation separation of fine and sulphide minerals and direct reduction of iron ore, especially the outstanding contributions made in the aspect of biohydrometallurgy in low-grade sulphide ore. He was awarded as a national science and technology expert with outstanding contributions. Mr. Qiu has published many science papers and treatises, and obtained several national technological inventions and scientific and technological advancement awards. He served as the academic leader of the innovative research group under National Natural Science Foundation of China in 2003. In 2004 and 2009, he consecutively served as the chief scientist for biometallurgy project of the National 973 Project twice. He was the president of the 19th International Biohydrometallurgy Symposium in 2011 and was elected as the vice president of International Biohydrometallurgy Society. Currently, Mr. Qiu also serves as the independent director of Lomon Billions Group Co., Ltd. (龍麟佰利聯集團股份有限公司), the independent director of Guangdong Hongda Blasting Co., Ltd. (廣東宏大爆破股份有限公司), and the executive director and manager of Hunan Bio Lab Technology Co., Ltd. (湖南佰奧萊博生物科技有限公司).

Directors, Supervisors, Senior Management and Employees (Continued)

Mr. Yu Jinsong, aged 68, is an independent non-executive Director of the Company. Mr. Yu is a doctor of law, currently a professor and tutor of doctoral students of Renmin University of China, and the head of the Institute of International Law (academic part-time job). Mr. Yu focuses on research about international economic law, particularly international investment law and transnational corporation law. He has published dozens of academic papers in multiple major academic journals and several academic works, and obtained multiple national and provincial awards for achievements in teaching and research. Mr. Yu has successively served as an arbitrator of China International Economic and Trade Arbitration Commission (中國國際經濟貿易仲裁委員會), a mediator and arbitrator (2004-2016) of the International Centre for Settlement of Investment Disputes of the World Bank (世界銀行解決投資爭端國際中心), a vice chairman of the Chinese Society of International Law (中國國際法學會), and a counselor of the International Law Advisory Committee of Ministry of Foreign Affairs (外交部國際法諮詢委員會). Currently, Mr. Yu also serves as an independent director of Zhongshan Broad-Ocean Motor Co., Ltd. (中山大洋電機股份有限公司) and Zhejiang Zhongxin Fluoride Chemicals Co., Ltd. (浙江中欣氟材股份有限公司).

Ms. Chan Yuen Sau Kelly, aged 51, is a Justice of the Peace and an independent non-executive Director of the Company. Ms. Chan is a fellow of the Association of Chartered Certified Accountants (ACCA), the Hong Kong Institute of Certified Public Accountants (HKICPA), and the Hong Kong Institute of Directors (HKIoD). She is also a Bachelor of Accounting (Honours) of City University of Hong Kong. Ms. Chan has nearly three decades of working experience in finance and accounting and practical experience in fields such as corporate governance, risk management, business process reorganization, auditing, etc. Ms. Chan has successively served as a manager of auditing and management consultancy of Deloitte & Touche (德勤會計師事務所), the financial and administrative head in Hong Kong and Macau of Heineken (喜力集團), and the chief financial officer of Moët Hennessy Diageo (酩悅軒尼詩帝亞吉歐). Ms. Chan currently serves as the managing director of Peony Consulting Services Company (遠博顧問服務公司), the Program Director of Asia Chief Financial Officer Council (亞洲首席財務官理事會) of The Conference Board, the immediate past president of the Association of Women Accountants (Hong Kong) (香港女會計師協會), the chairperson of TR at CUHK Ltd. (中大轉研有限公司) and Employees' Compensation Insurance Levies Management Board (僱員補償保險徵款管理局), a member of the Air Transport Licensing Authority (空運牌照局), a member of the board of The Chinese University of Hong Kong, a member of the Education Commission (教育統籌委員會), a member of the Harbourfront Commission (海濱事務委員會) and a member of the Quality Education Fund Steering Committee (優質教育基金督導委員會). Currently, Ms. Chan also serves as an independent non-executive director of Morimatsu International Holdings Company Limited.

Directors, Supervisors, Senior Management and Employees (Continued)

Supervisors

Mr. Ye Guohua, aged 53, is the chairman of the Supervisory Committee of the Company and served as the chief accountant and a member of the Communist Party Committee of Chinalco. Mr. Ye graduated from Shanghai University of Finance and Economics, majoring in accounting, with a bachelor degree in economics and is a senior accountant. Mr. Ye has extensive experience in financial management and accounting. He has successively served as the director of accounting department of the refinery of Shanghai Gaoqiao Petrochemical Company* (上海高橋石油化工公司), the deputy chief accountant and head of accounting department of Sinopec Shanghai Gaoqiao Branch* (中國石化股份公司上海高橋分公司), the chief financial officer, executive director, a member of the Party Committee, deputy general manager of Sinopec Shanghai Petrochemical Company Limited* (上海石油化工股份有限公司), the director of accounting department of China Petroleum & Chemical Group Corporation* (中國石油化工集團公司), the chairman of Century Bright International Investment Company* (盛駿國際投資有限公司), the chairman of Sinopec Insurance Limited* (中石化保險有限公司), the vice chairman of Taiping & Sinopec Financial Leasing Co., Ltd.* (太平石化金融租賃有限責任公司), a director of Sinopec Finance Co., Ltd.* (中石化財務有限責任公司), and a director of Sinopec Oilfield Service Corporation* (中石化石油工程技術服務股份有限公司). Mr. Ye currently is also the chairman of Chinalco High-end Manufacturing Co., Ltd.* (中國鋁業集團高端製造股份有限公司).

Ms. Shan Shulan, aged 50, is a Supervisor of the Company and serves as the general manager of the Finance Property Department of Chinalco. Ms. Shan graduated from Beijing Institute of Light Industry* (北京輕工業學院), majoring in industrial corporate management, with a bachelor degree in engineering. She is a certified public accountant and statistician. Ms. Shan has extensive experience in accounting, finance management and other fields. She has successively served as an economic analyst at the economic research office of Beijing Glass Instruments Plant* (北京玻璃儀器廠), the financial manager of Beijing CEMFIL Glass Fiber Co. Ltd.* (北京賽姆菲爾玻璃纖維有限公司) under Saint-Gobain in China, the financial manager for Beijing region of Carrefour (China) Co., Ltd.* (家樂福(中國)有限公司), the financial manager for China region of Baker Hughes Centrilift, the financial manager for China region of Microsoft Research Asia (China)* (微軟(中國)亞洲研究院), and the business director and deputy head of budget division and the head of budget assessment division of the finance department of Aluminum Corporation of China* (中國鋁業公司). Ms. Shan also currently serves as the director of Chinalco Capital Holdings Co., Ltd.* (中鋁資本控股有限公司), the director of Chinalco Finance Co., Ltd.* (中鋁財務有限責任公司) and the supervisor of Chinalco Research Institute of Science and Technology Co., Ltd.* (中鋁科學技術研究院有限公司).

Directors, Supervisors, Senior Management and Employees (Continued)

Mr. Guan Xiaoguang (resigned), aged 51, served as a Supervisor of the Company during the reporting period (resigned on 18 March 2022) and also serves as the general manager of the general affairs department of the Company. Mr. Guan is a master of business administration from Peking University. He is a senior economist with rich experience in human resources management and political work. Mr. Guan has successively served as a cadre of the personnel division and deputy secretary of the Youth League Committee of the North China University of Technology, deputy secretary of the Youth League Committee of the attached agencies directly under the China Nonferrous Metals Industry Corporation* (中國有色金屬工業總公司), deputy director and director of the Investment Management Office of the China Nonferrous Metals Industry Association* (中國有色金屬工業協會), head of business and deputy director of the office of the expert advisory committee of the Aluminum Corporation of China* (中國鋁業公司), manager of the talent development and training division of the human resources department of the Company, head and deputy director of the talent development and training division of the human resources department (veteran cadre work department) of the Aluminum Corporation of China* (中國鋁業公司), deputy secretary of the Party committee, chairman of the labour union and supervisor of Shandong Aluminum Co., Ltd* (山東鋁業有限公司), deputy general manager and general manager of the president's office (the office of the Party committee (discipline inspection committee)) of the Company.

Mr. Yue Xuguang, aged 58, is a Supervisor of the Company. Mr. Yue graduated from Kunming Institute of Technology with a bachelor degree in engineering majoring in mineral census and exploration. He is a senior economist. He has rich experience in human resources management. Mr. Yue has successively served as the deputy head of the coordination division of the labour insurance bureau and the head of the labour management division of the personnel and education department of China Nonferrous Metals Industry Corporation* (中國有色金屬工業總公司), the deputy head of the general division of the personnel office of State Bureau of Nonferrous Metal Industry* (國家有色金屬工業局) (enjoying the head-level treatment), the deputy head of the personnel department of China Aluminum Corporation* (中國鋁業集團公司), the head of the labour division of the personnel department of Aluminum Corporation of China* (中國鋁業公司), the manager of the remuneration management division of the human resources department of the Company, the head of the general division of the general office of Aluminum Corporation of China* (中國鋁業公司), the manager of the general division of the capital operating department of the Company, the deputy general manager and general manager of the human resources department of the Company, the deputy head (departmental head level) of the human resources department (veteran cadre work department) of the Aluminum Corporation of China* (中國鋁業公司), the secretary of the party committee and deputy general manager of Chinalco Asset Operation and Management Co., Ltd* (中鋁資產經營管理有限公司) and the general manager of the human resources department of the Company.



Directors, Supervisors, Senior Management and Employees (Continued)

Ms. Lin Ni, aged 48, is a Supervisor of the Company and also serves as the deputy general manager (in charge) of the audit department of Chinalco. Ms. Lin graduated from Shandong Economics University with a bachelor degree in economics majoring in international accounting. She is a senior auditor. Ms. Lin has extensive experience in the fields of auditing and accounting. She has successively served as the head of the 2nd division and the 1st division of the audit department of Aluminum Corporation of China* (中國鋁業公司), the deputy head of the audit department of Aluminum Corporation of China* (中國鋁業公司), the deputy head of the audit department of Chinalco, and the deputy general manager of the audit department of Chinalco (in charge). Ms. Lin currently also serves as the supervisor of Chinalco Asset Operation and Management Co., Ltd* (中鋁資產經營管理有限公司).

Ms. Xu Shuxiang, aged 44, has served as a Supervisor of the Company since 18 March 2022, and a senior business manager of the operation optimization division of the production quality department of the Company. Ms. Xu graduated from Northeastern University with a master's degree in engineering majoring in non-ferrous metallurgy and has extensive experience in metal smelting, energy conservation management, safety and environmental protection management, etc. Ms. Xu has successively served as the business head of the assets operation department of Aluminum Corporation of China* (中國鋁業公司), the business head of the general division of the enterprise management department (safety and environmental protection department) of Aluminum Corporation of China*, the business head of the general division of the safety and environmental protection health department of Aluminum Corporation of China*, the business manager of the general division of the safety and environmental protection health department of the Company, the senior business manager of the energy conservation management division of the safety and environmental protection health department of Aluminum Corporation of China*, the deputy manager of the safety and environmental protection health division of the enterprise management department of the Company and the senior business manager of the general division of the enterprise management department of the Company.

Directors, Supervisors, Senior Management and Employees (Continued)

Other Senior Management

Mr. Wang Jun, aged 51, served as the chief financial officer, the secretary to the Board and the company secretary of the Company during the reporting period and ceased to serve as the chief financial officer and the secretary to the Board of the Company on 22 March 2022. Mr. Wang obtained a master's degree in business administration from Tsinghua University. He is a senior accountant and a member of the Chartered Institute of Management Accountants (CIMA). He has also been recognised as the national top accounting leading talent. Mr. Wang has worked in grassroots units, overseas companies, listed companies and various departments of the group, and has extensive experience in financial accounting, fund management and capital operation. Mr. Wang has successively served as a director, the chief financial officer and the secretary to the Board of Directors of China Aluminum International Engineering Corporation Limited* (中鋁國際工程股份有限公司), the deputy chief accountant, general manager of finance department and capital operating department of Chinalco, a Supervisor of the Company, and a director of Aluminum Corporation of China Overseas Holdings Limited* (中鋁海外控股有限公司) and a director of Chinalco Finance Co., Ltd.* (中鋁財務有限責任公司).

Mr. Wu Maosen, aged 58, is a vice president of the Company. Mr. Wu graduated from Dalian Railway College with a bachelor's degree in engineering, majoring in welding technology and equipment. He is a senior engineer with excellent performance. Mr. Wu has extensive experience in corporate management. He has successively served as the deputy head of the alumina branch, the deputy head of the overhauling branch and the director of the transport department of Shanxi Aluminum Plant, the assistant to the general manager of Shanxi Branch of Aluminum Corporation of China Limited, the deputy commander-in-chief of the engineering and construction command department of Chalco Shanxi, a deputy general manager of Shanxi Huaze Aluminum & Power Co., Ltd* (山西華澤鋁電有限公司), the deputy head and head of Shanxi Aluminum Plant, a director, a general manager and the secretary of the Party committee of Qinghai Huanghe Hydropower Regeneration Aluminum Co., Ltd.* (青海黃河水電再生鋁業有限公司), the secretary of the Party committee, an executive director and general manager of Chalco Asset Operation and Management Company* (中鋁資產經營管理公司) and successively served as an executive director of Chalco Shanghai Company Limited* (中鋁(上海)有限公司), an executive director and the general manager of Chalco Industrial Development Co., Ltd.* (中鋁置業發展有限公司), the chairman of the board of Huaxi Aluminum Company Limited* (華西鋁業有限責任公司), the chairman of the board and the general manager of Chalco Investment and Development Co., Ltd.* (中鋁投資發展有限公司), the deputy team-leader of the team aiming at making up deficits and shaking off dilemma, transforming and upgrading of Shanxi Branch of Aluminum Corporation of China Limited and Shanxi Aluminum Plant and the chairman and an executive director of the board of Chinalco Research Institute of Science and Technology Co., Ltd.* (中鋁科學技術研究院有限公司).



Directors, Supervisors, Senior Management and Employees (Continued)

Mr. Ge Xiaolei, aged 56, has been appointed as the chief financial officer and secretary to the Board of the Company with effect from 22 March 2022. Mr. Ge graduated from Nanjing University majoring in economic management, and subsequently obtained a master's degree in business administration from the University of Texas in the United States. He is a senior economist. Mr. Ge has extensive experience in financial management and corporate management. He has successively served as the deputy head of the planning division and deputy head of the finance division of Zhongzhou Aluminum Plant, the deputy chief accountant and manager of the finance department of the Company's Zhongzhou Branch, the chief financial officer of Qinghai Yellow River Hydropower Renewable Aluminum Co., Ltd.* (青海黃河水電再生鋁有限公司), the deputy general manager of Chinalco Finance Co., Ltd.* (中鋁財務有限責任公司) and the director and general manager of Chinalco Finance Lease Co., Ltd.* (中鋁融資租賃有限公司), the general manager of Chinalco Finance Co., Ltd.* (中鋁財務有限責任公司) and a director of Chinalco Finance Lease Co., Ltd.* (中鋁融資租賃有限公司), a director of Agricultural Bank Huili Fund Management Co., Ltd.* (農銀匯理基金管理有限公司), the secretary of the party committee and chairman of Chinalco Capital Holdings Co., Ltd.* (中鋁資本控股有限公司), the chairman of the board of directors of Chinalco Finance Co., Ltd.* (中鋁財務有限責任公司), and a director of Agricultural Bank Huili Fund Management Co., Ltd.* (農銀匯理基金管理有限公司).

Directors, Supervisors, Senior Management and Employees (Continued)

3. POSITIONS HELD IN SHAREHOLDER ENTITIES OF THE COMPANY OR OTHER ENTITIES BY DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT AT PRESENT AND DURING THE YEAR

Positions in the Shareholder Entities of the Company

Name	Name of shareholder	Position(s) in shareholder entity	Date of appointment	Date of termination
Ao Hong (resigned)	Chinalco	Director, Deputy Secretary of the Communist Party Committee (resigned) <small>Note 1</small>	2016.12.06	2022.02.22
Liu Jianping	Chinalco	Director, Deputy Secretary of the Communist Party Committee <small>Note 2</small>	2022.02.22	–
Ye Guohua	Chinalco	Chief Accountant	2018.08.14	–
Zhang Jilong	Chinalco	General Manager of Aluminum Processing Department (resigned) <small>Note 3</small>	2016.12.26	2022.02.24
Wang Jun (Director)	China Cinda Asset Management Co., Ltd <small>Note 4</small>	Business Director	2013.08.19	–
Shan Shulan	Chinalco	General Manager of the Finance Department	2020.12.30	–
Lin Ni	Chinalco	General Manager of the audit department <small>Note 5</small>	2022.01.27	–

Note 1: Mr. Ao Hong has ceased to serve as the director and deputy secretary of the Communist Party Committee of Chinalco since 22 February 2022.

Note 2: Mr. Liu Jianping has served as the director and deputy secretary of the Communist Party Committee of Chinalco since 22 February 2022.

Note 3: Mr. Zhang Jilong has ceased to serve as the general manager of aluminum processing department of Chinalco since 22 February 2022.

Note 4: China Cinda Asset Management Company Co., Ltd has reduced all shares it held in the Company in December 2021 and was no longer a shareholder of the Company.

Note 5: Ms. Lin Ni has served as general manager of the audit department of Chinalco since 27 January 2022.

Directors, Supervisors, Senior Management and Employees (Continued)

Positions in Other Entities

Name	Name of other entities	Position(s)	Date of appointment	Whether receiving remuneration or allowance
Ye Guohua	Chinalco High-end Manufacturing Co., Ltd.*	Chairman	2019.09.20	No
Ou Xiaowu	China Aluminum International Engineering Corporation Limited*	Supervisor	2011.06.30	No
	Qinghai Yellow River Hydropower Renewable Aluminum Co., Ltd.*	Chairman of the Supervisory Committee	2012.10.18	No
	Chalco Energy Co., Ltd.*	Supervisor (resigned) ^{Note 1}	2011.05.16	No
Wang Jun (Director)	China Nuclear Engineering Corporation Limited	Director	2014.03.12	No
Chen Lijie (resigned)	Beijing Empryan Software Co., Ltd.	Independent Director	2020.12.11	Yes
	Shanghai Belling Corp., Ltd	Independent Director	2021.04.22	Yes
Lie-A-Cheong Tai Chong, David (resigned)	Newpower International (Holdings) Co., Ltd.	Executive Chairman	1992.01.30	Yes
	China Concept Consulting Ltd.	Executive Chairman	1991.07.26	Yes
	Herald Holdings Limited	Independent Director	2005.06.16	Yes
	Harbour Centre Development Limited	Independent Director	2018.12.01	Yes
Qiu Guanzhou	Lomon Billions Group Co., Ltd.	Independent Director	2020.04.22	Yes
	Guangdong Hongda Blasting Co., Ltd.	Independent Director	2019.12.27	Yes
	Hunnan Bio Lab Technology Co., Ltd.	Executive Director, Manager	2020.12.08	Yes
Yu Jinsong	Zhejiang Zhongxin Fluoride Chemicals Co., Ltd.	Independent Director	2016.08.05	Yes
	Zhongshan Broad-Ocean Motor Co., Ltd.	Independent Director	2015.08.11	Yes
Chan Yuen Sau Kelly	Morimatsu International Holdings Company Limited	Independent Director	2021.02.10	Yes

Directors, Supervisors, Senior Management and Employees (Continued)

Name	Name of other entities	Position(s)	Date of appointment	Whether receiving remuneration or allowance
Shan Shulan	Chinalco Innovative Development Investment Company Limited*	Supervisor (resigned) ^{Note 2}	2018.04.26	No
	Chinalco Capital Holdings Co., Ltd.*	Director	2021.12.13	No
	Chinalco Finance Co., Ltd.*	Director	2021.12.13	
	Chinalco High-end Manufacturing Co., Ltd.*	Director (resigned) ^{Note 3}	2019.09.20	No
	Chinalco Research Institute of Science and Technology Co., Ltd.*	Supervisor	2016.03.16	No
	China Aluminum Insurance Broker (Beijing) Co., Ltd.*	Director (resigned) ^{Note 4}	2016.10.26	No
	Chalco Intelligence Technology Development Co., Ltd.*	Supervisor (resigned) ^{Note 5}	2018.12.19	No
Lin Ni	Chinalco Capital Holdings Co., Ltd.*	Chairman of the Supervisory Committee (resigned) ^{Note 6}	2015.12.30	No
	Chinalco Finance Co., Ltd.*	Chairman of the Supervisory Committee (resigned) ^{Note 7}	2016.10.28	No
	Chinalco Asset Operation and Management Co., Ltd.*	Supervisor	2017.11.03	No
	Chinalco Environmental Protection and Energy Conservation Co., Ltd.*	Supervisor (resigned) ^{Note 8}	2018.03.16	No
Wang Jun (Company Secretary)	Chinalco Finance Co., Ltd.*	Director	2014.02.08	No
	Aluminum Corporation of China Overseas Holdings Limited*	Director (resigned) ^{Note 9}	2015.11.13	No

Directors, Supervisors, Senior Management and Employees (Continued)

Note 1: Mr. Ou Xiaowu resigned his position as a supervisor of Chalco Energy Co., Ltd.* on 15 October 2021.

Note 2: Ms. Shan Shulan resigned her position as a supervisor of Chinalco Innovative Development Investment Company Limited on 13 December 2021.

Note 3: Ms. Shan Shulan resigned her position as a director of Chinalco High-end Manufacturing Co., Ltd.* on 13 December 2021.

Note 4: Ms. Shan Shulan resigned her position as a director of China Aluminum Insurance Broker (Beijing) Co., Ltd.* on 22 November 2021.

Note 5: Ms. Shan Shulan resigned her position as a supervisor of Chalco Intelligence Technology Development Co., Ltd.* on 13 December 2021.

Note 6: Ms. Lin Ni resigned her position as the chairman of the supervisory committee of Chinalco Capital Holdings Co., Ltd.* on 13 December 2021.

Note 7: Ms. Lin Ni resigned her position as the chairman of the supervisory committee of Chinalco Finance Co., Ltd.* on 13 December 2021.

Note 8: Ms. Lin Ni resigned her position as a supervisor of Chinalco Environmental Protection and Energy Conservation Co., Ltd.* on 13 December 2021.

Note 9: Mr. Wang Jun resigned his position as the chairman of the supervisory committee of Aluminum Corporation of China Overseas Holdings Limited* on 24 August 2021.

4. DECISION MAKING PROCESS AND BASIS OF DETERMINATION OF REMUNERATION OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT AND REMUNERATION

Based on the prevailing market standards and the remuneration strategy of the Company, the human resources department of the Company would formulate proposals for the remuneration of the Company's Directors, Supervisors and senior management and submit the proposals to the Board for consideration upon approval by the Remuneration Committee of the Board of the Company. Particularly, remuneration of the senior management will be considered and approved by the Board of the Company whereas those of the Directors and the Supervisors will be submitted to the shareholders' general meeting for consideration and approval upon being approved by the Board of the Company.

The Company determined its remuneration for the Directors, Supervisors and senior management based on its development strategy, corporate culture and remuneration strategy, taking into account the remuneration standards of corresponding positions in comparable enterprises in the market (in terms of scale, industry and nature etc.), the Company's annual operating results, fulfilment of duties by the Directors and Supervisors as well as the appraisal results for performance of senior management.

In 2021, the total pre-tax remunerations of the Directors, Supervisors and senior management received from the Company amounted to RMB7.44 million (including the travelling expenses of the independent non-executive Directors).

Directors, Supervisors, Senior Management and Employees (Continued)

5. CHANGES IN DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT DURING THE YEAR

Name	Position(s)	Status	Reason for the change
Ao Hong	Acting Chairman and Non-executive Director	Resigned	Mr. Ao Hong proposed to resign as a non-executive Director of the Company and all positions in each of the special committees under the Board due to work arrangement, with effect upon the election of a new non-executive Director at the 2020 annual general meeting of the Company on 29 June 2021.
Liu Jianping	Chairman and Executive Director	Elected	The Company nominated Mr. Liu Jianping as the candidate for executive Director of the seventh session of the Board of the Company in the 20th meeting of the seventh session of the Board convened on 8 June 2021. As approved at the 2020 annual general meeting convened by the Company on 29 June 2021 by election, Mr. Liu Jianping was officially elected. On the same day, the 21st meeting of the seventh session of the Board convened by the Company elected and approved Mr. Liu Jianping as the chairman of the seventh session of the Board of the Company.
Ou Xiaowu	Executive Director	Elected	The Company nominated Mr. Ou Xiaowu as the candidate for executive Director of the seventh session of the Board of the Company in the 20th meeting of the seventh session of the Board convened on 8 June 2021. As approved at the 2020 annual general meeting convened by the Company on 29 June 2021 by election, Mr. Ou Xiaowu was officially elected.

Directors, Supervisors, Senior Management and Employees (Continued)

Name	Position(s)	Status	Reason for the change
Jiang Tao	Executive Director	Elected	The Company nominated Mr. Jiang Tao as the candidate for executive Director of the seventh session of the Board of the Company in the 20th meeting of the seventh session of the Board convened on 8 June 2021. As approved at the 2020 annual general meeting convened by the Company on 29 June 2021 by election, Mr. Jiang Tao was officially elected. On 24 August 2021, the 22nd meeting of the seventh session of the Board approved the appointment of Mr. Jiang Tao as the vice president of the Company.
	Vice President	Appointed	
Zhang Jilong	Non-executive Director	Elected	The Company nominated Mr. Zhang Jilong as the candidate for non-executive Director of the seventh session of the Board of the Company in the 20th meeting of the seventh session of the Board convened on 8 June 2021. As approved at the 2020 annual general meeting convened by the Company on 29 June 2021 by election, Mr. Zhang Jilong was officially elected.
Chen Lijie	Independent Non-executive Director	Resigned	Upon the election of the new independent non-executive Director at the 2020 annual general meeting of the Company on 29 June 2021, Ms. Chen Lijie automatically resigned as the independent non-executive Director of the Company due to the fulfillment of her tenure for six years.

Directors, Supervisors, Senior Management and Employees (Continued)

Name	Position(s)	Status	Reason for the change
Hu Shihai	Independent Non-executive Director	Resigned	Upon the election of the new independent non-executive Director at the 2020 annual general meeting of the Company on 29 June 2021, Mr. Hu Shihai automatically resigned as the independent non-executive Director of the Company due to the fulfillment of his tenure for six years.
Lie-A-Cheong Tai Chong, David	Independent Non-executive Director	Resigned	Upon the election of the new independent non-executive Director at the 2020 annual general meeting of the Company on 29 June 2021, Mr. Lie-A-Cheong Tai Chong, David resigned as the independent non-executive Director of the Company due to the fulfillment of his tenure for almost six years.
Qiu Guanzhou	Independent Non-executive Director	Elected	The Company nominated Mr. Qiu Guanzhou as the candidate for independent non-executive Director of the seventh session of the Board of the Company in the 18th meeting of the seventh session of the Board convened on 3 June 2021. As approved at the 2020 annual general meeting convened by the Company on 29 June 2021 by election, Mr. Qiu Guangzhou was officially elected.

Directors, Supervisors, Senior Management and Employees (Continued)

Name	Position(s)	Status	Reason for the change
Yu Jinsong	Independent Non-executive Director	Elected	The Company nominated Mr. Yu Jinsong as the candidate for independent non-executive Director of the seventh session of the Board of the Company in the 18th meeting of the seventh session of the Board convened on 3 June 2021. As approved at the 2020 annual general meeting convened by the Company on 29 June 2021 by election, Mr. Yu Jinsong was officially elected.
Chan Yuen Sau Kelly	Independent Non-executive Director	Elected	The Company nominated Ms. Chan Yuen Sau Kelly as the candidate for independent non-executive Director of the seventh session of the Board of the Company in the 18th meeting of the seventh session of the Board convened on 3 June 2021. As approved at the 2020 annual general meeting convened by the Company on 29 June 2021 by election, Ms. Chan Yuen Sau Kelly was officially elected.

Directors, Supervisors, Senior Management and Employees (Continued)

Name	Position(s)	Status	Reason for the change
Lin Ni	Supervisor	Elected	The Company nominated Ms. Lin Ni as the candidate for shareholder representative supervisor of the seventh session of the Supervisory Committee of the Company in the 10th meeting of the seventh session of the Supervisory Committee convened on 23 August 2021. As approved at the 2021 first extraordinary general meeting convened by the Company on 21 December 2021 by election, Ms. Lin Ni was officially elected.

Due to personal reasons, Mr. Wang Jun resigned as the chief financial officer and secretary to the Board of the Company with effect from 22 March 2022. The 26th meeting of the seventh session of the Board of the Company approved the appointment of Mr. Ge Xiaolei as the chief financial officer and secretary to the Board of the Company on 22 March 2022.

Due to work reasons, Mr. Guan Xiaoguang resigned as an employee representative Supervisor of the Company with effect from 18 March 2022. As elected at the employees' representatives meeting of the Company, Ms. Xu Shuxiang was elected as an employee representative Supervisor of the seventh session of the Supervisory Committee of the Company on 18 March 2022.

Directors, Supervisors, Senior Management and Employees (Continued)

6. EMPLOYEES OF THE COMPANY

As of 31 December 2021, the Group had 60,056 employees. The structure of employees is as follows:

Composition by Function

Category	Headcounts
Production personnel	49,584
Sales personnel	913
Technology personnel	3,646
Finance personnel	547
Administration personnel	5,366
Total	60,056

By Education Background

Category	Headcounts
Post-graduates and above	677
Undergraduates	11,619
Technical institute graduates	14,301
Secondary/technical school graduates or below	33,459
Total	60,056

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders

1. SHARE CAPITAL STRUCTURE

Chinalco is the single largest shareholder of the Company, which directly held 29.67% equity interest of the Company and together with its subsidiaries held an aggregate of 32.16% equity interest of the Company as of 31 December 2021. As of 31 December 2021, Chinalco was the controlling shareholder of the Company.

As of 31 December 2021, the share capital structure of the Company was as follows:

	As of 31 December 2021	
	Number of shares (In million)	Percentage to total issued share capital (%)
Holder of A shares	13,078.71	76.83
Holder of H shares	3,943.97	23.17
Total	17,022.67	100

According to the publicly available information and to the best knowledge of the Company's Directors, as of the date of this annual report, the share capital structure of the Company can maintain a sufficient public float and is in compliance with the requirement of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Hong Kong Listing Rules").

2. CHANGES IN SHAREHOLDING AND SHAREHOLDERS

(1) Approval of Changes in Shares

During the Reporting Period, the Company is not involved in the approval of changes in shares.

(2) Transfer of Changes in Shareholding

During the Reporting Period, the Company is not involved in the transfer of changes in shareholding.



Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

3. SHARE ISSUANCE AND LISTING

(1) Securities Issuance in the Past Three Years

On 18 December 2018, the Company received the Reply on Approving the Acquisition of Assets by Aluminum Corporation of China Limited* by issuance of shares to Huarong Ruitong Equity Investment Management Co., Ltd. and Certain Other Companies (關於核准中國鋁業股份有限公司向華融瑞通股權投資管理有限公司等發行股份購買資產的批覆) (Zhen Jian Xu Ke [2018] No. 2064) issued by the China Securities Regulatory Commission (“**CSRC**”), pursuant to which the Company was approved to issue an aggregate of 2,118,874,715 A shares to 8 investors, for the purpose of acquiring 25.6748% equity interests in Baotou Aluminum Limited Company, 30.7954% equity interests in Chalco Shandong Co., Ltd., 81.1361% equity interests in Chalco Mining Co., Ltd. and 36.8990% equity interests in Chalco Zhongzhou Aluminum Co., Ltd. jointly held by these 8 investors. The issue price for the acquisition of assets by way of issuance of shares is fixed at RMB6.00 per share which is not less than 90% of the average trading price of the shares of the Company for the last 60 trading days prior to the pricing benchmark date, i.e. the date of the announcement on resolutions passed at the 19th meeting of the sixth session of the Board of the Company. The registration procedure regarding the additional shares issued under the issuance of shares was completed with Shanghai Branch of China Securities Depository and Clearing Corporation Limited on 25 February 2019.

In addition to the additional issuance of A shares above, the Company had no new share issuance in the past three years.

(2) Changes in Total Number of Shares and the Shareholding Structure of the Company

During the Reporting Period, there is no change in the total number of shares and the shareholding structure of the Company.

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

4. SUBSTANTIAL SHAREHOLDERS WITH SHAREHOLDING OF 5% OR MORE

So far as the Directors are aware, as of 31 December 2021, the following persons (other than the Directors, Supervisors and chief executive of the Company) had interests or short positions in the shares or underlying shares of the Company which would fall to be disclosed under the provisions of Divisions 2 and 3 of Part XV of the Securities and Futures Ordinance of Hong Kong, or which were recorded in the register required to be kept by the Company pursuant to Section 336 of the Securities and Futures Ordinance of Hong Kong, or as otherwise notified to the Company and the Hong Kong Stock Exchange.

Name of substantial shareholder (full name)	Class of shares	Number of shares held	Capacity	Percentage in the relevant class of issued share capital	Percentage in total issued share capital
Aluminum Corporation of China	A shares	5,295,895,019(L) ^{Note 1}	Beneficial owner and interests of controlled corporation	40.49%(L)	31.11%(L)
	H shares	178,590,000(L) ^{Note 1}	Interests of controlled corporation	4.53%(L)	1.05%(L)
BlackRock, Inc.	H shares	308,887,737(L) ^{Note 2}	Interests of controlled corporation	7.83%(L)	1.81%(L)
		3,486,000(S) ^{Note 2}	Interests of controlled corporation	0.09%(S)	0.02%(S)
Citigroup Inc.	H shares	288,989,766(L) ^{Note 3}	Person having a security interest in shares/ interests of controlled corporation/ approved lending agent	7.32%(L)	1.70%(L)
		38,030,996(S) ^{Note 3}	Interests of controlled corporation	0.96%(S)	0.22%(S)
		111,610,820(P) ^{Note 3}	Approved lending agent	2.82%(P)	0.66%(P)
		240,162,804(L) ^{Note 4}	Interests of controlled corporation	6.09%(L)	1.41%(L)
UBS Group AG	H shares	122,526,014(S) ^{Note 4}	Interests of controlled corporation	3.11%(S)	0.72%(S)
		202,640,843(L) ^{Note 5}	Interests of controlled corporation	5.14%(L)	1.19%(L)
The Bank of New York Mellon Corporation	H shares	156,659,925(S) ^{Note 5}	Interests of controlled corporation	3.97%(S)	0.92%(S)
		42,501,738(P) ^{Note 5}	Interests of controlled corporation	1.08%(P)	0.25%(P)

The letter (L) denotes a long position, the letter (S) denotes a short position, and the letter (P) denotes a lending pool. The information of H shareholders is based on the disclosure of interests system of the Hong Kong Stock Exchange.

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

Note 1: These interests included 5,050,376,970 A shares directly held by Chinalco, and an aggregate interest of 245,518,049 A shares and 178,590,000 H shares held by various controlled subsidiaries of Chinalco, comprising 238,377,795 A shares held by Baotou Aluminum (Group) Co., Ltd., 7,140,254 A shares held by Chinalco Shanxi Aluminum Co., Ltd.* (中鋁山西鋁業有限公司) and 178,590,000 H shares held by Aluminum Corporation of China Overseas Holdings Limited* (中鋁海外控股有限公司).

Note 2: These interests were held directly by various corporations controlled by BlackRock, Inc.. Among the aggregate interests in the long position in H shares, 22,000 H shares were held as derivatives. Among the aggregate interests in the short position in H shares, 1,170,000 H shares were held as derivatives.

Note 3: These interests were held by various corporations controlled by Citigroup Inc.. Among the aggregate interests in the long position in H shares, 22,196,075 H shares were held as derivatives. Among the aggregate interests in the short position in H shares, 34,552,000 H shares were held as derivatives.

Note 4: These interests were held by various corporations controlled by UBS Group AG. Among the aggregate interests in the long position in H shares, 148,957,284 H shares were held as derivatives. Among the aggregate interests in the short position in H shares, 35,586,312 H shares were held as derivatives.

Note 5: These interests were held by The Bank of New York Mellon controlled by The Bank of New York Mellon Corporation. Among the aggregate interests in the short position in H shares, all H shares were held as derivatives.

Save as disclosed above and so far as the Directors are aware, as of 31 December 2021, no other person (other than the Directors, Supervisors and chief executive of the Company) had any interest or short position in the shares or underlying shares of the Company (as the case may be) which would fall to be disclosed to the Company and the Hong Kong Stock Exchange under the provisions of Divisions 2 and 3 of Part XV of the Securities and Futures Ordinance of Hong Kong and as recorded in the register required to be kept under section 336 of the Securities and Futures Ordinance of Hong Kong, or was otherwise a substantial shareholder of the Company.

5. NUMBER OF SHAREHOLDERS

Unit: Number of shareholders

Total number of shareholders as of 31 December 2021	671,921
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Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

6. PARTICULARS OF SHAREHOLDINGS HELD BY TOP TEN SHAREHOLDERS

As of 31 December 2021, particulars of shareholdings held by top ten shareholders are set out as follows:

Name of shareholder (full name)	Number of shares held as at the end of the reporting period	Class of shares	Percentage of shareholding (%)
Aluminum Corporation of China ^{Note 1}	5,050,376,970	A shares	29.67
Hong Kong Securities Clearing Company Limited (H shares) ^{Note 2}	3,934,482,427	H shares	23.11
Huarong Ruitong Equity Investment Management Co., Ltd. (華融瑞通股權投資管理有限公司)	660,019,327	A shares	3.88
China Life Insurance Company Limited (中國人壽保險股份有限公司)	558,793,900	A shares	3.28
China Securities Finance Corporation Limited	448,284,993	A shares	2.63
Hong Kong Securities Clearing Company Limited (A shares)	423,637,313	A shares	2.49
Baotou Aluminum (Group) Co., Ltd.	238,377,795	A shares	1.40
Shenzhen Zhaoping Chalco Investment Center LLP (深圳市招平中鋁投資中心(有限合夥))	83,024,384	A shares	0.49
ICBC Credit Suisse Fund — Agricultural Bank — ICBC Credit Suisse China Securities and Financial Assets Management Program*	47,256,150	A shares	0.28
China Southern Fund — Agricultural Bank — China Southern China Securities and Financial Assets Management Program*	45,382,251	A shares	0.27

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

Note 1: The number of shares held by Chinalco doesn't include the A shares of the Company indirectly held by it through its subsidiaries Baotou Aluminum (Group) Co., Ltd. and Chinalco Shanxi Aluminum Co., Ltd.* and the H shares of the Company indirectly held by it through its subsidiary Aluminum Corporation of China Overseas Holdings Limited* (中鋁海外控股有限公司). As of 31 December 2021, Chinalco together with its subsidiaries held an aggregate of 5,474,485,019 shares, among which 5,295,895,019 shares were A shares and 178,590,000 shares were H shares, accounting for approximately 32.16% of the total share capital of the Company.

Note 2: The 3,934,482,427 H shares of the Company held by Hong Kong Securities Clearing Company Limited include 178,590,000 H shares it holds on behalf of Aluminum Corporation of China Overseas Holdings Limited* (中鋁海外控股有限公司), a subsidiary of Chinalco.

7. PARTICULARS OF THE CONTROLLING SHAREHOLDER

(1) Particulars of the Controlling Shareholder

Name of the controlling shareholder : Aluminum Corporation of China

Legal representative: Yao Lin

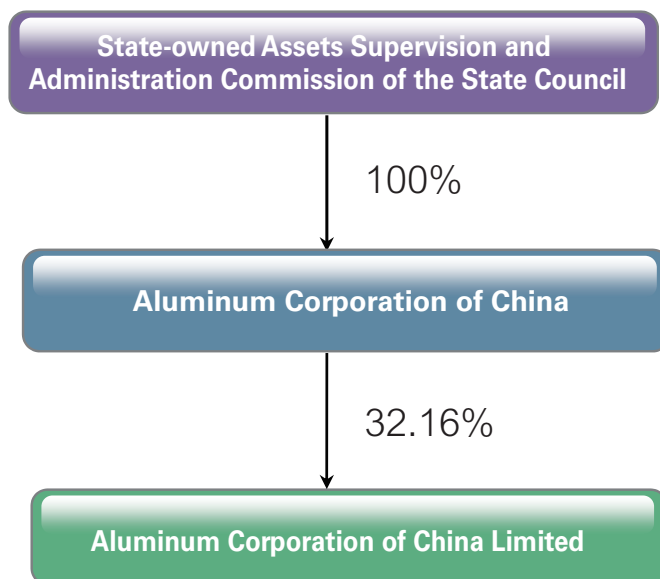
Registered capital: RMB25.2 billion

Date of incorporation: 21 February 2001

Principal operating or managing activities: Bauxite mining (limited to the bauxite mining at Guizhou Maochang Mine); deployment of personnel necessary for overseas engineering projects commensurating with its capacity, scale and performance; operation and management of state-owned assets and equities; production and sales of aluminum, copper, rare earth and related non-ferrous metals mineral products, smelted products, processed products and carbon products; exploration design, general project contracting, construction and installation; equipment manufacturing; technological development and technical service; import and export businesses.

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

(2) The Controlling Relationship between the Company and the Controlling Shareholder and Actual Controller



Note: The controlling shareholder of the Company is Chinalco, and the actual controller of the Company is the State-owned Assets Supervision and Administration Commission of the State Council. As at 31 December 2021, Chinalco directly held approximately 29.67% equity interest in the Company and held an aggregate of 5,474,485,019 shares in the Company together with its subsidiaries, including 238,377,795 A shares held by Baotou Aluminum (Group) Co., Ltd., 7,140,254 A shares held by Chinalco Shanxi Aluminum Co., Ltd.* and 178,590,000 H shares held by Aluminum Corporation of China Overseas Holdings Limited* (中鋁海外控股有限公司), accounting for approximately 32.16% of the total issued share capital of the Company.



Chairman's Statement

Dear Shareholders,

I hereby present the annual report of the Group for the financial year ended 31 December 2021 for shareholders' review. On behalf of the Board and all employees of the Company, I would like to express our sincere gratitude to all shareholders for your care and support for the Company.

PRODUCT MARKET REVIEW

In 2021, the global economy began to emerge from the pandemic-induced recession and showed a stronger recovery, fueled by the long-term fiscal stimulus packages launched by major economies such as the United States. Against this backdrop, and coupled with unprecedented global liquidity easing, the commodities markets were getting out of the economic doldrums and ushered in a wave of unparalleled boom. However, the electrolytic aluminum sector, as one of the energy-intensive industries subject to China's policies of dual-controls over energy intensity and total energy consumption as well as carbon peaking and carbon neutrality, witnessed dramatic changes as never before in its development, such as electricity consumption restriction and industrial production restriction, suspension of approval of new projects, suspension of construction of existing projects, delay of production, and sharp rise in electricity prices.

Chairman's Statement

Bauxite Market

In 2021, the bauxite prices in China were improving due to the factors such as tight supply and shipping capacity, rising sea freight caused by fluctuations in international crude oil prices, the enforcement of environmental protection policies in China, and increased demand from alumina enterprises.

In the first half of 2021, domestic ores had limited support for price hike due to the low level of alumina prices. Although the ore prices had risen in some areas due to the tight supply caused by environmental protection inspections, the price increase was limited and the price movement of domestic ores was flat on the whole. In the second half of 2021, domestic bauxite prices went up across the board due to the gradual shift of the alumina market price from a flat operation to a sharp increase, coupled with the fact that the tight supply of domestic ores was not effectively mitigated. The domestic bauxites were traded at relatively high prices as compared with the corresponding period in 2020.





Chairman's Statement

In terms of imported ores, Guinea, Australia and Indonesia remained to be the main suppliers of imported ores. Given the generally high sea freights in 2021, domestic enterprises mainly imported bauxite ores with long-term orders, but since the tight supply of domestic ores could not be mitigated and the demand for imported ores continued to rise, the price of imported ores had increased.

Total imports of bauxite by China were 107.37 million tonnes in 2021, of which imports from Guinea accounted for 51%. Due to high sea freights and increased domestic demand, the CIF price of imported bauxites was approximately USD48 per tonne, representing an increase over the previous year.

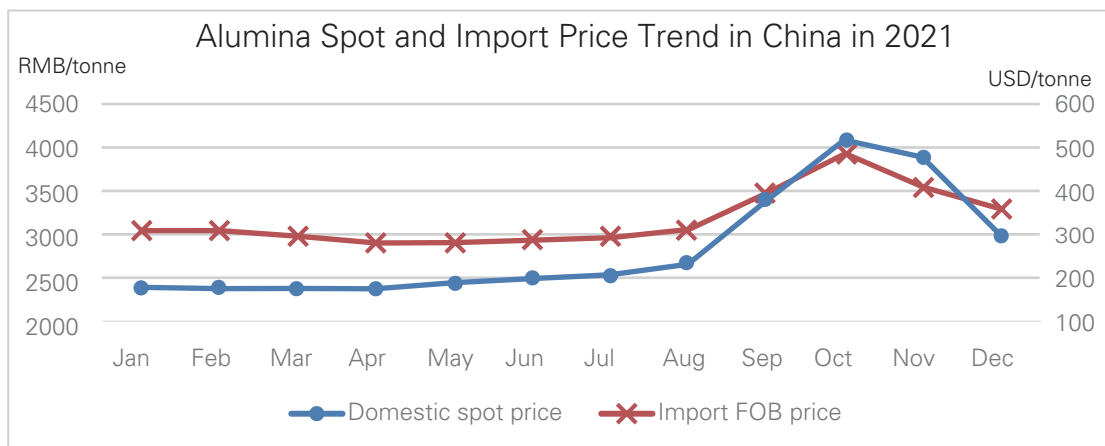
Alumina Market

The global market price of alumina witnessed relatively high fluctuations in 2021. In the first half of 2021, it was a flat price movement with fluctuations in a narrow range. In the second half of 2021, the price and production cost of alumina climbed rapidly because the market price of alumina was stimulated to rise sharply by emergencies frequently occurred abroad and floods in some parts of China as well as the introduction of industrial production restriction policies in the PRC, coupled with the surging prices of downstream electrolytic aluminum and main raw materials of alumina. In November, the price of alumina fell rapidly as the price of aluminum fell.

In the international market, the alumina price rose sharply due to the relatively tight supply of alumina by alumina producers which were affected by a number of factors such as equipment failures, natural disasters and accidents, and because the rise in the price of electrolytic aluminum had pushed up the alumina price. In 2021, the highest and lowest prices of alumina in the international market were USD484 per tonne and USD269 per tonne, respectively, with the annual average price of USD331 per tonne, representing an increase of 21.8% as compared with that of 2020.

Chairman's Statement

In the domestic market, at the beginning of 2021, the alumina market was more active due to the preparation of stocks for the Chinese New Year, but after the Chinese New Year, trading in the market was light with weak prices. Although the market pattern had changed in the second quarter of 2021, the supply and demand sides had different views on the price increase, and had entered a stalemate. In the second half of 2021, emergencies at home and abroad led to restrictions on the production and transportation of alumina, which pushed up the price of domestic alumina. In the third quarter, the market activity of alumina increased significantly, and the price continued to rise. In October, the price of the main raw materials of alumina continued to rise sharply, pushing the cost center of gravity of alumina to continue to move upward. Later, there was a strong rally in the alumina price because the domestic alumina prices were further stimulated to rise by the reduction of operating capacities by some enterprises due to the policy of limiting alumina production by 50% in Guangxi, coupled with the fact that the rapid rise in the price of downstream electrolytic aluminum to a record high had pushed up the alumina price. With the rapid decline of aluminum prices in November, the price of raw materials dropped, and the price of alumina began to fall rapidly. In 2021, the center of gravity of alumina price in China moved upward from last year. The highest and lowest prices of alumina in the domestic market were RMB4,101 per tonne and RMB2,331 per tonne, respectively, with the annual average price of RMB2,798 per tonne, representing an increase of 19.7% as compared with that of 2020.



Source: Domestic spot price is approximately the average prices from aladdiny.com, baiinfo.com and atk.com; import FOB price is from Platts



Chairman's Statement

According to the statistics, the global output and consumption of alumina for 2021 were approximately 138.66 million tonnes and approximately 137.61 million tonnes, respectively, representing a year-on-year increase of 4.2% and 3.6%, respectively. The domestic output and consumption of alumina were approximately 75.20 million tonnes and approximately 77.99 million tonnes, respectively, representing a year-on-year increase of 5.9% and 4.3%, respectively, accounting for 54.24% and 56.67% of global output and consumption, respectively. As at the end of December 2021, the alumina capacity utilization rate in the world was approximately 82.1%, while that of the PRC was approximately 83.2%, representing a year-on-year increase of 3.1 percentage points.

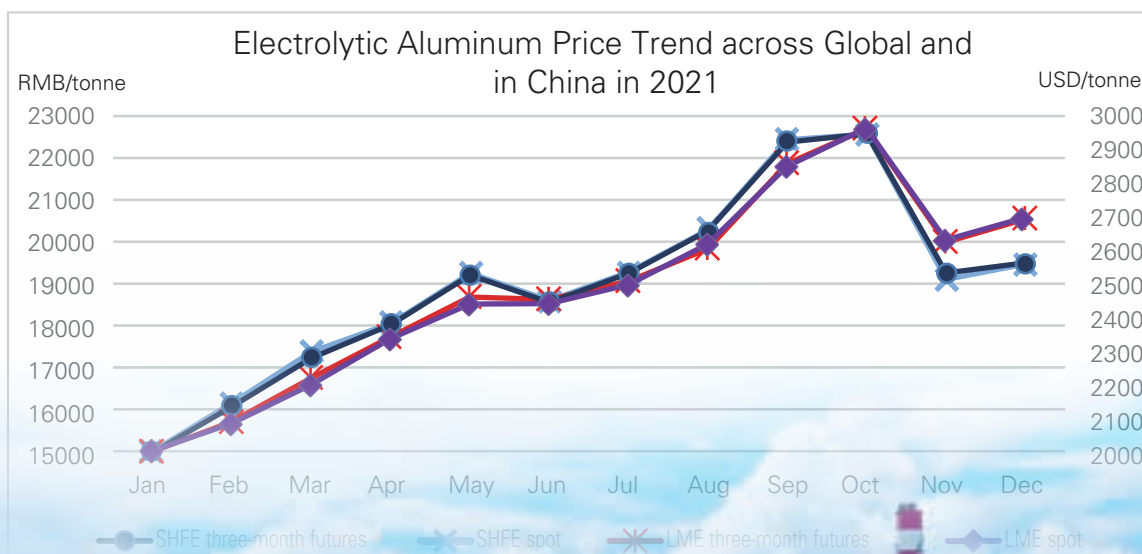
Primary Aluminum Market

With the rapid recovery of the economy in the post-pandemic era, there has been explosive growth of demand, but the supply chain could not be resumed in time, and the supply gap has increased. Domestic and foreign aluminum stocks continued to decline, especially LME aluminum stocks, which fell below 900,000 tons, a record low. The international aluminum spot supply was tight and the premium increased significantly. The introduction of China's targets for carbon peaking and carbon neutrality as well as dual-controls over energy intensity and total energy consumption has reinforced the capital market's bullishness on electrolytic aluminum. Against this backdrop, the cost of electrolytic aluminum increased significantly, coupled with the year-round restrictions on electricity and production across the world and the surge in coal, oil and natural gas prices triggered by the energy crisis. Under the influence of multiple factors, the price of electrolytic aluminum continued to reach new highs.

In the international market, the production of electrolytic aluminum gradually increased in the first half of 2021. With the frequent occurrence of various production reduction events such as natural disasters and production accidents worldwide and the tight energy supply, and there was a large-scale production reduction in the industry. Aluminum consumption has recovered quickly from the pandemic-induced crisis, with strong demand in packaging, home appliances and construction, in addition to aviation and automotive, and the supply of electrolytic aluminum fell short of demand. In 2021, the average price of spot aluminum and three-month aluminum futures at LME were approximately USD2,480 per tonne and USD2,485 per tonne, respectively, representing an increase of 45.5% and 43.3% over that of 2020, respectively.

Chairman's Statement

In the domestic market, the center of gravity of domestic electrolytic aluminum prices in 2021 shifted significantly upwards more than expected. The electrolytic aluminum on the Shanghai Metal Exchange had risen rapidly since mid-to-late January, and hit a nearly 15-year high in October. During the period, despite the fact that there was a decrease in the price of electrolytic aluminum because national ministries and commissions had repeatedly mentioned the commodity price problem and implemented measures to ensure supply and stabilize prices such as selling reserves, the price of electrolytic aluminum continued to rise due to various production cutbacks in the industry, a significant increase in the cost of electrolytic aluminum as a result of rising electricity prices and alumina prices, and a lower than expected volume of reserve dumping. The price of electrolytic aluminum fell sharply in mid-to-late October due to strong coal price regulation, before bottoming out in early December and narrowing the decline. In 2021, the average prices of current month aluminum futures and three-month aluminum futures at SHFE were RMB18,953 per tonne and RMB18,898 per tonne, representing an increase of 34.2% and 37.3% over 2020, respectively.





Chairman's Statement

According to the statistics, the global output and consumption of primary aluminum for 2021 were approximately 67.78 million tonnes and approximately 69.15 million tonnes, respectively, representing a year-on-year increase of 3.8% and 9.1%, respectively. The domestic output and consumption of primary aluminum were approximately 38.90 million tonnes and approximately 40.55 million tonnes, respectively, representing a year-on-year increase of 4.3% and 5.7%, respectively, accounting for approximately 57.39% and 58.64% of global output and consumption, respectively. As at the end of December 2021, the capacity utilization rate of primary aluminum in the world was approximately 88.4%, while that of primary aluminum enterprises in the PRC was approximately 87.2%, representing a decrease of 0.9 percentage points over the previous year.

BUSINESS REVIEW

In 2021, amid various complex external factors such as the continued spread of the epidemic, drastic changes in industry policies, market fluctuations, extreme weather in local areas and the military coup in Guinea, the Company actively responded to the changes and achieved new results in quality development by focusing on implementation, improving efficiency and creating first-class performance, with the theme of promoting quality development, led by enhancing value creation capabilities and deepening all-factor benchmarking. It was a good start for the Company in the 14th Five-Year Plan period.





Chairman's Statement

1. New breakthroughs in operating results and significant improvements in operational quality.

In 2021, the Company achieved significant growth in operating results, with annual operating revenue of RMB269.748 billion, representing a year-on-year increase of 45.03%; total profit of RMB10.179 billion, representing an increase of nearly 3.65 times over the previous year; and net profit attributable to the parent company of RMB5.080 billion, representing an increase of 5.65 times over the previous year. The debt structure was significantly optimized, with a year-on-year decrease of RMB14.7 billion in the scale of interest-bearing financing, and a year-on-year decrease of 1.27 percentage points in its gearing ratio. Standard & Poor's upgraded the Company's international credit rating from "steady outlook" to "positive outlook" for the first time. The Company ranked fourth in the "ESG (Environmental, Social and Corporate Governance) - Pioneer 50 Index for Central Enterprises". The Company has been included in the Hang Seng Sustainable Development Enterprise Index, and its ESG rating of MSCI Index was upgraded to "B".

2. Deepening all-factor benchmarking and continuous improvement of professional control capabilities.

The Company adopted the five-step approach to promote the all-factor benchmarking, improve the production management system, create new production scheduling and command, strengthen production service guidance, and focus on solving production technology management problems. The "five standards and one control" management mode of Shanxi Zhongrun Electrolytic Aluminum was promoted, and the "Three Transformations and One Improvement" management model of Guangxi Huasheng Alumina and the lean control system of the Technology Center of Excellence took initial shape, resulting in significant cost reduction and further improvement of the cost competitiveness of alumina and electrolytic aluminum. In 2021, the utilization ratios of the Company's alumina and carbon production capacity increased by 2.5 and 16 percentage points year-on-year, respectively, and the comprehensive AC power consumption of electrolytic aluminum and the total energy



Chairman's Statement

consumption of alumina were optimized year-on-year. The alumina first grade product rate, the proportion of tanks with liquid aluminum above 99.85, and the anode above first grade product ratio increased by 11.8, 12.2 and 4.4 percentage points year-on-year, respectively. The Company continuously improved the operation mechanism of the three platforms of procurement, marketing and logistics, coordinated and balanced the allocation of resources, increased market-oriented operation, accelerated the digital transformation of procurement, completed the procurement platform of "Aluminum E-commerce Platform (鋁約益採)", promoted the "double horse racing (雙賽馬)" mechanism, innovated spare parts sharing management, and achieved cost reduction in procurement. Baotou Aluminum won the "National Quality Award" for the first time in the non-ferrous industry, and Guangxi Branch won the Gold Award of the International Quality Management Group.





Chairman's Statement

3. Focusing on high-quality development of substance and recording new progress of green development.

The Company built a new industrial development pattern around its development strategy. We stepped up efforts to acquire resources, and Wangwa Coal Mine successfully obtained a mining license and acquired 430 million tons of coal resources. The entire production, transportation and sales process of bauxite mines in Guinea was completed and the expansion project was fully completed. Guangxi Jiaomei Bauxite Mine started construction, Shanxi New Materials resumed its production of 140,000 tons of electrolytic aluminum, the smart factory of Baotou Aluminum completed its acceptance inspection, the smart factories of Guangxi Huasheng formed 12 replicable modules. Special efforts were made to accelerate the layout of green low-carbon industry such as the comprehensive utilization of new energy, recycled aluminum and red mud, and the disposal of industrial wastewater, waste gases and residues from electrolytic aluminum processing were systematically implemented. Guangxi Branch obtained 700,000 tons of iron concentrate annually from the comprehensive utilization of red mud. Chalco Shandong completed the production line for recycling of 200,000 tons of red mud with high iron content. The demonstration line for the collaborative disposal of secondary aluminum ash clinker kilns of Shanxi New Materials was completed and put into production.



Chairman's Statement

4. Reconstructed the scientific and technological innovation system and made new technological breakthroughs.

The Company has integrated internal scientific and technological resources, established the Chalco Green Metallurgical Research Institute, and set up six technical centers including the center for energy saving and carbon reduction of electrolytic aluminum. The Company has constructed a scientific and technological innovation system in which the headquarter of the Company makes overall planning for scientific and technological research and development in cooperation with the Central Research Institute, professional research institutes are responsible for cutting-edge breakthroughs, technical centers are responsible for industrial tests and industrialization demonstrations, and physical enterprises are responsible for the translation of scientific and technological advances into productive forces. The Company formulated a scientific and technological innovation plan, pointed out 12 key scientific and technological research directions, and established a research mechanism of selecting the best candidates to undertake key research projects. Throughout the year, 36 major scientific and technological research and development projects were carried out, and 35 patents for authorized inventions were added. The project of high purity and ultra-fine aluminum nitride completed research. A number of new technologies such as import substitution of aluminum hydroxide for new energy vehicles, construction and commissioning of 5N ultra-fine alumina demonstration line, alumina humus removal, wet oxidation desulfurization and decarburization have been popularized and applied. 13 subsidiaries of the Company obtained the recognition of high-tech enterprises, and 36 subsidiaries obtained the recognition of large-scale development in the western region.



Chairman's Statement

5. Systematically promoted management reform and continuously optimized the operation mechanism.

The Company formulated a three-year action plan for deepening reform, formed a joint promotion mechanism under the responsibility of “first leader (一把手)” and with the concerted efforts of the top and bottom of the hierarchy, refined annual work points and task ledgers, achieved closed-loop management and exceeded the annual target. The specialization integration of carbon and alloys and the regional integration of enterprises in Gansu region were accelerated. Enterprises at all levels of the Company implemented contractual management under the tenure system, and eight subsidiaries launched pilot schemes for professional managers. The Company continued the optimization of labor force and further eliminated business outsourcing, with total labor force reduced by 10.3% for the year. The number of contractors and the amount of outsourcing contracts were reduced by 12.5% and 25.6%, and the labor productivity of alumina, electrolytic aluminum and carbon increased by 34%, 28% and 43% year-on-year, respectively. We further optimized assessment and distribution to link total wages to costs, profits and labor productivity, increased incentives for cost reduction and profit sharing, implemented project-based dividends for technology-based enterprises, and launched a restricted stock incentive scheme.

6. Further improved corporate governance and strengthened the risk prevention and control system.

We further clarified the positioning of the responsibilities of the Company's headquarters, business entities, and business platforms, and formulated a series of decision-making management systems such as the board of directors' authorization management system, and further clarified the boundaries of the powers and responsibilities of the governing body and defined the procedures for deliberation and decision-making. The Company's internal control system was updated and improved, so that the internal control process covers all important business and management areas of the Company. The rule of law and compliance management system has been improved and an intensive legal control model has been formed so that full legal review cover of matters such as rules and regulations, economic contracts and important decisions of the Company. We responded actively to the combined effects of unfavorable factors such as frequent electricity consumption restriction, market turbulence, extreme weather, the coup d'état in Guinea, and the pandemic, and minimized the impact on our production and operations.



Chairman's Statement

7. Strengthened the safety and environmental protection management and control, with safety risks reduced year by year.

The Company strengthened the development of a safety and environmental protection management system, revised and improved relevant systems and regulations, further promoted the operation of the occupational health workplace safety standardization system, and worked hard to improve the long-term mechanism of ecological environment control. The Company strengthened the safety control of important hazard sources, and vigorously promote the implementation of grapevine (葡萄園) safety management tools and pre-operation risk assessment exercise. The Company organized and carried out safety special actions such as “three fears, avoiding three violations (三敬畏、反三違)”, conducted safety training for key employees at the primary level, and developed new ways to carry out safety mutual inspections. The safety awareness and capabilities of employees have been continuously strengthened, and the workplace safety situation has gradually improved. No major and above workplace accidents occurred throughout the year, and epidemic control achieved zero infection among all staff. Five companies, including Baotou Aluminum and Qinghai Branch, passed the acceptance of national safety standardization Level 1 enterprises, Yinxing Power Generation obtained the national workplace safety standardization Level 1 enterprise certificate, and Wangwa Second Mine was recognized as a workplace safety standardization Level 2 enterprise. Efforts were made to improve the long-term mechanism for ecological environment control, establish an online monitoring platform for environmental protection, strengthen environmental information supervision. In 2021, the Company's release of major pollutants had been consistently declining, and no environmental incidents occurred.

8. Achieved deep integration of Party building and business to promote high-quality development with Party building.

The Company has been pursuing leading and guaranteeing high-quality development with high-quality party building, improving the decision-making system of “Three Important Matters and One Big Concern (三重一大)” and the system of pre-procedures for the Party committee's study and discussion, did a good job of “two guidances and two makings (兩帶兩創)” activities, promoted the deep integration of Party building and business, and gave full play to the role of the Party Committee in “setting the direction, managing the overall situation and promoting the implementation (把方向、管大局、促落實)” to lead and ensure the high-quality development of the Company with high-quality Party building.



Chairman's Statement

DIVIDENDS

The Company considered and approved the Resolution in relation to the Profit Distribution Proposal for 2021 of the Company at the 26th meeting of the seventh session of the Board of the Company held on 22 March 2022, and the Board of the Company proposed to distribute the final dividend for 2021 at RMB0.032 (tax inclusive) per share to all shareholders. Based on the Company's current total issued share capital of 17,022,672,951 shares, the total dividend of the Company for 2021 amounts to approximately RMB544.73 million (tax inclusive). In 2021, the Company did not transfer capital reserves to increase the share capital.

The aforesaid distribution of dividend plan is pending to submit at the 2021 annual general meeting of the Company for approval. If approved, the Company will issue a separate announcement on the implementation of the dividend distribution and determine the record date for the dividend distribution. If there is any change in the total share capital of the Company before the record date for the implementation of the profit distribution, the Company will maintain the total amount of dividend distribution unchanged and adjust the distribution amount per share accordingly, and will announce the details of the adjustment separately.



Chairman's Statement

RESULTS

For the year ended 31 December 2021, the Group recorded revenue of RMB269.7 billion, representing a year-on-year increase of RMB83.7 billion or 45% as compared to RMB186.0 billion in 2020. Profit attributable to the owners of the parent company was RMB5.080 billion. Earnings per share attributable to the owners of the parent company was RMB0.286.

BUSINESS OUTLOOK AND PROSPECTS

In 2022, the global economy will maintain its recovery growth, the epidemic will continue to spread, the profound changes of a kind unseen in a century will accelerate its evolution, and the development will be characterized by instabilities, uncertainties and imbalances. China's economic development is under the pressure of increased expectations of demand contraction, increased supply shocks, and weakening growth expectations. In particular, the policies of carbon peaking and carbon neutrality as well as dual-controls over energy intensity and total energy consumption have triggered extensive and profound economic and social systemic changes, and there have been all-round profound changes in the competition of the aluminum industry. The Company will take the initiative to adapt to the ecological changes in the industry, pursue innovation-driven development, transform its development pattern, optimize its industrial structure, shift to new growth drivers, continuously improve its value creation capabilities, create its new forms of high-quality development of substance, and steadily improve its operating performance. The key tasks to be carried out by the Company include:

1. Pursue value creation, upgrade benchmarking management, and reduce costs and increase efficiency across the board.

The Company will continue to deepen the all-factor benchmarking management, accelerate the establishment of the "5C" value management system, continuously optimize the benchmarking index system, refine benchmarking measures, and focus on optimizing key indicators. The Company will strengthen the organization and management of production, continuously improve the utilization rate of production capacity, and strive to achieve stable and full production. The Company will attach great importance to do a good job in the electric power guarantee for electrolytic aluminum production lines, improve the rapid response mechanism and flexible production organization model under electricity consumption restriction conditions, reduce losses caused by suspension of production, and step up efforts to resume operation of production lines that have not been put into operation and discontinued, and maximize the benefits of electrolytic aluminum.



Chairman's Statement

2. Create a replicable management model, accelerate the construction of intelligent factories, and foster new business forms of digital intelligence.

The Company will further deepen management improvement actions and enhance professional management efficiency. The Company will establish a safe and standardized green mine management model with a focus on improving low-cost ore supply capacity; summarize Guangxi Huasheng's "Three Transformations and One Improvement (三化一提升)" management model and accelerate its promotion in alumina enterprises; consolidate and enhance Shanxi Zhongrun's "five standards and one control (五標一控)" management model and further promote it in electrolytic aluminum enterprises; benchmark with similar benchmark coal mining units in China to improve the management level of energy and power business; create a number of unmanned processes, advance the promotion of smart factories in Guangxi Huasheng and Shanxi Zhongrun, and launch the construction of a pilot intelligent mine in Wangwa Second Mine.

3. Pursue green and low-carbon policies, continue to optimize the industrial structure, and enhance the competitiveness of the main industries across the board.

The Company will take the initiative to adapt to industrial changes by taking breakthroughs in low-carbon technologies and taking the support and clean energy conversion as an effective means, step up the transformation of energy mix, accelerate the layout and development of new energy, accelerate the coordination of power source-grid-load-storage, and use multiple energy sources to supplement each other. The Company will create conditions to build a number of green and clean industrial bases, increase the amount of electricity generated by new energy sources, increase the proportion of clean energy used, and drive the early implementation of some transformation and development projects. The Company will deepen the "coastal and overseas (兩海)" strategy, increase the production of bauxite in Guinea, expand the supply pipelines of overseas bauxite resources to increase the ore supply. The Company will apply advanced technology and processes to accelerate the energy-saving and carbon-cutting improvements of electrolytic aluminum in stock, and build a group of low energy-consumption benchmarking enterprises. The Company will accelerate the implementation of boundary conditions, promote the launch of green and clean electrolytic aluminum projects, carry out special actions such as comprehensive utilization of red mud, recycled aluminum, and hazardous waste treatment, extend green industry, and lead the industry to fully realize the sustainable development of green, low-carbon, and recycling.



Chairman's Statement

4. Continuously optimize the scientific research management system, improve the incentive mechanism for scientific research, and give full play to science and technology support and guide.

The Company is determined to advance the leading strategy of science and technology, give full play to the respective strengths of Zhengzhou Research Institute, Green Metallurgy Research Institute and the Technology Center, focus on cost reduction and efficiency improvement, green transformation and product mix adjustment, enhance external cooperation and strive for the promotion of the research and development of major key generic technologies in the fields of energy saving and consumption reduction, solid waste utilization, smart manufacturing and high-end materials, and build coordinated and innovative ecology, accelerate the construction of smart factories, and realize the transformation and upgrading of traditional industries with digital empowerment. The Company will further refine the mechanisms to channel resources to research and development, select the best candidates to undertake key research projects, and share the benefits of the translation of scientific and technological advances into productive forces, achieve targeted incentives.



Chairman's Statement

5. Accelerate professional development, give full play to synergies, and continue to enhance overall competitiveness.

The Company will accelerate the specialization integration of fine alumina, carbon and alloy, improve contractual management under the tenure system and the system of professional managers, implement dual-benchmarking of performance and remuneration with the market, dynamically track advanced enterprises, and build "professional, fine, specialized and novel (專業化、精細化、特色化、新穎化)" enterprises; continue to improve the operation mechanism of the three major platforms, expand trade channels, broaden efficiency creation channels, and increase the market share, and strengthen the right to speak in the market; further expand the external market and reduce the logistics cost on the basis of comprehensively enhancing its own guaranteed transportation service capacity and maintaining the security of bauxite supply; improve the operation level of "Aluminum E-commerce Platform (鋁約益採)" and expand the share of direct supply. The Company will promote the use of all ERP modules to facilitate the integrated development and operation of business and finance.

6. Continue to deepen its reforms, continue to optimize its mechanisms, and further stimulate internal vitality.

The Company will adhere to the principle of being problem-, target- and result-oriented, accelerate regional integration and mixed ownership reform, industry mergers and acquisitions and restructuring, continuously improve its corporate governance system, and ensure the completion of the three-year reform action and relevant targets; strengthen contractual management under the tenure system to achieve rigid assessment and fulfillment; adhere to benchmarking industry-leading labor productivity, dynamically control the number of employees, and continuously optimize the use of existing employees; and implement medium- and long-term incentive policies such as equity incentive, equity and dividend incentive for technology-based enterprises, and sharing of surplus profit.



Chairman's Statement

7. Strengthen the implementation of safety and environmental protection responsibilities, improve risk prevention and control capabilities, and create a stable business environment.


The Company will take the promotion of workplace safety standardization as the main line, improve the system and mechanism, strengthen and implement the main responsibilities, take the standardization of team safety as the starting point, vigorously enhance the intrinsic safety level, and strengthen the standardization of post operations; strengthen supervision and management of key links, speed up the disposal of survived hazardous wastes, and complete the rectification of the problems identified by the central ecological environment protection inspections in a high quality manner. The Company will adopt applicable leading-edge environmental protection technologies to ensure that new projects consistently meet their pollutant discharge standards. The Company will promote environmental protection performance management in an all-out effort and encourage the creation of A-level enterprises, green factories, and green mines; further improve internal control, risk, rule of law, and compliance management systems, and improve emergency response mechanisms; pay close attention to macroeconomic and market changes, strengthen market research and analysis, and prevent and mitigate the risks such as market and exchange rates.

8. Adhere to the leadership of Party building, promote two-way integration, and develop high-quality Party building with high-quality Party building.

The Company will improve the ability of Party building to benchmark innovation, lead empowerment and value creation, extensively carry out the "Strive for Excellence (創先爭優)", accurately carry out the "Two Guidances and Two Makings (兩帶兩創)" activities, enrich the innovative "Party building +" carriers, stimulate the internal driving force of Party building to promote business, advance the deep integration of Party building and production and business operations, and improve quality and efficiency empowered by the Party building and value creation.

Liu Jianping
Chairman

Beijing, the PRC
22 March 2022




Management's Discussion and Analysis of Financial Position and Results of Operations

DEVELOPMENT STRATEGY AND MODEL

Committed to the development objective of building a world class aluminum company with global competitiveness, the Company pursues both internal high-quality growth of substance and extensional development, and takes deepening reform, innovation-driven, green and low-carbon as its key source of momentum, focusing on prioritizing acquisition of bauxite resources, vigorously upgrading the green level of aluminum smelting, accelerating the development of fine and high-purity aluminum-based new materials, and focusing on corporate governance, value creation, scientific and technological research and development, industrial upgrading, overseas development, capital operation and collaborative operation, all guided by Party building, in order to strengthen the "chain length (鏈長)" of the modern aluminum industry chain.

The following discussions should be read together with the financial information of the Group and its notes included in other sections of this annual report.



Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

BUSINESS SEGMENTS

The Group principally engages in the exploration and mining of bauxite, coal and other resources; the production, sales and technical development of alumina, primary aluminum and carbon products; international trading, logistics services, as well as electricity generation from coal and new energy. Business segments comprise:


Alumina segment consists of mining and purchasing bauxite and other raw materials, refining bauxite into alumina, and selling alumina both internally to the Group's electrolytic aluminum enterprises and trading enterprises and externally to customers outside the Group. This segment also includes the production and sales of refined alumina and gallium.

Primary aluminum segment consists of procuring alumina, raw and auxiliary materials and electricity power, smelting alumina to produce primary aluminum, and selling them internally to the Group's trading enterprises and externally to customers outside the Group. This segment also includes the production and sales of carbon products, aluminum alloy products and other electrolytic aluminum products.

Trading segment is mainly engaged in the trading and logistics of alumina, primary aluminum, other nonferrous metal products, and crude fuels such as coal products, as well as raw and auxiliary materials to internal manufacturing enterprises and external customers.

Energy segment consists of coal, electricity generation from coal, wind power and photovoltaic power and new energy equipment production, etc. Among its major products, coals are sold to internal manufacturing enterprises of the Group and external customers outside the Group; and electricity power generated by public power plants, wind power and photovoltaic power stations of the Group is sold to local grid companies.

Corporate and other operating segments include research and development and other activities of other aluminum-related business of the headquarter and the Group.



Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

RESULTS OF OPERATIONS

The Group's net profit attributable to owners of the Company for the year 2021 was RMB5,080 million, representing an increase of RMB4,316 million from RMB764 million for the previous year, mainly due to the significant year-on-year increase in the gross profit of alumina and electrolytic aluminum products of the Company.

REVENUE


The Group's revenue for the year 2021 was RMB269.7 billion, representing an increase of RMB83.7 billion from RMB186.0 billion for the same period of the previous year, mainly due to the year-on-year increase in the prices of alumina and electrolytic aluminum.

COST OF SALES

The Group's cost of sales for the year 2021 was RMB243.3 billion, representing an increase of RMB69.6 billion from RMB173.7 billion for the same period of the previous year, mainly due to the impact of higher prices of raw fuel materials.

GROSS PROFIT

The Group's gross profit for the year 2021 were RMB26,478 million, representing an increase of RMB14,162 million from RMB12,316 million for the same period of the previous year, mainly due to the year-on-year increase of the price of alumina and electrolytic aluminum.



Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

EXPENSES FOR THE PERIOD

Selling expenses: The Group's selling expenses for the year 2021 amounted to RMB315 million, which was basically the same as RMB316 million for the same period of the previous year.

Administrative expenses: The Group's administrative expenses for the year 2021 amounted to RMB5,204 million, representing an increase of RMB1,046 million from RMB4,158 million for the same period of the previous year, mainly due to the decrease in staff costs as a result of the COVID-19 pandemic social insurance premium relief policy last year, and the increase in expenses as a result of the newly-launched enterprises this year.

Finance expenses: The Group's finance expenses for the year 2021 amounted to RMB3,667 million, representing a decrease of RMB526 million from RMB4,193 million for the same period of the previous year, mainly due to the year-on-year decrease in finance expenses of the Company by reducing the scale of its interest-bearing debts, optimizing its financing costs and other measures.

RESEARCH AND DEVELOPMENT EXPENSES


The Group's research and development expenses for the year 2021 amounted to RMB2,362 million, representing an increase of RMB928 million from RMB1,434 million for the same period of the previous year. This was mainly due to the increase in investment in optimizing the product process, improving the added value of aluminum processing products and developing the mid-to-high-end products.

OTHER GAINS/LOSSES, NET

The Group's other losses for the year of 2021 amounted to RMB1,624 million, representing a decrease of RMB2,528 million in profit as compared with RMB904 million of other gains for the same period of the previous year, primarily due to the impact of the year-over-year reduction in profit from closing out hedging futures and the scrapping of more related assets such as machinery and equipment as a result of the disposal of idle production lines and renewal and renovation during the year.

INCOME TAX EXPENSES

The Group's income tax expenses for 2021 amounted to RMB2,390 million, representing an increase of RMB1,800 million from RMB590 million for the same period of the previous year, mainly due to the year-on-year increase in income tax expenses resulting from the increase in corporate profits.



Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

ALUMINA SEGMENT

Revenue

The Group's revenue from the alumina segment for the year 2021 was RMB56,546 million, representing an increase of RMB14,168 million from RMB42,378 million for the same period of the previous year, mainly attributable to the increase in production volume as a result of the commencement of operation of the Company's mining project in Guinea and the ancillary alumina project of Guangxi Huasheng, as well as the year-on-year increase in the price of alumina.

Segment Results

The Group's profit before income tax in the alumina segment for 2021 was RMB4,049 million, representing an increase of RMB2,614 million from RMB1,435 million for the same period of the previous year, mainly due to the increase in production volume and gross profit as a result of the commencement of operation of the Company's mining project in Guinea and its ancillary alumina project in Guangxi Huasheng, as well as the year-on-year increase in the gross profit of products.


PRIMARY ALUMINUM SEGMENT

Revenue

The Group's revenue from the primary aluminum segment for the year 2021 was RMB72,644 million, representing an increase of RMB20,755 million from RMB51,889 million for the same period of the previous year, mainly due to the year-on-year increase in the price of primary aluminum.

Segment Results

The Group's profit before income tax in the primary aluminum segment for 2021 was RMB7,402 million, representing an increase of RMB5,379 million in profit from RMB2,023 million for the same period of the previous year. This was mainly attributable to the year-on-year increase in the gross profit of its products.



Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

TRADING SEGMENT

Revenue

The Group's revenue from the trading segment for the year 2021 was RMB220,448 million, representing an increase of RMB65,056 million from RMB155,392 million for the same period of the previous year, mainly due to the year-on-year increase in the prices of alumina and primary aluminium products.

Segment Results

The Group's profit before income tax in the trading segment for the year 2021 was RMB1,231 million, representing an increase of RMB649 million from RMB582 million for the same period of the previous year, mainly due to the year-on-year increase in the gross profit of its products.

ENERGY SEGMENT

Revenue

The Group's revenue from the energy segment for the year 2021 was RMB7,915 million, representing an increase of RMB731 million from RMB7,184 million for the same period of the previous year, mainly due to the year-on-year increase in coal price.


Segment Results

The Group's losses before income tax in the energy segment for 2021 were RMB235 million, representing a decrease in profit of RMB158 million from losses before income tax of RMB77 million for the same period of the previous year, mainly attributable to the losses of non-controlling thermal power companies.

CORPORATE AND OTHER OPERATING SEGMENTS

Revenue

The Group's revenue from corporate and other operating segments for the year 2021 was RMB484 million, representing an increase of RMB34 million from RMB450 million for the same period of the previous year.



Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

Segment Results

The Group's losses before income tax from corporate and other operating segments for the year 2021 were RMB1,850 million, representing a decrease in profit of RMB145 million from the losses of RMB1,705 million for the same period of the previous year.

CURRENT ASSETS AND LIABILITIES

As at 31 December 2021, the Group's current assets amounted to RMB48,714 million, representing an increase of RMB2,445 million from RMB46,269 million as at the end of the previous year, mainly due to the increase in monetary funds resulted by the increase in cash inflows from operations.


As at 31 December 2021, the Group's current liabilities amounted to RMB52,181 million, representing a decrease of RMB10,452 million from RMB62,633 million as at the end of the previous year, mainly due to the efforts of the Group to optimize the maturity profile of the liabilities and minimize the scale of short-term interest-bearing loans and borrowings.

NON-CURRENT ASSETS AND LIABILITIES

As at 31 December 2021, the Group's non-current assets amounted to RMB143,663 million, representing a decrease of RMB5,109 million as compared to RMB148,772 million as at the end of the previous year, mainly due to the depreciation and amortization of long-term assets.

As at 31 December 2021, the Group's non-current liabilities amounted to RMB67,413 million, representing an increase of RMB6,310 million as compared to RMB61,103 million as at the end of the previous year, mainly due to the increase in lease liabilities.

As at 31 December 2021, the Group's gearing ratio was 62.17% (The ratio is calculated by dividing total liabilities by total assets of the Group as at 31 December 2021), representing a decrease of 1.27 percentage points from 63.44% as at the end of 2020, mainly due to the reduction of the scale of interest-bearing liabilities by the Company.



Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

MEASUREMENT OF FAIR VALUE

The Group strictly established the procedures for recognition, measurement and disclosure of fair value in accordance with the requirements on fair value under the relevant accounting standards, and took responsibility for the truthfulness of the measurement and disclosure of fair value. At present, except for the Company's financial assets and financial liabilities for trading purpose, other equity instruments investment and account receivables financing are stated at fair value, others are stated at historical cost.


As at 31 December 2021, the Group's financial assets held for trading purposes decreased by RMB17 million as compared with the end of the previous year. The Group's financial liabilities held for trading purposes increased by RMB42 million as compared with the end of the previous year, mainly due to the impact of floating profits and losses on outstanding futures contracts.

PROVISION FOR INVENTORY IMPAIRMENT

As at 31 December 2021, the Group separately assessed the net realizable value of its inventories. For the inventories relevant to aluminum products, the assessment was made on the net realizable value of its inventories on the basis of the estimated selling price of the finished goods available for sale in accordance with the coordination scheme of the production and sales between alumina enterprises and electrolytic aluminum enterprises within the Group, and the factors including the financial budget, turnover period of inventory, the purpose of the Company to hold the inventories and the influence of events subsequent to the balance sheet date. For the inventories held by the energy segment, the Group unanimously calculated with the most recent market price.

As at 31 December 2021, the balance of provision for impairment of inventories held by the Group was RMB666 million, representing an increase of RMB136 million as compared with RMB530 million as of the end of 2020.

The Company has always adopted the same approach to determine the net realizable value of its inventories and the provision for inventory impairment on a consistent basis for the relevant accounting policy.



Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

CAPITAL EXPENDITURES, CAPITAL COMMITMENTS AND INVESTMENT UNDERTAKINGS

In 2021, the Group completed project investment expenditure (excluding equity investment) of RMB4,653 million, which mainly consisted of investments in construction of transformation and upgrading projects, energy saving and consumption reduction, environmental governance, resources acquisition and technological research and development.

As at 31 December 2021, the Group's contracted but not provided capital commitment to fixed assets investment amounted to RMB1,375 million.


As at 31 December 2021, the Group's investment undertakings to joint ventures and associates amounted to RMB442 million, comprised of RMB400 million to Chinalco Overseas Development Co., Ltd.* (中鋁海外發展有限公司), RMB8 million to Loudi Zhongyu New Materials Co., Ltd.* (婁底中禹新材料有限公司), RMB28 million to Shanxi Qinlv Taiyue New Materials Co., Ltd.* (山西沁鋁太岳新材料有限公司) and RMB6 million to Chinalco Tendering Company Limited* (中鋁招標有限公司), respectively.

CASH AND CASH EQUIVALENTS

As at 31 December 2021, the Group's cash and cash equivalents amounted to RMB17,853 million.

CASH FLOWS FROM OPERATING ACTIVITIES

In 2021, cash flow from operating activities was a net inflow of RMB28,230 million, representing an increase of RMB13,323 million compared with the net inflow of RMB14,907 million for the same period of the previous year, which was the best level of the same period in the history. The increase in net operating cash inflow of the Company was mainly due to the year-on-year increase in sales collections arising from the increase in prices of aluminum products.



Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

CASH FLOWS FROM INVESTING ACTIVITIES

In 2021, cash flow from investing activities was a net outflow of RMB744 million, representing an increase of RMB2,677 million in outflow compared with the net inflow of RMB1,933 million for the previous year, mainly due to the impact of structural deposits, losses on futures margin and disposal of assets.

CASH FLOWS FROM FINANCING ACTIVITIES

In 2021, cash flow from financing activities was a net outflow of RMB18,478 million, representing an increase of RMB2,705 million in outflow compared with the net outflow of RMB15,773 million for the same period of the previous year, mainly due to the increase in the Company's net debt repayment in 2021.



Report of the Board

The Board hereby submits the Report of the Board together with the audited financial statements for the year ended 31 December 2021.

PRINCIPAL ACTIVITIES

The Group is a leading enterprise in non-ferrous metal industry in China. In terms of comprehensive strength, the Group ranked among the top enterprises in global aluminum industry. The Group is a large manufacturer and operator with integration of exploration and mining of bauxite, coal and other resources; production, sales and technical research of alumina, primary aluminum, aluminum alloy and carbon products; international trading and logistics services, as well as electricity generation from coal and new energy.

OPERATION MODEL

Based on the domestic circulation and international circulation, the Company takes value creation as its guiding principle to optimize three core main industries, i.e. bauxite, alumina and electrolytic aluminum, specialize in three core sub-industries, i.e. high-purity aluminum, aluminum alloy and fine alumina, refine three supporting industries, i.e. carbon, coal and electricity, strengthen three synergistic industries, i.e. trade, logistics and materials, implement three green industries, i.e. red mud utilization, recycled aluminum and electrolysis hazardous waste disposal, and build a “3×5” industrial development pattern pooling elements and resources in a high quality manner, and be committed to be stronger and better in the industry. Pursuing openness and cooperation, the Company actively adapts to and create market demands, and builds an integrated supply chain service platform based on three major platforms to integrate production, trading, finance, storage, transportation, data and information, etc. The Company is constantly fostering and improving a business model that focuses on product value creation and is closely integrated with value-added financial trade. Through the optimal allocation of the value chain, enterprise chain, supply and demand chain and spatial chain, the Company has created a win-win situation in which the Company and its affiliated enterprises will be able to improve efficiency and reduce costs between the upper-, middle- and lower- streams of the industrial chain.

INDUSTRY CONDITIONS

Aluminum industry is an important fundamental industry in China. As key fundamental raw materials, alumina and primary aluminum are closely associated with electromechanical, power, aerospace, shipbuilding, automobile manufacturing, packaging, construction, transportation, daily necessities, property and other industries. The products prices experience periodic fluctuations with the domestic and overseas macro-economic fluctuations.

China is a great power in aluminum industry and has been the No. 1 in aluminum output and consumption for 20 consecutive years. In recent years, the Chinese government has been encouraging and leading less competitive capacities to exit the market through advancing the supply-side structural reform. It strictly controlled new electrolytic aluminum capacities, strengthened supervision on environmental protection, initiated environmental renovation campaigns and controlled total emission, which effectively improved the market supply and demand and facilitated the orderly and healthy development of the aluminum industry. Since the introduction of China's carbon peaking and carbon neutrality strategy, the aluminum industry, as a "high pollution" and "high environmental risk" industry, will be a key link and focus area for the China's carbon emission governance. With the introduction of a series of industrial policies and adjustments in 2021, in particular, the abolition of preferential electricity prices for electrolytic aluminum, the abolition of catalogue electricity prices and floating ratio restrictions, the implementation of tiered electricity prices for electrolytic aluminum and the ban on the construction of coal-fired power projects abroad, the industry will be forced to accelerate the implementation of more profound industrial restructuring, transformation and upgrading, which will have significant impact on the development trend and competition pattern of the entire industry.

In addition to the expansion of product categories and the improvement of product quality in transportation, construction projects and other traditional industries with wide aluminum application, with the development of China's economy shifting from high growth rate to high quality, the application of aluminum has also been expanded in such high-end consumer fields as packaging, transportation, electricity and mechanical equipment. Replacement of steel with aluminum for main structural products in automobile, high-speed rails, airplanes, bridges and other industries has been gradually prompted due to the lightness, durability and metal stability of aluminum; the application of aluminum products has been expanded step by step in furniture, packages and other consumables sectors by means of the recyclability of aluminum; and the application of aluminum in wires and cables for electricity transmission and distribution and in 3C industry has also been continuously facilitated based on the conductivity and economic value of aluminum. In addition, the development of the aviation industry has led to the growth of medium thick aluminum plates and aluminum automotive body sheets, and the rapid development of renewable energy has driven the growth of aluminum materials used for photovoltaic modules, lightweight new energy vehicles, freight vehicles and charging pile equipment. The emerging industries, personalized demand, and the industrialization of aluminum products such as aluminum-air batteries and nanoceramic aluminum will also become new consumption drivers for aluminum.



Report of the Board (Continued)

INDUSTRY LANDSCAPE AND TRENDS

China is the biggest producer and consumer of alumina and electrolytic aluminum in the world. In 2021, the domestic output of alumina and electrolytic aluminum were 75.20 million tonnes and 38.90 million tonnes, accounting for 54.24% and 57.39% of the global output of alumina and electrolytic aluminum, respectively. The domestic consumption of alumina and electrolytic aluminum were 77.99 million tonnes and 40.55 million tonnes, representing 56.67% and 58.64% of the global consumption of alumina and electrolytic aluminum, respectively. The domestic output and consumption of alumina and electrolytic aluminum were over half of the global output and consumption.

Currently, the world is in the acceleration period of profound changes of a kind unseen in a century. The international environment is becoming increasingly complex. Given that anti-globalization is spreading, coupled with the continuous evolution of the Covid-19 epidemic, the global industrial, supply and value chains are being disrupted. The intensification of internal conflicts among countries has led to an increase in the number of trade and investment barriers, which is likely to aggravate, constraining the recovery and sustainable development of the global economy. There has been a marked increase in instability and uncertainty in the global economy. At the same time, the transformation of the industrial structure and energy mix has brought new development opportunities for the transformation of industrial chain and supply chain to green and low-carbon for various countries, including China. With the improvement of the epidemic and the adoption of loose fiscal policies by various countries to support the economy, aluminum consumption has recovered to a certain extent. With the continued strict control over new capacity of electrolytic aluminum by the PRC government, the supply and demand is basically in equilibrium. As the PRC government is deepening the supply-side structural reform and implementing the targets of carbon dioxide peaking and carbon neutrality, the aluminum industry has entered a new stage of high-quality development. It will be the key direction for the transformation and upgrading of the industry to leverage innovations to optimize the industrial layout and the energy consumption mix, reduce energy consumption, and develop deep-processing products with high added values. It has become a new development trend in the industry to rely on technology to reduce carbon, develop and utilize green waste-free metallurgical technology, vigorously develop recycled aluminum, accelerate the transfer to overseas and clean energy-rich regions, and extend to high-end downstream industries. In terms of the competition landscape in the aluminum industry, the enterprises with complete industrial chain covering bauxite, energy, alumina, primary aluminum and aluminum alloy products production, technology research and development, logistics industry, and clean energy are more competitive.



Report of the Board (Continued)

For the alumina industry, which is subject to certain national policies, such as strict control over additional capacity of electrolytic aluminum, and dual-controls over energy intensity and total energy consumption, and carbon peaking and carbon neutrality, the growth in output of electrolytic aluminum is restricted, and the alumina is in the state of oversupply. In 2021, the floods in Henan Province restricted the manufacture and transportation of some alumina, the production restriction policy in Guangxi led to the reduction of operation of some enterprises, and the environmental protection inspections caused the decrease of the alumina production capacity. However, the alumina supply still increased due to the fact that both the launch of additional production capacities and the resumption of operation of some existing production capacities were stimulated by the high price of electrolytic aluminum, which had driven the price of alumina to rise. The new alumina production capacities mainly came from Guangxi and Guizhou regions. Bauxite is the raw material for alumina production, so the enterprises with high-quality and low-cost bauxite resources will have competitive advantages in alumina cost in the future. As at the end of December 2021, China's alumina capacity reached 90.35 million tonnes per year, representing an increase of 1.70 million tonnes per year as compared with the end of 2020.

For the electrolytic aluminum industry, since 2017, China has been advancing the supply-side structural reform on the electrolytic aluminum industry to eliminate and rectify illegal and illicit electrolytic aluminum capacity. Therefore, capacity substitutions for electrolytic aluminum projects can only be implemented at equal or reduced levels. It is expected to see limited new production capacity in the following years. With the implementation of China's action plan for carbon peaking and carbon neutrality, a series of electricity policies such as the abolition of preferential electricity prices, the abolition of catalogue electricity prices and floating ratio restriction, and the implementation of tiered electricity prices have been introduced to control both the total amount and intensity of energy consumption and restrict the energy-intensive and high-emission industries, resulting in drastic market fluctuations and a sharp rise in production costs; a series of stringent measures such as electricity consumption restriction, industrial production restriction and approval restriction have been adopted in various places to implement dual-controls over energy intensity and total energy consumption, resulting in large-scale production cuts in the industry, leading to a shortage of supply and aggravating the uncertainty of new or resumed production capacity. However, production growth remains to be positive in 2021, benefiting from higher run-rate capacity at the end of 2020. As at the end of 2021, China's total electrolytic aluminum capacity reached 43.25 million tonnes, representing an increase of 2.2% as compared with that of the previous year. New capacities mainly came from Guangxi, Guizhou, Yunnan and other regions with abundant power resources. Judging from the distribution of production capacity, Shandong and Xinjiang are still the two most important provinces (regions) for electrolytic aluminum production in China. Amid supply-side reform and carbon peaking and carbon neutrality, some of the electrolytic aluminum production capacity in Shandong continued to be transferred to Yunnan.



Report of the Board (Continued)

In terms of consumption, aluminum is the second largest metal after steel. With the development of new energy, electronic information, 5G communication, new energy vehicles, rail transit and green aluminum home industries in the future, the application of “green” and “lightweight” aluminum products will be further expanded and the total consumption will remain stable because aluminum is light, corrosion resistant, easy to process and recyclable. Under the capacity ceiling, the carbon peaking and carbon neutrality targets have further constrained production, and with the addition of recycled aluminum, there is a possibility of a decline in electrolytic aluminum production as it approaches its peak. A basic equilibrium has been maintained in supply and demand, and it is still possible that there will be certain periods in which the supply is unable to meet the demand.

Judging from the development trend of aluminum industry, in the general context of stabilizing industry and economy, the policy of dual-controls over energy intensity and total energy consumption will be more comprehensive and reasonable, and its impact on production is expected to be weakened. The power supply problem can also be greatly improved by ensuring provision of coal and keeping prices stable. Electrolytic aluminum production will gradually be resumed, and the probability of large-scale production reduction again in the whole industry is relatively small. The capacities of production suspension in Yunnan, Guizhou and other provinces will continue to be restored. Under the current downward pressure on the economy, it is difficult for aluminum demand to increase significantly. However, amid peaking carbon dioxide emissions and the acceleration of automotive lightweighting, in the near future, there will still be significant increase in aluminum profiles for domestic rail transit as well as high-strength aluminum alloy materials which can enable traditional automobiles to achieve energy saving and consumption reduction. In particular, the solar photovoltaic power generation will usher in more rapid development worldwide in the next few years. As the world’s most important producer and supplier of modules and supporting products for solar photovoltaic power generation, China’s export scale will continue to expand in the future, and with the adjustment of the energy consumption structure, the annual installed capacity of photovoltaic power generation in China will also continue to expand.

In addition, there are still gaps between China and developed countries in terms of per capita consumption of aluminum and on other fronts, and there are still development potentials for aluminum products in terms of applications and market space.

BUSINESS REVIEW

Statements about the business review and future business development of the Group for the year are set out in the section headed “Chairman’s Statement”. The section headed “Management’s Discussion and Analysis of Financial Position and Results of Operations” gives an analysis of the financial and operational conditions of the Group using financial key indicators. Details of compliance with relevant laws and regulations that have a significant impact on the Group are set out in sections headed “Report of the Board” and “Report on Corporate Governance and Internal Control”.

POTENTIAL RISKS

Based on the international and domestic macroeconomic environment, national industry policies and market environment, in conjunction with the actual production and operation conditions of the Company, the Company has evaluated the possible risks that it may face. The main risks include:

1. Market Change Risks

As the prices of commodities such as alumina, electrolytic aluminum and other raw materials are affected by the macroeconomic situation at home and abroad, national and industry policies such as carbon peaking and carbon neutrality and dual-controls over energy intensity and total energy consumption, as well as the fundamentals of supply and demand in the market, there may be market fluctuations, which may in turn affect the Company’s profitability and profit level.

To address these risks, the Company will pay close attention to the macroeconomic trends at home and abroad and strengthen research on national and industry policies; pay close attention to the competitive situation of the market and continue to optimize its marketing strategies; strengthen the management of suppliers and enhance its ability to ensure supply; and scientifically study the market trends of the raw and auxiliary materials to reduce procurement costs.



Report of the Board (Continued)

2. International Operation Risks

Due to the influence of overseas political situation, the uncertainty of obtaining overseas resources has increased; there is a shortage of high-end talents who are proficient in international trade rules; and exchange fluctuations may lead to the risk of exchange loss in international trade.

To address these risks, first, the Company will actively expand international bauxite resources to increase our room for manoeuvre; second, the Company will pay close attention to overseas political developments and make contingency plans; third, the Company will organize the production of the Boffa mines in Guinea and increase the ensured ore supply; fourth, the Company will pay attention to the changes in the international macro situation and actively conduct research on relevant foreign-related laws and regulations; and fifth, the Company will carry out proper hedging business to mitigate the exchange risk involved in the import and export business.

3. Personnel Stability Risks

With the advancement of special work such as human resources benchmarking and improvement, the possibility of safety, stability and labor dispute risks will increase in the future.

To address these risks, first, the Company will strengthen main responsibilities and establish a leadership responsibility system; second, the Company will strengthen professional support, provide enterprises with timely policy answers and do a good job in dealing with labor disputes; third, the Company will formulate plans for maintaining stability; and fourth, the Company will strengthen the positive guidance of public opinion, improve the information disclosure and information feedback mechanism, and respond to employees' concerns in a timely manner.

4. Safety and Environmental Risks

In terms of safety, there are potential safety hazards due to the possibility that the workplace safety responsibilities have not been fully implemented or the equipment and facilities are outdated. There is a risk of incomplete identification of potential hazards, if the safety hazard survey is not comprehensive and in-depth. In terms of environmental protection, the electrolytic aluminum enterprises consume high energy and emit large amount of emissions, so they are under great pressure to upgrade their environmental protection facilities.

To address these risks, the Company will further implement the concept of “technology for safety” to enhance the intrinsic safety level, promote the standardization of workplace safety, strengthen the control of key sources of danger and standardize the management of outsourcing. In respect of environmental protection, the Company will continue to make repeated efforts to carry out the rectification for the problems identified by the central ecological environment protection inspections in a high quality manner to ensure the effectiveness of the rectification; continue the critical battle of pollution prevention and control, promote the environmental protection upgrading of enterprises, and make strong moves to promote green development; improve the ecological environment protection mechanism, advance the construction of the ecological environment protection emergency response system, and enhance the effectiveness of ecological environment supervision and management.

5. Resource Acquisition Risks

At present, the total amount of domestic bauxite resources is relatively low, and there is great pressure to ensure supply. At the same time, the changes in domestic policies have prolonged the work cycle of resource acquisition, increased the difficulty of acquisition, and raised the cost of resource acquisition.

To address these risks, the Company will fully mobilize the initiative of relevant enterprises to select high-quality target mining areas and actively participate in the transfer of mineral rights. The Company will do a good job of technical due diligence and feasibility studies to minimize the risks of acquisition.

Report of the Board (Continued)

SOCIAL RESPONSIBILITY AND ENVIRONMENT PROTECTION

The Company adopts “Turning Stone into Gold and Benefiting Mankind (點石成金造福人類)” as the core value of social responsibility, takes rewarding shareholders, empowering employees, benefiting customers and society, and cherishing environment as the Company’s mission, and effectively integrates social responsibility into the Company’s business management system, which achieves full coverage of the Company’s main business unit. The Company has revised “Implementation Rules for Social Responsibility Management of Aluminum Corporation of China Limited”, built up systematic management system, organizational system, institutional system and assessment system. Five areas of responsibility are identified, which are corporate governance, employee rights and interests, environmental protection, fair operation and community support. At the same time, with respect of each of the five major areas of responsibility, the Company have established the scope of responsibility, the subject of responsibility, the indicators of responsibility assigned to each department and the enterprises to which they belong, as well as a negative list. The Company has further standardized the approval process for external donations.



The Company has established a Social Responsibility Working Committee (hereinafter referred to as the “**Committee**”). The chief officer of the Company serves as the chairman of the Committee. The main duties of the Committee include: considering the Company’s social responsibility work development plan and major projects, considering the Company’s social responsibility management related policies and systems, considering and determining the Company’s annual social responsibility work plan and project adjustment proposal, and considering and determining the Company’s annual social responsibility report and other special reports and other matters related to the Company’s social responsibility work.



Report of the Board (Continued)

The Company adheres to the concept of “people-oriented (以人為本)”, attaches importance to the health and safety of its employees, and puts safety production in the first place in the operation of the Company. The Company has established the system of occupational health management and gradually carried out occupational health and safety measures. It regularly organizes medical checkups for employees, and has established employee health files and provided safe and comfortable operating conditions and protective equipment for them; the Company continuously strengthens safety education and training for business executives and employees. In 2021, the Company further promoted the operation of the occupational health workplace safety standardization system (CAHSE), strengthened the building of systems, and advanced the application of grapevine (葡萄園) safety management tools and the implementation of pre-operational risk assessments across the board; strengthened the safety control of major sources of danger, and carried out special rectification actions for toxic and hazardous gases, flammable and explosive hazardous chemicals, and confined spaces; organized safety training for key employees at the primary level, and conducted special coaching for some enterprises, carried out various safety inspections, supervisions and mutual inspections of enterprises, to shore up weak spots, strengthen points of weakness, and focus on the primary level, so that employees’ safety awareness and abilities can be continuously enhanced.

Faced with the recurrence of the COVID-19 pandemic, the Company has carried out regular COVID-19 control and dynamic management, adhered to the “zero-report” system, further enforced the key responsibilities of enterprises, put the life and health of employees in the first place, strengthened the health monitoring of employees, timely grasped the health status of employees, established the dynamic ledger of abnormal personnel, and extended to their family members living together to eliminate blind spots and dead ends; strengthened the prevention and control measures, maintained the ventilation of crowded places, and did a good job of disinfection; strengthened the publicity of COVID-19 prevention and control, comprehensively promoted the vaccination of all employees against COVID-19; further strengthened the entry and exit administration, and strictly controlled the routes of imported infection.



Report of the Board (Continued)

The Company strictly abides by the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China and other laws and regulations, and established complete employment systems and regulations within the Company to safeguard the legitimate interests of the staff. The Company always follows the principle of equal employment and a non-discriminatory labor policy by treating all employees fairly and equally regardless of their nationality, race, gender, religious beliefs and cultural background. The Company insists on ensuring equal employment opportunities to women, the disabled and other disadvantaged groups, and strives to create jobs for the society. The Company regards human resources as the most valuable resources of the Company, attaches importance to the personal development and ability improvement of employees, and provides various types of skills and management improvement trainings for the officers and employees, realizing the mutual growth and achievement of employees and the enterprise. The Company attaches importance to the physical and mental health of the employees, and eases the psychological problems of employees through the organization of cultural and sports activities, heart-to-heart talks and other ways to relieve the work pressure of employees, creating a "positive, frank, simple and inclusive (陽光 坦誠 簡單 包容)" corporate atmosphere.

In terms of social welfare, over the years, the Company has been responding to the call of the State, actively participating in public welfare undertakings, and continuously carrying out projects such as assistance to Qinghai, assistance to Tibet, targeted poverty alleviation for people and charity donations, and has done a lot of fruitful work in helping poor areas to build infrastructure, helping people get rid of poverty and increasing their income, helping enroll poor students in schools and providing assistance to families in difficulty. At the same time, the Company has also paid great attention to the livelihood of the community where the enterprise is located, and carried out various public welfare activities, including building roads for the community, improving the community environment around the factory, carrying out counterpart assistance, and providing convenient services to the public, etc. The Company also encourages the headquarters and employees of the enterprise to participate together in cultivating and enhancing the sense of social responsibility of employees.

In 2021, the Company and its subsidiaries donated a total of RMB40,257,500, representing an increase of RMB8,760,200 compared with RMB31,497,300 in 2020, which mainly includes the paired assistance of RMB15,400,000 provided to Chagyab County and Karuo District of Tibet, paired assistance of RMB6,500,000 to Haiyan County, Qinghai Province, donations of RMB500,000 to the earthquake-stricken areas in Yunnan Province and Qinghai Province, respectively, donations of RMB12,000,000 in total to the flood-stricken areas in Henan Province to fully support flood relief and post-disaster reconstruction, and donation of 180 tons of aluminum ingots to the Depository Library of Chinese Publications (中國版本圖書館) to actively participate in the construction of major national projects.

Report of the Board (Continued)

With regard to environmental protection, the Company operates in the non-ferrous metal industry with high pollution and its business involves mining, production of alumina and electrolytic aluminum, power generation, etc. During the reporting period, the following subsidiaries of the Company are listed as key pollutant discharge units according to the list released by the environmental protection authorities:

Name of Key Pollutant Discharge Units	Category in the List of Key Pollutant Discharge Units
Shanxi Huasheng Aluminum Co., Ltd.	Air
Chalco Shanxi New Material Co., Ltd.	Air and Soil
Shanxi Huaxing Aluminum Co., Ltd.	Air and Soil
Shanxi Chalco China Resources Co., Ltd.	Air and Soil
Chinalco Shanxi Jiaokou Xinghua Technology Co., Ltd.	Air and Soil
Baotou Aluminum (Group) Co., Ltd.	Air and Soil
Inner Mongolia Huayun New Materials Co., Ltd.	Air and Soil
Fushun Aluminum Co., Ltd.	Air and Soil
Chalco Shandong Co., Ltd.	Air and Soil
Thermal Power Plant of Chalco Shandong Co., Ltd.	Air
Chalco Shandong Co., Ltd. (Functional Materials Factory)	Air
Chalco Shandong New Materials Co., Ltd.	Air and Soil
Shandong Yixing Carbon New Materials Co., Ltd.	Air
Chalco Qingdao Light Metal Co., Ltd.	Air
Chalco Mining Co., Ltd.	Air and Soil
Chalco Mining Co., Ltd., Luoyang Branch	Soil
Chalco Zhongzhou Aluminum Co., Ltd.	Air and Soil
Aluminum Corporation of China Limited, Guangxi Branch	Air and Soil
Guizhou Huaren New Materials Co., Ltd.	Air and Soil
Guizhou Huajin Aluminum Co., Ltd.	Air and Soil
Aluminum Corporation of China Limited, Guizhou Branch (Alloying Division)	Air
Zunyi Aluminum Co., Ltd.	Air
Lanzhou Aluminum Co., Ltd.	Air and Soil
Aluminum Corporation of China Limited, Liancheng Branch	Air and Soil
Gansu Hualu Aluminum Co., Ltd., Jingyuan Branch	Air
Aluminum Corporation of China Limited, Qinghai Branch	Air and Soil
Ningxia Yinxing Power Generation Co., Ltd.	Air
Maliantai Power Plant of Chalco Ningxia Energy Group Co., Ltd.	Air
Liupanshan Thermal Power Plant of Chalco Ningxia Energy Group Co., Ltd.	Air and Water

Report of the Board (Continued)

The pollutant discharge indicators of the Company for 2021

Number of discharge outlets

Waste gas	1,150
Waste water	20

Names of emissions	Unit	Total emission	Permitted total emission (the volume of emission permitted under the pollutant discharge license)
SO ₂	ton	39,649	83,327
NO _x	ton	10,582	25,694
Particulate matter (PM)	ton	3,369	14,629
chemical oxygen demand (COD)	ton	64	122
ammonia nitrogen	ton	1.54	11

The environmental performance data of the Group from 2019 to 2021 are presented in the table below:

Performance indicators	Unit	2019	2020	2021
Basic Information				
Operating income ^(Note 1)	RMB10,000	19,021,539.80	18,599,057.70	26,974,823.18
Alumina production	10,000-ton	1,380	1,453	1,623
Electrolytic aluminum production	10,000-ton	379	369	386
Emissions				
Air Emissions				
The amount of SO ₂ emission	10,000-ton	4.73	3.60	3.46
The amount of NO _x emission	10,000-ton	1.33	1.05	0.96
The amount of PM emission	10,000-ton	0.57	0.42	0.32

Report of the Board (Continued)

Performance indicators	Unit	2019	2020	2021
GHG Emissions ^(Note 2)				
Scope 1				
Alumina Sector				
CO ₂ emission equivalent	10,000-ton	2,504.07	2,412.86	2,245.60
Electrolytic Aluminum Sector				
CO ₂ emission equivalent	10,000-ton	2,535.23	2,120.03	2,240.68
The amount of total ^(Note 3) CO ₂ emission (in CO ₂ equivalent)	10,000-ton	6,699.68	6,101.23	5,720.66
Scope 2				
Alumina Sector				
CO ₂ emission equivalent	10,000-ton	159.67	197.96	277.37
Electrolytic Aluminum Sector				
CO ₂ emission equivalent	10,000-ton	2,505.48	2,570.20	2,650.37
The amount of total ^(Note 3) CO ₂ emission (in CO ₂ equivalent)	10,000-ton	2,695.52	2,802.77	2,959.45
Total greenhouse gas emissions				
Alumina Sector				
CO ₂ emission equivalent	10,000-ton	2,663.76	2,610.79	2,522.97
CO₂ Emission Equivalent				
production per ton of alumina sector	ton/ton	1.93	1.80	1.55
Electrolytic Aluminum Sector				
CO ₂ emission equivalent	10,000-ton	5,040.71	4,690.23	4,891.05
CO₂ Emission Equivalent				
production per ton of electrolytic aluminum sector	ton/ton	13.30	12.71	12.67
The amount of total ^(Note 3) CO ₂ emission (in CO ₂ equivalent)	10,000-ton	9,395.20	8,904.00	8,680.11
Total CO₂ Emission Equivalent				
Operating income per RMB10,000	ton/RMB10,000	4.94	4.79	3.22

Report of the Board (Continued)

Performance indicators	Unit	2019	2020	2021
Wastewater Discharge				
The amount of industrial wastewater discharged in compliance with relevant standards	10,000-ton	192.02	76.23	31.14
The amount of ammonia nitrogen discharged	ton	7	5.6	1.54
General Industrial Solid Wastes				
The amount of general industrial solid wastes generated	10,000-ton	3,945.30	3,780.33	4,147.66
General Industrial Solid Wastes				
Production per RMB10,000 of operating revenue	ton/RMB10,000	2.07	2.03	1.54
The amount of red mud generated	10,000-ton	2,181.04	2,172.46	2,426.50
The amount of red mud utilised	10,000-ton	449.18	280.58	328.32
The amount of fly ash generated	10,000-ton	505.92	436.23	425.15
The amount of fly ash utilised	10,000-ton	358.63	324.61	349.96
The amount of slag generated	10,000-ton	170.99	130.94	135.74
The amount of slag utilised	10,000-ton	143.94	105.27	118.27
Hazardous Wastes				
Total amount of hazardous waste ^(Note 4)	ton	86,911	112,540	149,505
Amount of hazardous waste				
Operating income per RMB10,000	ton/RMB10,000	0.0046	0.0061	0.0055
Waste Oil (Motor Oil and Mineral Oil)				
Amount of production	ton	1,667	733	721

Report of the Board (Continued)

Performance indicators	Unit	2019	2020	2021
Waste Oil (Motor Oil and Mineral Oil)				
The amount disposed	ton	1,667	819	629
The amount of aluminium ash generated	ton	19,007	22,402	33,047
The amount of aluminium ash disposed	ton	11,562	29,181	27,035
The amount of overhaul slag ^(Note 5) generated	ton	20,837	39,958	46,157
The amount of overhaul slag disposed	ton	10,108	37,884	99,855
The amount of carbon residue generated	ton	45,400	49,447	59,408
The amount of carbon residue disposed	ton	26,756	47,493	68,354
Use of Resources				
Comprehensive energy consumption	10,000-ton of standard coal	1,956.27	2,058.04	2,540.74
Comprehensive Energy Consumption per RMB10,000 of operating income				
Consumption	ton of standard coal/RMB10,000	1.03	1.11	0.94
The amount of purchased electricity	100 million kWh	389.26	400.39	409.23
Total coal consumption	10,000-ton	1,368.33	1,551.96	1,543.15
Total water consumption ^(Note 6)	100 million-ton	30.01	34.14	32.37
In which: circulating water consumption	100 million-ton	28.98	33.29	31.36
Total freshwater consumption	100 million-ton	1.03	0.84	1.02
Water consumption per RMB10,000 of operating income	ton/RMB10,000	157.77	183.55	120.00
Freshwater consumption per RMB10,000 of operating income	ton/RMB10,000	5.41	4.52	3.78
The amount of packaging material used	10,000-ton	1.37	1.33	1.49
Operating Income Packaging Material per RMB10,000				
Amount of use	10,000-ton/RMB10,000	0.00072	0.00071	0.00055



Report of the Board (Continued)

Note 1: According to the 2021 annual report of the Company, certain financial data such as revenue in 2020 were restated and adjusted, and the revenue and relevant environmental performance indicators in 2020 quoted in the table above were also restated and adjusted simultaneously.

Note 2: The emission data disclosed in the Company's 2021 annual report and ESG report are calculated by using the average emission factor of each energy consumption data after the Group has aggregated the energy consumption data of each branch and subsidiary.

Note 3: Including emissions from the alumina sector, electrolytic aluminum sector and other business sectors.

Note 4: The increase in the generation of hazardous waste, including aluminum ash, overhaul slag and carbon slag, during this year was mainly due to the following reasons: 1. the output of alumina and electrolytic aluminum increased in varying degrees during this year; 2. due to the impact of the electricity restriction policy, more hazardous waste was generated during the production process and some electrolytic cells were repaired.

Note 5: The National List of Hazardous Wastes (2021), 321-023-48: Waste residue from maintenance and replacement of cathode lining of electrolytic cell during production of electrolytic aluminum (overhaul slag).

Note 6: During this year, the Company further improved the statistical scope of water resources, included Ningxia Energy into the statistical scope of water resources, and restated the total water consumption, recycled water consumption and freshwater consumption in 2020.



Report of the Board (Continued)

In 2021, the Company pursued coordinated progress in making rectification for the problems identified by the central ecological environment protection inspections, focused on key and difficult points, enforced the responsibility for rectification, strengthened the assessment and supervision, and completed the rectification with high quality. The Company formulated the Mandatory Requirements for Ecological and Environmental Control of Aluminum Corporation of China Limited, revised certain rules and regulations including the Working Rules of the Occupational Health, Safety and Environment Committee of Aluminum Corporation of China Limited, the Responsibility System for Occupational Health, Safety and Environmental Protection of the Headquarters of Aluminum Corporation of China Limited and the Rules for Occupational Health, Safety and Environment Protection Inspection of Aluminum Corporation of China Limited. The Company unified its management standard of ecological environment protection, refined its ecological environment control system and improved its long-term mechanism of ecological environment protection. The Company attaches equal importance to the upgrading and transformation for pollution reduction and carbon emission mitigation, as a result of which the emission of major pollutants continued to decrease, the quality of ecological environment improved significantly and no environmental incident occurred. The Company made every effort to promote environmental protection performance management, and encourage enterprises to create A-level enterprises, green factories, and green mines.

The Company manages hazardous and non-hazardous wastes in a strict manner. The hazardous wastes such as overhaul slag and aluminum ash were stored in a temporary storage facility set up especially for hazardous wastes and their disposal has been entrusted to qualified third parties. For the general solid wastes like coal fly ash and sulfur paste, they were comprehensively utilized. For the general solid wastes like red mud which are difficult to utilize, most of them are stored in the red mud dumps built in accordance with the regulations and a small portion of them are comprehensively utilized. In terms of scientific research on environmental protection, the Company focused on common environmental protection problems in the development of the industry. In 2021, the comprehensive utilization of red mud resources of the Company was included in a major project of Central Research Institute of Chalco. The construction of 2 high-speed rail red mud decomposition and utilization projects have been completed. The demonstration line for the collaborative disposal of secondary aluminum ash clinker kilns was put into production. The Company is at the forefront of the industry in the field of research on the treatment technology for wastewater, waste gases and residues from aluminum electrolysis.



Report of the Board (Continued)

In terms of water resource conservation, the Company strives to reduce the use of water resources in the course of its operations and gradually improves the efficiency of water resources utilization by optimizing the water use structure, strengthening daily water conservation management and promoting the use of circulating water technology. The Company has established an industrial wastewater recycling system and all of its aluminum smelters have achieved “zero discharge” of industrial wastewater, with 100% of industrial wastewater treated and reused in production operations.

In respect of the prevention and control of air pollutants, the Group has strictly complied with the Law of the People’s Republic of China on the Prevention and Control of Atmospheric Pollution and other relevant laws and regulations, and continued to strengthen the treatment of air pollutants by implementing new technologies and transformations, and promoting clean production to effectively reduce the discharge of air pollutants such as sulfur dioxide, nitrogen oxide and dust. In 2021, Chalco Shandong implemented full closed transformation of its mines, resulting in a 10.28 tonne reduction in particulate matter emissions; and Zhongzhou Aluminum implemented special emission limit transformation for key sewage outfalls, and has achieved a reduction in the annual average concentration of nitrogen oxides to below 50 grams per cubic meter, representing a decrease of 80%.

In terms of mine governance, the Company has always adhered to the concept of “responsible mining”, focusing on the balance between production development and ecological protection. The Company strictly abides by relevant laws and regulations such as the “Mineral Resources Law of the People’s Republic of China” and the “Land and Resources Protection Law of the People’s Republic of China”, implements scientific mining and responsible site selection, and is committed to mine reclamation, the creation of “green mines”, and the protection of the ecology of mining areas. The Company has formulated relevant systems such as the “Administrative Measures for Mining and Stripping Technology Plan” and the “Guidelines for Standardization of the Design of Single-site Mining Units” to promote resource development in order to achieve efficient use of resources, scientific mining methods and reduce environmental impact.



Report of the Board (Continued)

As a leading company in the aluminum industry in China, the Company also plays a leading role in achieving peak carbon dioxide emissions and carbon neutrality. The Company has set up a leading group for carbon peaking and carbon neutrality, and each functional department in the Company's head office has assumed their respective responsibilities for carbon peaking and carbon neutrality in accordance with the division of work and departmental responsibilities. In 2021, the Company formulated strategic plans such as the Action Plan for Carbon Peaking and Carbon Neutrality, which focuses on three areas, namely, electrolytic aluminum, alumina and power generation, to reduce the AC power consumption of electrolytic aluminum, total energy consumption of alumina and coal consumption of power plants' power supply through strengthening management, technological transformation and operation optimization.

In the area of energy saving and carbon reduction of electrolytic aluminum, the Company gave full play to the scientific and technological talents of Zhengzhou Research Institute and launched a number of cutting-edge technology research and development and advanced technology application with the help of the professional and technical talents from Shenyang Aluminum Magnesium Design and Research Institute Co., Ltd. and other units.

In respect of energy saving and carbon reduction in alumina, firstly, the Company makes use of the advantages of its scientific and technological talents and testing platform (the Company has the only Accreditation and Certification Institution for Greenhouse Gas Voluntary Emission Reduction Trading Projects in the non-ferrous industry) to test and analyze the energy consumption of the alumina production processes of enterprises within the Company and propose energy saving measures; secondly, the Company introduces cross-field energy saving technologies and equipment into the alumina production processes for grafting and application.

For further information on social responsibilities and environmental protection of the Company, please refer to the 2021 Social Responsibility and Environmental, Social and Governance Report of Aluminum Corporation of China Limited separately disclosed by the Company.

Report of the Board (Continued)

FINANCIAL SUMMARY

The results of the Group for the year ended 31 December 2021 are set out in the consolidated statements of profit or loss and other comprehensive income on pages 192 to 193. A five-year financial summary of the Group is set out on pages 7 to 9.

DIVIDEND AND DIVIDEND POLICY

Dividend Policy

1. The basic principles of profit distribution policy of the Company are as follows:
 - (1) taking full account of return to investors and distributing dividend to shareholders in proportion to the distributable dividend realized for the year concerned on an annual basis;
 - (2) maintaining the continuity and stability of the Company's dividend distribution policy, while at the same time taking care of the interest of the Company in the long term, the interest of the shareholders as a whole, as well as the sustainable development of the Company;
 - (3) giving priority to dividend distribution in cash.
2. Dividend distribution policies of the Company are as follows:
 - (1) dividend shall be distributed in the following manner: the Company may distribute dividends in cash, in shares or in a combination of both cash and shares. The Company shall give priority to dividend distribution in cash. Subject to conditions, interim profit distribution may be made by the Company;
 - (2) specific conditions and proportions of cash dividend of the Company: save in exceptional circumstances, if the Company's profit for the year and its cumulative undistributed profit are positive, the Company may distribute dividend in cash and the profit to be distributed in cash per annum will not be less than 10% of the distributable profit realized for that year, or that the total profit to be distributed in cash in the past three years will not be less than 30% of the average annual distributable profit realized in the past three years.



Report of the Board (Continued)

As at the reporting period, if the Company's distributable profit is positive, the Company has distributed no less than 30% of the net profit of the parent company in the corresponding year and all adopted dividend distribution was in cash. In recent years, as the Company's cumulative undistributed profit was negative, the Company's profit was used in making up for losses and conducted no dividend distribution in cash.

DIVIDENDS

In order to reward investors and distribute dividends to the shareholders of the Company as early as possible, as considered and approved at the 15th meeting of the 7th session of the Board held on 23 March 2021 and the 2020 annual general meeting held on 29 June 2021, the Company made up for losses with the surplus reserve of RMB4.23 billion in 2021. As considered and approved at the 23rd meeting of the 7th session of the Board held on 26 October 2021, the Company changed the method of accounting for the parent company's investment in associates and joint ventures under the International Financial Reporting Standards from the cost method to the equity method, with a corresponding increase in the undistributed profit in the parent company's financial statements under the International Financial Reporting Standards. Based on the foregoing, the accumulated undistributed profits of the Company for the year ended 31 December 2021 were positive under both the PRC and International Financial Reporting Standards. As considered and approved by the Company at the 26th meeting of the 7th session of the Board held on 22 March 2022, the dividend distribution plan of the Company for 2021 is as follows.

The Board of the Company proposed to distribute cash dividend at RMB0.032 per share (tax inclusive) to the shareholders of the Company. Based on the Company's current total issued share capital of 17,022,672,951 shares, the total dividend of the Company for 2021 amounts to approximately RMB544.73 million (tax inclusive), accounting for approximately 10.72% of the Company's net profit attributable to shareholders of the listed company for 2021.

Report of the Board (Continued)

The above dividend distribution plan is pending to submit at the 2021 annual general meeting of the Company for approval. If approved, the Company will issue a separate announcement on the implementation of the dividend distribution and determine the record date for the dividend distribution. If there is any change in the total share capital of the Company before the record date for the implementation of the profit distribution, the Company will maintain the total amount of dividend distribution unchanged and adjust the distribution amount per share accordingly, and will announce the details of the adjustment separately.

The Company expects to complete the distribution on or before 20 August 2022.

Total dividends paid during 2021 and 2020 are as follows:

	2021	2020
Total dividends paid: <i>(RMB million)</i>	544.73	Nil
Percentage to profits attributable to holders of the interests of the Company: <i>(%)</i>	10.72	Nil

SHARE CAPITAL

The total share capital of the Company was 17,022,672,951 shares as at 31 December 2021.

Report of the Board (Continued)

CORPORATE BONDS

As at 31 December 2021, the corporate bonds issued by the Company which were existing during the reporting period are as follows. All the proceeds raised from such bonds are used to replace the Company's debts or provide additional liquidity.

Name	Abbreviation	Code	Issue date	Maturity date	Ending balance (RMB'100 million)	Rate (%)	Exchange
2018 Corporate Bonds (Tranche 1) (Type 1) publicly issued by Aluminum Corporation of China Limited <i>(Note 1)</i>	18 Chalco 01	143804	14 September 2018	18 September 2021	0	4.55	Shanghai Stock Exchange
2018 Corporate Bonds (Tranche 1) (Type 2) publicly issued by Aluminum Corporation of China Limited	18 Chalco 02	143805	14 September 2018	18 September 2023	9	4.99	Shanghai Stock Exchange
2018 Corporate Bonds (Tranche 2) (Type 1) publicly issued by Aluminum Corporation of China Limited <i>(Note 2)</i>	18 Chalco 03	155032	14 November 2018	16 November 2021	0	4.19	Shanghai Stock Exchange
2018 Corporate Bonds (Tranche 2) (Type 2) publicly issued by Aluminum Corporation of China Limited	18 Chalco 04	155033	14 November 2018	16 November 2023	16	4.50	Shanghai Stock Exchange

Report of the Board (Continued)

Name	Abbreviation	Code	Issue date	Maturity date	Ending balance (RMB'100 million)	Rate (%)	Exchange
2019 Corporate Bonds (Tranche 1) publicly issued by Aluminum Corporation of China Limited <i>(Note 3)</i>	19 Chalco 01	155166	22 January 2019	23 January 2022	20	3.80	Shanghai Stock Exchange
2019 Corporate Bonds (Tranche 2) (Type 2) publicly issued by Aluminum Corporation of China Limited	19 Chalco G3	155594	8 August 2019	9 August 2029	20	4.55	Shanghai Stock Exchange
2019 Corporate Bonds (Tranche 3) (Type 1) publicly issued by Aluminum Corporation of China Limited	19 Chalco G4	155677	4 September 2019	5 September 2022	10	3.50	Shanghai Stock Exchange
2020 Corporate Bonds (Tranche 1) publicly issued by Aluminum Corporation of China Limited	20 Chalco 01 01	163219	4 March 2020	5 March 2025	5	3.30	Shanghai Stock Exchange
2020 Corporate Bonds (Tranche 2) publicly issued by Aluminum Corporation of China Limited	20 Chalco 02	163312	19 March 2020	20 March 2023	10	3.05	Shanghai Stock Exchange

Note 1: The total amount of corporate bonds (Tranche 1) (Type I) issued in 2018 was RMB1.1 billion. Such bonds were paid upon maturity in September 2021, so the ending balance was RMB0.

Note 2: The total amount of corporate bonds (Tranche 2) (Type I) issued in 2018 was RMB1.4 billion. Such bonds were paid upon maturity in November 2021, so the ending balance was RMB0.

Note 3: The total amount of corporate bonds (Tranche 1) issued in 2019 was RMB2.0 billion. Such bonds matured in January 2022 and the balance of the bonds was RMB0 as at the date of this report.



Report of the Board (Continued)

RESERVES

Movements in the reserves of the Group and of the Company during the year are set out in the consolidated statements of changes in equity on pages 194 to 195 and note 18 to the financial statements.

PROPERTY, PLANT AND EQUIPMENT

Details of the movements in property, plant and equipment of the Group are set out in note 7 to the financial statements.

DISTRIBUTABLE RESERVES

Pursuant to Article 189 of the Articles of Association of Aluminum Corporation of China Limited (the “**Articles of Association**”), where there are differences between the China Accounting Standards for Business Enterprises and the International Financial Reporting Standards, the distributable reserves for the relevant period shall be the lower of the amounts shown in the two different financial statements.

As at 31 December 2021, the Company’s distributable reserves would be as RMB2,037 million and RMB1,342 million calculated in accordance with the PRC Accounting Standards for Business Enterprises and in accordance with the International Financial Reporting Standards, respectively.

USE OF PROCEEDS

The Company has no use of proceeds in 2021.

USE OF FUND OTHER THAN PROCEEDS

During the reporting period, the Company had no material project investment other than proceeds.



Report of the Board (Continued)

PRE-EMPTIVE RIGHTS

Pursuant to the Articles of Association of the Company and the PRC laws, there are no pre-emptive rights that require the Company to offer new shares to its existing shareholders on a pro-rata basis.

DONATIONS

The Group had contributed approximately RMB40,257,500 (including the assistance to Qinghai, the assistance to Tibet, the assistance to targeted poor areas and other donations) in 2021 (2020: approximately RMB31,497,300).

LITIGATION AND CONTINGENT LIABILITIES

(a) Litigation

There was no significant litigation pending during the year which was required to be disclosed.

(b) Contingent Liabilities

There was no significant contingent liabilities during the year which was required to be disclosed.



Report of the Board (Continued)

DIRECTORS AND SUPERVISORS

As of 31 December 2021, the Board and Supervisory Committee of the Company comprise:

Executive Directors

Liu Jianping (<i>Chairman</i>)	Appointed on 29 June 2021
Zhu Runzhou	Re-appointed on 25 June 2019
Ou Xiaowu	Appointed on 29 June 2021
Jiang Tao	Appointed on 29 June 2021

Non-executive Directors

Zhang Jilong	Appointed on 29 June 2021
Wang Jun	Re-appointed on 25 June 2019

Independent Non-executive Directors

Qiu Guanzhou	Appointed on 29 June 2021
Yu Jinsong	Appointed on 29 June 2021
Chan Yuen Sau Kelly	Appointed on 29 June 2021

SUPERVISORS

Ye Guohua	Re-appointed on 25 June 2019
Shan Shulan	Re-appointed on 25 June 2019
Guan Xiaoguang (resigned)	Appointed on 25 June 2019 and resigned on 18 March 2022
Yue Xuguang	Appointed on 10 December 2019
Lin Ni	Appointed on 21 December 2021

Profiles of the current Directors and Supervisors are set out on pages 16 to 25.



Report of the Board (Continued)

DIRECTORS' AND SUPERVISORS' SERVICE CONTRACTS AND REMUNERATION

Pursuant to Articles 108 and 150 of the Articles of Association of the Company, the term of office for a Director or a Supervisor is three years, subject to re-election. Each Director and Supervisor has therefore entered into a service contract with the Company, but all such service contracts are terminable by the Company within one year without payment of compensation (other than statutory compensation). Details of the Directors' and Supervisors' remunerations and remunerations of the five highest paid individuals are set out in note 31 to the financial statements.

Mr. Wang Jun, a non-executive Director of the Company, issued a statement to the Company that he voluntarily waived his remuneration as a Director of the Company. Since May 2020, Mr. Wang Jun voluntarily waived his remuneration as a Director of the Company. Accordingly, Mr. Wang Jun did not receive any remuneration from the Company in 2021. According to the Resolution in relation to the Determination of Remuneration Standards for Directors and Supervisors of the Company for the year 2021 considered and approved at the 2020 annual general meeting held on 29 June 2021, the annual remuneration standard before tax for the non-executive directors of the Company for 2021 was RMB150,000.

Save as disclosed above, as at 31 December 2021, there were no arrangements under which any Director or Supervisor of the Company had waived or agreed to waive any remuneration.

PERMITTED INDEMNITY PROVISIONS

As at 31 December 2021, all Directors, Supervisors and other senior management of the Company were covered under the liability insurance purchased by the Company for them.

INTERESTS OF DIRECTORS, CHIEF EXECUTIVE AND SUPERVISORS IN SHARES OF THE COMPANY AND ITS ASSOCIATED CORPORATIONS

As at December 31, 2021, Ms. Shi Biqiong, the spouse of Mr. Jiang Tao, an executive Director and vice president of the Company, directly held 4,000 A shares of the Company. Pursuant to the Securities and Futures Ordinance of Hong Kong, Mr. Jiang Tao is deemed to be interested in the 4,000 A shares of the Company held by Ms. Shi Biqiong.

Name	Position in the Company	Nature of interests	A Shares held in the Company	Percentage in total issued share capital of the Company
Jiang Tao	Executive Director, Vice President	Spouse's interests	4,000	0.000031%

Save as disclosed above, as at 31 December 2021, none of the Directors, chief executive, Supervisors or their respective associates had any interests or short positions in the shares, underlying shares or debentures of the Company or its associated corporations (within the meaning of the Securities and Futures Ordinance of Hong Kong), which were (a) required to be notified to the Company and the Hong Kong Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the Securities and Futures Ordinance of Hong Kong; or (b) required to be recorded in the register kept by the Company pursuant to Section 352 of the Securities and Futures Ordinance of Hong Kong; or (c) required to be notified to the Company and the Hong Kong Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers (the "**Model Code**").

The Company's 2021 Restricted Share Incentive Scheme and relevant proposals were considered and approved at the 24th meeting of the 7th session of the Board of the Company held on 21 December 2021. The above-mentioned matters are pending to submit to the 2022 first extraordinary general meeting of the Company, the 2022 first class meeting of A shareholders and the 2022 first class meeting of H shareholders to be convened on 26 April 2022 for consideration and approval. For the year ended 31 December 2021, none of the Directors, chief executive, Supervisors, senior management or their respective spouses or children under the age of eighteen was granted any right to acquire shares, underlying shares or debentures of the Company or any of its associated corporations (within the meaning of the Securities and Futures Ordinance of Hong Kong).



Report of the Board (Continued)

INTERESTS OF DIRECTORS AND SUPERVISORS IN TRANSACTIONS, ARRANGEMENTS OR CONTRACTS

For the year ended 31 December 2021, none of the Directors or Supervisors or entities connected to such Directors or Supervisors was materially interested, either directly or indirectly, in any transaction, arrangement or contract of significance to which the Company or any of its subsidiaries was a party.

EMPLOYEES AND PENSION SCHEMES

As at 31 December 2021, the Group had 60,056 employees. The remuneration package of the employees includes salaries, bonuses, allowances, subsidies and welfare benefits including medical care, housing subsidies, childbirth, unemployment, work-related injury, pension and other miscellaneous items.

All the full-time employees of the Group have participated in the basic pension insurance set by the government in accordance with the national policy. For the year ended 31 December 2021, the Group paid basic pension insurance premiums at 16% of the employees' remuneration; at the same time, individual employees also contributed to basic pension insurance at a percentage of their own remuneration as set by the government. Upon reaching the statutory retirement age, employees will receive a monthly basic pension. In addition, in accordance with national policies and the relevant provisions of the Company's system, the Company and eligible subsidiaries of the Company have established enterprise annuities plans. The expenses required for the enterprise annuities shall be paid jointly by the enterprises and the individual employees. Employees can choose to join or not to join the enterprise annuities plans on a voluntary basis.

As at 31 December 2021, the Group had no forfeited contributions available for deduction of contributions payable in future years. For the year ended 31 December 2021, the Group had no defined benefit plan.



Report of the Board (Continued)

In 2021, the Company continued to deepen the reform of its income distribution system. First, the Company guided the enterprises to reform their internal income distribution systems. The income distribution systems are built based on the value of the position, performance and contribution, and in line with local labour market prices, emphasizing that “if performance rises, pay rises; if performance falls, pay falls”. Second, the Company explored the implementation of medium and long-term incentives. In accordance with Chinalco’s overall dividend incentive plan for technology-based enterprises, the Company has guided 13 technology-based enterprises to implement project-based profit-sharing and formulate their own Revenue Assessment Systems and further improved the incentive mechanism for independent innovation and the translation of scientific and technological advances into productive forces.

The Company further improved the market-based assessment model, under which, in light of the requirements of all factor benchmarking, market-based assessment indicators have been incorporated to strengthen enterprises’ awareness of market benchmarking, the orientation of return on assets (ROA) and the main responsibility of enterprises to optimize their employment. The assessment indicators such as ranking of total cost competitiveness, return on assets (ROA) and labor productivity, were added on the basis of the assessment of total cost and total profit. The Company optimized the weight distribution of assessment indicators, by appropriately lowering the weight of financial indicators, and increasing the weight of production indicators, safety and environmental protection, governance of loss-making enterprises, labor productivity and other assessment indicators, so as to promote all factor benchmarking and whole-process lean control. In accordance with the principle of “quarterly assessment and quarterly fulfillment”, the Company conducted one-to-one supervision admonishment with the leadership team of enterprises that failed to complete the main assessment indicators. The Company established the “bonus pool” mechanism linked to “cost, profit and labor productivity”, which has motivated enterprises to improve quality, reduce costs and increase efficiency to a great extent.



Report of the Board (Continued)

The Company worked closely with its employees to provide them with a fair working environment and promotion opportunities. The Company attaches great importance to the development of its employees, and is committed to building a team of versatile professionals who can adapt to the overall development of the Company. The Company has improved the working standard and quality of its employees in an all-round manner. The Company conducted content-rich and flexible trainings at different levels and in different forms, and built an “online + offline” training system. During the pandemic period, the Company has made full use of its online platform to conduct online trainings, thereby promoting the growth and development of employees. In this way, the Company has further improved the comprehensive quality, professional levels and business skills of the team, and ensured the sustainable development of the Company’s human resources. For details of the trainings for employees of the Company in 2021, please refer to the 2021 Social Responsibility and Environmental, Social and Governance Report of Aluminum Corporation of China Limited separately disclosed by the Company.

REPURCHASE, SALE AND REDEMPTION OF THE COMPANY’S SHARES

The Company did not redeem any of its shares during 2021. Neither the Company nor any of its subsidiaries purchased or sold any of its listed securities during 2021.

MANAGEMENT CONTRACTS

No contract concerning the management or administration of the whole or any substantial part of the business of the Company was entered into or subsisted during the year.

MAJOR CUSTOMERS AND SUPPLIERS

1. Major Customers

The Company adheres to the marketing philosophy of honesty and service first, which takes the market as the guide and customers' needs as its starting point, and insists on providing quality products and services to customers. The Company is committed to building a quality brand of "better aluminum, Chalco's forte (要好铝找中铝)", and has established mutual trust and long-term relationships with customers. The Company has established an orderly, coordinated and efficient marketing management system and formed a nationwide sales network. By providing customers with high quality products and technical support, and actively providing pre-sales, in-sales and after-sales services, the Company creates value for customers to achieve common development. In 2021, the Company improved its credit management system, revised and issued the "Customer Credit Management Measures of Aluminum Corporation of China Limited" according to the actual situation of its credit management work, carried out the sorting of marketing-type customers, identified credit risks, and further improved the quality and details of management. In addition, the Company established an after-sales service feedback mechanism to provide timely statistics and feedback on customer complaints, and formulated a special complaint handling process to ensure that all complaints can be properly handled.

The Company's major customers are, in respect of alumina, domestic electrolytic aluminum enterprises, and in respect of primary aluminum, domestic aluminum fabrication enterprises and distributors.

The Company sells alumina products to customers mainly through long-term sales agreements and spot market sales. The Company sells self-produced alumina and certain alumina products sourced from external suppliers under spot contracts signed with third parties and long-term sales agreements with a term ranging from one to three years. Such long-term sales agreements usually specify annual or monthly sales quantities, pricing mechanisms, payment terms, place of delivery and delivery method for the alumina sold. The selling prices for alumina sold on the spot market are determined by the Company by taking into account (i) domestic and international situation of supply and demand; (ii) CIF price of imported alumina arrived at Chinese ports and import related expenses; (iii) transportation costs; (iv) the impacts of national policy on raw materials required for alumina enterprises; and (v) the Company's short-term and medium-term forecast for alumina market.



Report of the Board (Continued)

The Company sells primary aluminum products to customers mainly through the following three ways: (i) sales agreements, which are entered into between the Company and its customers that have longstanding business relationship with it, generally with a term of one year and selling prices determined based on the prices quoted on the Shanghai Futures Exchange and prevailing market prices; (ii) futures contracts ranging from one to twelve months on the Shanghai Futures Exchange; and (iii) spot market sales, with selling prices determined by reference to such factors as market spot prices and transportation costs.

In 2021, the sales to the five largest customers of the Company amounted to RMB37,877,824,800 and accounted for 14.22% of the Company's total annual sales, among which, sales to related parties were RMB15,521,265,500, accounting for 5.75% of the Company's total annual sales.

2. Suppliers

The Company always insists on cooperating with suppliers in the spirit of mutual benefit, and has formulated the "Supplier Management Measures of Aluminum Corporation of China Limited" to provide clear regulations on the access, withdrawal, and evaluation of suppliers, and to encourage suppliers to continuously improve the quality and service standards of the products they provided. The Company has strengthened the dynamic management of suppliers, carried out tracking and monitoring of suppliers who have cooperated according to the principles of dynamic quantitative assessment and annual qualification review, and downgraded the suppliers who had poor social responsibility performance and had caused certain adverse effects in the society. For the suppliers that had caused serious adverse effects, their transactions with the Company were terminated and they were frozen in the Company's ERP system. At the same time, the Company also attaches great importance to maintaining long-term and stable cooperation relationships with suppliers, establishes sustainable supply chain system and strengthens the relationship and communication with suppliers by various means such as holding annual meetings with suppliers, summary of procurement work and participation in commodity trade meeting with a view to consolidate the cooperation with excellent suppliers.

In 2021, the procurement from the five largest suppliers of the Company amounted to RMB28,410,465,400, accounting for 15.38% of the total annual procurement, among which, procurement from related parties was RMB7,290,294,300 accounting for 2.87% of the Company's total annual procurement.

CODE ON CORPORATE GOVERNANCE

The Articles of Association of the Company, the Rules of Procedures for the Shareholders' Meetings of Aluminum Corporation of China Limited (the "**Rules of Procedures for the Shareholders' Meetings**"), the Rules of Procedures for the Board Meetings of Aluminum Corporation of China Limited (the "**Rules of Procedures for the Board Meetings**"), the Rules of Procedures for the Meetings of the Supervisory Committee of Aluminum Corporation of China Limited (the "**Rules of Procedures for the Meetings of the Supervisory Committee**"), the detailed implementation rules for the special committees under the Board, the Code of Conduct for Securities Dealings by Directors, Supervisors and Specific Employees and other relevant systems of the Company constitute the framework for the codes on corporate governance of the Company. The Board has reviewed its corporate governance documents and is of the view that such documents have incorporated the principles and code provisions in the Code on Corporate Governance (the "**CG Code**") as set out in Appendix 14 of the Hong Kong Listing Rules and the Guidelines of the Shanghai Stock Exchange for Internal Control of Listed Companies (the "**Internal Control Guidelines**").

AUDIT COMMITTEE

The written terms of reference in relation to the authorities and duties of the Audit Committee were prepared and adopted in accordance with and with reference to "A Guide for the Formation of an Audit Committee" published by the Hong Kong Institute of Certified Public Accountants and Rule 10A-3 of U.S. Securities and Exchange Commission.

The financial statements of the Company for the year ended 31 December 2021 have been reviewed by the Audit Committee of the Company.



Report of the Board (Continued)

AUDITORS

The financial statements in this report have been audited by PricewaterhouseCoopers. PricewaterhouseCoopers was the auditor of the Company for its 2021 Hong Kong annual report.

The domestic and overseas auditors of the Company from 2012 to 2019 were Ernst & Young Hua Ming LLP and Ernst & Young, respectively. As Ernst & Young Hua Ming LLP and Ernst & Young have provided audit services to the Company for eight consecutive years, reaching the prescribed limit for consecutive auditing pursuant to the relevant requirements issued by the Ministry of Finance of the People's Republic of China and the SASAC, the Company appointed PricewaterhouseCoopers Zhong Tian LLP and PricewaterhouseCoopers as the domestic and overseas auditors of the Company for 2020. The change of the accounting firm was considered and approved at the seventh meeting of the seventh session of the Board held on 26 March 2020 and the 2019 annual general meeting held on 23 June 2020.

Upon consideration and approval at the fifth meeting of the seventh session of the Board held on 23 March 2021 and the 2020 annual general meeting of the Company held on 29 June 2021, PricewaterhouseCoopers Zhong Tian LLP and PricewaterhouseCoopers were appointed by the Company as the 2021 domestic and overseas auditors of the Company.

For further details of the auditors of the Company, please refer to the section headed "Auditors' Remuneration" of the "Report on Corporate Governance and Internal Control" in this annual report.

Liu Jianping
Chairman

Beijing, the PRC
22 March 2022

Report of the Supervisory Committee

Dear shareholders,

In 2021, the Supervisory Committee of the Company actively implemented the functions and powers stipulated in the Articles of Association and the Rules of Procedures for the Supervisory Committee of the Company. Focusing on strengthening supervision on major decision-making, regular financial report, duties and behaviors of Directors, Supervisors and senior management and the Company's operation, the Company has continuously standardized the supervision behavior, improved the supervision efficiency, further enhanced the transparency and standardization of the Company's operations, maintaining a good image of the Company in the capital market and protecting the interests of investors, especially small and medium-sized investors, through regular or irregular meetings.

I. COMPOSITION OF THE SUPERVISORY COMMITTEE

Pursuant to the provisions of the Articles of Association, the Supervisory Committee of the Company consisted of five Supervisors. During the reporting period, the members of the seventh session of the Supervisory Committee of the Company include: three shareholder representative Supervisors, namely Mr. Ye Guohua, Ms. Shan Shulan and Ms. Lin Ni; and two employee representative Supervisors, namely Mr. Guan Xiaoguang (resigned) and Mr. Yue Xuguang. Mr. Ye Guohua is appointed as the chairman of the Supervisory Committee. The details are set out below:

Shareholder Representative Supervisors:

Mr. Ye Guohua (Chairman of the Supervisory Committee, re-appointed on 25 June 2019)

Ms. Shan Shulan (Re-appointed on 25 June 2019)

Ms. Lin Ni (Appointed on 21 December 2021)

Employee Representative Supervisors:

Mr. Guan Xiaoguang (Appointed on 25 June 2019, resigned on 18 March 2022)

Mr. Yue Xuguang (Appointed on 10 December 2019)

Report of the Supervisory Committee (Continued)

II. CONVENING OF MEETINGS

In 2021, five on-site meetings were held by the Supervisory Committee of the Company. The particulars are as follows:

1. The eighth meeting of the seventh session of the Supervisory Committee of the Company was held on 22 March 2021, with all four Supervisors attending the meeting. The meeting considered and approved five proposals, including the 2020 Annual Report, the 2020 Working Report of the Supervisory Committee, the 2020 Assessment Report on Internal Control, the 2020 Social Responsibilities and Environmental, Social and Governance Report and the Company's Proposal on Provision for Asset Impairment for 2020.
2. The ninth meeting of the seventh session of the Supervisory Committee of the Company was held on 26 April 2021, with all four Supervisors attending the meeting. The meeting considered and approved the Proposal in relation to the 2021 First Quarterly Report of the Company.
3. The tenth meeting of the seventh session of the Supervisory Committee of the Company was held on 23 August 2021, with all four Supervisors attending the meeting. The meeting considered and approved the Proposal in relation to the 2021 Interim Report of the Company and the Proposal on Nominating Candidates for Shareholder Representative Supervisors.
4. The eleventh meeting of the seventh session of the Supervisory Committee of the Company was held on 25 October 2021, with all four Supervisors attending the meeting. The meeting considered and approved the Proposal in relation to the 2021 Third Quarterly Report of the Company, the Proposal on Changes in the Accounting Policies of the Parent Company under the International Financial Reporting Standards and the Proposal on Provisions for Asset Impairment of the Company.
5. The twelfth meeting of the seventh session of the Supervisory Committee of the Company was held on 21 December 2021, with all four Supervisors attending the meeting. The meeting considered and approved the three Proposals in relation to the 2021 Restricted Share Incentive Scheme of the Company.



Report of the Supervisory Committee (Continued)

All of the above-mentioned meetings of the Supervisory Committee were in accordance with the relevant provisions of the Company Law of the People's Republic of China (the "**Company Law**"), the Articles of Association and the Rules of Procedures for the Meetings of the Supervisory Committee of the Company.

III. PERFORMANCE OF THE SUPERVISORY COMMITTEE

In 2021, each Supervisor of the Company effectively supervised the Company's legitimate and compliant operation, financial status and internal control by various means such as attending general meetings actively, sitting in the Board meetings and proposing operation-related suggestions. The particulars are set out as below:

(I) Supervision of Implementation of General Meeting Resolutions

Members of the Supervisory Committee exercised supervision on the proposals and reports submitted to the Board and the general meetings for consideration by way of attending or sitting in the general meetings and the Board meetings, and no objection has been made. Moreover, the Supervisory Committee exercised supervision on the related-party transactions between the Company and Chinalco, the controlling shareholder. The Supervisory Committee is of the opinion that these related-party transactions were in line with the Company's strategic development plan and overall interests, and the terms of the transactions were fair and reasonable, and the transaction review procedures had complied with relevant laws, regulations and the Articles of Association. The Company disclosed timely and fully the related-party transactions and there was no behavior that was detrimental to the interests of the Company and its shareholders. Moreover, the Supervisory Committee exercised supervision on implementation of the general meeting resolutions by the Board, all Directors and senior management. When the Directors and senior management of the Company exercised their functions and powers, no violations of laws, regulations and good faith and diligence obligations are found, and they strictly implemented the resolutions approved at the general meetings.



Report of the Supervisory Committee (Continued)

(II) Inspection of Legal Compliance of the Company's Operations

The Supervisory Committee exercised supervision in routine work over the legal compliance and legality of the Company's operation and management. It has also exercised supervision over the work performance of the Company's Directors and senior management. The Company's operation and decision-making procedures have complied with the Company Law, the Articles of Association and regulations and rules of the Company. The Company's Directors and senior management performed their duties diligently, and no violation of the laws and regulations and the Articles of Association, and no authorization beyond prescribed scope or damages to the interests of the Company and the shareholders has been found.

(III) Inspection of the Company's Financial Activities

Each of the Supervisors of the Supervisory Committee cautiously reviewed the financial statements of the Company for each period, and supervised and inspected the Company's implementation of financial policies, laws and regulations as well as the Company's assets, financial income and expenses. At the meetings of the Supervisory Committee held in March, April, August and October 2021, each of the Supervisors carefully reviewed the Company's 2020 annual report, 2021 first quarterly report, interim report and third quarterly report. The Supervisory Committee is of the opinion that the operating results achieved by the Company were true and accurate; the financial reports of the Company truly reflected the financial position and operating results of the Company, and the preparation and review procedures for the reports were in compliance with the requirements of relevant laws and regulations, the Articles of Association and the Company's internal management system. Information on all significant events of the Company in 2021 has been disclosed under the principles of truthfulness, timeliness, accuracy, completeness and fairness pursuant to relevant regulations, and there are no false records, misleading statements or major omissions.



Report of the Supervisory Committee (Continued)

(IV) Review of Internal Control Assessment Report

During the reporting period, the Supervisory Committee listened to the Internal Control Assessment Report of the Company and fully performed its role of guidance and supervision. The Supervisory Committee, after reviewing the Annual Internal Control Assessment Report of the Company and the Directors' working papers on the Company's internal control assessment, is of the view that the Company has established and improved an internal control system covering the Company's various processes and implemented it effectively, which played an effective role in risk prevention and control in all aspects of the Company's operation and management in accordance with the requirements of the Guidelines for Internal Control of Listed Companies and the Basic Principles of Corporate Internal Control.

In 2022, in accordance with the powers conferred by the Company Law and other relevant laws and regulations as well as the Articles of Association, the Supervisory Committee of the Company will further strengthen its supervision and exercise its supervision functions in the Company's operation, financial situation, internal control, information disclosure and related-party transactions and so forth. The Supervisory Committee will also be responsible for the supervision on the Board and its members and the senior management of the Company, so as to safeguard the legitimate interests of the shareholders, especially minority shareholders, the Company and its employees.

By order of the Supervisory Committee
Ye Guohua
Chairman of the Supervisory Committee

Beijing, the PRC
22 March 2022

Report on Corporate Governance and Internal Control

CODE ON CORPORATE GOVERNANCE

The Articles of Association, the Rules of Procedures for the Shareholders' Meetings, the Rules of Procedures for the Board Meetings, the Rules of Procedures for the Meetings of the Supervisory Committee, the detailed implementation rules for the special committees under the Board, the detailed implementation rules for independent Directors, the Code of Conduct for Securities Dealings by Directors, Supervisors and Specific Employees and other relevant systems of the Company constitute the corporate governance documents of the Company. After reviewing such documents, the Board believed that the Company had fully complied with the CG Code and the Internal Control Guidelines in 2021, and implemented them in a stricter way in some areas:

1. The Company has appointed a sufficient number of non-executive Directors (independent non-executive Directors); the Board of the Company has five non-executive Directors, representing more than half of the Board; the Board of the Company has three independent non-executive Directors, reaching one third of the Board.
2. In addition to the Audit Committee, the Remuneration Committee and the Nomination Committee, the Company has also established the Development and Planning Committee and Occupational Health & Safety and Environment Committee.
3. All members of the Audit Committee are independent non-executive Directors, among whom, Ms. Chan Yuen Sau Kelly, the chairman of such committee, a senior member of the Association of Chartered Certified Accountants (ACCA), a senior member of the Hong Kong Institute of Certified Public Accountants (HKICPA), a senior member of the Hong Kong Institute of Directors (HKIoD) and a bachelor with honours of Accounting Department, City University of Hong Kong, possesses extensive professional experience in finance and auditing and is the financial expert of the Board of the Company.

The Board of the Company has reviewed its corporate governance documents and Internal Control Guidelines, and is of the view that, the Company has complied with the code provisions in the CG Code and Internal Control Guidelines for the year ended 31 December 2021.



Report on Corporate Governance and Internal Control (Continued)

SECURITIES DEALINGS BY THE DIRECTORS, SUPERVISORS AND RELEVANT EMPLOYEES

The Board has formulated written guidelines on securities dealings by the Directors, Supervisors and relevant employees of the Company, the terms of which are more stringent than the required standards set out in the Model Code under Appendix 10 to the Hong Kong Listing Rules and the Rules Governing Listing of Stocks on the Shanghai Stock Exchange. After a specific enquiry by the Company, all Directors, Supervisors and relevant employees have confirmed their compliance with the required standards set out in the written guidelines.

THE BOARD

According to the Articles of Association of the Company, the Board of the Company consists of nine Directors. During the reporting period, the members of the seventh session of the Board of the Company are as follows:

Executive Directors:

Mr. Liu Jianping (chairman, appointed on 29 June 2021)

Mr. Zhu Runzhou (re-appointed on 25 June 2019)

Mr. Ou Xiaowu (appointed on 29 June 2021)

Mr. Jiang Tao (appointed on 29 June 2021)



Report on Corporate Governance and Internal Control (Continued)

Non-executive Directors:

Mr. Ao Hong (former acting chairman, resigned on 29 June 2021)

Mr. Zhang Jilong (appointed on 29 June 2021)

Mr. Wang Jun (re-appointed on 25 June 2019)

Independent Non-executive Directors:

Ms. Chen Lijie (resigned on 29 June 2021)

Mr. Hu Shihai (resigned on 29 June 2021)

Mr. Lie-A-Cheong (resigned on 29 June 2021)
Tai Chong, David

Mr. Qiu Guanzhou (appointed on 29 June 2021)

Mr. Yu Jinsong (appointed on 29 June 2021)

Ms. Chan Yuen Sau (appointed on 29 June 2021)
Kelly

According to Article 108 of the Article of Association of the Company, the Directors (including non-executive Directors) have a term of office of three years and may be re-appointed by election. The Board of the Company confirmed that it has received the annual written confirmation of independence from each independent non-executive Director pursuant to Rule 3.13 of the Hong Kong Listing Rules, and after careful consultation, it considered that Mr. Qiu Guanzhou, Mr. Yu Jinsong and Ms. Chan Yuen Sau Kelly were all independent.



Report on Corporate Governance and Internal Control (Continued)

The Directors serving in the Company are experts in their respective fields and have deep knowledge and rich experience in metal mining, energy, corporate management, finance, law, financial affairs and capital operation. All Directors of the Company have performed their duties diligently for the interests of the Company and shareholders in accordance with relevant laws and regulations and the Articles of Association.

The major duties of the Board of the Company include: deciding on the Company's business plans and investment proposals, formulating the Company's profit distribution and loss recovery proposals; formulating the Company's debt and finance policies, and the issuance of bonds, etc.; determining plans for material acquisitions or disposals as well as mergers, demergers and dissolution of the Company; determining the establishment of internal management department and branch of the Company; appointment and dismissal of senior management; formulating basic management system of the Company; promoting the establishment of a compliance management system and monitoring the performance of compliance management of managers; developing the ESG management strategies and monitoring the ESG governance efforts of the management; formulating the share incentive plan; deciding on the Company's external investment, purchase or sale of assets, equity and other capital operation plans within the scope of the authorization of general meeting, and convening general meetings and implementing the resolutions of general meetings, etc. Details of the functions of the Board are set out in the Articles of Association. Please refer to the "Articles of Association of Aluminum Corporation of China Limited" and the "Rules of Procedures for the Board of Directors of Aluminum Corporation of China Limited" under "Listing Announcements" on the page of "Investor Relations" on the website of the Company.

Report on Corporate Governance and Internal Control (Continued)

In 2021, the Board of the Company held a total of ten meetings (including six onsite meetings and four telecommunication meetings), and considered and approved 52 proposals. The content of the proposals mainly involved the Company's periodic report, annual report of the Board, social responsibility report, internal control report, risk management report, loss recovery proposal, business plan, financing plan, domestic and overseas bond issuance plan, investment plan, annual remuneration standards for Directors, Supervisors and senior management of the Company, re-engagement of accounting firm, rendering of guarantees for subsidiaries, nomination of candidates for Directors, election of chairman, adjustment of the composition of special committees under the Board, provision for asset impairment and related-party transactions and restricted share incentive scheme, etc. The details of the meetings are as follows:

Date of Meeting	Session	Type of Meeting
2021.03.23	The 15th meeting of the seventh session of the Board	Onsite meeting
2021.04.09	The 16th meeting of the seventh session of the Board	Telecommunication meeting
2121.04.27	The 17th meeting of the seventh session of the Board	Onsite meeting
2021.06.03	The 18th meeting of the seventh session of the Board	Telecommunication meeting
2021.06.07	The 19th meeting of the seventh session of the Board	Telecommunication meeting
2021.06.08	The 20th meeting of the seventh session of the Board	Telecommunication meeting
2021.06.29	The 21st meeting of the seventh session of the Board	Onsite meeting
2021.08.24	The 22nd meeting of the seventh session of the Board	Onsite meeting
2021.10.26	The 23rd meeting of the seventh session of the Board	Onsite meeting
2021.12.21	The 24th meeting of the seventh session of the Board	Onsite meeting

In addition to the above Board meetings, the Board of the Company convened and organised 2 general meetings in 2021, i.e., the 2020 annual general meeting held on 29 June 2021 and the 2021 first extraordinary general meeting held on 21 December 2021 by the Company. A total of 22 proposals (including sub-proposals) were considered and approved at the above two general meetings, and all the proposals were approved successively and no proposal was vetoed. Please refer to the "General Meeting" in this section for details about the general meetings.

Report on Corporate Governance and Internal Control (Continued)

In 2021, attendances of all Directors at the Board meetings and general meetings were as follows:

Name of Director	Required attendance at Board meetings for the year ^(Note 1)	In-person attendance	Attendance by telecommunication ^(Note 2)	Attendance by proxy	Absence	Attendance rate of Board meetings ^(Note 3)	Required attendance at general meetings	Actual attendance	Attendance rate of general meetings
	Ao Hong (resigned)	6	6	4	0	0	100%	1	1
Liu Jianping	4	4	0	0	0	100%	2	2	100%
Zhu Runzhou	10	9	0	1	0	90%	2	2	100%
Ou Xiaowu	4	4	0	0	0	100%	2	2	100%
Jiang Tao	4	4	0	0	0	100%	2	2	100%
Zhang Jilong	4	4	0	0	0	100%	2	2	100%
Wang Jun	10	10	4	0	0	100%	2	2	100%
Chen Lijie (resigned)	6	6	4	0	0	100%	1	0	0
Hu Shihai (resigned)	6	6	4	0	0	100%	1	0	0
Lie-A-Cheong Tai Chong, David (resigned)	6	6	4	0	0	100%	1	0	0
Qiu Guanzhou	4	4	0	0	0	100%	2	2	100%
Yu Jingsong	4	3	0	1	0	75%	2	1	50%
Chan Yuen Sau Kelly	4	4	0	0	0	100%	2	2	100%

Note 1: As far as the above table is concerned, required attendance at Board meetings for the year=in-person attendance+attendance by proxy.

Note 2: Attendance by telecommunication has been included in the required attendance at Board meetings for the year.

Note 3: Attendance rate of Board meetings=in-person attendance/required attendance at Board meetings for the year, but attendance by proxy shall not be counted.



Report on Corporate Governance and Internal Control (Continued)

During the reporting period, the attendances of all Directors at the Board meetings and the general meetings are explained as follows:

1. Mr. Ao Hong, Ms. Chen Lijie, Mr. Hu Shihai and Mr. Lie-A-Cheong Tai Chong, David all resigned on 29 June 2021. The Company held 6 Board meetings and 1 general meeting from 1 January 2021 up to their resignation. Mr. Ao Hong attended all Board meetings and general meeting; Ms. Chen Lijie, Mr. Hu Shihai and Mr. Lie-A-Cheong Tai Chong, David attended all Board meetings, but none of them attended the general meeting.
2. Mr. Zhu Runzhou failed to attend the 23rd meeting of the seventh session of the Board of the Company held on 26 October 2021 due to other official duties, and entrusted Mr. Ou Xiaowu in writing as his alternate to attend the said meeting and vote according to his expressed intention.
3. Mr. Liu Jianping, Mr. Ou Xiaowu, Mr. Jiang Tao, Mr. Zhang Jilong, Mr. Qiu Guanzhou, Mr. Yu Jinsong and Ms. Chan Yuen Sau Kelly were appointed as Directors of the Company since 29 June 2021. From 29 June to 31 December 2021, the Company held a total of four Board meetings and two general meetings. Among the aforesaid Directors, Mr. Liu Jianping, Mr. Ou Xiaowu, Mr. Jiang Tao, Mr. Zhang Jilong, Mr. Qiu Guanzhou and Ms. Chan Yuen Sau Kelly attended all Board meetings and general meetings; Mr. Yu Jinsong failed to attend the 24th meeting of the seventh session of the Board and 2021 first extraordinary general meeting held on 21 December 2021 due to other official duties, and entrusted Mr. Qiu Guanzhou in writing as his alternate to attend the 24th meeting of the seventh session of the Board and vote according to his expressed intention.

In 2021, the independent non-executive Directors of the Company did not raise any objection to or abstain from voting on the proposals proposed by the Company for review by the Board.



Report on Corporate Governance and Internal Control (Continued)

The Company generally formulates the plans for the Board and general meetings and major topics of the meetings earlier for half a year, and informs all Directors to facilitate their schedule and ensure that each Director has the opportunity to raise matters for discussion and being included in the agenda of the Board meetings; for the matters which are required temporarily for consideration by the Board, the Company also communicates and reports with the Directors in advance and arranges the time reasonably so that the Directors have sufficient time to review the proposals and make decisions.

The chairman was responsible for ensuring that the Directors perform their requisite duties and obligations, and maintaining effective operation of the Board, as well as ensuring timely discussion and consideration of all significant matters of the Company needed to be reported to Directors or submitted to the Board. The chairman has separately discussed with the non-executive Directors to fully understand their opinions and advices on the operation and development of the Company and the work of the Board.

The management of the Company reports to the Board on the Company's production and operation, the implementation of matters authorized by general meetings and the Board, and the progress of major contracts and capital operation projects signed by the Company. The Board also oversees the management's work to ensure the Board can keep abreast of the Company's actual situation in a timely manner and thus guarantee the interests of the Company and its shareholders as a whole.

The total pre-tax remuneration received by Directors from the Company, including the basic salary and performance-linked salary in 2021 amounted to RMB3.83 million, among which independent non-executive Directors are only entitled to receive Directors' fees but no other remuneration. The remuneration of each Director for the year is set out in note 31 to the consolidated financial statements. As of 31 December 2021, no share appreciation rights scheme had been adopted by the Company.

Other than their appointments in the Company, none of the Directors, Supervisors or the senior management had any financial, business, family or other significant relationships with each other. Other than their respective service contracts entered into, none of the Directors or the Supervisors had any significant personal interest, directly or indirectly, in any transaction, arrangement or contract of significance entered into by the Company or any of its subsidiaries during 2021.



Report on Corporate Governance and Internal Control (Continued)

CHAIRMAN AND PRESIDENT

In order to ensure a balance of power and authority and avoid undue concentration of power, the chairman and president of the Company are two separate explicitly defined positions, which are acted by different individuals with clear and definite scope of official duty. During the reporting period, Mr. Ao Hong serves as the acting chairman of the Company from 1 January 2021 to 29 June 2021; hereafter, Mr. Liu Jianping serves as the chairman of the Company. During the reporting period, Mr. Zhu Runzhou serves as the president of the Company.

As a legal representative of the Company, the chairman presides over the Board, aiming to ensure that the Board is acting in the best interests of the Company, operates effectively, duly performs its responsibilities and engages in discussions of significant and appropriate matters, as well as Directors' access to accurate, timely and clear information. On the other hand, the president heads the management and is responsible for the daily operation of the Company, including implementation of policies adopted by the Board and reporting to the Board in respect of the overall operation of the Company.

IMPLEMENTATION OF SHAREHOLDERS' RESOLUTIONS BY DIRECTORS

During the year, all Board members of the Company implemented the shareholders' resolutions and completed all matters delegated by the general meetings in accordance with provisions of the relevant laws and regulations and the Articles of Association. The chairman of the Company reported the production and operation of the Company, and the progress and completion of significant matters decided by general meetings to the shareholders at the general meeting of the Company.



Report on Corporate Governance and Internal Control (Continued)

DIRECTOR'S RECEIPT OF THE COMPANY'S INFORMATION AND TRAINING

The Company's Board Office is the routine executive organ of the Board, and offers services to the Board and Directors and provides all Directors with sufficient information, enabling them to be aware of the current situation and updates of the industry and the Company in a timely manner. It is responsible for the organization and arrangement of external Directors' investigations and surveys on the affiliated entity enterprises of the Company. It checks the latest amendments of the laws, regulations and regulatory rules of securities to ensure that the Directors, Supervisors and senior management of the Company are able to fulfill their duties in accordance with laws and regulations. It organises Directors, Supervisors and senior management of the Company to participate in relevant securities business training to ensure that they obtain the corresponding qualifications and complete the annual training plan as required. Affected by the pandemic, most of the trainings in 2021 were conducted online.

In 2021, Mr. Liu Jianping, the chairman of the Company, and Mr. Zhu Runzhou, the Director of the Company, participated in the special training on corporate governance for the chairman and general manager of public companies held by the China Association for Public Companies; Directors Mr. Ou Xiaowu, Mr. Jiang Tao and Mr. Zhang Jilong, Mr. Ye Guohua, the chairman of the Supervisory Committee, Supervisors Ms. Shan Shulan, Mr. Yue Xuguang and Mr. Guan Xiaoguang participated in the 2021 Annual Special Training for Directors and Supervisors held by the Listed Companies Association of Beijing; Ms. Chan Yuen Sau Kelly, the independent Director, participated in the qualification training for independent directors held by Shanghai Stock Exchange. Moreover, the Company invited domestic and overseas lawyers to provide special trainings for Directors, Supervisors and senior management of the Company on the newly revised Securities Law and the ongoing compliance obligations of Hong Kong listed companies in December 2021.

In May 2021, the Company organized external Directors to conduct work research on Guangxi Huasheng and other enterprises, enabling them to be further aware of the production and operation of the Company's "coastal and overseas" strategy, bauxite project in Guinea and alumina project of Guangxi Huasheng Port. Through this investigation, the Company not only made use of the professional experience of external Directors to make suggestions for the current problems and future development of the Company, but also strengthened the external Directors' cognition of the current situation of the industry, the Company and its affiliated companies, providing support for the external Directors to subsequently participate in the Company's production and operation and major investment decisions.

Report on Corporate Governance and Internal Control (Continued)

In order to enhance its ESG governance level and MSCI rating, the Company carried out a series of work in 2021, and made two special reports to the Board of the Company in March and December 2021, introducing the latest regulatory requirements of the Hong Kong Stock Exchange for strengthening the Board's participation in the ESG work, the promotion plan for the ESG report of the Company, and the development of the ESG work of the Company, so as to enable the Directors to be fully informed of the progress of the ESG work of the Company.

During the reporting period, training for all Directors of the Company is as follows:

Name of Director	Training ^(Note)
Ao Hong (resigned)	B
Liu Jianping	A, B, C
Zhu Runzhou	A, B, C
Ou Xiaowu	A, B, C
Jiang Tao	A, B, C
Zhang Jilong	A, B, C
Wang Jun	B, C
Chen Lijie (resigned)	B
Hu Shihai (resigned)	B
Lie-A-Cheong Tai Chong, David (resigned)	B
Qiu Guanzhou	B, C
Yu Jingsong	B, C
Chan Yuen Sau Kelly	A, B, C

Note:

- A. Training for Directors, Supervisors and senior management organised by the Securities Regulatory Authorities
- B. Self-study on the domestic and foreign securities laws and regulations
- C. Participation in trainings organized by other domestic and foreign institutions



Report on Corporate Governance and Internal Control (Continued)

FUNCTIONS OF CORPORATE GOVERNANCE OF THE BOARD

The followings are corporate governance functions performed by the Board which were implemented by the special committees thereof:

- (a) Formulation and review of the policies and practice on corporate governance of the Company;
- (b) Review and supervision on the training and continuous professional development of the Directors and senior management;
- (c) Review and supervision on the policies and practice in compliance with laws and regulatory requirements of the Company;
- (d) Review and supervision on the ESG governance related work of the Company;
- (e) Formulation, review and supervision on the compliance of employees and Directors with applicable Code of Conduct and Compliance Manual; and
- (f) Review of the compliance of the Company with the Corporate Governance Code under Appendix 14 of the Hong Kong Listing Rules. The Board had supervised and reviewed the implementation of the corporate governance policies of the Company, updated and prepared documents related to the internal control of the Group as well as analyzed the compliance of the Company with the CG Code in 2021. It convened two general meetings and ten Board meetings, and completed relevant training for the Directors and Supervisors. The Board also supervised and inspected the implementation of the Board's resolutions by the management to further enhance initiatives such as the management of the investor relations.

AUDIT COMMITTEE

The Audit Committee has been established under the Board, and the duties of which mainly include reviewing the corporate governance, financial reports, audits of financial reports, internal control, risk management of the Company, considering the appointment of independent auditors and approving audit and audit-related services, and supervising the Company's internal financial reporting procedures and management policies.



Report on Corporate Governance and Internal Control (Continued)

Pursuant to Rule 3.21 of the Hong Kong Listing Rules, the Audit Committee of the Company shall comprise of at least three members. During the reporting period, the Audit Committee of the seventh session of the Board of the Company consists of the following independent non-executive Directors, namely Ms. Chen Lijie (resigned on 29 June 2021), Mr. Hu Shihai (resigned on 29 June 2021), Mr. Lie-A-Cheong Tai Chong, David (resigned on 29 June 2021), Mr. Qiu Guanzhou (appointed on 29 June 2021), Mr. Yu Jinsong (appointed on 29 June 2021) and Ms. Chan Yuen Sau Kelly (appointed on 29 June 2021), among whom, Mr. Lie-A-Cheong Tai Chong, David and Ms. Chan Yuen Sau Kelly serve as the chairman of the committee successively.

The Company has established work procedures for the Audit Committee for the performance of its supervisory role in auditing of the annual report. Before the external auditors commenced their annual audit, the Audit Committee reviewed the Company's financial position and negotiated with the external auditors about audit timetable for the year. Throughout the audit by the external auditors, the Audit Committee maintained communications with them at all time and ensured completion of audit within the designated timeframe. The Audit Committee reviewed the financial report of the Company after the external auditors issued their preliminary audit opinions and passed a written resolution to submit the audited financial report to the Board of the Company for review.

The Audit Committee and the management discussed the risk management and internal control systems of the Company, so as to make sure that effective risk management and internal control systems have been established, which included considering whether or not the Company had sufficient resources with qualified and experienced staff to perform accounting, internal auditing and financial reporting duties, and whether or not relevant staff were well trained and the relevant budget was sufficient. The Audit Committee is of the view that the Company had complied with the requirements of the above corporate risk management and internal control systems during 2021.

In 2021, the Audit Committee of the Board of the Company held a total of 7 meetings attended by all members of the committee. All meetings were convened and held in accordance with the relevant provisions of the "Working Rules of the Audit Committee of the Board of Directors of Aluminum Corporation of China Limited", at which the Company's periodic financial reports, internal control, risk assessment, internal and external audit work, anti-fraud work, related-party transactions, provision for impairment of assets and other relevant important matters were reviewed and considered. All members of the committee had performed their duties diligently and earnestly, and provided their views and recommendations on the Company's financial reporting, internal control, risk management, auditing, and related-party transactions on an independent, objective, and fair basis.

Minutes of each meeting of the Audit Committee are recorded, then signed and confirmed by all members of the committee, and such minutes are filed and kept in reserve in accordance with relevant requirements.

Report on Corporate Governance and Internal Control (Continued)

REMUNERATION COMMITTEE

During the reporting period, the Remuneration Committee of the seventh session of the Board of the Company consists of the non-executive Director, namely Mr. Ao Hong (resigned on 29 June 2021), the following independent non-executive Directors, namely Mr. Hu Shihai (resigned on 29 June 2021) and Mr. Lie-A-Cheong Tai Chong, David (resigned on 29 June 2021), the executive Director, Mr. Ou Xiaowu (served as the member of the committee from 29 June 2021 to 26 October 2021), the non-executive Director, namely Mr. Zhang Jilong (served as the member of the committee from 26 October 2021) and the following independent non-executive Directors, namely Mr. Qiu Guanzhou (appointed on 29 June 2021) and Mr. Yu Jinsong (appointed on 29 June 2021), among whom, Mr. Hu Shihai and Mr. Qiu Guanzhou serve as the chairman of the committee successively.

Duties of the Remuneration Committee of the Company mainly include: to prepare the remuneration management scheme and remuneration proposal for Directors, employee representative Supervisors and senior management, and provide suggestions to the Board; to prepare measures on performance evaluation, performance assessment procedures and relevant rewards and punishments of senior management, and provide suggestions to the Board; to monitor the implementation of the remuneration system of the Company; to review senior management's fulfillment of duties and conduct performance assessment. In 2021, the Remuneration Committee of the Board held a total of two meetings attended by all members of the committee, the particulars are as follows:

On 22 March 2021, the 2nd meeting of the seventh session of the Remuneration Committee of the Company considered and approved the proposal on formulating the remuneration standards for Directors, employee representative, Supervisors and senior management of the Company for 2021. All members of the Remuneration Committee have carefully studied the remuneration plan on Directors, employee representative, Supervisors and senior management and are of view that the remuneration plan made by the Company is in line with the remuneration policy of the Company with reference to the remuneration for same positions of comparable enterprises (in terms of the size, industry and nature). Meanwhile, it is also based on the annual operation results of the Company, the performance of Directors and employee representative Supervisors and the performance appraisal results of senior management and is fair and reasonable. They agreed to submit the remuneration plan on Directors, employee representative Supervisors and senior management to the Board. The Board of the Company adopted the remuneration standard plan submitted by the Remuneration Committee.



Report on Corporate Governance and Internal Control (Continued)

On 21 December 2021, the 3rd meeting of the seventh session of the Remuneration Committee of the Company considered and approved the proposal on the 2021 restricted share incentive scheme of the Company (draft) and its summary. All members of the Remuneration Committee are of the opinion that the Company has the right to implement the equity incentive plan, the basis and scope of the participants are in line with the provisions of laws, regulations and normative documents, and the assessment indicators of the incentive scheme are set scientifically, forward-looking and reasonable, and the Company's operating environment, industry level and future business development plan are fully considered. They agreed to submit the incentive scheme and other relevant proposals to the Board. The Board of the Company adopted the incentive scheme submitted by the Remuneration Committee.

Minutes of each meeting of the Remuneration Committee are recorded, then signed and confirmed by all members of the committee, and such minutes are filed and kept in reserve in accordance with relevant requirements.

NOMINATION COMMITTEE

During the reporting period, the Nomination Committee of the seventh session of the Board of the Company consists of the following independent non-executive Directors, namely Ms. Chen Lijie (resigned on 29 June 2021), Mr. Hu Shihai (resigned on 29 June 2021) and Mr. Lie-A-Cheong Tai Chong, David (resigned on 29 June 2021), the following executive Directors, namely Mr. Liu Jianping (appointed on 29 June 2021) and Mr. Zhu Runzhou, and the following independent non-executive Directors, namely Mr. Qiu Guanzhou (appointed on 29 June 2021), Mr. Yu Jinsong (appointed on 29 June 2021) and Ms. Chan Yuen Sau Kelly (appointed on 29 June 2021), among whom, Mr. Liu Jianping serves as the chairman of the committee.

Duties of the Nomination Committee of the Company mainly include: to study the selection standards and procedures for Directors, senior management and members of special committees under the Board and provide suggestions to the Board; to review the qualification of candidates for Directors, senior management and members of special committees under the Board and provide advices on inspection and appointment; to assess the independence of independent non-executive Directors. At the same time, in accordance with the relevant provisions of the "Working Rules for the Nomination Committee under the Board of Directors of Aluminum Corporation of China Limited", the Nomination Committee under the Board shall review the structure, number and composition of the Board at least once a year, and consider the diversity of members of the Board from various aspects (including but not limited to gender, age, professional ability, educational background and experience, etc.) based on the business model and specific needs of the Company.



Report on Corporate Governance and Internal Control (Continued)

According to the relevant provisions of the Articles of Association and the Rules of Procedure for the Board of Directors of the Company, the candidates for the Company's Directors (other than the candidates for the Company's independent Directors) shall be nominated by the Board, the Supervisory Committee and shareholders who alone or together hold 3% or more of the shares of the Company carrying voting rights and shall be decided through election by the shareholders' general meeting; the candidates for the Company's independent Directors shall be nominated by the Board, the Supervisory Committee and shareholders who alone or together hold 1% or more of the shares of the Company carrying voting rights and shall be decided through election by the shareholders' general meeting; the candidates for the Company's senior management shall be nominated by the chairman or president and appointed by the Board. The Nomination Committee under the Board of the Company shall review the resumes and qualifications of candidates for Directors and senior management, and makes recommendations to the Board. In 2021, nominations of relevant candidates of the Company have been implemented in accordance with the aforementioned nomination policies.

In 2021, the Nomination Committee of the Board held six meetings attended by all members of the committee, at which the proposals on the nomination of candidates for independent Director, non-independent Director and vice president of the seventh session of the Board of the Company, and the plan on adjusting members of special committees of the Board were considered and approved, and such nomination of candidates was submitted to the Board for consideration.

Minutes of each meeting of the Nomination Committee are recorded, then signed and confirmed by all members of the committee, and such minutes are filed and kept in reserve in accordance with relevant requirements.

DEVELOPMENT AND PLANNING COMMITTEE

During the reporting period, the Development and Planning Committee of the seventh session of the Board of the Company consists of the following executive Directors, namely Mr. Liu Jianping (appointed on 29 June 2021), Mr. Zhu Runzhou, Mr. Jiang Tao (served as the member of the committee from 29 June 2021 to 21 December 2021), the following non-executive Director, namely Mr. Zhang Jilong (appointed on 29 June 2021), and the independent non-executive Directors, namely Mr. Hu Shihai (resigned on 29 June 2021), Mr. Qiu Guanzhou (appointed on 29 June 2021) and Mr. Yu Jinsong (served as the member of the committee from 21 December 2021), among whom, Mr. Liu Jianping serves as the chairman of the committee.



Report on Corporate Governance and Internal Control (Continued)

Duties of the Development and Planning Committee include review and evaluation of the Company's long-term development strategy, financial budget, investment, business operation and strategic plan of annual investment returns.

In 2021, the Development and Planning Committee of the Board held one meeting attended by all members of the committee, at which the production guidance plan for 2021, the annual investment plan for 2021 and the operating plan for 2021 were considered and approved and submitted to the Board for consideration.

Minutes of each meeting of the Development and Planning Committee are recorded, then signed and confirmed by all members of the committee, and such minutes are filed and kept in reserve in accordance with relevant requirements.

OCCUPATIONAL HEALTH & SAFETY AND ENVIRONMENT COMMITTEE

During the reporting period, the Occupational Health & Safety and Environment Committee of the seventh session of the Board of the Company consists of the executive Directors, namely Mr. Zhu Runzhou, Mr. Ou Xiaowu (served as the member of the committee from 26 October 2021) and Mr. Jiang Tao (appointed on 29 June 2021) and the non-executive Directors, namely Mr. Wang Jun (resigned on 29 June 2021) and Mr. Zhang Jilong (served as the member of the committee from 29 June 2021 to 26 October 2021), among whom, Mr. Zhu Runzhou serves as the chairman of the committee.

Major duties of the Occupational Health & Safety and Environment Committee of the Board of the Company include considering of the Company's annual planning on health, environmental protection and safety, supervision of the Company's effective implementation of the planning on health, environmental protection and safety initiatives, inquiring into serious incidents and inspecting and supervising over the handling of such incidents, making recommendations to the Board on major decisions on health, environmental protection and safety, etc.

In 2021, although the Occupational Health & Safety and Environment Committee did not officially hold a meeting, for the safety and environmental protection matters of the Company, all members had sufficient communication and exchange in the daily work of the Board and put forward opinions and suggestions, so that the work of the Committee could be carried out in an orderly manner in accordance with its working rules.



Report on Corporate Governance and Internal Control (Continued)

SUPERVISORY COMMITTEE

During the reporting period, the composition and work of the Supervisory Committee of the Company is set out in the section “Report of the Supervisory Committee” of this annual report.

GENERAL MEETING

General meeting is the highest authority of the Company. It provides a good opportunity for direct communications and building a sound relationship between the shareholders of the Company the Board and senior management. During the reporting period, the Company held a total of two general meetings, including one annual general meeting and one extraordinary general meeting, namely the 2020 annual general meeting of the Company held on 29 June 2021 and the 2021 first extraordinary general meeting of the Company held on 21 December 2021. The meetings mentioned above were held in the conference room at Headquarters of the Company, No. 62, North Xizhimen Street, Beijing.

A total of 22 proposals (including sub-proposals) were considered and approved at the above two general meetings, including the annual report of the Board, report of Supervisory Committee, audited financial report, loss recovery proposal, annual financing plan, domestic and overseas bond issuance plan, re-engagement of accounting firm, guarantee matters and continuing connected transactions etc. The convening, holding and voting procedures for each general meeting are legal and valid, and all the resolutions submitted at the general meetings were passed.

EXTRAORDINARY GENERAL MEETING

According to the Articles of Association of the Company, a single shareholder or any two or more shareholders together holding more than 10% of the Company’s issued shares is (are) entitled to request an extraordinary general meeting or class meeting to be convened. Such requests must specify the topics of the meeting in writing and must be submitted to the convener, the contact information of whom is set out in the section entitled “Enquiry to the Board” in this chapter. Shareholders shall follow the Rules of Procedures for the Shareholders’ Meetings of Aluminum Corporation of China Limited set out in the “Listing Announcements” under the section of “Investors Relations” on the website of the Company.



Report on Corporate Governance and Internal Control (Continued)

PROPOSALS AT THE GENERAL MEETING

According to the Articles of Association of the Company, a single shareholder or any two or more shareholders together holding more than 3% of the Company's issued shares is (are) entitled to submit additional proposals to the convener by written request ten working days prior to the relevant general meeting. The contact information of the convener is set out in the section entitled "Enquiry to the Board" in this chapter. Shareholders shall follow the Rules of Procedures for the Shareholders' Meeting of Aluminum Corporation of China Limited set out in the "Listing Announcements" under the section of "Investors Relations" on the website of the Company.

ENQUIRY TO THE BOARD

For any enquiry to the Board, please contact the Board Office at 12B/F, Chalco Building, No. 62 North Xizhimen Street, Haidian District, Beijing (email: IR@chalco.com.cn).

TRAININGS FOR THE COMPANY SECRETARY

The company secretary (secretary to the Board) is responsible for organizing and completing procedures relating to Board meetings and general meetings, coordinating and arranging information disclosure, dealing with investor relations and helping maintain smooth communications among the management, Directors and shareholders. During the reporting period, Mr. Wang Jun, the company secretary (secretary to the Board), is a full-time employee of the Company, and also a joint member of the Hong Kong Institute of Chartered Secretaries, and has obtained the qualification certificate of secretary to the Board issued by the Shanghai Stock Exchange. In 2021, Mr. Wang Jun completed no less than 15 hours of relevant professional training.



Report on Corporate Governance and Internal Control (Continued)

INVESTOR RELATIONS

The Board Office of the Company has established a designated department for investor relationship, which is responsible for matters concerning investor relationship. In 2021, on the premise of strictly observing the regulations on pandemic prevention and control, the Company realized effective communication and exchange with investors through onsite, telephone, video and Internet meetings. The Company held a total of 84 investors' meetings throughout the year, attracting 1,550 investors/analysts, including 234 investment institutions and 344 investors/analysts attending the Company's 2020 annual results presentation, 2021 first quarterly results presentation, 2021 interim results presentation and 2021 third quarterly results presentation; The Company held 56 investors' meetings including 2020 annual investors' meeting, 2021 interim investors' meeting and Shanghai special roadshow investors' meetings, attracting 712 investors/analysts; In May and August, the Company organized investor teams to go to Guangxi and Inner Mongolia to conduct enterprise researches; The Company answered more than 1,300 telephone calls from investors and answered 186 various questions raised by investors through the SSE E-interactive platform. Moreover, the Company participated in the investors open day organized by listed companies in Beijing for 2021.

Through the above efforts, the Company has strengthened the contact between the Company and investors, won the recognition of the Company's industry status by investors, strengthened investors' confidence in improving the Company's operating performance, made the Company's stock once again receive high attention from investors, and consolidated and enhanced the Company's influence in the capital market.

In addition, by strengthening ESG disclosure, actively connecting with the capital market, and fully demonstrating the work measures for and achievements of improving ESG quality, the ESG of the Company has been further recognized by the capital market. It has not only been successfully selected into the "ESG Pioneer 50 Index of Central Enterprises" (ranking fourth) and Hang Seng A-share Sustainable Development Enterprise Index, but also its MSCI-ESG rating (ESG rating of Morgan Stanley Capital International Index of the United States) has been upgraded from "CCC" to "B". In 2021, Standard & Poor's also raised the Company's international credit rating from "steady outlook" to "positive outlook" for the first time.

Report on Corporate Governance and Internal Control (Continued)

INFORMATION DISCLOSURE

The Company has always been upholding the high sense of responsibility to investors and discloses information in a true, accurate, complete, timely and fair manner in strict accordance with the listing rules of the Shanghai Stock Exchange (“SSE”), the Hong Kong Stock Exchange and the New York Stock Exchange (“NYSE”). In 2021, the Company disclosed a total of 127 A-share announcements and related documents (including periodic reports) on SSE, a total of 202 H-share Chinese and English announcements and relevant documents (including periodic reports) on the Hong Kong Stock Exchange, and a total of 84 U.S. stock reports 20-F and 6-K announcements on NYSE. The Company obtained a Grade A evaluation of information disclosure from SSE for three consecutive years.

The Company attaches consistent importance to information disclosure and cautiously copes with the proposed information disclosure, especially sensitive information that is likely to cause price and market fluctuation, enabling investors to obtain information of the Company in a timely, accurate and fair manner to minimize investors’ investment risks. The Company has formulated the Management Measures of Information Disclosure of Aluminum Corporation of China Limited (《中國鋁業股份有限公司信息披露管理制度》) and the Management Measures of Inside Information and Insiders of Aluminum Corporation of China Limited (《中國鋁業股份有限公司內幕信息及知情人管理制度》), and such measures strictly specify the process of information screening, review, release and usage, and the provisions on persons with knowledge of inside information including registration and filing, confidentiality and punishment.

The general approval flow of the proposed information disclosure of the Company are in due order of the Board Office, responsible personnel of business units related to the announcement, representative for the Company’s securities related affairs, secretary to the Board, president, chairman and the Board (as authorized). Upon approval, the information manuscript will not be disclosed until executed by representative for the Company’s securities related affairs and secretary to the Board.

Chairman of the Company takes primary responsibility for information disclosure; the Board of the Company is the management organ of information disclosure; secretary to the Board is in charge of work regarding information disclosure management in the ordinary course of business of the Company; and Office of the Board is the routine executive organ of information disclosure of the Company.



Report on Corporate Governance and Internal Control (Continued)

The Supervisory Committee of the Company reviews and supervises the work of information disclosure of the Company on a regular or occasional basis. The Board of the Company conducts self-assessment on annual information disclosure and includes the assessment results in the assessment report on internal control of the Company.

MEETINGS OF THE MANAGEMENT

The management of the Company is responsible for implementation of daily production and operation management and strategy of the Company, implementation of Board resolutions, and reporting to the Board. Its main functions include: presiding over the daily production and operation management of the Company; organising and implementing the Board resolutions, corporate development strategies, and annual business plans, investment plans, financial budget plans, etc.; formulating and organising to implement performance appraisal and salary incentives within the scope authorized by the Board.

In principle, the Company holds weekly presidential meetings chaired by the president and attended by the management of the Company, and presidential office meeting chaired by other senior management in charge of different businesses of the Company and attended by heads of relevant business departments to discuss and make decisions on the organization and implementation of the matters during the process of the production and operation of the Company and financial management. In addition, the Company organised annual and mid-year work conferences after the end of the previous year and the end of the semi-annual period, respectively. The management of the Company, including managers of branches (subsidiaries) and heads of headquarter departments, attended the meetings to discuss the business of segments of the Company, summarize and deploy annual and semi-annual work. Such meetings help organize, coordinate, communicate and supervise the company-wide development and implementation of various operations.

In 2021, the management of the Company performed its duties with due diligence, and ensured the achievement of business goals and the smooth development of its various businesses, and achieved best results for years.



Report on Corporate Governance and Internal Control (Continued)

RISK MANAGEMENT AND INTERNAL CONTROL

The objectives of risk management and internal control are to give a reasonable assurance that the Company's operation and management is lawful and compliant, the assets are safe and the financial reporting and related information are true and complete; to improve the operational efficiency and effectiveness; and to facilitate the achievement of the Company's development strategy. Internal control has its inherent limitations, so it only provides a reasonable guarantee for the achievement of the above goals. In addition, given inapplicability of internal control due to contingent changes or deterioration in the compliance of control policies and relevant procedures, projections on the effectiveness of the internal control in the future over the assessment results of the internal control are subject to certain risks.

As a special committee established under the Board, the Audit Committee of the Company has supervised and inspected the establishment, comprehensiveness and implementation of the risk management and internal control system of the Company, and regularly discussed with the management on the implementation of the risk management and internal control in order to ensure that the Company has established an effective risk management and internal control system. The management is responsible for arrangement and leadership of the daily operation of the risk management and internal control of the Company. The Internal Audit Department (Office of the Supervisory Committee) of the Company, a functional department of the Company, is responsible for the risk management and internal control of the Company and carries out the specific implementation work.



Report on Corporate Governance and Internal Control (Continued)

In 2021, the efforts made by the Company in respect of risk management and internal control mainly include:

1. Comprehensively updating and improving the internal control system. In 2021, in accordance with the requirements of the State-owned Assets Supervision and Administration Commission of the State Council's Notice on Doing a Good Job in the Construction and Supervision of the Internal Control System of Central Enterprises in 2021 and Chinalco's Notice on Matters Related to Comprehensively Carrying out the Update, Improvement, Supervision and Evaluation of the Internal Control System, the Company organized 11 departments of the headquarters and 31 subordinate domestic and foreign entities to simultaneously carry out the update and improvement of the Company's full-level and full-service internal control system. At the headquarters level, the Company completed 283 items of internal control process matrix formulation and flowchart drawing, involving 333 key control points; at the entity enterprise level, the Company completed 10,282 items of internal control process matrix formulation and flowchart drawing, involving 11,675 key control points. The key control points fully covered the important business and management fields of the Company's headquarters and entity enterprises.
2. Continuously strengthening the evaluation of internal control. (1) Based on the updated and improved internal control system, the Company organized a comprehensive self-assessment on the design and operation effectiveness of the internal control of the headquarters and its affiliated enterprises, covering all control points of organizational strategy, management assurance and business operations; (2) the Company further enriched the forms of independent supervision and inspection, forming a multi-level supervision and inspection mode with mutual inspection among enterprises as the main part and unannounced inspection as the key, focusing on high-risk fields; (3) the Company established a rectification information system to require all units to complete the rectification of internal control defects within a time limit, which further improved and optimized the Company's internal control system; (4) Based on the internal control self-assessment and independent supervision and inspection, the Company prepared an internal control assessment report, and completed the disclosure on time in accordance with regulatory requirements.



Report on Corporate Governance and Internal Control (Continued)

3. Further strengthening the internal control and management of funds. In the second half of 2021, the Company carried out special inspections on overseas funds, including fund management system construction, payment approval process, personnel position setting, seal, U-shield management, bank account and fund management, and overseas creditor's rights management. According to the inspection results, the Company's overseas fund management complied with the Company's relevant regulations and requirements in major aspects. This inspection laid a foundation for the Company to establish a normalized mechanism for management, supervision and inspection of overseas funds, further standardized the management of overseas funds, and effectively controlled the risks of overseas funds.
4. Dynamically monitoring major risks. As the responsible department for the Company's risk management, the Internal Audit Department (Office of the Supervisory Committee), organizes all departments of the headquarters and its affiliated enterprises to collect relevant information comprehensively and systematically based on the new changes in the external environment and the new trends of their own business development at the beginning of each year, so as to identify internal and external risks and finally determine the Company's annual major risks. For each such risk, it performs analysis, formulates countermeasures, prepares a comprehensive risk management report and reports it to the Audit Committee and the Board. It also, on a monthly basis, dynamically monitors such risks, tracks the implementation of countermeasures for such risks by various departments and affiliated enterprises, reports the changing trend of such risks to the management and put forwards management suggestions in a timely manner.
5. Organizing the risk control capability improvement training of the internal audit system. In May 2021, the Company organized to carry out the 2021 risk control capability improvement training of the internal audit system at the Qingdao Training Base of Chinalco University. Nearly 90 persons including management personnel from the Company's headquarters and affiliated enterprises who are engaged in comprehensive risk management and internal control, as well as financial, investment and other business personnel participated in the training.



Report on Corporate Governance and Internal Control (Continued)

6. In accordance with the relevant provisions of the Management Measures of Information Disclosure of Aluminum Corporation of China Limited (《中國鋁業股份有限公司信息披露管理制度》) and the Management Measures of Inside Information and Insiders of Aluminum Corporation of China Limited (《中國鋁業股份有限公司內幕信息及知情人管理制度》), the Company strictly screened, reviewed and released relevant information, especially insider information, to ensure that domestic and overseas investors can obtain company information in a timely, accurate and fair manner. The Company has formulated strict information disclosure approval procedures in due order of the Board Office, responsible personnel of business units related to the announcement, representative for the Company's securities related affairs, secretary to the Board (company secretary), president, chairman, and the Board (as authorized). The approved information disclosure documents can only be released after they have been signed by the representative for the Company's securities related affairs and secretary to the Board (company secretary).

The Audit Committee of the Board of the Company conducts two reviews over the risk management and internal control of the Company on an annual basis. On 23 March 2021, at the 11th meeting of the Audit Committee under the seventh session of the Board of the Company, the Audit Committee reviewed the implementation of risk management and internal control of the Company in 2020 and its results as well as the work plan for 2021, approved resolutions including the 2020 Work Report on Internal Control, the 2020 Internal Control Assessment Report, the 2020 Auditing Report on Internal Control and the Comprehensive Risk Management Report. On 24 August 2021, the proposals including the summary of the internal control assessment of the Company for the first half year of 2021 and the work arrangement for the second half of 2021 were considered and approved at the 14th meeting of the Audit Committee under the seventh session of the Board of the Company. The Audit Committee of the Board of the Company reported to the Board for the aforesaid matters. On 23 March 2021, the proposals including the 2020 Internal Control Assessment Report, the 2020 Auditing Report on Internal Control and the Comprehensive Risk Management Report were also considered and approved at the 15th meeting of the seventh session of the Board of the Company.



Report on Corporate Governance and Internal Control (Continued)

On 22 March 2022, the proposals including the 2021 Work Report on Internal Control, the 2021 Internal Control Assessment Report, the 2021 Auditing Report on Internal Control and the Comprehensive Risk Management Report were considered and approved at the 18th meeting of the Audit Committee under the seventh session of the Board of the Company. Such reports were also considered and approved at the 26th meeting of the seventh session of the Board held by the Company on 22 March 2022. According to such reports, the Board of the Company concluded that in 2021, the Company's risk management and internal control systems were effectively implemented, and its internal control objectives were achieved without major and important defects; there were no material or significant defects in the internal control over the financial report and non-financial reports of the Company and PricewaterhouseCoopers Zhong Tian LLP, the auditor of the Company, also confirmed that the Company had maintained effective internal control over financial report in all material aspects.

AUDITORS' REMUNERATION

Upon consideration and approval at the 15th meeting of the seventh session of the Board held on 23 March 2021 and the 2020 annual general meeting of the Company held on 29 June 2021, PricewaterhouseCoopers Zhong Tian LLP and PricewaterhouseCoopers were appointed by the Company as the 2021 domestic and international auditors of the Company. In particular, PricewaterhouseCoopers Zhong Tian LLP is mainly responsible for domestic and the United States business of the Company; PricewaterhouseCoopers is mainly responsible for Hong Kong business of the Company.

During the reporting period, in 2021, the total remuneration for audit and non-audit services provided by the Company to the auditors was RMB19.04 million, including: RMB18.17 million for audit services, representing the remuneration received by the auditors for the provision of audit services of 2021 annual report and internal control, and RMB0.87 million for other services, mainly including the fees of professional service fees of RMB0.55 million for the issuance of relevant circular in relation to the issuance of overseas bonds for the subsidiaries of the Company, RMB0.20 million for the provision of issuance of confirmation letters for the reasonableness of the parameters assumptions under income method for the acquisition of the gallium assets of China Rare Metals and Rare Earths Company Ltd. by the Company, and RMB0.12 million for the provision of tax consulting service to the subsidiary of the Company.



Report on Corporate Governance and Internal Control (Continued)

DIRECTORS' AND AUDITORS' ACKNOWLEDGMENT

All Directors acknowledged their responsibility for preparing the accounts for the year ended 31 December 2021. Auditor's reporting responsibilities are set out in the independent auditor's report on pages 186 to 188.

COMPLIANCE AND EXEMPTION OF CORPORATE GOVERNANCE OBLIGATIONS IMPOSED BY NEW YORK STOCK EXCHANGE

Based on its listing rules, the New York Stock Exchange imposed a series of corporate governance standards for companies listed on the New York Stock Exchange. However, the New York Stock Exchange has granted permission to listed companies of foreign issuers to follow their respective "home country" practice and has granted waivers for compliance with such corporate governance standards. One of the conditions for such waiver is for the listed company to disclose in its annual report how the corporate governance practices in its "home country" differ from those followed by companies under the listing rules of the New York Stock Exchange.

The Company had compared the corporate governance standards generally adopted by the companies incorporated in the PRC (including the Company) and the standards developed by the New York Stock Exchange, as follows:

Independent Directors Constituting the Majority

The New York Stock Exchange requires that the board of a listed company must comprise a majority of independent directors. During the reporting period, the Board of the Company comprises three independent Directors, accounting for one-third of the number of members of the Board of the Company specified in the Articles of Association of the Company, which is in compliance with the requirement by the PRC securities regulatory authorities that the board of a listed company shall comprise at least one-third of independent directors.



Report on Corporate Governance and Internal Control (Continued)

Corporate Governance Committee

The New York Stock Exchange requires a listed company to establish a Corporate Governance Committee under the board which comprises entirely independent directors. The Corporate Governance Committee shall be co-established with the Nomination Committee and have a written articles of association. The Corporate Governance Committee is responsible for (i) recommending to the board a set of corporate governance guidelines applicable to the corporation; and (ii) supervising the operation of the board and the management. The Corporate Governance Committee shall also be subject to evaluation annually.

Like most of the other companies incorporated in the PRC, the Company believes that corporate governance measures are of critical importance and should be implemented by all Directors. Therefore, the Company did not separately set a corporate governance committee.



Significant Events

1. CORPORATE GOVERNANCE

The Company has strictly complied with the requirements of the Company Law, the Securities Law of the People's Republic of China, relevant provisions of the CSRC, the Rules Governing the Listing of Stocks on Shanghai Stock Exchange and the Hong Kong Listing Rules and seriously performed its governance obligations in line with the relevant requirements of the CSRC. The Company has also strictly complied with requirements on corporate governance under the Hong Kong Listing Rules.

The Company will continue to strictly comply with the requirements of the relevant regulatory bodies including the CSRC, Beijing Securities Regulatory Bureau, Shanghai Stock Exchange and the Hong Kong Stock Exchange. The Company will continue to enhance its corporate governance measures in compliance with regulations and take initiatives to further improve the corporate governance and internal control system of the Company. The Company will also continue to comply with the requirements on corporate governance under the Hong Kong Listing Rules.

Since its incorporation, the Company has completely separated its business, staff, assets, organization and finance from its controlling shareholder. The Company has its independent and complete business and its own operations.

2. ACQUISITIONS

In 2021, the Company had no material acquisition required to be disclosed.

3. TRUSTEESHIP

In 2021, the Company had no trusteeship required to be disclosed.

4. CONTRACTING

In 2021, the Company had no contracting required to be disclosed.

Significant Events (Continued)

5. MORTGAGE AND PLEDGE

As at 31 December 2021, the Group mortgaged and pledged assets with a total amount of RMB8,673.81 million, including property, plant and equipment, land use rights, intangible assets, investment in associates, and trade and notes receivables for bank borrowings. In the meantime, the Group also obtained certain bank borrowings by pledging its contractual rights to charge users for electricity generated and investment in a subsidiary. For details, please refer to note 24 to the financial statements.

6. GUARANTEE

As of 31 December 2021, the Company's guarantee is as follows:

Unit: in RMB100 million

	2021	2020	Changes in 2021 compared to 2020
Balance of external guarantees (excluding guarantee to subsidiaries)			
Guarantee balance to subsidiaries	134.96	137.53	-2.57

1. As of 31 December 2021, the balance of the guarantee mutually provided between Ningxia Energy, a controlled subsidiary of the Company, and its subsidiaries amounted to RMB1,594 million.
2. In July 2021, the Company provided guarantee for three-year senior bonds of USD500 million and five-year senior bonds of USD500 million issued by Chalco Hong Kong Investment Company Limited ("**Chalco Hong Kong Investment**"). As of 31 December 2021, the balance of the guarantee provided by the Company for Chalco Hong Kong Investment amounted to USD1,000 million (equivalent to approximately RMB6,600 million).



Significant Events (Continued)

3. In March 2017, Baotou Aluminum entered into the Maximum Guarantee Contract (《最高額保證合同》) with Baotou Branch of Shanghai Pudong Development Bank, pursuant to which Baotou Aluminum would provide guarantee in respect of financing up to RMB2,000 million in total for its controlled subsidiary Inner Mongolia Huayun New Materials Co., Ltd.* (內蒙古華雲新材料有限公司) (“**Inner Mongolia Huayun**”). As of 31 December 2021, the balance of the guarantee provided by Baotou Aluminum to Inner Mongolia Huayun amounted to RMB825 million.
4. In August 2018, Chalco Trading entered into a guarantee contract with Dalian Commodity Exchange, pursuant to which Chalco Trading would provide guarantee of RMB1,000 million for its controlled subsidiary Chalco Inner Mongolian International Trading Co., Ltd.* (中鋁內蒙古國貿有限公司) (“**Inner Mongolian Trading**”). As of 31 December 2021, the balance of the guarantee provided by Chalco Trading to Inner Mongolian Trading amounted to RMB390 million.
5. In November 2019, the Company provided financing guarantee for Chalco Energy Holdings Co., Ltd.* (中國鋁業能源控股有限公司) (“**Chalco Energy Holdings**”), a subsidiary of the Company, due to the financing of the mining project in Boffa, Guinea. As of 31 December 2021, the balance of the guarantee provided by the Company for Chalco Energy Holdings amounted to RMB1,066 million.
6. In December 2021, Chalco Logistics entered into a guarantee contract with Shanghai Futures Exchange, pursuant to which Chalco Logistics would provide guarantee for its controlled subsidiary Chalco Logistics Group Central International Port Co., Ltd.* (中鋁物流集團中部國際陸港有限公司) (“**Central Port**”) with its net assets. As of 31 December 2021, the balance of the guarantee provided by Chalco Logistics to Central Port amounted to RMB1,100 million.
7. In September 2020, the Company provided guarantee for the bank borrowings of Boffa Port Investment Co., Ltd. (博法港口投資有限公司) (“**Boffa Port**”), a subsidiary of the Company. As of 31 December 2021, the balance of the guarantee provided by the Company for Boffa Port amounted to RMB224 million.
8. In April 2021, Chalco Trading Group entered into a guarantee contract with Zhengzhou Commodity Exchange, pursuant to which Chalco Trading Group would provide guarantee for its controlled subsidiary Inner Mongolian Trading Group. As of 31 December 2021, the balance of the guarantee provided by Chalco Trading Group to Inner Mongolian Trading amounted to RMB1,697 million.



Significant Events (Continued)

7. ENTRUSTED WEALTH MANAGEMENT AND SHORT-TERM INVESTMENTS

In 2021, the Group had no significant short-term investments required to be disclosed.

8. PERFORMANCE OF UNDERTAKINGS

In 2021, the Company had no undertaking required to be performed.

9. PUNISHMENTS AND RECTIFICATIONS INVOLVED BY LISTED COMPANIES AND THEIR DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT, SHAREHOLDERS, AND DE FACTO CONTROLLERS

In 2021, the Company and its Directors, Supervisors, senior management, shareholders, and de facto controllers were not under any investigation, administrative punishment, and public criticism from the CSRC and public censures from stock exchanges.

10. EXPLANATION OF OTHER SIGNIFICANT EVENTS

(1) Provision for Asset Impairment by the Company

At the 15th meeting of the seventh session of the Board held on 23 March 2021, the Company considered and approved the “Proposal on the Company’s Provision for Asset Impairment”, and agreed to the Company’s provision for credit impairment of receivables (net) in 2020 of RMB979 million, and provision for impairment of long-term assets (net) of RMB433 million.



Significant Events (Continued)

At the 23rd meeting of the seventh session of the Board held on 26 October 2021, the Company reviewed and approved the “Proposal on the Company’s Provision for Asset Impairment”, and agreed to the Company’s provision for impairment of long-term assets (net) of RMB375 million in the third quarter of 2021 (the cumulative provision from the first to the third quarter of 2021 is approximately RMB375 million), and provision for credit impairment of receivables (net) of RMB441million (the cumulative provision from the first to the third quarter of 2021 is approximately RMB919 million).

For details of the aforesaid matter, please refer to the announcements of the Company dated 23 March 2021 and 26 October 2021.

(2) Changes to the Parent Company’s Accounting Policies under International Financial Reporting Standards

At the 23rd meeting of the seventh session of the Board held on 26 October 2021, the Company considered and approved the “Proposal on the Company’s Change to the Parent Company’s Accounting Policies under International Financial Reporting Standards”, and agreed to change the accounting of the parent company’s investment in joint ventures under the International Financial Reporting Standards from the current cost method to the equity method, which is consistent with the equity method adopted for the parent company’s investment in joint ventures under the Chinese Accounting Standards. The aforesaid change in accounting policies will take effect from the date of approval by the Board of the Company, and retrospective adjustments will be made to previous years’ data in accordance with the requirements of accounting standards. The change in the parent company’s accounting policies will further reduce the accounting differences of the parent company under Chinese and International Financial Reporting Standards, and have no impact on the parent company’s financial data under the Chinese accounting standards and the Company’s consolidated financial data.

For details of the aforesaid matter, please refer to the announcement of the Company dated 26 October 2021.



Significant Events (Continued)

(3) Proposal to Implement the 2021 Restricted Share Incentive Scheme of the Company

At the 24th meeting of the seventh session of the Board held on 21 December 2021, the Company reviewed and approved the relevant proposals on the Company's restricted share incentive scheme in 2021, and proposed to grant not more than 141 million restricted A shares to not more than 1,192 Directors, senior management, middle management, and core technical (business) backbones of the Company, including the grant of restricted A shares to connected persons under the Hong Kong Stock Listing Rules. The aforesaid share incentive scheme is pending to submit at the 2022 first extraordinary general meeting, 2022 first class meeting of A shareholders and 2022 first class meeting of H shareholders to be convened by the Company on 26 April 2022 for consideration and approval.

For details of the aforesaid matter, please refer to the announcements of the Company dated 21 December 2021, 22 December 2021 and 17 March 2021, and the supplemental circular dated 7 March 2022.

11. SIGNIFICANT SUBSEQUENT EVENTS

For other significant events after the reporting period, please refer to relevant disclosures made in note 43 to the financial statements.

Connected Transactions

Details of significant related party transactions of the Group for the year ended 31 December 2021 are set out in note 36 to the financial statements. Certain related party transactions also constitute connected transactions or continuing connected transactions under Chapter 14A of the Hong Kong Listing Rules and the Company confirms that such related party transactions have complied with applicable disclosure requirements under Chapter 14A of the Hong Kong Listing Rules. The details of the non-exempted one-off connected transactions, major exempted one-off connected transactions and non-exempted continuing connected transactions under Chapter 14A of the Hong Kong Listing Rules undertaken by the Group during the reporting period are set out below.

NON-EXEMPTED CONTINUING CONNECTED TRANSACTIONS

Set out below are the annual caps for the continuing connected transactions and the actual transaction amounts incurred by the Group in 2021. For the year ended 31 December 2021, the continuing connected transactions of the Group were calculated on an aggregated basis as follows:

	Aggregated consideration (for the year ended 31 December 2021) <i>(in RMB million)</i>	Percentage of cost of sales (for the year ended 31 December 2021)	Annual cap for the year 2021 <i>(in RMB million)</i>
Purchases of goods or services:			
(A) Comprehensive Social and Logistics Services Agreement (Counterparty: Chinalco)	481	0.20%	500
(B) General Agreement on Mutual Provision of Production Supplies and Ancillary Services (Counterparty: Chinalco)	6,578	2.70%	17,500
(C) Mineral Supply Agreement (Counterparty: Chinalco)	87	0.04%	360
(D) Provision of Engineering, Construction and Supervisory Services Agreement (Counterparty: Chinalco)	735	0.30%	8,300
(E) Land Use Rights Leasing Agreement (Counterparty: Chinalco)	417	0.17%	500
(F) Fixed Assets Leases Framework Contract (Counterparty: Chinalco)	66	0.03%	200

Connected Transactions (Continued)

	Aggregated consideration (for the year ended 31 December 2021) <i>(in RMB million)</i>	Percentage of cost of sales (for the year ended 31 December 2021)	Annual cap for the year 2021 <i>(in RMB million)</i>
(G) Financial Services Agreement (Counterparty: Chinalco Finance Co., Ltd.) Daily cap of deposit balance (including accrued interests)	7,823	3.22%	Daily cap of deposit balance 12,000
Daily cap of loan balance (including accrued interests)	4,067	1.67%	Daily cap of loan balance 15,000
Other financial services	1	0.00%	40
(H) Finance Lease Agreement (Counterparty: Chinalco Finance Lease Co., Ltd.)	251	0.10%	10,000
(I) Factoring Cooperation Agreement (Counterparty: Chinalco Commercial Factoring (Tianjin) Co., Ltd.)	-	0.00%	3,000
(J) Labor and Engineering Services Framework Agreement (Counterparty: Chalco Steering Intelligent Technology Co., Ltd.)	12	0.00%	100
	Aggregated consideration (for the year ended 31 December 2021) <i>(in RMB million)</i>	Percentage of revenue (for the year ended 31 December 2021)	Annual cap for the year 2021 <i>(in RMB million)</i>
Sales of goods or services:			
(B) General Agreement on Mutual Provision of Production Supplies and Ancillary Services (Counterparty: Chinalco)	21,684	8.04%	33,500
(F) Fixed Assets Leases Framework Agreement (Counterparty: Chinalco)	34	0.01%	100



Connected Transactions (Continued)

1. The Company has adopted effective internal control measures to daily monitor the continuing connected transactions of the Group. The Audit Committee of the Company continuously conducts strict review on the continuing connected transactions to ensure the completeness and effectiveness of the internal control measures regarding the continuing connected transactions. The independent non-executive Directors of the Company have reviewed the above transactions and confirmed:
 - (i) the transactions have been entered into in the ordinary and usual course of business of the Group;
 - (ii) the terms of the transactions are fair and reasonable, and are in the interest of the Company's shareholders as a whole;
 - (iii) the transactions have been entered into on normal commercial terms or, where there are not sufficient comparable transactions to judge whether they are on normal commercial terms, they are on terms no less favourable than those available to or offered to independent third parties; and
 - (iv) the transactions have been undertaken in accordance with the terms of relevant agreements governing such transactions.



Connected Transactions (Continued)

2. Pursuant to Rule 14A.56 of the Hong Kong Listing Rules, the Board engaged the auditor of the Company to conduct a limited assurance engagement on the above continuing connected transactions in accordance with Hong Kong Standard on Assurance Engagements 3000 “Assurance Engagements Other Than Audits or Reviews of Historical Financial Information” and with reference to Practice Note 740 “Auditor’s Letter on Continuing Connected Transactions under the Hong Kong Listing Rules” issued by the Hong Kong Institute of Certified Public Accountants. The auditor has reported the results of their procedures to the Board stating that:
 - (a) nothing has come to the auditor’s attention that causes the auditor to believe that the disclosed continuing connected transactions have not been approved by the Board of the Company.
 - (b) for transactions involving the provision of goods or services by the Group, nothing has come to the auditor’s attention that causes the auditor to believe that the transactions were not, in all material respects, in accordance with the pricing policies of the Company.
 - (c) nothing has come to the auditor’s attention that causes the auditor to believe that the transactions were not entered into, in all material respects, in accordance with the relevant agreements governing such transactions.
 - (d) with respect to the aggregate amount of each of the continuing connected transactions set out above, nothing has come to the auditor’s attention that causes the auditor to believe that such continuing connected transactions have exceeded the maximum aggregate annual cap made by the Company in respect of each of the disclosed continuing connected transactions.



Connected Transactions (Continued)

STATEMENT ON THE CONTINUING CONNECTED TRANSACTIONS OF THIS YEAR

1. Existing Continuing Connected Transactions of this Year

(A) Comprehensive Social and Logistics Services Agreement

Date of initial agreement:	5 November 2001
Date of supplemental agreement:	17 September 2018
Parties:	Chinalco (as supplier) (for itself and on behalf of its subsidiaries) The Company (as recipient) (for itself and on behalf of its subsidiaries)
Term:	Three years from 1 January 2019 to 31 December 2021
Nature of transaction:	(i) Social services: public security and firefighting services, education and training, schools, hospitals and health facilities, cultural and sports undertakings, newspapers and magazines, broadcasting, printing and other relevant or similar services; and (ii) Logistics services: property management, environmental and hygiene service, greenery, nurseries, kindergartens, sanatoriums, canteens, hotels, hostels, offices, public transportation, retirement management and other relevant or similar services.



Connected Transactions (Continued)

Price determination: The prices in respect of the relevant services under the Comprehensive Social and Logistics Services Agreement will be determined with reference to comparable local market prices. The comparable local market prices refer to the prices arrived at with reference to those charged or quoted by at least two independent third parties providing services with comparable scale in areas where such services were provided under normal trading conditions around that time.

Payment term: Monthly payment

For more detailed information on this continuing connected transaction, please refer to the announcement dated 17 September 2018 and the supplemental circular dated 26 November 2018 of the Company.

(B) General Agreement on Mutual Provision of Production Supplies and Ancillary Services

Date of initial agreement: 5 November 2001

Date of supplemental agreement: 17 September 2018, 3 June 2019

Parties: Chinalco (as provider and recipient) (for itself and on behalf of its subsidiaries)

The Company (as recipient and recipient) (for itself and on behalf of its subsidiaries)

Term: Three years from 1 January 2019 to 31 December 2021



Connected Transactions (Continued)

- Nature of transaction:
- (a) Production supplies and ancillary services provided by Chinalco to the Company
 - (i) Supplies: carbon products, cement, coal, oxygen, bottled water, steam, fire brick, aluminum fluoride, cryolite, lubricant, resin, clinker, aluminum profiles, copper, zinc ingot and other relevant or similar supplies;
 - (ii) Storage and transportation services: vehicle transportation, loading and unloading, railway transportation and other relevant or similar services;
 - (iii) Ancillary production services: communications, testing, processing and fabrication, engineering design, repair, environmental protection, road maintenance and other relevant or similar services
 - (b) Production supplies and ancillary services provided by the Company to Chinalco
 - (i) Products: electrolytic aluminum products (aluminum ingots) and alumina products, zinc ingot, slag, petroleum coke and other relevant or similar supplies;
 - (ii) Supporting services and ancillary production services: water, electricity, gas and heat supply, measurement, spare parts, repair, testing, transportation, steam and other relevant or similar services



Connected Transactions (Continued)

Price determination:

(1) Production supplies and ancillary services provided by Chinalco to the Company:

- (a) Supplies: the price is determined with reference to the comparable local market prices. The comparable local market prices refer the prices arrived at with reference to those charged or quoted by at least two independent third parties providing products or services with comparable scale in areas where such products or services were provided under normal trading conditions around that time;
- (b) Storage and transportation services: the price is determined with reference to the contractual price, which refers to a mutually agreed price set by all relevant parties for the provision of services. Such price is equivalent to reasonable costs incurred in providing such services plus reasonable profit. Reasonable costs mainly comprise fuel costs, transportation facility fees, relevant labour costs and etc. The reasonable profit (which shall be not more than 5% of such costs) for the storage and transportation services provided by Chinalco to the Company is arrived at through arm's length negotiation between the Company and Chinalco after taking comprehensive consideration of the normal profit margin of such services provided by Chinalco to the Company, and is not higher than the profit margin charged to independent third parties. Such profit margin is considered reasonable by the Company as following the above reasons;



Connected Transactions (Continued)

(c) Ancillary production services: the price is determined with reference to the contractual price, which refers to a mutually agreed price set by all relevant parties for the provision of services. Such price is equivalent to reasonable costs incurred in providing such services plus reasonable profit. Reasonable costs mainly comprise expenses for raw materials, labour costs, manufacturing fees, other indirect costs, etc. The reasonable profit (which shall be not more than 5% of such costs) for the ancillary production services provided by Chinalco to the Company is arrived at through arm's length negotiation between the Company and Chinalco after taking comprehensive consideration of the normal profit margin of such services provided by Chinalco to the Company, and is not higher than the profit margin charged to independent third parties. Such profit margin is considered reasonable by the Company as following the above reasons.

(2) Production supplies and ancillary services provided by the Company to Chinalco:

(a) Products:

(i) Alumina products: the selling price is determined according to a method where both the alumina spot market price and the weighted average price of settlement price for three-month aluminum ingot futures on the Shanghai Futures Exchange weighted in proportion. The Company will consider the geographical location of the customers, the seasonality demands, the transportation costs, and other relevant factors to determine the proportion of weight to be allocated to aforementioned alumina spot market price and the weighted average price of settlement price for three-month aluminum ingot futures on the Shanghai Futures Exchange;



Connected Transactions (Continued)

- (ii) Electrolytic aluminum products (aluminum ingots): the trading price is determined according to the prices of futures in the current month, the weekly or monthly average spot market prices quoted on the Shanghai Futures Exchange;
- (iii) Other products: the price is determined with reference to the contractual price or the comparable local market price. The contractual price refers to a mutually agreed price set by all relevant parties for the provision of products. Such price is equivalent to reasonable costs incurred in providing such products plus reasonable profit. Reasonable costs mainly comprise expenses for raw materials, labour costs, manufacturing fees and etc. The reasonable profit (which shall be not more than 5% of such costs) for other products provided by the Company to Chinalco is arrived at through arm's length negotiation between the Company and Chinalco after taking comprehensive consideration of the normal profit margin of such products provided by the Company to Chinalco, and is not lower than the profit margin charged to independent third parties. Such profit margin is considered reasonable by the Company as following the above principle. The comparable local market prices refer to the prices arrived at with reference to those charged or quoted by at least two independent third parties providing products with comparable scale in areas where such products were provided under normal trading conditions around that time.



Connected Transactions (Continued)

- (b) Supporting services and ancillary production services:
- (i) Electricity supply: According to the provisions of relevant national laws and regulations, and based on the benchmark electricity price set up by the National Development and Reform Commission, local governments will determine their respective local electricity prices in consideration of their respective actual conditions. The price for electricity supply of the Company is determined with reference to the on-grid electricity prices and electricity sales prices proposed to be executed by enterprises set out in the notices issued by the bureau of commodity price in each province published on their websites according to the above local electricity prices from time to time;
 - (ii) Gas, heat and water supply, measurement, spare parts, repair, testing, transportation, steam: the price is determined with reference to the contractual price, which refers to a mutually agreed price set by all relevant parties for the provision of services. Such price is equivalent to reasonable costs incurred in providing such services plus reasonable profit. Reasonable costs mainly comprise expenses for raw materials, fuel costs, transportation facility fees, labour costs, manufacturing fees, etc. The reasonable profit (which shall be not more than 5% of such costs) for provision of a series of services including gas, heat, water supply, etc. by the Company to Chinalco is arrived at through arm's length negotiation between the Company and Chinalco after taking comprehensive consideration of the normal profit margin of such services provided by the Company to Chinalco, and is not lower than the profit margin charged to independent third parties. Such profit margin is considered reasonable by the Company as following the above principle;

Connected Transactions (Continued)

(iii) Other services: the price is determined with reference to the comparable local market prices, which refer to the prices arrived at with reference to those charged or quoted by at least two independent third parties providing services with comparable scale in areas where such services were provided under normal trading conditions around that time.

Payment term: Payment on delivery (payment shall generally be made (a) within a period of time after the delivery of the relevant products at the place designated by the purchasing party or the provision of the relevant services, and the completion of necessary inspections and internal approval procedures; or (b) after setting off the amounts due between the parties where there is mutual provision of products and services. The relevant payment term shall be no less favorable than those under comparable transactions between the Company and independent third parties.)

For more detailed information on this continuing connected transaction, please refer to the announcements dated 17 September 2018, 28 March 2019 and 3 June 2019 and the supplemental circulars dated 26 November 2018 and 10 June 2019 of the Company.

(C) Mineral Supply Agreement

Date of initial agreement: 5 November 2001

Date of Supplemental agreement: 17 September 2018

Parties: Chinalco (as supplier) (for itself and on behalf of its subsidiaries)

The Company (as recipient) (for itself and on behalf of its subsidiaries)

Term: Three years from 1 January 2019 to 31 December 2021



Connected Transactions (Continued)

Nature of transaction:	Supply of bauxite and limestone to the Company by Chinalco; before meeting the Company's bauxite and limestone requirements, Chinalco is not entitled to provide bauxite and limestone to any third party
Price determination:	<p>(i) For the supplies of bauxite and limestone from Chinalco's own mining operations, at reasonable costs incurred in providing the same (which mainly comprise fuel and energy costs, labour costs, security expenses, etc.), plus not more than 5% of such reasonable costs (a buffer for surges in the price level and labour costs, which is arrived at through arm's length negotiation between the Company and Chinalco after taking comprehensive consideration of the normal profit margin of such products provided by Chinalco to the Company, and is not higher than the profit margin charged to independent third parties); and</p> <p>(ii) For the supplies of bauxite and limestone from jointly operated mines, at contractual price paid by Chinalco to such third parties</p>
Payment term:	Payment on delivery (payment shall generally be made (a) within a period of time after the delivery of the relevant products at the place designated by the purchasing party or the provision of the relevant services, and the completion of necessary inspections and internal approval procedures; or (b) after setting off the amounts due between the parties where there is mutual provision of products or services. The relevant payment term shall be no less favorable than those under comparable transactions between the Company and independent third parties.)

For more detailed information on this continuing connected transaction, please refer to the announcement dated 17 September 2018 and the supplemental circular dated 26 November 2018 of the Company.

Connected Transactions (Continued)

(D) Provision of Engineering, Construction and Supervisory Services Agreement

Date of initial agreement:	5 November 2001
Date of Supplemental agreement:	17 September 2018
Parties:	Chinalco (as supplier) (for itself and on behalf of its subsidiaries) The Company (as recipient) (for itself and on behalf of its subsidiaries)
Term:	Three years from 1 January 2019 to 31 December 2021
Nature of transaction:	Services provided by Chinalco to the Company include engineering design, construction and supervisory services as well as relevant research and development operations.
Price determination:	(a) Engineering design: the price is determined by comparable local market prices or through public bidding on a case-by-case basis. The comparable local market prices refer to the prices arrived at with reference to those charged or quoted by at least two independent third parties providing services with comparable scale in areas where such services were provided under normal trading conditions around that time. Price determination through public bidding refers to the prices determined in accordance with the public bidding and tender procedure required by the relevant supervision and administration authorities in the areas where the projects are located. The bidding price shall be controlled within the reasonable range which is close to the base price.



Connected Transactions (Continued)

(b) Construction and supervisory services: the price is determined through public bidding. In such case, the prices will be determined in accordance with the public bidding and tender procedure required by the relevant supervision and administration authorities in the areas where the projects are located. The bidding price shall be controlled within the reasonable range which is close to the base price.

(c) Other relevant services: the price is determined with reference to the comparable local market prices. The comparable local market prices refer to the prices arrived at with reference to those charged or quoted by at least two independent third parties providing services with comparable scale in areas where such services were provided under normal trading conditions around that time.

Payment term:

Payment shall generally be made (a) as to 10% to 20% of the contract price before the provision of the relevant services, up to a maximum of 70% of the contract price during the provision of the relevant services and as to the remaining 10% to 20% of the contract price upon successful provision of the relevant services; (b) in accordance with the prevailing market practice; or (c) in accordance with the arrangement to be agreed by the parties. The relevant payment term shall be no less favourable than those under the comparable transactions between the Company and independent third parties.

For more detailed information on these continuing connected transactions, please refer to the announcement dated 17 September 2018 and the supplemental circular dated 26 November 2018 of the Company.



Connected Transactions (Continued)

(E) Land Use Rights Leasing Agreement

Date of initial agreement: 5 November 2001

Parties: Chinalco (as landlord) (for itself and on behalf of its subsidiaries)

The Company (as tenant) (for itself and on behalf of its subsidiaries)

Term: 50 years expiring on 30 June 2051

As previously disclosed in the letter dated 27 December 2006 from Taifook Capital Limited, the then independent financial adviser to the independent board committee and independent shareholders in relation to certain continuing connected transactions, it is in the interests of the Company and the independent shareholders to have a longer lease term of the land to minimise the disruption of the Group's production and business operations arising from relocation. Given that (i) the size of the leased land and the facilities erected thereon; and (ii) the resources to be expended in establishing new production plants and related facilities, such relocation may be deemed difficult and infeasible. The Directors are of the view that it is normal business practice for contracts of this type to be of such duration.

Nature of transaction: Pursuant to the Land Use Rights Leasing Agreement entered into between the Company and Chinalco, the Company can continue to lease relevant lands (all of which are located in the PRC) from Chinalco for the purpose of the operations and businesses of the Company and its subsidiaries.



Connected Transactions (Continued)

Price determination: The rent shall be negotiated every three years at a rate not higher than prevailing market rent as confirmed by an independent valuer.

Payment term: Monthly payment

For more detailed information on this continuing connected transaction, please refer to the announcement dated 17 September 2018 and the supplemental circular dated 26 November 2018 of the Company.

(F) Fixed Assets Leases Framework Agreement

Date of initial agreement: 28 April 2015

Date of renewed agreement: 19 November 2018

Parties: Chinalco (as both lessor and lessee) (for itself and on behalf of its subsidiaries)

The Company (as both lessor and lessee) (for itself and on behalf of its subsidiaries)

Term: Three years from 1 January 2019 to 31 December 2021

Fixed assets: Buildings, constructions, machinery, apparatus, transportation as well as equipment, appliance or tools and other fixed assets owned by either party in relation to the production and operation.

Price determination: The rent shall be adjusted every two years and shall not be higher than prevailing market rent as confirmed by an independent valuer. When determining the rent, the parties will also make reference to the prices charged or quoted by at least two independent third parties providing services of similar size and nature under normal trading conditions in the market around that time.



Connected Transactions (Continued)

Payment term: Monthly payment

For more detailed information on this continuing connected transaction, please refer to the announcement dated 19 November 2018 and the supplemental circular dated 26 November 2018 of the Company.

(G) Financial Services Agreement

Date of initial agreement: 26 August 2011

Date of renewed agreement: 27 August 2020

Parties: The Company (as recipient) (for itself and on behalf of its subsidiaries)

Chinalco Finance Company Limited ("**Chinalco Finance Company**") (as provider), a subsidiary of Chinalco

Term: Three years from 26 October 2020.

Nature of transaction: Chinalco Finance Company agreed to provide deposit services, settlement services, credit services and miscellaneous financial services to the Group in accordance with the terms and conditions set out in the Financial Services Agreement.

Price determination: (1) Deposit services

The interest rate for the deposits of the Group with Chinalco Finance Company shall be no lower than the interest rate for the same type of deposit announced by the People's Bank of China for the same period, no lower than the interest rate for the same type of deposit offered by major commercial banks in the PRC for the same period, and no lower than the interest rate for the same type of deposit of Chinalco and other members of its group with Chinalco Finance Company for the same period.



Connected Transactions (Continued)

(2) Settlement services

Chinalco Finance Company shall provide the Group with settlement services for free.

(3) Credit services

The interest rate for the loans to be provided by Chinalco Finance Company to the Group shall not exceed the interest rate for the same type of loan provided by Chinalco Finance Company to Chinalco and other members of its group for the same period, or the interest rate for the same type of loan provided to the Group by major commercial banks in the PRC for the same period, whichever is lower.

Chinalco Finance Company shall provide loans to the Group on normal commercial terms and no security is to be granted by the Group over its assets.

(4) Miscellaneous financial services

The fees charged by Chinalco Finance Company for the provision of miscellaneous financial services to the Group shall be in accordance with the relevant benchmark rates for such type of service determined by the People's Bank of China or China Banking and Insurance Regulatory Commission. In addition, such fees shall not exceed those charged by major commercial banks in the PRC for the provision of the same type of financial service for the same period, or those charged by Chinalco Finance Company for the provision of the same type of financial service to Chinalco and other members of its group, whichever is lower.

For more detailed information on this continuing connected transaction, please refer to the announcement dated 27 August 2020, and the circular dated 30 September 2020 of the Company.

Connected Transactions (Continued)

(H) Finance Lease Agreement

Date of initial agreement:	27 August 2015
Date of renewed agreement:	17 September 2018
Parties:	The Company (as lessee) (for itself and on behalf of its subsidiaries) Chinalco Finance Lease Co., Ltd.* (中鋁融資租賃有限公司) (“ Chinalco Lease ”) (as lessor), a subsidiary of Chinalco
Term:	Three years from 1 January 2019 to 31 December 2021
Nature of transaction:	Pursuant to the Financial Lease Framework Agreement, Chinalco Lease shall provide finance lease services to the Group, and at any time within the period from 1 January 2019 to 31 December 2021, the financing balance acquired by the Group from Chinalco Lease shall not exceed RMB10 billion.
Price determination:	The financing costs mainly include lease interest and commission fees, etc. The costs of finance leasing services provided by Chinalco Lease shall not be higher than the financing costs of services of the same or similar nature provided by independent third party finance lease companies in the PRC (the after-tax internal rate of return shall prevail). The lease interest shall be determined with reference to the benchmark interest rates for RMB denominated loans published by the People’s Bank of China on a regular basis; if such rates are not available, then the lease interest shall be determined with reference to the rate charged or quoted by other major finance organisation for the same or similar service.



Connected Transactions (Continued)

Payment term: The Company and Chinalco Lease will, based on the actual cash flows, design flexible payment methods, including but not limited to payment of principal in equal instalments on a quarterly basis, payment of principal and interest in equal instalments on a quarterly basis, payment of principal in unequal instalments on a quarterly basis, payment of principal in equal instalments on a semi-annual basis, payment of principal and interest in equal instalments on an annual basis, etc.

For more detailed information on this continuing connected transaction, please refer to the announcement dated 17 September 2018 and the supplemental circular dated 26 November 2018 of the Company.

(I) Factoring Cooperation Agreement

Date of initial agreement: 27 September 2017

Date of renewed agreement: 17 September 2018

Parties: The Company (as recipient) (for itself and on behalf of its subsidiaries)

Chinalco Commercial Factoring (Tianjin) Co., Ltd. *
(中鋁商業保理(天津)有限公司) (“**Chinalco Factoring**”)
(as provider), a subsidiary of Chinalco

Term: Three years from 1 January 2019 to 31 December 2021

Nature of transaction: Pursuant to the Factoring Cooperation Agreement, Chinalco Factoring shall provide factoring financing services to the Company and the cap (including factoring payment, factoring fee and charges) for the transactions between the Company and Chinalco Factoring shall not exceed RMB3 billion at any time within the term of the agreement.

Connected Transactions (Continued)

Price determination: The financing costs for the services to be provided by Chinalco Factoring to the Company shall not be higher than those charged by independent third party factoring companies in the PRC for similar services.

Payment term: The Company and Chinalco Factoring shall design the payment methods on a flexible basis according to the specific factoring services, including but not limited to payment by the financing party to accounts receivable or by debtors to accounts receivable or both.

For more detailed information on this continuing connected transaction, please refer to the announcement dated 17 September 2018 and the supplemental circular dated 26 November 2018 of the Company.

(J) Labour Services and Engineering Services Agreement

Date of initial agreement: 17 September 2018

Date of renewed agreement: 27 October 2020

Parties: The Company (as recipient) (for itself and on behalf of its subsidiaries)

Chalco Steering Intelligent Technology Co., Ltd. * (中鋁視拓智能科技有限公司) ("**Chalco Steering**") (as provider, for itself and on behalf of its subsidiaries), an associate of Chinalco

Term: From 1 January 2021 to 31 December 2021

Nature of transaction: Pursuant to the agreement, Chalco Steering shall provide the Group with engineering services and labour services such as equipment repairs, intelligent industrial design and maintenance, logistics management, etc.



Connected Transactions (Continued)

Price determination: The price shall be determined with reference to the comparable local market prices. The comparable local market prices refer to the prices arrived at with reference to those charged or quoted by at least two independent third parties providing services with comparable scale in areas where such services were provided under normal trading conditions around that time.

Payment term: The Company shall make payment within three months after Chalco Steering had rendered its services and completed the settlement thereof.

For more detailed information on this continuing connected transaction, please refer to the announcement of the Company dated 27 October 2020.

Connected Transactions (Continued)

2. Approved Continuing Connected Transactions during the Year

(1) Renewal of daily continuing connected transactions between the Company and Chinalco

Since the daily continuing connected transaction agreement entered into between and by the Company and Chinalco would expire on 31 December 2021, the Proposal on Renewal of the Agreement of Continuing Connected Transactions between the Company and Chinalco and the Caps of Such Transactions for Three Years from 2022 to 2024 was considered and approved at the 23rd meeting of the seventh session of the Board of the Company held on 26 October 2021, pursuant to which the Board approved the renewal of the daily continuing connected transactions between the Company and Chinalco and proposed that the caps of such daily continuing connected transactions for three years from 2022 to 2024 shall be as follows:

Unit: in RMB100 million

Transaction		Cap for 2022	Cap for 2023	Cap for 2024
Expenditure	1 Comprehensive Social and Logistics Services Agreement	5.00	5.00	5.00
	2 Land Use Rights Leasing Agreement	15.00	15.00	15.00
	3 Fixed Assets Leases Framework Agreement	3.20	1.30	1.30
	4 General Agreement on Mutual Provision of Production Supplies and Ancillary Services	154.00	149.00	145.00
	5 Mineral Supply Agreement	4.00	4.00	4.00
	6 Provision of Engineering, Construction and Supervisory Services Agreement	60.00	65.00	70.00
Income	1 General Agreement on Mutual Provision of Production Supplies and Ancillary Services	371.00	388.00	411.00
	2 Fixed Assets Leases Framework Agreement	3.00	3.00	3.00



Connected Transactions (Continued)

Regarding the renewal of the above-mentioned continuing connected transactions, the Company and Chinalco signed a Supplementary Agreement with effective clauses dated 26 October 2021 to renew the validity of the Comprehensive Social and Logistics Services Agreement, the General Agreement on Mutual Provision of Production Supplies and Ancillary Services, the Mineral Supply Agreement, and the Engineering Design, Construction and Supervision Service Supply Agreement. Meanwhile, the Company has also signed with Chinalco the Fixed Assets Leases Framework Agreement with effective clauses. The aforementioned agreements are valid from 1 January 2022 to 31 December 2024.

As Chinalco is the controlling shareholder of the Company, Chinalco is a connected person of the Company under the Hong Kong Listing Rules, and the aforesaid agreements on the renewal of the continuing connected transactions and the transactions thereunder constitute continuing connected transactions of the Company under Chapter 14A of the Hong Kong Listing Rules.

As the highest applicable percentage ratio for (1) the expenditure and revenue transactions under the General Agreement on Mutual Provision of Production Supplies and Ancillary Services and (2) the expenditure transactions under the Engineering Design, Construction and Supervision Service Supply Agreement exceed 5%, such transactions shall be subject to the reporting, announcement and independent shareholders' approval requirements under Chapter 14A of the Hong Kong Listing Rules.

As the highest applicable percentage ratio for (1) the expenditure transactions under the Comprehensive Social and Logistics Services Agreement; (2) the expenditure transactions under the Mineral Supply Agreement; (3) the expenditure transactions under the Land Use Rights Leasing Agreement; and (4) the expenditure and revenue transactions under the Fixed Assets Leases Framework Agreement exceed 0.1% but are less than 5%, such transactions shall be subject to the reporting and announcement requirements under Chapter 14A of the Hong Kong Listing Rules and exempt from independent shareholders' approval requirements. However, according to the relevant requirements of the Listing Rules of Shanghai Stock Exchange, such transactions shall still be approved by independent shareholders at the general meeting.

Connected Transactions (Continued)

On 21 December 2021, the Company held the 2021 first extraordinary general meeting, at which it considered and approved the above-mentioned agreements on the renewal of the continuing connected transaction and the transaction caps of such transactions for three years from 2022 to 2024.

For details of the aforesaid matter, please refer to the announcement of the Company dated 26 October 2021 and the supplemental circular dated 6 December 2021.

(2) Renewal of the Factoring Cooperation Framework Agreement between the Company and Chinalco Factoring

Since the Factoring Cooperation Framework Agreement entered into between and by the Company and Chinalco Factoring would expire on 31 December 2021, the Proposal on Renewal of the Factoring Cooperation Framework Agreement between the Company and Chinalco Commercial Factoring Co., Ltd. and the Cap of Such Transactions for Three Years from 2022 to 2024 was considered and approved at the 23rd meeting of the seventh session of the Board of the Company held on 26 October 2021. On the same day, the Company and Chinalco Factoring entered into the Factoring Cooperation Framework Agreement, which is valid from 1 January 2022 to 31 December 2024. The cap (including factoring payment, factoring fee and charges) for the transactions between the Company and Chinalco Factoring shall not exceed RMB1 billion at any time within the term of the agreement.

As Chinalco Factoring is a subsidiary of Chinalco, the controlling shareholder of the Company, Chinalco Factoring is a connected person of the Company under the Hong Kong Listing Rules, and the renewal of the Factoring Cooperation Framework Agreement and the transactions thereunder constitute continuing connected transactions of the Company under Chapter 14A of the Hong Kong Listing Rules. As the highest applicable percentage ratio in respect of the aforesaid transactions exceeds 0.1% but is less than 5%, the transactions shall be subject to reporting and announcement requirements under Chapter 14A of the Hong Kong Listing Rules but is exempt from the independent shareholders' approval requirement.

For details of the aforesaid matter, please refer to the announcement of the Company dated 26 October 2021.



Connected Transactions (Continued)

(3) Renewal of the Financial Leasing Cooperation Framework Agreement between the Company and Chinalco Leasing

Since the Financial Leasing Cooperation Framework Agreement entered into between and by the Company and Chinalco Leasing would expire on 31 December 2021, the Proposal on Renewal of the Financial Leasing Cooperation Framework Agreement between the Company and Chinalco Financial Leasing Co., Ltd. and the Caps of Such Transactions for Three Years from 2022 to 2024 was considered and approved at the 23rd meeting of the seventh session of the Board of the Company held on 26 October 2021. On the same day, the Company and Chinalco Leasing entered into the Financial Leasing Cooperation Framework Agreement with effective clauses, which is valid from 1 January 1 2022 to 31 December 2024. The cap for the financing amount obtained by the Company from Chinalco Leasing shall not exceed RMB2.5 billion at any time within the term of the agreement, of which the cap for the direct leasing business shall not exceed RMB1.5 billion and the cap for the sale and leaseback business shall not exceed RMB1 billion.

As Chinalco Leasing is a subsidiary of Chinalco, the controlling shareholder of the Company, Chinalco Leasing is a connected person of the Company under the Hong Kong Listing Rules, and the renewal of the Financial Leasing Cooperation Framework Agreement and the transactions thereunder constitute continuing connected transactions of the Company under Chapter 14A of the Hong Kong Listing Rules. As the highest applicable percentage ratio in respect of the aforesaid transactions exceeds 0.1% but is less than 5%, the transactions shall be subject to reporting and announcement requirements under Chapter 14A of the Hong Kong Listing Rules but is exempt from the independent shareholders' approval requirement. However, according to the relevant requirements of the Listing Rules of Shanghai Stock Exchange, such transactions shall still be approved by independent shareholders at the general meeting.

On 21 December 2021, the Company held the 2021 first extraordinary general meeting, at which it considered and approved the renewal of the Financial Leasing Cooperation Framework Agreement and the transaction caps of such transactions for three years from 2022 to 2024.

For details of the aforesaid matter, please refer to the announcement dated 26 October 2021 and the circular dated 4 November 2021 of the Company.



Connected Transactions (Continued)

ONE-OFF CONNECTED TRANSACTIONS (NON-EXEMPTED) RELATED TO ACQUISITION AND DISPOSAL OF ASSETS

1. Acquisition of Gallium Assets by the Company from China Rare Metals and Rare Earths Company Ltd. (“**China Rare Earths**”)

On 24 August 2021, the 22nd meeting of the seventh session of the Board of the Company considered and approved the Proposal on Acquisition of Gallium Assets by the Company from China Rare Metals and Rare Earths Company Ltd., approving that the Company’s Guangxi Branch, Chalco Mining (the Company’s wholly-owned subsidiary) and Zunyi Aluminium (the Company’s controlled subsidiary) acquired the gallium assets of China Rare Earths Guangxi Gallium Branch, Henan Gallium Branch and Zunyi Gallium Branch in cash through agreement at a consideration of RMB39,2,411,600. On the same day, the Company’s Guangxi Branch, Chalco Mining and Zunyi Aluminium entered into the Asset Transfer Agreement with China Rare Earths Guangxi Gallium Branch, Henan Gallium Branch and Zunyi Gallium Branch respectively.

As China Rare Earths is a subsidiary of Chinalco, the controlling shareholder of the Company, China Rare Earths is a connected person of the Company under Chapter 14A of the Hong Kong Listing Rules and the aforesaid transaction constitutes a connected transaction of the Company under Chapter 14A of the Hong Kong Listing Rules. As the highest applicable percentage ratio in respect of the aforesaid transaction exceeds 0.1% but is less than 5%, the transaction shall be subject to reporting and announcement requirements but is exempt from the independent shareholders’ approval requirement.

For details of the aforesaid matter, please refer to the announcement of the Company dated 24 August 2021 and 14 September 2021.



Connected Transactions (Continued)

2. Participation of the Company in the Establishment of Chinalco Green and Low-Carbon Fund

On 21 December 2021, the 24th meeting of the seventh session of the Board of the Company considered and approved the Proposal on Participation of the Company in the Establishment of Chinalco Green and Low-Carbon Fund, approving that the Company would act as a limited partner to jointly establish Chinalco Suihe Nonferrous Metals Green and Low-carbon Innovation Development Fund (Beijing) Partnership (Limited Partnership) (tentative name, the “**Fund**”) with its limited partners, Chinalco and its subsidiaries, including Chinalco Capital Holdings Co., Ltd. (“**Chinalco Capital Holdings**”), China Copper Co., Ltd. (“**China Copper**”) and Chinalco High-end Manufacturing Co., Ltd. (“**Chinalco High-end Manufacturing**”), ABC Financial Asset Investment Co., Ltd. and its general partners, including Chinalco Innovation Development Equity Investment Fund Management (Beijing) Co., Ltd. (“**Chinalco Innovation Investment**”) and ABC Capital Management Co., Ltd. The overall size of the Fund is RMB6 billion. The Company intended to contribute RMB1.02 billion, accounting for 17%. Upon establishment, the Fund would not become a subsidiary of the Company and its financial results would not be consolidated in the accounts of the Company. As of the date of this report, the partners have not entered into any specific agreement on the establishment of the Fund.

As Chinalco is the controlling shareholder of the Company, and Chinalco Capital Holdings, China Copper, Chinalco High-end Manufacturing, and Chinalco Innovation Investment are all the subsidiaries of Chinalco, aforementioned companies are connected persons of the Company under Chapter 14A of the Hong Kong Listing Rules and the aforesaid transaction constitutes a connected transaction of the Company under Chapter 14A of the Hong Kong Listing Rules.

For details of the aforesaid matter, please refer to the announcement of the Company dated 21 December 2021.



Connected Transactions (Continued)

3. Subscription for Shares by the Company of Yunnan Aluminum to be Issued through Non-public Offering

On 23 December 2020, the 14th meeting of the seventh session of the Board of the Company considered and approved the Resolution in relation to the Proposed Subscription for Shares by the Company of Yunnan Aluminum Co., Ltd. to be Issued through Non-public Offering, approving that the Company would participate in the subscription for A shares of Yunnan Aluminum to be issued through non-public offering with its total subscription amount not more than RMB320 million. On the same day, the Conditional Share Subscription Agreement for Non-public Offering of Shares of Yunnan Aluminum Co., Ltd. was entered into between and by the Company and Yunnan Aluminum.

On 16 March 2021, the Supplemental Agreement on the Conditional Share Subscription Agreement for Non-public Offering of Shares of Yunnan Aluminum Co., Ltd. was entered into between and by the Company and Yunnan Aluminum, which further agreed the subscription amount of the Company ranging from RMB200 million to RMB320 million.

On 2 December 2021, the Supplemental Agreement on the Conditional Share Subscription Agreement for Non-public Offering of Shares of Yunnan Aluminum Co., Ltd. was entered into between and by the Company and Yunnan Aluminum, pursuant to which the Company subscribed for 36,240,090 A shares of Yunnan Aluminum to be issued through non-public offering at the price of RMB8.83 per share. Upon completion of the subscription, the Company would hold approximately 10.10% of the shares of Yunnan Aluminum after non-public offering, and Yunnan Aluminum would not be a subsidiary of the Company.

As Yunnan Aluminum is a subsidiary of Chinalco, the controlling shareholder of the Company, it is a connected person of the Company under Chapter 14A of the Hong Kong Listing Rules and the aforesaid transaction constitutes a connected transaction of the Company under Chapter 14A of the Hong Kong Listing Rules. As the highest applicable percentage ratio in respect of the aforesaid transaction exceeds 0.1% but is less than 5%, the transaction shall be subject to reporting and announcement requirements but is exempt from the independent shareholders' approval requirement.

For details of the aforesaid matter, please refer to the announcements of the Company dated 23 December 2020, 16 March 2021 and 2 December 2021.



Connected Transactions (Continued)

OTHER CONNECTED TRANSACTIONS (NON-EXEMPT)

The Company proposed to adopt 2021 Restricted Shares Incentive Scheme (the “**Incentive Scheme**”) and grant restricted A shares to connected participants according to the Incentive Scheme

On 21 December 2021, the 24th meeting of the seventh session of the Board of the Company considered and approved the relevant proposals on the Company’s 2021 Restricted Shares Incentive Scheme. The Company proposed to issue no more than 141,000,000 restricted A shares to be granted to the participants (including those under the first grant and the reserved grant) under the Incentive Scheme pursuant to a specific mandate, accounting for approximately 0.83% of the Company’s total share capital of 17,022,672,951 shares as at the date of this report. Specifically, 131,000,000 shares are proposed to be granted under the first grant, accounting for 92.91% of the total equity of the grant, and approximately 0.77% of the total share capital of the Company as at the date of this report; 10,000,000 shares are reserved to be granted, accounting for 7.09% of the total equity of the grant, and approximately 0.06% of the total share capital of the Company as at the date of this report. Among the restricted shares to be granted in the first grant, 6,506,700 restricted shares in aggregate will be granted to 32 connected participants in total, and not more than 124,493,300 restricted shares in aggregate will be granted to not more than 1,160 other participants who are not connected persons of the Company. The price of the restricted shares under the first grant shall be RMB3.08 per A share. Upon fulfilment of the grant conditions, each participant is entitled to purchase the restricted shares of the Company newly issued by the Company to the participants at the price of RMB3.08 per A share. Prior to each grant of reserved restricted shares, a Board meeting shall be convened to consider and approve the relevant proposal and details relating to the grant shall be announced accordingly.

The Incentive Scheme does not constitute a share option scheme pursuant to Chapter 17 of the Hong Kong Listing Rules. Pursuant to Rule 19A.38 of the Hong Kong Listing Rules, the proposed adoption of the Restricted A Share Incentive Scheme is subject to the approvals of the shareholders at the extraordinary general meeting, the class meeting of A shareholders and the class meeting of H shareholders. Certain participants of the grant are the connected participants, who are the connected persons of the Company. Grant of restricted A shares to the connected participants under the Incentive Scheme constitutes a connected transaction of the Company and is subject to the reporting, announcement and independent shareholders’ approval requirements under the Hong Kong Listing Rules.



Connected Transactions (Continued)

The aforesaid matters are pending to submit to the 2022 first extraordinary general meeting, 2022 first class meeting of A shareholders and 2022 first class meeting of H shareholders to be convened by the Company on 26 April 2022 for consideration and approval.

For details of the aforesaid matters, please refer to the announcements of the Company dated 21 December 2021, 22 December 2021 and 17 March 2022, and the supplemental circular dated 7 March 2022.

Independent Auditors' Report

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)



羅兵咸永道

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

OPINION

What we have audited

The consolidated financial statements of Aluminum Corporation of China Limited (the "Company") and its subsidiaries (the "Group"), which are set out on pages 189 to 394, comprise:

- the consolidated statement of financial position as at 31 December 2021;
- the consolidated statement of profit or loss and other comprehensive income for the year then ended;
- the consolidated statement of changes in equity for the year then ended;
- the consolidated statement of cash flows for the year then ended; and
- the notes to the consolidated financial statements, which include significant accounting policies and other explanatory information.

Our opinion

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2021, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards ("IFRSs") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.



Independent Auditors' Report (Continued)

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

BASIS FOR OPINION

We conducted our audit in accordance with International Standards on Auditing ("ISAs"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

INDEPENDENCE

We are independent of the Group in accordance with the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants ("IESBA Code"), and we have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

KEY AUDIT MATTERS

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

Key audit matters identified in our audit are summarised as follows:

- Impairment assessment of property, plant and equipment
- Impairment assessment of goodwill

Independent Auditors' Report (Continued)

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

KEY AUDIT MATTERS (CONTINUED)

Key Audit Matter

Impairment assessment of property, plant and equipment

Refer to Notes 3(a), Note 7 and Note 26 to the consolidated financial statements.

As at 31 December 2021, the Group's net carrying amount of property, plant and equipment ("PP&E") was RMB93,427 million. Management assesses related assets for potential impairment whenever there are indications that the carrying value of an asset or a group of assets may not be recoverable. As at 31 December 2021, management performed impairment assessment on PP&E with impairment indications at the level of cash generating unit ("CGU") to which the PP&E was allocated using discounted cash flow model. The discounted cash flows model used for the impairment assessment of PP&E involved significant assumptions including product prices and the discount rate. Based on the impairment test, RMB2,328 million of impairment losses were recognised by management for PP&E for the year ended 31 December 2021.

We focused on auditing the impairment assessment of PP&E because the carrying amount of PP&E as at 31 December 2021 and the amount of PP&E impairment recognised for the year ended 31 December 2021 was significant, and the estimation of recoverable amount of PP&E was subject to high degree of estimation uncertainty. The inherent risk in relation to the impairment assessment of PP&E is considered significant due to the complexity of the model and subjectivity of significant assumptions used. Therefore, we identified impairment assessment of PP&E as a key audit matter.

How our audit addressed the Key Audit Matter

In addressing this matter, we performed the following procedures:

- Obtained an understanding of the management's internal control and assessment process of recoverable amounts of PP&E, and assessed the inherent risk of material misstatement by considering the degree of estimation uncertainty and the level of other inherent risk factors such as complexity, subjectivity, changes and susceptibility to management bias or fraud.
- Evaluated and tested the key controls over the impairment assessment of PP&E, including controls over the development of model and significant assumptions used in the impairment test.
- Evaluated the reasonableness of the significant assumptions of the product prices applied by management by comparing the management forecast prices against the historical and present market prices, taking into account the published forecast prices.
- Involved our valuation experts to evaluate the appropriateness of the model and the reasonableness of the discount rate that management used.
- Tested the completeness, accuracy and relevancy of the underlying data used and the mathematical accuracy of the calculations in the model.

Based on our work, we found that the result of management's impairment assessment of PP&E was supported by the evidence we obtained.

Independent Auditors' Report (Continued)

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

KEY AUDIT MATTERS (CONTINUED)

Key Audit Matter

How our audit addressed the Key Audit Matter

Impairment assessment of goodwill

Refer to Notes 3(b) and Note 6 to the consolidated financial statements.


In addressing this matter, we performed the following procedures:

As at 31 December 2021, the Group's carrying value of goodwill was RMB3,510 million. Management performed impairment assessment of goodwill on an annual basis. When performing the impairment assessment, the recoverable amount of the CGU to which the goodwill was allocated was estimated by management using discounted cash flow model, and compared with the carrying amount of the CGU to determine if goodwill was impaired. The discounted cash flow models used for the impairment assessment of goodwill involved significant assumptions including product prices, the long-term growth rate and the discount rate. No impairment losses were recognised by management for goodwill for the year ended 31 December 2021.

- Obtained an understanding of the management's internal control and assessment process of recoverable amounts of goodwill, and assessed the inherent risk of material misstatement by considering the degree of estimation uncertainty and the level of other inherent risk factors such as complexity, subjectivity, changes and susceptibility to management bias or fraud.
- Evaluated and tested the key controls over the impairment assessment of goodwill,, including controls over the development of model and significant assumptions used in the impairment test.
- Evaluated the reasonableness of the product prices applied by management by comparing the management forecast prices against the historical and present market prices taking into account the published forecast prices.
- Involved our valuation experts to evaluate the appropriateness of the model and the reasonableness of certain significant assumptions, including the long-term growth rate and the discount rate.
- Tested the completeness, accuracy and relevancy of the underlying data used and the mathematical accuracy of the calculations in the models.

We focused on auditing the impairment assessment of goodwill because the carrying amount of goodwill as at 31 December 2021 was significant, and the estimation of recoverable amount of goodwill was subject to high degree of estimation uncertainty. The inherent risk in relation to the impairment assessment of goodwill is considered significant due to the complexity of the model and subjectivity of significant assumptions used. Therefore, we identified impairment assessment of goodwill as a key audit matter.

Based on our work, we found that the result of management's impairment assessment of goodwill was supported by the evidence we obtained.



Independent Auditors' Report (Continued)

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

OTHER INFORMATION

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

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

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

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

RESPONSIBILITIES OF DIRECTORS AND THOSE CHARGED WITH GOVERNANCE FOR THE CONSOLIDATED FINANCIAL STATEMENTS

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

In preparing the consolidated financial statements, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

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



Independent Auditors' Report (Continued)


To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. We report our opinion solely to you, as a body, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

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

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.



Independent Auditors' Report (Continued)

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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



Independent Auditors' Report (Continued)

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

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

The engagement partner on the audit resulting in this independent auditor's report is LEONG Kin Bong.

PricewaterhouseCoopers

Certified Public Accountants

Hong Kong, 22 March 2022

(If there is any inconsistency between the English and Chinese version of the independent auditor's report, the English version shall prevail).

As at 31 December 2021
 (Amounts expressed in thousands of RMB
 unless otherwise stated)

Consolidated Statement of Financial Position

	Notes	31 December 2021	31 December 2020 (Restated)
ASSETS			
Non-current assets			
Intangible assets	6	12,986,876	13,448,304
Property, plant and equipment	7	93,427,029	100,712,423
Investment properties	8	1,814,589	1,601,876
Right-of-use assets	20(a)	18,346,136	14,287,838
Investments in joint ventures	9(a)	3,350,959	3,374,553
Investments in associates	9(b)	9,636,634	9,173,410
Other financial assets measured at fair value	10	239,538	1,526,703
Deferred tax assets	11	1,386,147	1,481,235
Other non-current assets	12	2,474,946	3,165,920
Total non-current assets		143,662,854	148,772,262
Current assets			
Inventories	13	18,677,875	19,861,776
Trade and notes receivables	14	6,904,850	9,313,647
Other current assets	15	3,953,326	6,348,401
Other financial assets measured at fair value	37.2	–	17,311
Restricted cash	16	1,324,748	1,056,037
Cash and cash equivalents (excluding bank overdrafts)	16	17,853,244	9,671,477
Total current assets		48,714,043	46,268,649
Total assets		192,376,897	195,040,911

Consolidated Statement of Financial Position (Continued)

As at 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

	<i>Notes</i>	31 December 2021	31 December 2020 (Restated)
EQUITY AND LIABILITIES			
EQUITY			
Share capital	17	17,022,673	17,022,673
Other equity instruments	40	2,498,429	4,486,429
Other reserves	18	30,919,358	34,915,968
Retained earnings/(Accumulated losses)		6,824,227	(1,975,753)
Total equity attributable to owners of the Company		57,264,687	54,449,317
Non-controlling interests	38	15,518,810	16,855,847
Total equity		72,783,497	71,305,164
LIABILITIES			
Non-current liabilities			
Interest-bearing loans and borrowings	19	64,095,849	57,518,097
Other non-current liabilities	21	1,938,240	2,147,558
Deferred tax liabilities	11	1,378,519	1,437,087
Total non-current liabilities		67,412,608	61,102,742

As at 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

Consolidated Statement of Financial Position (Continued)

	<i>Notes</i>	31 December 2021	31 December 2020 (Restated)
Current liabilities			
Trade and notes payables	23	15,505,443	15,444,354
Other payables and accrued liabilities	22	9,353,693	10,755,679
Contract liabilities	5	2,177,072	1,399,340
Financial liabilities at fair value through profit or loss	37.2	68,871	26,684
Income tax payable		569,591	299,665
Interest-bearing loans and borrowings	19	24,506,122	34,707,283
Total current liabilities		52,180,792	62,633,005
Total liabilities		119,593,400	123,735,747
Total equity and liabilities		192,376,897	195,040,911
Net current liabilities		(3,466,749)	(16,364,356)
Total assets less current liabilities		140,196,105	132,407,906

The accompanying notes on pages 198 to 394 are an integral part of these consolidated financial statements.

The financial statements on pages 189 to 394 were approved by the Board of Directors on 22 March 2022 and were signed on its behalf.

Liu Jianping
Director

Wang Jun
Chief Financial Officer

Consolidated Statement of Profit or Loss and Other Comprehensive Income

Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

	Notes	For the year ended 31 December	
		2021	2020 (Restated)
Revenue	5	269,748,232	185,990,577
Cost of sales	25	(243,269,910)	(173,674,234)
Gross profit		26,478,322	12,316,343
Selling and distribution expenses	25	(314,926)	(315,653)
General and administrative expenses	25	(5,204,208)	(4,157,694)
Research and development expenses	25	(2,362,204)	(1,434,056)
Impairment losses on property, plant and equipment	7	(2,328,131)	(416,842)
Net impairment losses on financial assets	26	(1,384,888)	(979,161)
Other income	27	148,399	139,551
Other (losses)/gains – net	28	(1,623,503)	903,871
Operating profit		13,408,861	6,056,359
Finance income	29	275,996	227,201
Finance costs	29	(3,942,761)	(4,420,528)
Finance costs, net		(3,666,765)	(4,193,327)
Share of net profits of investments accounted for using the equity method			
Joint ventures	9 (a)	164,100	180,502
Associates	9 (b)	272,584	145,737
		436,684	326,239
Profit before income tax		10,178,780	2,189,271
Income tax expense	32	(2,389,761)	(590,023)
Profit for the year		7,789,019	1,599,248

Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

Consolidated Statement of Profit or Loss and Other Comprehensive Income (Continued)

	Notes	For the year ended 31 December	
		2021	2020 (Restated)
Profit attributable to:			
Owners of the Company		5,079,562	764,306
Non-controlling interests		2,709,457	834,942
		7,789,019	1,599,248
Basic and diluted earnings per share attributable to owners of the Company (expressed in RMB per share)			
	33	0.286	0.030
Profit for the year		7,789,019	1,599,248
Other comprehensive income			
<i>Items that will not be reclassified to profit or loss</i>			
Exchange differences on translation of foreign operations		255,230	163,008
<i>Items that will not be reclassified to profit or loss</i>			
Changes in fair value of financial assets measured at fair value through other comprehensive income		(52,207)	(43,920)
Income tax effect		11,117	3,066
Share of other comprehensive income of associates and joint ventures accounted for using the equity method		8,879	(2,522)
Other comprehensive income for the year, net of tax		223,019	119,632
Total comprehensive income for the year		8,012,038	1,718,880
Total comprehensive income for the year attributable to:			
Owners of the Company		5,303,141	885,421
Non-controlling interests		2,708,897	833,459
		8,012,038	1,718,880

The accompanying notes on pages 198 to 394 are an integral part of these consolidated financial statements.

Consolidated Statement of Changes in Equity

Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

	Attributable to owners of the Company											
	Capital reserves									Total	Non-controlling interests	Total equity
	Share capital (Note 17)	Share premium	Other reserves	Statutory surplus reserve	Special reserve	Fair value reserve	Other equity instruments	Foreign currency translation reserve	Retained earnings/ (Accumulated losses)			
At 31 December 2020	17,022,673	27,003,477	1,161,392	5,867,557	179,255	7,618	4,486,429	345,205	(1,741,596)	54,332,010	16,839,706	71,171,716
Adjustment due to business combinations under common control (Note 39)	-	350,291	-	-	1,173	-	-	-	(234,157)	117,307	16,141	133,448
At 1 January 2021 (Restated)	17,022,673	27,353,768	1,161,392	5,867,557	180,428	7,618	4,486,429	345,205	(1,975,753)	54,449,317	16,855,847	71,305,164
Profit for the year	-	-	-	-	-	-	-	-	5,079,562	5,079,562	2,709,457	7,789,019
Other comprehensive income for the year												
Changes in fair value of equity investments at fair value through other comprehensive income, net of tax	-	-	-	-	-	(41,090)	-	-	-	(41,090)	-	(41,090)
Exchange differences on translation of foreign operations	-	-	-	-	-	-	-	255,790	-	255,790	(560)	255,230
Share of other comprehensive income of associates and joint ventures accounted for using the equity method	-	-	-	-	-	8,879	-	-	-	8,879	-	8,879
Total comprehensive income for the year	-	-	-	-	-	(32,211)	-	255,790	5,079,562	5,303,141	2,708,897	8,012,038
Business combination under common control (Note 39)	-	(395,624)	-	-	-	-	-	-	-	(395,624)	-	(395,624)
Disposal of subsidiaries	-	-	-	-	-	-	-	-	-	-	(3,886)	(3,886)
Dividends distribution by subsidiaries to non-controlling shareholders	-	-	-	-	-	-	-	-	-	-	(540,418)	(540,418)
Capital reduction from non-controlling shareholders	-	-	9,798	-	-	-	-	-	-	9,798	(15,087)	(5,289)
Appropriation to surplus reserves	-	-	-	254,642	-	-	-	-	(254,642)	-	-	-
Distribution of other equity instruments	-	-	-	-	-	-	-	-	(209,500)	(209,500)	(140,127)	(349,627)
Offset of statutory surplus reserves against accumulated losses (Note 18)	-	-	-	(4,229,913)	-	-	-	-	4,229,913	-	-	-
Disposal of other equity instrument investments	-	-	-	-	-	45,353	-	-	(45,353)	-	-	-
Other appropriations	-	-	-	-	92,003	-	-	-	-	92,003	39,834	131,837
Share of reserves of joint ventures and associates	-	-	-	-	15,552	-	-	-	-	15,552	-	15,552
Repayment of senior perpetual securities	-	-	(12,000)	-	-	-	(1,988,000)	-	-	(2,000,000)	(3,386,250)	(5,386,250)
As at 31 December 2021	17,022,673	26,958,144	1,159,190	1,892,286	287,983	20,760	2,498,429	600,995	6,824,227	57,264,687	15,518,810	72,783,497

Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

Consolidated Statement of Changes in Equity (Continued)

	Attributable to owners of the Company											
	Capital reserves			Statutory surplus reserve	Special reserve	Fair value reserve	Other equity instruments	Foreign currency translation reserve	Retained earnings/ (Accumulated losses)	Total	Non-controlling interests	Total equity
	Share capital (Note 17)	Share premium	Other reserves									
At 31 December 2019	17,022,673	27,022,102	1,108,544	5,867,557	139,891	49,511	5,487,104	182,197	(2,207,600)	54,671,979	16,085,487	70,757,466
Adjustment due to business combinations under common control (Note 39)	-	341,724	-	-	-	-	-	-	(257,459)	84,265	11,124	95,389
At 1 January 2020 (Restated)	17,022,673	27,363,826	1,108,544	5,867,557	139,891	49,511	5,487,104	182,197	(2,465,059)	54,756,244	16,096,611	70,852,855
Profit for the year	-	-	-	-	-	-	-	-	764,306	764,306	834,942	1,599,248
Other comprehensive income for the year												
Changes in fair value of equity investments at fair value through other comprehensive income, net of tax	-	-	-	-	-	(39,371)	-	-	-	(39,371)	(1,483)	(40,854)
Exchange differences on translation of foreign operations	-	-	-	-	-	-	-	163,008	-	163,008	-	163,008
Share of other comprehensive income of associates and joint ventures accounted for using the equity method	-	-	-	-	-	(2,522)	-	-	-	(2,522)	-	(2,522)
Total comprehensive income for the year	-	-	-	-	-	(41,893)	-	163,008	764,306	885,421	833,459	1,718,880
Business combinations under common control (Note 39)	-	(13,329)	-	-	-	-	-	-	-	(13,329)	23,996	10,667
Capital injection from non-controlling shareholders	-	3,271	-	-	-	-	-	-	-	3,271	426,751	430,022
Disposal of subsidiaries	-	-	3,616	-	-	-	-	-	-	3,616	-	3,616
Issuance of senior perpetual securities	-	-	-	-	-	-	1,000,000	-	-	1,000,000	-	1,000,000
Release of deferred government subsidies	-	-	49,290	-	-	-	-	-	-	49,290	-	49,290
Other appropriations	-	-	-	-	33,432	-	-	-	-	33,432	(19,741)	13,691
Share of reserves of joint ventures and associates	-	-	(58)	-	7,105	-	-	-	-	7,047	-	7,047
Distribution of other equity instruments	-	-	-	-	-	-	-	-	(275,000)	(275,000)	(146,416)	(421,416)
Underwriting fees of other equity instruments	-	-	-	-	-	-	(675)	-	-	(675)	-	(675)
Dividends distribution of subsidiaries to non-controlling shareholders	-	-	-	-	-	-	-	-	-	-	(358,813)	(358,813)
Repayment of senior perpetual securities	-	-	-	-	-	-	(2,000,000)	-	-	(2,000,000)	-	(2,000,000)
At 31 December 2020 (Restated)	17,022,673	27,353,768	1,161,392	5,867,557	180,428	7,618	4,486,429	345,205	(1,975,753)	54,449,317	16,855,847	71,305,164

The accompanying notes on pages 198 to 394 are an integral part of these consolidated financial statements.

Consolidated Statement of Cash Flows

Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

	Notes	For the year ended 31 December	
		2021	2020 (Restated)
Net cash flows from operating activities	35	28,230,385	14,907,468
Investing activities			
Purchases of intangible assets		(93,654)	–
Purchases of property, plant and equipment		(2,039,354)	(5,038,896)
Purchases of right of use assets		(2,544)	–
Proceeds from disposal of property, plant and equipment		1,011,232	1,534,275
Proceeds from disposal of intangible assets		9,548	277,715
Proceeds from disposal of right of use assets		21,421	15,117
Proceeds from disposal of subsidiaries, net of cash		20,950	42,910
Acquisition of subsidiaries, net of cash		–	3,690
Proceeds from disposal of a joint venture and an associate		50,984	–
Investments in joint ventures		–	(4,333)
Investments in associates		(341,000)	(7,473)
Proceeds from disposal of other financial assets measured at fair value		12,850,400	11,207,783
Purchase of other financial assets at fair value		(11,900,000)	(7,020,000)
Investment (loss) paid/income received from other financial assets measured at fair value		(447,137)	524,727
Dividend received from other financial assets measured at fair value		10,912	82,794
Dividends received from associates and joint ventures		606,236	323,109
Change in deposit of futures contracts		(628,661)	(56,156)
Repayment of entrusted loans		50,395	–
Asset-related government grants received		75,971	47,558
Net cash flows (used)/generated in investing activities		(744,301)	1,932,820

Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

Consolidated Statement of Cash Flows (Continued)

	Notes	For the year ended 31 December	
		2021	2020 (Restated)
Financing activities			
Instalment payment of bonds issuance expenses		(30,752)	(29,285)
Proceeds from issuance of medium-term notes and short-term bonds		24,845,054	25,900,000
Repayments of senior perpetual securities		(5,386,250)	(2,000,000)
Proceeds from issuance of senior perpetual securities		–	1,000,000
Repayments of medium-term notes and short-term bonds		(21,537,420)	(30,638,813)
Repayments of gold leasing arrangement		–	(6,921,860)
Senior perpetual securities' distribution		(349,627)	(421,416)
Drawdown of short-term and long-term bank and other loans		29,542,456	46,021,404
Repayments of short-term and long-term bank and other loans		(40,560,042)	(43,111,460)
Principle portion of lease payments		(639,675)	(1,748,202)
Capital injection from non-controlling shareholders		–	197,276
Dividends paid by subsidiaries to non-controlling shareholders		(460,744)	(356,340)
Interest paid		(3,505,649)	(3,664,725)
Cash consideration paid for business combination under common control		(395,624)	–
Net cash flows used in financing activities		(18,478,273)	(15,773,421)
Net increase in cash and cash equivalents		9,007,811	1,066,867
Cash and cash equivalents at beginning of year		8,771,522	7,793,056
Effect of foreign exchange rate changes, net		73,911	(88,401)
Cash and cash equivalents at end of year	16	17,853,244	8,771,522

The accompanying notes on pages 198 to 394 are an integral part of these consolidated financial statements.



Notes to Financial Statements

*Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)*

1 GENERAL INFORMATION

Aluminum Corporation of China Limited (the “Company”) (中國鋁業股份有限公司) and its subsidiaries (together the “Group”) are principally engaged in exploration and mining of bauxite resources; production, sales, related technical development and technical services of alumina, primary aluminum, aluminum alloy and carbon; power generation business; exploration, mining and operation of coal resources; trading and logistics.

The Company is a joint stock company which was established on 10 September 2001 and is domiciled in the People’s Republic of China (the “PRC”) with limited liability. The address of its registered office is No. 62 North Xizhimen Street, Haidian District, Beijing, the PRC.

The Company’s shares have been listed on the Main Board of the Hong Kong Stock Exchange and the New York Stock Exchange since 2001. The Company also listed its A shares on the Shanghai Stock Exchange in 2007.

In the opinion of the directors, the ultimate holding company and parent of the Company is Aluminum Corporation of China (“Chinalco”) (中國鋁業集團有限公司), a company incorporated and domiciled in the PRC and wholly owned by the State-owned Assets Supervision and Administration Commission of the State Council.

1 GENERAL INFORMATION (CONTINUED)

Information about subsidiaries

Particulars of the Company's principal subsidiaries are as follows:

Name	Place of registration and business	Registered capital	Principal activities	Percentage of equity attributable to the Company	
				Direct	Indirect
Shanxi Huaxing Aluminum Co. Ltd. ("Shanxi Huaxing") (山西華興鋁業有限公司)	PRC/Mainland China	1,850,000	Manufacture and distribution of alumina	60.00%	40.00%
Baotou Aluminum Co., Ltd. ("Baotou Aluminum") (包頭鋁業有限公司)	PRC/Mainland China	2,245,510	Manufacture and distribution of primary aluminum, aluminum alloy and related fabricated products and carbon products	100.00%	-
China Aluminum International Trading Co., Ltd. ("Chalco Trading") (中鋁國際貿易有限公司)	PRC/Mainland China	1,731,111	Import and export activities	100.00%	-
Chalco Shanxi New Material Co., Ltd. ("Shanxi New Material") (中鋁山西新材料有限公司)	PRC/Mainland China	4,279,601	Manufacture and distribution of alumina, primary aluminum and anode carbon products and electricity generation and supply	85.98%	-
China Aluminum International Trading Group Co., Ltd. ("Trading Group") (中鋁國際貿易集團有限公司)	PRC/Mainland China	1,030,000	Import and export activities	100.00%	-
Zunyi Aluminum Co., Ltd. (遵義鋁業股份有限公司)	PRC/Mainland China	3,204,900	Manufacture and distribution of primary aluminum and alumina	67.45%	-
Chalco Hong Kong Ltd. ("Chalco Hong Kong") (中國鋁業香港有限公司)	Hong Kong	HKD849,940 in thousand	Overseas investments and alumina import and export activities, and mining and distribution of bauxite.	100.00%	-

Notes to Financial Statements (Continued)

1 GENERAL INFORMATION (CONTINUED)

Information about subsidiaries (Continued)

Name	Place of registration and business	Registered capital	Principal activities	Percentage of equity attributable to the Company	
				Direct	Indirect
Chalco Mining Co., Ltd. ("Chalco Mining") (中鋁礦業有限公司)	PRC/Mainland China	4,028,859	Manufacture, acquisition and distribution of bauxite mines, limestone ore and alumina	100.00%	–
Chalco Energy Co., Ltd. (中鋁能源有限公司)	PRC/Mainland China	1,384,398	Thermoelectric supply and investment management	100.00%	–
China Aluminum Ningxia Energy Group Co., Ltd. ("Ningxia Energy") (中鋁寧夏能源集團)	PRC/Mainland China	5,025,800	Thermal power, wind power and solar power generation, coal mining, and power-related equipment manufacturing	70.82%	–
Guizhou Huajin Aluminum Co., Ltd. ("Guizhou Huajin") (貴州華錦鋁業有限公司)	PRC/Mainland China	1,000,000	Manufacture and distribution of alumina	60.00%	–
Chalco Zhengzhou Research Institute of Non-ferrous Metal Co., Ltd. (中國鋁業鄭州有色金屬研究院有限公司)	PRC/Mainland China	214,858	Research and development services	100.00%	–
Chalco Shandong Co., Ltd. ("Chalco Shandong") (中鋁山東有限公司)	PRC/Mainland China	4,052,847	Manufacture and distribution of alumina	100.00%	–
Chalco Zhongzhou Aluminum Co., Ltd. ("Zhongzhou Aluminum") (中鋁中州鋁業有限公司)	PRC/Mainland China	5,071,235	Manufacture and distribution of alumina	100.00%	–

1 GENERAL INFORMATION (CONTINUED)

Information about subsidiaries (Continued)

Name	Place of registration and business	Registered capital	Principal activities	Percentage of equity attributable to the Company	
				Direct	Indirect
China Aluminum Logistics Group Corporation Co., Ltd. (中鋁物流集團有限公司)	PRC/Mainland China	964,291	Logistics and transportation	100.00%	–
Chinalco Shanxi Jiaokou Xinghua Technology Ltd. ("Xinghua Technology") (中鋁集團山西交口 興華科技股份有限公司)	PRC/Mainland China	588,182	Manufacture and distribution of primary aluminum	33.00%	33.00%
Chinalco Shanghai Company Limited ("Chinalco Shanghai") (中鋁(上海)有限公司)	PRC/Mainland China	968,300	Trading and engineering project management and leasing	100.00%	–
Shanxi China Huarun Co., Ltd. ("Shanxi Huarun") (山西中鋁華潤有限公司)	PRC/Mainland China	1,641,750	Manufacture and distribution of primary aluminum	40.00%	–
Guizhou Huaren New Material Co., Ltd. ("Guizhou Huaren") (貴州華仁新材料有限公司)	PRC/Mainland China	1,200,000	Manufacture and distribution of primary aluminum	40.00%	–
Chinalco Materials Co., Ltd. (中鋁物資有限公司)	PRC/Mainland China	1,000,000	Import and export activities and trading	100.00%	–

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

This note provides a list of the significant accounting policies adopted in the preparation of these consolidated financial statements. These policies have been consistently applied to all the years presented, unless otherwise stated. The financial statements are for the Group consisting of the Company and its subsidiaries.

2.1 Basis of preparation

2.1.1 Compliance with IFRS and HKCO

The consolidated financial statements of the Company have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Financial Reporting Standards Board ("IASB") and the disclosure requirements of the Hong Kong Companies Ordinance Cap. 622 ("HKCO").

The preparation of the financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 3.

2.1.2 Going Concern

As at 31 December 2021, the Group's current liabilities exceeded its current assets by approximately RMB3,467 million (31 December 2020 (restated): RMB16,364 million). The directors of the Company have considered the Group's available sources of funds as follows:

- The Group's expected net cash inflows from operating activities in 2022;
- Unutilised banking facilities of approximately RMB92,044 million as at 31 December 2021, of which amounts totaling RMB25,530 million will remain unexpired over the 12 months from 31 December 2021. The directors of the Company are confident that these banking facilities could be renewed upon expiration based on the Group's past experience and good credit standing;

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.1 Basis of preparation (Continued)

2.1.2 Going Concern (Continued)

- Other available sources of financing from banks and other financial institutions given the Group's credit history.

The directors of the Company believe that the Group has adequate resources to continue operations for the foreseeable future of not less than 12 months from 31 December 2021. The directors of the Company therefore are of the opinion that it is appropriate to adopt the going concern basis in preparing the consolidated financial statements.

2.1.3 Historical cost convention

The financial statements have been prepared on a historical cost basis except for certain financial assets and financial liabilities measured at fair value.

2.1.4 New and amended standards adopted by the Group

New standards and amendments that are effective for the first time for periods commencing on or after 1 January 2021 did not have any material impact on the amounts recognised in prior periods and are not expected to significantly affect the current or future periods.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.1 Basis of preparation (Continued)

2.1.5 New standards and interpretations not yet adopted

Certain new accounting standards and interpretations have been published that are not mandatorily effective for 31 December 2021 reporting periods and have not been early adopted by the Group. These standards are not expected to have a material impact on the entity in the current or future reporting periods and on foreseeable future transactions.

2.1.6 Changes in accounting policies

(i) Presentation of transportation and logistic costs

The Group previously presented the transportation and logistic costs incurred to fulfill the sales contracts in the item of “selling and distribution expenses” in the consolidated statement of profit or loss. In 2021, due to the mandatory change in the presentation of such transportation and logistic costs in the consolidated statement of profit or loss of the Group under Accounting Standard for Business Enterprise issued by the Ministry of Finance of China (“CAS”), i.e., change from “selling and distribution expenses” to “cost of sales”, the Group made the same change in presentation in the consolidated statement of profit or loss under IFRS. Accordingly, the comparative consolidated statement of profit or loss for the year ended 31 December 2020 was restated with the amount of RMB1,141 million reclassified from selling and distribution expenses to cost of sales. This change in accounting policy did not have any impact on the opening balance sheet of the Group for the year ended 31 December 2021.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.1 Basis of preparation (Continued)

2.1.6 Changes in accounting policies (Continued)

(ii) *Accounting for the investments in associates and joint ventures in the separate financial statements*

In the prior years, the Company accounted for the investments in associates and joint ventures at cost. In 2021, to make the carrying amounts of these investments better reflect their status and values, and to reduce the difference between the financial statements of the Company under IFRS and CAS, the Company changed the accounting for the investment in associates and joint ventures in the separate financial statements from cost method to equity method. This change in accounting treatment has been accounted for retrospectively and comparative information has been restated.

2.2.1 Subsidiaries

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

The acquisition method of accounting is used to account for business combinations by the Group (Note 2.3).

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.2.1 Subsidiaries (Continued)

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

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

2.2.2 Associates

Associates are all entities over which the Group has significant influence but not control or joint control. This is generally the case where the Group holds between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting (Note 2.2.4), after initially being recognised at cost.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.2.3 Joint arrangements

Under IFRS 11 'Joint Arrangements', investments in joint arrangements are classified as either joint operations or joint ventures. The classification depends on the contractual rights and obligations of each investor, rather than the legal structure of the joint arrangement. The Group only has joint ventures.

Joint ventures

Interests in joint ventures are accounted for using the equity method (Note 2.2.4), after initially being recognised at cost in the consolidated statement of financial position.

2.2.4 Equity method

Under the equity method of accounting, the investments are initially recognised at cost and adjusted thereafter to recognise the Group's share of the post-acquisition profits or losses of the investee in profit or loss, and the Group's share of movements in other comprehensive income of the investee in other comprehensive income. Dividends received or receivable from associates and joint ventures are recognised as a reduction in the carrying amount of the investment.

Where the Group's share of losses in an equity-accounted investment equals or exceeds its interest in the entity, including any other unsecured long-term receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the other entity.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.2.4 Equity method (Continued)

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

The carrying amount of equity-accounted investments is tested for impairment in accordance with the policy described in Note 2.11.

2.2.5 Changes in ownership interests

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

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

If the ownership interest in a joint venture or an associate is reduced but joint control or significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income are reclassified to profit or loss where appropriate.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.3 Business combination

(a) Merger accounting for business combinations under common control

The consolidated financial statements incorporate the financial statements of the combining entities or businesses in business combination under common control as if they had been combined from the date when the combining entities or businesses first came under the control of the ultimate holding company.

The net assets of the combining entities or businesses are consolidated using the carrying amount from the ultimate holding company's perspective. No amount is recognised for goodwill or excess of the Group's interest in the book value of the net assets over cost at the time of the common control combination, to the extent of the continuation of the ultimate holding company's interest.

The consolidated statement of comprehensive income includes the results of each of the combining entities or businesses from the earliest date presented or since the date when the combining entities or businesses first came under common control, where this is a shorter period, regardless of the date of the common control combination.

The comparative financial data have been restated to reflect the business combinations under common control occurred during this year (Note 39).

Transaction costs, including professional fees, registration fees, costs of furnishing information to shareholders, costs or losses incurred in combining operations of the previously separate businesses and other costs incurred in relation to the common control combination that is to be accounted for by using the merger accounting method are recognised as expenses in the period in which they are incurred.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.3 Business combination (Continued)

(b) Acquisition method of accounting for other business combinations and goodwill

The acquisition method of accounting is used to account for the acquisition of subsidiaries by the Group, other than common control combinations. The consideration transferred is measured at the acquisition date fair value which is the sum of acquisition date fair value of assets transferred by the Group, liabilities assumed by the Group to the former owner of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. The consideration transferred included the fair value of any assets and liabilities resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at fair value at the acquisition date. All other components of non-controlling interests are measured at fair value. For each business combination, the Group elects whether to measure the non-controlling interests in the acquiree that are present ownership interests and entitle their holders to a proportional share of net assets in the event of liquidation at fair value or at the proportional share of the acquiree's identifiable net assets.

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date. This includes the separation of embedded derivatives in host contracts of the acquiree.

If the business combination is achieved in stages, the previously held equity interest is remeasured at its acquisition date fair value and any resulting gain or loss is recognised in profit or loss.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.3 Business combination (Continued)

(b) Acquisition method of accounting for other business combinations and goodwill (Continued)

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred, the amount recognised for non-controlling interests and any fair value of the Group's previously held equity interests in the acquiree over the identifiable net assets acquired and liabilities assumed. If the sum of this consideration and other items is lower than the fair value of the net assets acquired, the difference is, after reassessment, recognised in profit or loss as a gain on bargain purchase.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is tested for impairment at least annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired. The Group performs its annual impairment test of goodwill as at 31 December. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the Group are assigned to those units or groups of units.

Impairment is determined by assessing the recoverable amount of the cash-generating unit (group of cash-generating units) to which the goodwill relates. Where the recoverable amount of the cash-generating unit (group of cash-generating units) is less than the carrying amount, an impairment loss is recognised. An impairment loss recognised for goodwill is not reversed in a subsequent period.

Where goodwill has been allocated to a cash-generating unit (or group of cash-generating units) and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on the disposal. Goodwill disposed of in these circumstances is measured based on the relative value of the operation disposed of and the portion of the cash-generating unit retained.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.4 Separate financial statements

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

Impairment testing of the investments in subsidiaries is required upon receiving a dividend from these investments if the dividend exceeds the total comprehensive income of the subsidiary in the period the dividend is declared or if the carrying amount of the investment in the separate financial statements exceeds the carrying amount in the consolidated financial statements of the investee's net assets including goodwill.

2.5 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision-makers, who are responsible for allocating resources and assessing the performance of the operating segments, have been identified as the executive presidents committee of the Company that make strategic decisions.

2.6 Foreign currency translation

(a) Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The consolidated financial statements are presented in RMB, which is the Company's functional and presentation currency.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.6 Foreign currency translation (Continued)

(b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at year end exchange rates are generally recognised in profit or loss.

Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss. For example, translation differences on non-monetary assets and liabilities such as equities held at fair value through profit or loss are recognised in profit or loss as part of the fair value gain or loss and translation differences on non-monetary assets such as equities classified as fair value through other comprehensive income are recognised in other comprehensive income.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.6 Foreign currency translation (Continued)

(c) Group companies

The results and financial positions of all the group entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- (i) assets and liabilities in each statement of financial position presented are translated at the closing rates at the end of the reporting period;
- (ii) income and expenses in each statement of profit and loss and other comprehensive income are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rates at the dates of the transactions); and
- (iii) all resulting exchange differences are recognised in other comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.6 Foreign currency translation (Continued)

(d) Disposal of foreign operation and partial disposal

On the disposal of a foreign operation (that is, a disposal of the group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, a disposal involving loss of joint control over a joint venture that includes a foreign operation, or a disposal involving loss of significant influence over an associate that includes a foreign operation), all of the currency translation differences accumulated in equity in respect of that operation attributable to the owners of the company are reclassified to profit or loss.

2.7 Property, plant and equipment

Property, plant and equipment, other than construction in progress, are stated at cost less accumulated depreciation and any impairment losses. When an item of property, plant and equipment is classified as held for sale or when it is part of a disposal group classified as held for sale, it is not depreciated and is accounted for in accordance with IFRS 5. Construction in progress represents buildings under construction, which is stated at cost less any impairment losses, and is not depreciated. The cost of an item of property, plant and equipment comprises its purchase price and any directly attributable costs of bringing the asset to its working condition and location for its intended use.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the group and the cost of the item can be measured reliably. The carrying amount of any component accounted for as a separate asset is derecognised when replaced. All other repairs and maintenance are charged to profit or loss during the reporting period in which they are incurred.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.7 Property, plant and equipment (Continued)

Depreciation is calculated using the straight-line method to allocate their cost or revalued amounts, net of their residual values, over their estimated useful lives as follows:

Buildings and infrastructure	8 – 45 years
Machinery	3 – 30 years
Transportation facilities	6 – 10 years
Office and other equipment	3 – 10 years

Residual values, useful lives and the depreciation method are reviewed, and adjusted if appropriate, at least at each financial year end.

Construction in progress (“CIP”) represents buildings under construction, which is stated at cost less any impairment losses, and is not depreciated. Cost comprises the direct costs of construction and capitalised borrowing costs on related borrowed funds during the period of construction. CIP is reclassified to the appropriate categories of property, plant and equipment when completed and ready for use.

An asset’s carrying amount is written down immediately to its recoverable amount if the asset’s carrying amount is greater than its estimated recoverable amount (Note 2.11).

Gains and losses on disposals are determined by comparing proceeds with carrying amount. These are included in profit or loss.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.8 Investment properties

Investment properties are interests in land use rights and buildings (including the leasehold property held as a right-of-use asset which would otherwise meet the definition of an investment property) held to earn rental income and/or for capital appreciation, rather than for use in the production or supply of goods or services or for administrative purposes; or for sale in the ordinary course of business. Such properties are measured initially at cost, including transaction costs. After initial recognition, the Group uses the cost methods to measure all of its investment properties.

Depreciation is calculated using the straight-line method to allocate their cost or revalued amounts, net of their residual values, over their estimated useful lives as follows:

Buildings	25 – 50 years
Land use rights	40 – 70 years

The carrying amounts of investment properties measured using the cost method are reviewed for impairment when events or changes in circumstances indicate that the carrying amounts may not be recoverable.

Any gains or losses on the retirement or disposal of an investment property are recognised in profit or loss in the year of the retirement or disposal.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.9 Intangible assets

(a) Goodwill

Goodwill is measured as described in Note 2.3. Goodwill on acquisitions of subsidiaries is included in intangible assets. Goodwill is not amortised but it is tested for impairment annually, or more frequently if events or changes in circumstances indicate that it might be impaired, and is carried at cost less accumulated impairment losses. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

Goodwill is allocated to cash-generating units for the purpose of impairment testing. The allocation is made to those cash-generating units or groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose. The units or groups of units are identified at the lowest level at which goodwill is monitored for internal management purposes, being the operating segments (Note 5).

(b) Mining rights and mineral exploration rights

The Group's mineral exploration rights and mining rights relate to coal, bauxite and other mines.

(i) Recognition

Except for mineral exploration rights and mining rights acquired in a business combination, mineral exploration rights and mining rights are initially recorded at cost which includes the acquisition consideration, qualifying exploration and other direct costs. The mineral exploration rights are stated at cost less any impairment, and the mining rights are stated at cost less any amortisation and impairment.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.9 Intangible assets (Continued)

(b) Mining rights and mineral exploration rights (Continued)

(ii) *Reclassification*

Mineral exploration rights are converted to mining rights when obtain mining rights certification, or technical feasibility and commercial viability of extracting a mineral resource are demonstrable, and are subject to amortisation when commercial production has commenced.

The Group assesses the stage of each mine under construction to determine when a mine moves into the production stage. The criteria used to assess the start date are determined based on the unique nature of each mine construction project. The Group considers various relevant criteria, such as completion of a reasonable period of testing of the mine and equipment, ability to produce in saleable form (within specifications) and ability to sustain ongoing production to assess when a mine is substantially complete and ready for its intended use.

(iii) *Amortisation*

Mining rights other than coal mining rights are amortised on a straight-line basis over a shorter period of the mining right valid period and expected mining life. Estimated mineable periods of the majority of the mining rights range from 3 to 30 years.

Coal mining rights are amortised on a unit-of-production basis over the economically recoverable reserves evaluated based on the reserves estimated in accordance with the standards of the mine concerned.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.9 Intangible assets (Continued)

(b) Mining rights and mineral exploration rights (Continued)

(iv) Impairment

An impairment review is performed when there are indicators that the carrying amount of the mineral exploration rights and mining rights may exceed their recoverable amounts. To the extent that this occurs, the excess is fully provided as an impairment loss.

(c) Computer software

Acquired computer software licences are capitalised on the basis of the costs incurred to acquire and bring to use specific software. These costs are amortised over their estimated useful lives, which do not exceed 10 years. Costs associated with maintaining computer software programmes are recognised as an expense as incurred.

(d) Aluminum production quota

Historically the Group acquired aluminum production quotas from third parties as the license for certain newly developed aluminum production lines. Currently such aluminum production quotas have no definite legal or regulatory terms, and their residual values at the end of the lives of the production lines to which they are currently attached are very uncertain. Aluminum production quota are initially recorded at cost and subsequently states at cost less any amortisation and impairment. Amortisation is provided on a straight-line basis over expected useful life of related aluminum production lines.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.10 Research and development costs

Research and development expenditures are classified as research expenditures and development expenditures according to the nature of the expenditures and whether there is significant uncertainty of development activities transforming to assets.

Research expenditures are recognised in profit or loss for the current period. Development expenditures are recognised as assets when all of the following criteria are met:

- (i) it is technically feasible to complete the asset so that it will be available for use or sale;
- (ii) management intends to complete the asset and intends and has the ability to use or sell it;
- (iii) it can be demonstrated that the asset will generate probable future economic benefits;
- (iv) there are adequate technical, financial and other resources to complete the development of the asset and management has the ability to use or sell the asset; and
- (v) the expenditure attributable to the asset during its development phase can be reliably measured.

Development expenditures that do not meet the criteria above are recorded in profit or loss for the current period as incurred. Development expenditures that have been recorded in profit or loss in previous periods will be not recognised as assets in subsequent periods. The Group has not had any development expenditure capitalised.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.11 Impairment of non-financial assets

Goodwill and intangible assets that have an indefinite useful life are not subject to amortisation and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. Other assets are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash inflows which are largely independent of the cash inflows from other assets or groups of assets (cash-generating units). Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

2.12 Non-current assets (or disposal groups) held for sale

Non-current assets (or disposal groups) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable. They are measured at the lower of their carrying amount and fair value less costs to sell, except for assets such as deferred tax assets, assets arising from employee benefits, financial assets and investment property that are carried at fair value and contractual rights under insurance contracts, which are specifically exempt from this requirement.

An impairment loss is recognised for any initial or subsequent write-down of the asset (or disposal group) to fair value less costs to sell. A gain is recognised for any subsequent increases in fair value less costs to sell of an asset (or disposal group), but not in excess of any cumulative impairment loss previously recognised. A gain or loss not previously recognised by the date of the sale of the non-current asset (or disposal group) is recognised at the date of derecognition.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.12 Non-current assets (or disposal groups) held for sale (Continued)

Non-current assets (including those that are part of a disposal group) are not depreciated or amortised while they are classified as held for sale. Interest and other expenses attributable to the liabilities of a disposal group classified as held for sale continue to be recognised.

Non-current assets classified as held for sale and the assets of a disposal group classified as held for sale are presented separately from the other assets in the balance sheet. The liabilities of a disposal group classified as held for sale are presented separately from other liabilities in the balance sheet.

2.13 Investments and other financial assets

(a) Classification

The Group classifies its financial assets in the following measurement categories:

- those to be measured subsequently at fair value (either through OCI or through profit or loss), and
- those to be measured at amortised cost.

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

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.13 Investments and other financial assets (Continued)

(a) Classification (Continued)

Except for trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient of not adjusting the effect of a significant financing component, the Group initially measures a financial asset at its fair value, plus in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables and notes receivable that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under IFRS 15 in accordance with the policies set out for “Revenue recognition” below.

For a financial asset to be classified and measured at amortised cost or fair value through other comprehensive income, it needs to give rise to cash flows that are solely payments of principal and interest (“SPPI”) on the principal amount outstanding. Financial assets with cash flows that are not SPPI are classified and measured at fair value through profit or loss, irrespective of the business model.

The Group’s business model for managing financial assets refers to how it manages its financial assets to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both. Financial assets classified and measured at amortised cost are held within a business model with the objective to hold financial assets to collect contractual cash flows, while financial assets classified and measured at fair value through other comprehensive income are held within a business model with the objective of both holding to collect contractual cash flows and selling. Financial assets which are not held within the aforementioned business models are classified and measured at fair value through profit or loss.

All regular way purchases and sales of financial assets are recognised on the trade date, that is, the date that the Group commits to purchase or sell the asset. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the period generally established by regulation or convention in the market place.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.13 Investments and other financial assets (Continued)

(b) Subsequent measurement

The subsequent measurement of financial assets depends on their classification as follows:

(i) *Financial assets at amortised cost (debt instruments)*

Financial assets at amortised cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

(ii) *Financial assets at fair value through other comprehensive income (debt instruments)*

For debt investments at fair value through other comprehensive income, interest income, foreign exchange revaluation and impairment losses or reversals are recognised in profit or loss and computed in the same manner as for financial assets measured at amortised cost. The remaining fair value changes are recognised in other comprehensive income. Upon derecognition, the cumulative fair value change recognised in other comprehensive income is recycled to profit or loss.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.13 Investments and other financial assets (Continued)

(b) Subsequent measurement (Continued)

(iii) Financial assets designated at fair value through other comprehensive income (equity investments)

Upon initial recognition, the Group can elect to classify irrevocably its equity investments as equity investments designated at fair value through other comprehensive income when they meet the definition of equity under IAS 32 Financial Instruments: Presentation and are not held for trading. The classification is determined on an instrument-by-instrument basis.

Gains and losses on these financial assets are never recycled to profit or loss. Dividends are recognised as other income in profit or loss when the right of payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably, except when the Group benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in other comprehensive income. Equity investments designated at fair value through other comprehensive income are not subject to impairment assessment.

(iv) Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with net changes in fair value recognised in profit or loss.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.13 Investments and other financial assets (Continued)

(b) Subsequent measurement (Continued)

(iv) *Financial assets at fair value through profit or loss (Continued)*

This category includes derivative instruments, wealth management products and equity investments which the Group had not irrevocably elected to classify at fair value through other comprehensive income. Dividends on equity investments classified as financial assets at fair value through profit or loss are also recognised as other gains in profit or loss when the right of payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

A derivative embedded in a hybrid contract, with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at fair value through profit or loss. Embedded derivatives are measured at fair value with changes in fair value recognised in profit or loss. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through profit or loss category.

A derivative embedded within a hybrid contract containing a financial asset host is not accounted for separately. The financial asset host together with the embedded derivative is required to be classified in its entirety as a financial asset at fair value through profit or loss.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.13 Investments and other financial assets (Continued)

(b) Subsequent measurement (Continued)

(iv) *Financial assets at fair value through profit or loss (Continued)*

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e., removed from the Group's consolidated statement of financial position) when:

- the rights to receive cash flows from the asset have expired; or
- the Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a "pass-through" arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered a pass-through arrangement, it evaluates if, and to what extent, it has retained the risk and rewards of ownership of the asset. When it has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the Group continues to recognise the transferred asset to the extent of the Group's continuing involvement. In that case, the Group also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.13 Investments and other financial assets (Continued)

(c) Impairment of financial assets

The Group recognises an allowance for expected credit losses (“ECLs”) for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The impact of COVID-19 on GDP and other key indicators have been considered when determining the severity and likelihood of downside economic scenarios that are used to estimate ECL under IFRS 9 in 2021.

General approach

ECLs are recognised in three stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12 months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL). For those have objective evidence of impairment at the reporting date, lifetime ECL are recognised and interest revenue is calculated on the net carrying amount.

At each reporting date, the Group assesses whether the credit risk on a financial instrument has increased significantly since initial recognition. When making the assessment, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition and considers reasonable and supportable information that is available without undue cost or effort, including historical and forward-looking information.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.13 Investments and other financial assets (Continued)

(c) Impairment of financial assets (Continued)

General approach (Continued)

The Group considers a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

Debt investments at fair value through other comprehensive income and financial assets at amortised cost are subject to impairment under the general approach and they are classified within the following stages for measurement of ECLs except for trade receivables and contract assets which apply the simplified approach as detailed below.

Stage 1 – Financial instruments for which credit risk has not increased significantly since initial recognition and for which the loss allowance is measured at an amount equal to 12-month ECLs

Stage 2 – Financial instruments for which credit risk has increased significantly since initial recognition but that are not credit-impaired financial assets and for which the loss allowance is measured at an amount equal to lifetime ECLs

Stage 3 – Financial assets that are credit-impaired at the reporting date (but that are not purchased or originated credit-impaired) and for which the loss allowance is measured at an amount equal to lifetime ECLs

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.13 Investments and other financial assets (Continued)

(c) Impairment of financial assets (Continued)

Simplified approach

For trade receivables, notes receivable and contract assets that do not contain a significant financing component or when the Group applies the practical expedient of not adjusting the effect of a significant financing component, the Group applies the simplified approach in calculating ECLs. Under the simplified approach, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

For trade receivables, notes receivable and contract assets that contain a significant financial component and lease receivables, the Group chooses as its accounting policy to adopt the simplified approach in calculating ECLs with policies as described above.

2.14 Financial liabilities

(a) Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Group's financial liabilities include trade and other payables, derivative financial instruments and interest-bearing bank and other borrowings.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.14 Financial liabilities (Continued)

(b) Subsequent measurement

The subsequent measurement of financial liabilities depends on their classification as follows:

(i) Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss.

Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivative financial instruments entered by the Group that are not designated as hedging instruments in hedge relationships as defined by IFRS 9. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments. Gains or losses on liabilities held for trading are recognised in profit or loss. The net fair value gain or loss recognised in profit or loss does not include any interest charged on these financial liabilities.

(ii) Financial liabilities at amortised cost (loans and borrowings)

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortised cost, using the effective interest rate method unless the effect of discounting would be immaterial, in which case they are stated at cost. Gains and losses are recognised in profit or loss when the liabilities are derecognised as well as through the effective interest rate amortisation process.

Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortisation is included in finance costs in profit or loss.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.14 Financial liabilities (Continued)

(b) Subsequent measurement (Continued)

(iii) Financial liabilities at amortised cost (trade and other payables)

These amounts represent liabilities for goods and services provided to the Group prior to the end of financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition. Trade and other payables are presented as current liabilities unless payment is not due within 12 months after the reporting period. They are subsequently measured at amortised cost using the effective interest method.

(iv) Financial guarantee contracts

Financial guarantee contracts issued by the Group are those contracts that require a payment to be made to reimburse the holder for a loss it incurs because the specified debtor fails to make a payment when due in accordance with the terms of a debt instrument. A financial guarantee contract is recognised initially as a liability at its fair value, adjusted for transaction costs that are directly attributable to the issuance of the guarantee. Subsequent to initial recognition, the Group measures the financial guarantee contracts at the higher of: (i) the ECL allowance determined in accordance with the policy as set out in "Impairment of financial assets"; and (ii) the amount initially recognised less, when appropriate, the cumulative amount of income recognised.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.14 Financial liabilities (Continued)

(c) Derecognition of financial liabilities

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and a recognition of a new liability, and the difference between the respective carrying amounts is recognised in profit or loss.

2.15 Offsetting financial instruments

Financial assets and liabilities are offset and the net amount is reported in the balance sheet where the Group currently has a legally enforceable right to offset the recognised amounts, and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.

2.16 Derivatives

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument. The Group's derivative instruments do not qualify for hedge accounting. Changes in the fair value of any derivative instrument that does not qualify for hedge accounting are recognised immediately in profit or loss and are included in other gains/(losses).

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.17 Inventories

Raw materials and stores, work in progress and finished goods are stated at the lower of cost and net realisable value. Cost comprises direct materials, direct labour and an appropriate proportion of variable and fixed overhead expenditure, the latter being allocated on the basis of normal operating capacity. Costs are assigned to individual items of inventory on the basis of weighted average costs. Costs of purchased inventory are determined after deducting rebates and discounts. Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

2.18 Cash and cash equivalents

For the purpose of presentation in the statement of cash flows, cash and cash equivalents includes cash on hand and demand deposits, and short term highly liquid investments that are readily convertible into known amounts of cash, are subject to an insignificant risk of changes in value, and have a short maturity of generally within three months when acquired, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities in the balance sheet.

2.19 Borrowing costs

General and specific borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are capitalised during the period of time that is required to complete and prepare the asset for its intended use or sale. Qualifying assets are assets that necessarily take a substantial period of time to get ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

Other borrowing costs are expensed in the period in which they are incurred.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.20 Current and deferred income tax

The income tax expense or credit for the period is the tax payable on the current period's taxable income based on the applicable income tax rate for each jurisdiction adjusted by changes in deferred tax assets and liabilities attributable to temporary differences and to unused tax losses.

Current income tax

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period in the countries where the Company and its subsidiaries and associates operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation and considers whether it is probable that a taxation authority will accept an uncertain tax treatment. The Group measures its tax balances either based on the most likely amount or the expected value, depending on which method provides a better prediction of the resolution of the uncertainty.

Deferred income tax

Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill. Deferred income tax is also not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.20 Current and deferred income tax (Continued)

Deferred income tax (Continued)

Deferred tax assets are recognised only if it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

Deferred tax liabilities and assets are not recognised for temporary differences between the carrying amount and tax bases of investments in foreign operations where the Company is able to control the timing of the reversal of the temporary differences and it is probable that the differences will not reverse in the foreseeable future.

Deferred tax assets and liabilities are offset where there is a legally enforceable right to offset current tax assets and liabilities and where the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

Current and deferred tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the tax is also recognised in other comprehensive income or directly in equity, respectively.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.21 Employee benefits

Employee benefits mainly include salaries, bonuses, allowances and subsidies, pension insurance, social insurance and housing funds, labour union fees, employees' education fees and other expenses related to the employees for their services. The Group recognises employee benefits as liabilities during the accounting period when employees rendered the services and allocates the related cost of assets and expenses based on different beneficiaries.

(a) Bonus plans

The expected cost of bonus plans is recognised as a liability when the Group has a present legal or constructive obligation as a result of services rendered by employees and a reliable estimate of the obligation can be made.

(b) Retirement benefit obligations

The Group primarily pays contributions on a monthly basis to participate in a pension plan organised by the relevant municipal and provincial governments in the PRC. The municipal and provincial governments undertake to assume the retirement benefit obligations of all existing and future retired employees payable under these plans. The Group has no legal or constructive obligations for further contributions if the fund does not hold sufficient assets to pay all employees the benefit relating to their current and past services.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.21 Employee benefits (Continued)

- (c) In addition, the Company and its eligible subsidiaries have established an enterprise annuity plan in accordance with national policies and relevant requirements under the Company's system. Fees required for the enterprise annuity plan shall be jointly paid by the enterprise and its employees. Employees may elect to join or not to join the enterprise annuity plan on voluntary basis.

As at 31 December 2021, the Group had no forfeited contributions available to offset contributions payable in future years. For the year ended 31 December 2021, the Group did not have any defined benefit plan.

(d) **Other social insurance and housing funds**

The Group provides other social insurance and housing funds to the qualified employees in the PRC based on certain percentages of their salaries. These percentages are not to exceed the upper limits of the percentages prescribed by the Ministry of Human Resources and Social Security of the PRC. These benefits are paid to social security organisations and the amounts are expensed as incurred. The Group has no legal or constructive obligations for further contributions if the fund does not hold sufficient assets to pay all employees the benefit relating to their current and past services.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.21 Employee benefits (Continued)

(e) Termination benefit obligations

Termination benefit obligations are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefit obligations when it is demonstrably committed to either: terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal; or providing termination benefits as a result of an offer made to encourage voluntary redundancy. The specific terms vary among the terminated employees depending on various factors including position, length of service and district of the employees concerned. Benefits falling due for more than 12 months after the end of the reporting period are discounted to their present values.

2.22 Provisions

Provisions for legal claims, asset retirement obligations are recognised when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. Provisions are not recognised for future operating losses.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.22 Provisions (Continued)

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the end of the reporting period. The discount rate used to determine the present value is a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The increase in the provision due to the passage of time is recognised as interest expense.

2.23 Revenue recognition

Revenue from contracts with customers

Revenue from contracts with customers is recognised when control of goods or services is transferred to the customers at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

When the consideration in a contract includes a variable amount, the amount of consideration is estimated to which the Group will be entitled in exchange for transferring the goods or services to the customer. The variable consideration is estimated at contract inception and constrained until it is highly probable that a significant revenue reversal in the amount of cumulative revenue recognised will not occur when the associated uncertainty with the variable consideration is subsequently resolved.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.23 Revenue recognition (Continued)

Revenue from contracts with customers (Continued)

When the contract contains a financing component which provides the customer with a significant benefit of financing the transfer of goods or services to the customer for more than one year, revenue is measured at the present value of the amount receivable, discounted using the discount rate that would be reflected in a separate financing transaction between the Group and the customer at contract inception. When the contract contains a financing component which provides the Group a significant financial benefit for more than one year, revenue recognised under the contract includes the interest expense accreted on the contract liability under the effective interest method. For a contract where the period between the payment by the customer and the transfer of the promised goods or services is one year or less, the transaction price is not adjusted for the effects of a significant financing component, using the practical expedient in IFRS 15.

(a) Sale of industrial products

Revenue from the sale of industrial products (including sales of scrap and other materials) is recognised at the point in time when control of the asset is transferred to the customer, generally on delivery of the industrial products. Revenue from electricity is recognised upon transmission of electricity based on the confirmation from the power grid.

(b) Rendering of services

The Group provides transportation service and the revenue from services is recognised over time, using an input method to measure progress towards complete satisfaction of the service, because the customer simultaneously receives and consumes the benefits provided by the Group.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.24 Earnings per share

(a) Basic earnings per share

Basic earnings per share is calculated by dividing:

- the profit attributable to owners of the Company, excluding any costs of servicing equity other than ordinary shares;
- by the weighted average number of ordinary shares outstanding during the financial year, adjusted for bonus elements in ordinary shares issued during the year and excluding treasury shares.

(b) Diluted earnings per share

Diluted earnings per share adjusts the figures used in the determination of basic earnings per share to take into account:

- the after-income tax effect of interest and other financing costs associated with dilutive potential ordinary shares, and
- the weighted average number of additional ordinary shares that would have been outstanding assuming the conversion of all dilutive potential ordinary shares.

2.25 Dividend income

Dividend income is recognised when the shareholders' right to receive payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.26 Leases

Leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group.

Contracts may contain both lease and non-lease components. The Group allocates the consideration in the contract to the lease and non-lease components based on their relative stand-alone prices. However, for leases of real estate for which the Group is a lessee, it has elected not to separate lease and non-lease components and instead accounts for these as a single lease component.

Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants other than the security interests in the leased assets that are held by the lessor. Leased assets may not be used as security for borrowing purposes.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable;
- variable lease payment that are based on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable by the Group under residual value guarantees;

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.26 Leases (Continued)

- the exercise price of a purchase option if the Group is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the Group exercising that option.

Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases in the Group, the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions.

To determine the incremental borrowing rate, the Group:

- where possible, uses recent third-party financing received by the individual lessee as a starting point, adjusted to reflect changes in financing conditions since third party financing was received;
- uses a build-up approach that starts with a risk-free interest rate adjusted for credit risk for leases held by the Group, which does not have recent third-party financing, and,
- makes adjustments specific to the lease, eg term, country, currency and security.

If a readily observable amortising loan rate is available to the individual lessee (through recent financing or market data) which has a similar payment profile to the lease, then the Group entities use that rate as a starting point to determine the incremental borrowing rate.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.26 Leases (Continued)

The Group is exposed to potential future increases in variable lease payments based on an index or rate, which are not included in the lease liability until they take effect. When adjustments to lease payments based on an index or rate take effect, the lease liability is reassessed and adjusted against the right-of-use asset.

Lease payments are allocated between principal and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability;
- any lease payments made at or before the commencement date less any lease incentives received;
- any initial direct costs, and
- restoration costs.

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis as follows:

Buildings	2 – 20 years
Machinery	2 – 10 years
Land use rights	10 – 50 years

If the Group is reasonably certain to exercise a purchase option, the right-of-use asset is depreciated over the underlying asset's useful life. While the Group revalues its land and buildings that are presented within property, plant and equipment, it has chosen not to do so for the right-of-use buildings held by the Group.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.26 Leases (Continued)

Payments associated with short-term leases of equipment and vehicles and all leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. The Group applies the short-term lease recognition exemption to its short-term leases of machinery and equipment (that is those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the recognition exemption for leases of low-value assets to leases of office equipment that are considered to be of low value (i.e. below RMB30,000).

Rental income

Rental income is recognised on a time proportion basis over the lease terms. Variable lease payments that do not depend on an index or a rate are recognised as income in the accounting period in which they are incurred.

2.27 Dividend distribution

Provision is made for the amount of any dividend declared, being appropriately authorised and no longer at the discretion of the entity, on or before the end of the reporting period but not distributed at the end of the reporting period.

Notes to Financial Statements (Continued)

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.28 Government grants

Government grants are recognised at their fair value where there is reasonable assurance that the grant will be received and all attaching conditions will be complied with. When the grant relates to an expense item, it is recognised as income on a systematic basis over the periods that the costs, which it is intended to compensate, are expensed.

Asset-related government grants are recognised when the government document designates that the government grants are used for constructing or forming long-term assets. If the government document is inexplicit, the Group should make a judgement based on the basic conditions to obtain the government grants, and recognises them as asset-related government grants if the conditions are to construct or to form long-term assets. Otherwise, the government grants should be income-related.

For asset-related government grants that is related to long lived assets that already exist at the time of recognising the government grant, the grant is deducted in calculating the carrying amount of the asset. The grant is recognised in profit or loss over the life of a depreciable asset as a reduced depreciation expense. If the asset is not yet purchased or constructed at the time of recognising the government grant, the grant is recognised as deferred income and will be deducted from the cost of the asset once the asset is recognised.

Income-related government grants that are specific to compensate expenses or costs that have already incurred, they are directly recognised in profit or loss for the current period as deduction of the related expenses or costs. If the income-related government grants are specific to compensate future expenses or costs of the Group, they are recognised as deferred income and will be released to profit or loss when the related expenses or costs are incurred.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.29 Interest income

Interest income from financial assets at FVPL is included in the net fair value gains/ (losses) on these assets. Interest income on financial assets at amortised cost and financial assets at FVOCI calculated using the effective interest method is recognised in profit or loss as part of other income. Interest income is presented as finance income where it is earned from financial assets that are held for cash management purposes. Any other interest income is included in other income.

Interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset except for financial assets that subsequently become credit-impaired. For credit-impaired financial assets the effective interest rate is applied to the net carrying amount of the financial asset (after deduction of the loss allowance).

3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

The preparation of the Group's consolidated financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the accompanying disclosures, and the disclosure of contingent liabilities. Uncertainty about these judgements, assumptions and estimates could result in outcomes that require a material adjustment to the carrying amounts of assets or liabilities affected in future periods.

Notes to Financial Statements (Continued)

3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Judgements

In the process of applying the Group's accounting policies and preparing the Group's consolidated financial statements, management has made the following judgements, apart from those involving estimates, which have a significant effect on the amounts recognised in the consolidated financial statements.

(a) Significant influence over an entity in which the Group holds less than 20% of voting rights

At 31 December 2021, the Group owned a 6.68% equity interest in China Copper Mineral Resources Co., Ltd. ("China Resources") (中銅礦產資源有限公司). The Group considers that it has significant influence over Chalco Resources even though it owns less than 20% of the voting rights, on the grounds that the Group can appoint one out of the five directors of the Board of Directors of Chalco Resources, thus have the right to participate in decision making of China Resources.

At 31 December 2021, the Group owned a 16% equity interest in Baise New Aluminum Power Co., Ltd. ("New Aluminum Power") (百色新鋁電力有限公司). The Group considers that the Group has significant influence over New Aluminum Power even though it owns less than 20% of the voting rights, on the grounds that the Group can appoint one out of the nine directors of the Board of Directors of New Aluminum Power, thus have the right to participate in decision making of New Aluminum Power.

At 31 December 2021, the Group owned 14.71% of the voting right of Chinalco Capital Holdings Co., Ltd. ("Chinalco Capital") (中鋁資本控股有限公司). The Group considers that the Group has significant influence over Chinalco Capital even though it owns less than 20% of the voting rights, on the grounds that the Group appoint one out of the three directors of the Board of Directors of Chinalco Capital, thus have the right to participate in decision making of Chinalco Capital.

3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Judgements (Continued)

(a) Significant influence over an entity in which the Group holds less than 20% of voting rights (Continued)

At 31 December 2021, the Group owned a 14.29% equity interest in Inner Mongolia Geliugou Co., Ltd. ("Inner Mongolia Geliugou") (內蒙古圪柳溝能源有限公司). The Group considers that it has significant influence over Inner Mongolia Geliugou even though it owns less than 20% of the voting rights, on the grounds that the Group can appoint one out of the seven directors of the Board of Directors of Inner Mongolia Geliugou, thus have the right to participate in decision making of Inner Mongolia Geliugou.

At 31 December 2021, the Group owned 10.10% equity interest in Yunnan Aluminum Co., Ltd. ("Yunnan Aluminum") (雲南鋁業股份有限公司). The Group considers that it has significant influence over Yunnan Aluminum even though it owns less than 20% of the voting rights, on the grounds that the Group is the second largest shareholders of Yunnan Aluminum and assigned one out of the eleven directors of the Board of Directors of Yunnan Aluminum Group, thus have the right to participate in decision making of Yunnan Aluminum.

At 31 December 2021, the Group owned a 19.49% equity interest in Chalco Innovation Development Investment Co., Ltd. ("Chalco Innovation") (中鋁創新開發投資有限公司). The Group considers that it has significant influence over Chalco Innovation even though it owns less than 20% of the voting rights, on the grounds that the Group can appoint one out of the seven directors of the Board of Directors of Chalco Innovation, thus have the right to participate in decision making of Chalco Innovation.

Notes to Financial Statements (Continued)

3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Judgements (Continued)

(b) Consolidation of entities in which the Group holds less than a majority of voting rights

At 31 December 2021, the Group owned a 40.23% equity interest in Ningxia Yinxing Energy Co., Ltd. ("Yinxing Energy") (寧夏銀星能源股份有限公司). Since the remaining 59.77% of the equity shares in Yinxing Energy are held by a large number of individual shareholders, in opinion of the directors of the Company, the Group has control over Yinxing Energy, and Yinxing Energy continues to be included in the consolidation scope.

At 31 December 2021, the Company owned a 40% equity interest in Guizhou Huaren New Materials Co., Ltd. ("Guizhou Huaren") (貴州華仁新材料有限公司). In accordance with the acting-in-concert agreement signed between the Company and Qingzhen Industry Investment Co., Ltd. ("Qingzhen Industry") (清鎮市工業投資有限公司) and Guizhou Chengqian Enterprise (Group) Co., Ltd. ("Guizhou Chengqian") (貴州成黔企業(集團)有限公司). Qingzhen Industry and Guizhou Chengqian would exercise the shareholders' and board of directors' votes in concert with the Group's voting decisions. Therefore, the directors of the Company believe that the Company has control over Guizhou Huaren and consolidated Guizhou Huaren's financial statements from the date the Group obtained control.

At 31 December 2021, the Company owned 40% of the shares of Shanxi China Aluminum China Resources Co., Ltd. ("Shanxi Zhongrun") (山西中鋁華潤有限公司). In accordance with the acting-in-concert agreement signed between the Company and China Resources Coal Industry Group Co., Ltd. ("China Resources Coal Industry"), China Resources Coal Industry would exercise the shareholders' and Board of Directors' votes in concert with the Group. Therefore, the directors of the Company believe that the Company has control over Shanxi Zhongrun and consolidated Shanxi Zhongrun's financial statements from the date the Group obtained control.

3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Estimates and assumptions

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are described below. The Group's assumptions and estimates are based on parameters available when the consolidated financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising beyond the control of the Group. Such changes are reflected in the assumptions when they occur.

(a) Impairment assessment of property, plant and equipment

As at 31 December 2021, the Group's net carrying amount of property, plant and equipment ("PP&E") was RMB93,427 million. Management assesses related assets for potential impairment whenever there are indications that the carrying value of an asset or a group of assets may not be recoverable. As at 31 December 2021, management performed impairment assessment on property, plant and equipment ("PP&E") with impairment indications at the level of cash generating unit ("CGU") to which the PP&E was allocated using discounted cash flow model. The discounted cash flows model used for the impairment assessment of PP&E involved significant assumptions including product prices and the discount rate. Based on the impairment test, RMB2,328 million of impairment was recognised by management for PP&E for the year ended 31 December 2021.

(b) Impairment assessment of goodwill

As at 31 December 2021, the Group's carrying value of goodwill was RMB3,510 million. Management performed impairment assessment of goodwill on an annual basis. When performing the impairment assessment, the recoverable amount of the CGU to which the goodwill was allocated was estimated by management using discounted cash flow model, and compared with the carrying amount of the CGU to determine if goodwill was impaired. The discounted cash flow models used for the impairment assessment of goodwill involved significant assumptions including product prices, the long-term growth rate and the discount rate. No impairment losses were recognised by management for goodwill for the year ended 31 December 2021.

Notes to Financial Statements (Continued)

3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Estimates and assumptions (Continued)

(c) Property, plant and equipment and intangible assets (excluding goodwill) – estimated useful lives and residual values

The Group's management determines the estimated useful lives and residual values (if applicable) and consequently the related depreciation/amortisation charges for its property, plant and equipment and intangible assets (excluding goodwill). These estimates are based on the historical experience of the actual useful lives of property, plant and equipment of similar nature and functions, or based on the useful life of intangible assets. Management will increase the depreciation/amortisation charge where useful lives are less than previously estimated, and it will write off or write down technically obsolete or non-strategic assets that have been abandoned or sold.

Actual economic lives may differ from estimated useful lives and actual residual values may differ from estimated residual values. Periodic review could result in change in depreciable lives and residual values and therefore change in depreciation/amortisation expense in future periods.

(d) Coal reserve estimates and units-of-production amortisation for coal mining rights

External qualified valuation professionals evaluate "economically recoverable reserves" based on the reserves estimated by external qualified exploration engineers in accordance with the PRC standards. The estimates of coal reserves are inherently imprecise and represent only the approximate amounts of the coal reserves because of the subjective judgements involved in developing such information. Economically recoverable reserve estimates are evaluated on a regular basis and have taken into account recent production and technical information about each mine.

3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Estimates and assumptions (Continued)

(e) Estimated net realisable value of inventories

In accordance with the Group's accounting policy, the Group's management estimated net realisable value of inventories based on specific facts and circumstances. For different types of inventories, it requires the estimation on selling prices, costs of conversion, selling expenses and the related tax expense to calculate the net realisable amount of inventories. For inventories held for executed sales contracts, management estimates the net realisable amount based on the contracted price. For raw materials and work-in-progress, management has established a model in estimating the net realisable amount at which the inventories can be realised in the normal course of business after considering the Group's manufacturing cycles, production capacity and forecasts, estimated future conversion costs and selling prices. Management also takes into account the price or cost fluctuations and other related matters occurring after the end of the reporting period which reflect conditions that existed at the end of the reporting period.

It is reasonably possible that if there is a significant change in circumstances including the Group's business and the external environment, outcomes within the next financial year would be significantly affected.

(f) Investments in joint ventures and associates – recoverable amount

In accordance with the Group's accounting policy, each investment in a joint venture and an associate is evaluated in every reporting period to determine whether there are any indicators of impairment. If any such indicators exists, an estimate of the recoverable amount is performed and an impairment loss is recognised to the extent that the carrying amount exceeds the recoverable amount. The recoverable amount of the investment in a joint venture and an associate is measured at the higher of fair value less costs of disposal and value in use.

Notes to Financial Statements (Continued)

3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Estimates and assumptions (Continued)

(f) Investments in joint ventures and associates – recoverable amount (Continued)

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

Value in use is also generally determined as the present value of the estimated future cash flows of those expected to arise from the continued use of the asset in its present form and its eventual disposal. Present values are determined using a risk-adjusted pre-tax discount rate appropriate to the risks inherent in the asset. Future cash flow estimates are based on expected production and sales volumes, commodity prices (considering current and historical prices, price trends and related factors) and operating costs. This policy requires management to make these estimates and assumptions which are subject to risk and uncertainty; hence there is a possibility that changes in circumstances will alter these projections, which may impact on the recoverable amounts of the investments. In such circumstances, some or all of the carrying value of the investments may be impaired and the impairment would be charged against profit or loss.

(g) Determination of the lease term

The Group leased certain land use rights from Chinalco for operation use. Pursuant to the framework lease contract entered into between the Company and Chinalco in 2001, the lease term is 50 years from 1 July 2001 with a termination option entitled to the Company. Under this framework contract, the related branches and subsidiaries of the Group signed lease agreements annually respectively with subsidiaries of Chinalco which owns the related land use right, with the extension option entitled to the leasees.

3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Estimates and assumptions (Continued)

(g) Determination of the lease term (Continued)

The lease term is determined based on the Group's assessment if the related termination option or extension option would be reasonably exercised taking into account the use of the land and operating status. The Group will reassess the lease term if any significant events or changes in circumstances that may have impact on the exercise of such options and are under the control of the Group occurred.

(h) Income tax

The Group estimates its income tax provision and deferred taxation in accordance with the prevailing tax rules and regulations, taking into account any special approvals obtained from the relevant tax authorities and any preferential tax treatment to which it is entitled in each location or jurisdiction in which the Group operates. There are many transactions and calculations for which the ultimate tax determination is uncertain during the ordinary course of business. The Group recognises liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, the differences will impact on the income tax and deferred tax provisions in the period in which the determination is made.

Deferred tax assets are recognised for unused tax losses and deductible temporary differences, such as the provision for impairment of receivables, inventories and property, plant and equipment and accruals of expenses not yet deductible for tax purposes, to the extent that it is probable that taxable profits will be available against which the losses deductible temporary difference can be utilised.

Notes to Financial Statements (Continued)

3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Estimates and assumptions (Continued)

(h) Income tax (Continued)

An entity shall recognise a deferred tax liability for all taxable temporary differences associated with investments in subsidiaries, associates, and joint ventures, except to the extent that both of the following conditions are satisfied:

- the parent, investor or joint venture is able to control the timing of the reversal of the temporary difference; and
- it is probable that the temporary difference will not reverse in the foreseeable future.

In the event that future tax rules and regulations or related circumstances change, adjustments to current and deferred taxation may be necessary which would impact on the Group's results or financial position.

3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Estimates and assumptions (Continued)

(i) Impairment of receivables

The loss allowances for receivables are based on assumptions about risk of default and expected loss rates to determine the expected loss. The Group uses judgement in making these assumptions and selecting the inputs to the impairment calculation, based on the Group's history, existing market conditions as well as forward looking estimates at the end of each reporting period.

The Group takes into account different macroeconomic scenarios in considering forward looking information. The Group regularly monitors and reviews the key macroeconomic assumptions and parameters related to the calculation of expected credit losses, including the risk of economic downturn, external market environment, technological environment, changes in customer conditions, GDP and consumer price index, etc. During the year ended 31 December 2021, the Group has taken into account the uncertainties arising from the COVID-19 outbreak and updated the relevant assumptions and parameters accordingly. The key macroeconomic parameters are listed below :

Year ended 31 December 2021	Year	Scenarios		
		Basic	Negative	Positive
Growth Rate of GDP	2022	5.30%	5.04%	5.57%
	2023 and subsequent years	5.00%	4.75%	5.25%
Growth Rate of CPI	2022	2.20%	2.09%	2.31%
	2023 and subsequent years	1.60%	1.52%	1.68%

Notes to Financial Statements (Continued)

3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Estimates and assumptions (Continued)

(i) Impairment of receivables (Continued)

Year ended 31 December 2020	Year	Scenarios		
		Basic	Negative	Positive
Growth Rate of GDP	2021	8.83%	8.39%	9.27%
	2022 and subsequent years	5.30%	5.04%	5.57%
Growth Rate of CPI	2021	1.33%	1.26%	1.40%
	2022 and subsequent years	2.40%	2.28%	2.52%

4 SIGNIFICANT CHANGES IN THE CURRENT REPORTING PERIOD

The significant increase of revenue and net profit for 2021 is mainly due to the rise in market price of aluminum.

5 REVENUE AND SEGMENT INFORMATION

(a) Revenue

Revenue recognised during the year is as follows:

	For the year ended 31 December	
	2021	2020 (Restated)
Revenue from contracts with customers (net of value-added tax)		
Sale of goods	268,034,695	184,073,342
Transportation services	1,414,732	1,587,246
	269,449,427	185,660,588
Revenue from other sources		
Rental income	298,805	329,989
	269,748,232	185,990,577

Notes to Financial Statements (Continued)

Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(a) Revenue (Continued)

	For the year ended 31 December 2021						
	Alumina segment	Primary Aluminum segment	Energy Segment	Trading	Corporate and other operating segments	Inter- segment elimination	Total
Type of goods or services							
Sales of goods	56,315,755	72,586,897	7,915,219	214,724,462	483,349	(83,990,987)	268,034,695
Transportation services	-	-	-	5,652,938	-	(4,238,206)	1,414,732
Total	56,315,755	72,586,897	7,915,219	220,377,400	483,349	(88,229,193)	269,449,427
Geographical markets							
Mainland China	56,315,755	72,586,897	7,915,219	207,570,682	483,349	(88,229,193)	256,642,709
Outside of Mainland China	-	-	-	12,806,718	-	-	12,806,718
Total	56,315,755	72,586,897	7,915,219	220,377,400	483,349	(88,229,193)	269,449,427
Timing of revenue recognition							
Goods transferred at a point in time	56,315,755	72,586,897	7,915,219	214,724,462	483,349	(83,990,987)	268,034,695
Services transferred over time	-	-	-	5,652,938	-	(4,238,206)	1,414,732
Total	56,315,755	72,586,897	7,915,219	220,377,400	483,349	(88,229,193)	269,449,427

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(a) Revenue (Continued)

- (i) The following table shows the amounts of revenue recognised in the current reporting period that were included in the contract liabilities at the beginning of the reporting period:

	For the year ended 31 December	
	2021	2020
Revenue recognised that was included in contract liabilities at the beginning of the reporting period:		
Sale of goods	1,151,341	1,565,285
Others	88,090	73,541
	1,239,431	1,638,826

(ii) Performance obligations

Information about the Group's performance obligations is summarised below:

Revenue from sales of products (including sales of the other materials)

The performance obligation is satisfied upon delivery of the industrial products and payment is generally due within 30 to 90 days from delivery, except for new customers, where advance is normally required.

Sales of goods were made in a short period of time and the performance obligation was mostly satisfied in one year or less at the end of each year, thus the Group applied the expedient of not to disclose the transaction price allocated to unsatisfied performance obligation.



5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(a) Revenue (Continued)

(ii) Performance obligations (Continued)

Transportation service

The performance obligation is satisfied over time as services are rendered and payment is generally due upon completion of the relevant services.

Amounts expected to be recognised as revenue for remaining contract performance obligation:

	For the year ended 31 December	
	2021	2020
Within one year	2,177,072	1,399,340
After one year	108,545	182,859
	2,285,617	1,582,199

The remaining performance obligations expected to be recognised in more than one year relate to rendering of services that are to be satisfied within 1–10 years. All the other remaining performance obligations are satisfied in one year or less at the end of each year.

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information

The executive presidents committee of the Company have been identified as the chief operating decision makers. The committee is responsible for the review of the internal reports in order to allocate resources to operating segments and assess their performance.

The committee considers the business from a product perspective comprising alumina, primary aluminum and energy for the Group's manufacturing business, which are identified as separate reportable operating segments. In addition, the Group's trading business is identified as a separate reportable operating segment. The Group's reportable operating segments also include corporate and other operating segments.

The committee assesses the performance of operating segments based on profit or loss before income tax in related periods. The manner of assessment used by the committee is consistent with that applied to the consolidated financial information for the year ended 31 December 2020. Management has determined the reportable operating segments based on the reports reviewed by the committee that are used to make strategic decisions.

The Group's five reportable operating segments are summarised as follows:

- The alumina segment, which consists of mining and purchasing bauxite and other raw materials, refining bauxite into alumina, and selling alumina both internally to the Group's aluminum enterprises and trading enterprises and externally to customers outside the Group. This segment also includes the production and sale of multi-form alumina bauxite.
- The primary aluminum segment, which consists of procuring alumina and other raw materials, supplemental materials and electricity power, smelting alumina to produce primary aluminum which is sold to the Group's trading enterprises and external customers, including Chinalco and its subsidiaries. This segment also includes the production and sale of carbon products and aluminum alloy and other aluminum products.

Notes to Financial Statements (Continued)

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

- The trading segment, which consists of the trading of alumina, primary aluminum, aluminum fabrication products, other non-ferrous metal products, coal products and raw materials and supplemental materials and logistics and transport services to internal manufacturing plants and external customers. The products are sourced from fellow subsidiaries and international and domestic suppliers of the Group. Sales of products manufactured by the Group's manufacturing business are included in the total revenue of the trading segment and are eliminated with the segment revenue of the respective segments which supplied the products to the trading segment.
- The energy segment mainly includes coal mining, electricity generation by thermal power, wind power and solar power, new energy related equipment manufacturing business. Sales of coals are mainly to the Group's internal and external coal consuming customers; electricity is sold to regional power grid corporations.
- Corporate and other operating segments, which mainly include management of corporate, research and development activities and others.

Prepaid current income tax and deferred tax assets are excluded from segment assets, and income tax payable and deferred tax liabilities are excluded from segment liabilities. All sales among the reportable operating segments were conducted on terms mutually agreed among group companies, and have been eliminated upon consolidation.

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	Year ended 31 December 2021						
	Alumina	Primary aluminum	Energy	Trading	Corporate and other operating segments	Inter- segment elimination	Total
Total revenue	56,545,788	72,644,206	7,915,219	220,447,914	483,739	(88,288,634)	269,748,232
Inter-segment revenue	(37,981,574)	(8,657,079)	(240,575)	(41,287,709)	(121,697)	88,288,634	-
Sales of self-produced products <i>(Note (i))</i>	-	-	-	28,054,635	-	-	-
Sales of products sourced from external suppliers	-	-	-	151,105,570	-	-	-
Revenue from external customers	18,564,214	63,987,127	7,674,644	179,160,205	362,042	-	269,748,232
Segment profit/(loss) before income tax	4,049,058	7,402,039	(234,808)	1,230,756	(1,849,784)	(418,481)	10,178,780
Income tax expense							(2,389,761)
Profit for the year							7,789,019

Year ended 31 December 2021
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Notes to Financial Statements (Continued)

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	Year ended 31 December 2021						
	Alumina	Primary aluminum	Energy	Trading	Corporate and other operating segments	Inter-segment elimination	Total
Other items							
Finance income	116,660	62,292	38,313	50,318	8,413	-	275,996
Finance costs	(1,034,889)	(1,114,821)	(578,079)	(117,365)	(1,097,607)	-	(3,942,761)
Share of profits and losses of joint ventures	80,612	-	16,095	13,240	54,153	-	164,100
Share of profits and losses of associates	(5,976)	(1,969)	(633,467)	45,538	868,458	-	272,584
Depreciation of right-of-use assets	(334,825)	(199,086)	(32,088)	(128,043)	(50,469)	-	(744,511)
Depreciation and amortisation (excluding the depreciation of right-of-use assets)	(2,959,908)	(3,016,367)	(1,889,351)	(33,617)	(70,628)	-	(7,969,871)
Losses on disposal of property, plant and equipment and intangible assets	(583,142)	(58,699)	(9,772)	3,222	(2,320)	-	(650,711)
Realised loss on futures contracts, net	-	-	-	(132,354)	(413,171)	-	(545,525)
Other income	11,909	32,541	56,022	47,836	91	-	148,399
Impairment loss on property, plant and equipment	(1,854,694)	(470,004)	(3,433)	-	-	-	(2,328,131)
Unrealised losses on futures contracts, net	-	-	-	(30,552)	(28,657)	-	(59,209)

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	Year ended 31 December 2021						Total
	Alumina	Primary aluminum	Energy	Trading	Corporate and other operating segments	Inter-segment elimination	
Losses on disposal of a subsidiaries	-	-	(27,404)	-	-	-	(27,404)
Changes for impairment of inventories	(18,737)	(114,171)	12,250	(13,039)	(2,601)	-	(136,298)
Provision for impairment of receivables	(122,370)	(37,400)	(176,715)	(328,754)	(719,649)	-	(1,384,888)
Dividends of equity investments at fair value through other comprehensive income	-	-	-	3,333	7,579	-	10,912
Derecognition of financial assets	-	(8,055)	(83,293)	-	-	-	(91,348)
Investments in associates	81,784	526,831	759,194	371,499	7,897,326	-	9,636,634
Investments in joint ventures	1,076,120	-	353,177	55,712	1,865,950	-	3,350,959
Additions during the period:							
Intangible assets	72,735	20,779	-	140	-	-	93,654
Right-of-use assets	3,400,546	2,721,001	377	212,812	266,342	-	6,601,078
Property, plant and equipment	1,170,356	621,694	391,894	26,231	94,686	-	2,304,861

Notes to Financial Statements (Continued)

Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	Year ended 31 December 2020 (Restated)						
	Alumina	Primary aluminum	Energy	Trading	Corporate and other operating segments	Inter- segment elimination	Total
Total revenue	42,378,421	51,889,084	7,184,216	155,392,357	449,611	(71,303,112)	185,990,577
Inter-segment revenue	(29,436,854)	(11,458,500)	(243,788)	(30,058,138)	(105,832)	71,303,112	-
Sales of self-produced products <i>(Note (ii))</i>	-	-	-	21,492,083	-	-	-
Sales of products sourced from external suppliers	-	-	-	103,842,136	-	-	-
Revenue from external customers	12,941,567	40,430,584	6,940,428	125,334,219	343,779	-	185,990,577
Segment profit/(loss) before income tax	1,435,129	2,023,168	(77,235)	582,083	(1,705,175)	(68,699)	2,189,271
Income tax expense							(590,023)
Profit for the year							1,599,248

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	Year ended 31 December 2020 (Restated)						
	Alumina	Primary aluminum	Energy	Trading	Corporate and other operating segments	Inter-segment elimination	Total
Other items							
Finance income	43,192	58,437	36,333	72,632	16,607	-	227,201
Finance costs	(826,521)	(1,364,606)	(995,572)	(170,937)	(1,062,892)	-	(4,420,528)
Share of profits and losses of joint ventures	75,405	-	35,308	5,011	64,778	-	180,502
Share of profits and losses of associates	4,930	(35,328)	(17,905)	38,683	155,357	-	145,737
Depreciation of right-of-use assets	(364,655)	(234,387)	(96,967)	(21,075)	(50,469)	-	(767,553)
Depreciation and amortisation (excluding the depreciation of right-of-use assets)	(2,944,255)	(2,937,761)	(1,867,632)	(99,179)	(71,281)	-	(7,920,108)
(Losses)/gain on disposal of property, plant and equipment and intangible assets	(25,489)	442,089	(99,363)	1,911	648	-	319,796
Realised loss on futures, forward and option contracts, net	-	-	-	675,442	(152,064)	-	523,378
Other income	21,549	11,087	55,561	33,207	18,147	-	139,551
Impairment loss on property, plant and equipment	(23,136)	(388,755)	-	(4,951)	-	-	(416,842)
Unrealised (losses)/gains on futures contracts, net	-	-	-	(27,705)	17,311	-	(10,394)
Gain on disposal of a subsidiaries	-	-	-	-	11,305	-	11,305

Notes to Financial Statements (Continued)

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	Year ended 31 December 2020 (Restated)						
	Alumina	Primary aluminum	Energy	Trading	Corporate and other operating segments	Inter- segment elimination	Total
Changes for impairment of inventories	(121,286)	103,524	(15,642)	2,184	981	-	(30,239)
Provision for impairment of receivables	(59,105)	(14,417)	(108,059)	(414,342)	(383,238)	-	(979,161)
Dividends from other financial assets measured at fair value	-	-	-	-	82,794	-	82,794
Investments in associates	88,356	539,058	1,565,235	396,454	6,584,307	-	9,173,410
Investments in joint ventures	1,076,085	-	334,763	43,258	1,920,447	-	3,374,553
Additions during the period:							
Intangible assets	2,157	3,546	-	1,413	266	-	7,382
Right-of-use assets	12,001	-	59,010	2,875	2,893	-	76,779
Property, plant and equipment	2,317,271	1,069,086	881,810	328,033	25,119	-	4,621,319

- (i) The sales of self-produced products include sales of self-produced alumina amounting to RMB18,552 million (2020: RMB12,465 million), sales of self-produced primary aluminum amounting to RMB7,087 million (2020: RMB8,784 million), and sales of self-produced other products amounting to RMB2,416 million (2020: RMB243 million).

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	As at 31 December 2021					
	Alumina	Primary aluminum	Energy	Trading	Corporate and other operating segments	Total
Segment assets	90,345,545	63,578,662	35,261,548	20,961,774	49,644,646	259,792,175
<i>Reconciliation:</i>						
Elimination of inter-segment receivables						(67,940,192)
Other eliminations						(920,811)
Corporate and other unallocated assets:						
Deferred tax assets						1,386,147
Prepaid income tax						59,578
Total assets						192,376,897
Segment liabilities	48,065,682	33,688,693	25,419,575	13,511,644	64,899,888	185,585,482
Elimination of inter-segment payables						(67,940,192)
Corporate and other unallocated liabilities:						
Deferred tax liabilities						1,378,519
Income tax payable						569,591
Total liabilities						119,593,400

Notes to Financial Statements (Continued)

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	As at 31 December 2020 (Restated)					
	Alumina	Primary aluminum	Energy	Trading	Corporate and other operating segments	Total
Segment assets	87,549,047	62,050,175	39,671,083	20,520,759	44,594,935	254,385,999
<i>Reconciliation:</i>						–
Elimination of inter-segment receivables						(60,582,399)
Other eliminations						(360,498)
Corporate and other unallocated assets:						–
Deferred tax assets						1,481,235
Prepaid income tax						116,574
Total assets						195,040,911
Segment liabilities	48,888,621	39,204,713	26,197,235	12,815,610	55,475,215	182,581,394
Elimination of inter-segment payables						(60,582,399)
Corporate and other unallocated liabilities:						–
Deferred tax liabilities						1,437,087
Income tax payable						299,665
Total liabilities						123,735,747

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

The Group mainly operates in Mainland China. Geographical information on operating segments is as follows:

	For the year ended 31 December	
	2021	2020 (Restated)
Segment revenue from external customers		
– Mainland China	256,941,514	177,348,745
– Outside Mainland China	12,806,718	8,641,832
	269,748,232	185,990,577
	31 December 2021	31 December 2020 (Restated)
Non-current assets (excluding financial assets and deferred tax assets)		
– Mainland China	139,348,364	142,746,232
– Outside Mainland China	2,576,957	2,890,338
	141,925,321	145,636,570

For the year ended 31 December 2021, revenues of approximately RMB53,205 million (2020: RMB46,262 million) were derived from entities directly or indirectly owned or controlled by the PRC government including Chinalco. These revenues are mainly attributable to the alumina, primary aluminum, energy and trading segments. There were no individual customers that contributed 10% or more of the Group's revenue during the years ended 31 December 2021 and 2020.

Notes to Financial Statements (Continued)

6 INTANGIBLE ASSETS

	Goodwill	Mining rights	Mineral exploration rights	Computer Software, production quota and others	Total
Year ended 31 December 2021					
Opening net carrying amount	3,509,857	7,425,833	988,374	1,524,240	13,448,304
Additions	–	91,412	–	2,242	93,654
Disposals	–	(3,639)	–	–	(3,639)
Impairment (i)	–	(11,340)	(185,086)	–	(196,426)
Amortisation	–	(326,052)	–	(51,662)	(377,714)
Transfer from property, plant and equipment (Note 7)	–	17,595	–	10,346	27,941
Currency translation differences	(342)	(1,692)	(2,225)	(985)	(5,244)
Closing net carrying amount	3,509,515	7,192,117	801,063	1,484,181	12,986,876
As at 31 December 2021					
Cost	3,509,515	9,972,299	984,092	1,929,188	16,395,094
Accumulated amortisation and impairment	–	(2,780,182)	(183,029)	(445,007)	(3,408,218)
Net carrying amount	3,509,515	7,192,117	801,063	1,484,181	12,986,876

- (i) The Group made the decision in 2021 to discontinue its exploration activities in Laos due to the continuous impact of Covid-19 on the feasibility of further exploration and development on the related mining properties. As a result, the total carrying amount of the mineral exploration rights amounting to RMB185 million was fully impaired.

6 INTANGIBLE ASSETS (CONTINUED)

	Goodwill	Mining rights	Mineral exploration rights	Computer Software, production quota and others	Total
Year ended 31 December 2020					
Opening net carrying amount	3,510,892	7,972,911	1,001,332	1,279,325	13,764,460
Additions	–	–	–	7,382	7,382
Disposals	–	(277,715)	–	–	(277,715)
Impairment	–	–	–	(416)	(416)
Amortisation	–	(412,599)	–	(46,883)	(459,482)
Business combination	–	–	–	89	89
Transfer from property, plant and equipment (<i>Note 7</i>)	–	149,544	–	284,743	434,287
Currency translation differences	(1,035)	(6,308)	(12,958)	–	(20,301)
Closing net carrying amount	3,509,857	7,425,833	988,374	1,524,240	13,448,304
As at 31 December 2020					
Cost	3,509,857	9,876,722	988,374	1,932,329	16,307,282
Accumulated amortisation and impairment	–	(2,450,889)	–	(408,089)	(2,858,978)
Net carrying amount	3,509,857	7,425,833	988,374	1,524,240	13,448,304

Notes to Financial Statements (Continued)

6 INTANGIBLE ASSETS (CONTINUED)

For the year ended 31 December 2021, the amortisation expenses of intangible assets recognised in profit or loss were analysed as follows:

	31 December 2021	31 December 2020
Cost of sales	305,484	371,616
General and administrative expenses	72,230	87,866
	377,714	459,482

As at 31 December 2021, the Group pledged mining rights and mineral exploration rights with a net carrying value amounting to RMB1,400 million (31 December 2020: RMB960 million) for interest-bearing loans and borrowings as set out in Note 24.

6 INTANGIBLE ASSETS (CONTINUED)

Impairment testing of goodwill

The lowest level within the Group at which goodwill is monitored for internal management purposes is the operating segment before aggregation. Therefore, goodwill is allocated to the Group's CGUs and groups of CGUs that are expected to benefit from the synergies of the relevant business combination. A summary of goodwill allocation is presented below:

	31 December 2021		31 December 2020	
	Alumina	Primary aluminum	Alumina	Primary aluminum
Qinghai Branch	–	217,267	–	217,267
Guangxi Branch	189,419	–	189,419	–
Lanzhou Aluminum Co., Ltd.	–	1,924,259	–	1,924,259
PT. Nusapati Prima ("PTNP")	14,621	–	14,963	–
Shanxi Huaxing	1,163,949	–	1,163,949	–
	1,367,989	2,141,526	1,368,331	2,141,526

The recoverable amount of a CGU is determined based on value-in-use calculations. These calculation of VIU use pre-tax cash flow projections based on financial budgets approved by management covering a five-year period. Cash flows beyond the 5-year period are extrapolated using the estimated growth rate of 2% (2020: 2%) not exceeding the long-term average growth rate for the businesses in which the CGU operates. Other key assumptions applied in the impairment testing include future prices of aluminum and alumina and the discount rate. Management determined these key assumptions based on past performance and their expectations on market development. Furthermore, the Group adopts a nominal pre-tax rate of 12.62% (2020: 12.62%) that reflects specific risks related to CGUs and groups of CGUs and an underlying inflation rate of 2% as the discount rate. The assumptions above are used in analysing the recoverable amounts of CGUs and groups of CGUs within operating segments. These estimates and judgments may be affected by unexpected changes in the future market or economic conditions.

Based on their assessment, there was no impairment of goodwill as at 31 December 2021 and 31 December 2020.

Notes to Financial Statements (Continued)

7 PROPERTY, PLANT AND EQUIPMENT

	Buildings and infrastructure	Machinery	Transportation facilities	Office and other equipment	Construction in progress	Total
Year ended 31 December 2021						
Opening net carrying amount	42,265,253	53,034,975	1,163,307	362,169	3,886,719	100,712,423
Reclassifications and internal transfers	1,443,486	1,435,604	105,359	63,774	(3,048,223)	-
Transfer to intangible assets (Note 6)	-	-	-	-	(27,941)	(27,941)
Transfer from right-of-use assets and non-current assets (i)	143,646	1,398,593	-	85	-	1,542,324
Transfer to investment properties (Note 8)	(139,377)	-	-	-	-	(139,377)
Transfer to right-of-use assets (Note 20(a))	-	-	-	-	(68,377)	(68,377)
Additions	27,528	230,516	7,947	4,318	2,034,552	2,304,861
Government grants	(447)	(81,171)	-	-	-	(81,618)
Disposals	(122,110)	(699,493)	(12,441)	(4,545)	(275,835)	(1,114,424)
Depreciation	(1,798,811)	(5,360,059)	(181,204)	(35,485)	-	(7,375,559)
Impairment loss	(1,163,722)	(1,000,412)	(2,182)	(46)	(161,769)	(2,328,131)
Currency translation differences	21,369	(18,140)	(198)	(183)	-	2,848
Closing net carrying amount	40,676,815	48,940,413	1,080,588	390,087	2,339,126	93,427,029
As at 31 December 2021						
Cost	64,118,401	111,919,569	2,731,095	892,122	2,555,618	182,216,805
Accumulated depreciation and impairment	(23,441,586)	(62,979,156)	(1,650,507)	(502,035)	(216,492)	(88,789,776)
Net carrying amount	40,676,815	48,940,413	1,080,588	390,087	2,339,126	93,427,029

- (i) This includes the right-of-use assets recognised previously under sale and leaseback contracts of RMB1,343 million that were classified from property, plant and equipment, upon initial adoption of IFRS 16. After the expiration of those contracts, they were recognised as property, plant and equipment.

7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

	Buildings and infrastructures	Machinery	Transportation facilities	Office and other equipment	Construction in progress	Total
Year ended 31 December 2020 (Restated)						
Opening net carrying amount	40,777,430	49,569,408	429,581	355,094	12,361,039	103,492,552
Reclassifications and internal transfers	3,301,076	7,114,160	809,433	47,546	(11,272,215)	-
Transfer to intangible assets <i>(Note 6)</i>	-	-	-	-	(434,287)	(434,287)
Transfer from right-of-use assets and non-current assets	-	1,982,812	-	-	-	1,982,812
Transfer to investment properties <i>(Note 8)</i>	(78,135)	-	-	-	-	(78,135)
Transfer to other non-current assets	-	-	-	-	(38,430)	(38,430)
Transfer to right-of-use assets <i>(Note 20(a))</i>	(140,254)	-	-	-	(744,887)	(885,141)
Additions	296,395	182,427	48,607	10,659	4,083,231	4,621,319
Business combination	1,290	52,357	(18)	(28)	-	53,601
Government grants	(1,646)	(40,676)	-	-	-	(42,322)
Disposals	(120,386)	(173,788)	(27,145)	(918)	(58,659)	(380,896)
Depreciation	(1,689,772)	(5,325,096)	(96,999)	(49,609)	-	(7,161,476)
Impairment loss	(80,641)	(326,445)	(125)	(558)	(9,073)	(416,842)
Currency translation differences	(103)	(183)	(27)	(19)	-	(332)
Closing net carrying amount	42,265,254	53,034,976	1,163,307	362,167	3,886,719	100,712,423
As at 31 December 2020 (Restated)						
Cost	63,188,384	114,561,974	2,844,604	871,037	4,007,082	185,473,081
Accumulated depreciation and impairment	(20,923,130)	(61,526,998)	(1,681,297)	(508,870)	(120,363)	(84,760,658)
Net carrying amount	42,265,254	53,034,976	1,163,307	362,167	3,886,719	100,712,423

Notes to Financial Statements (Continued)

7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

For the year ended 31 December 2021, depreciation expenses recognised in profit or loss are analysed as follows:

	31 December 2021	31 December 2020 (Restated)
Cost of sales	6,998,349	6,877,532
General and administrative expenses	183,934	123,521
Research and development expenses	185,108	155,288
Selling and distribution expenses	8,168	5,135
	7,375,559	7,161,476

As at 31 December 2021, the Group was in the process of applying for the ownership certificates of buildings with a net carrying value of RMB6,609 million (31 December 2020: RMB7,616 million). There has been no litigations, claims or assessments against the Group for compensation with respect to the use of these buildings as at the date of approval of these financial statements.

For the year ended 31 December 2021, interest expenses of RMB2 million (2020: RMB124 million) (Note 29) arising from borrowings attributable to the construction of property, plant and equipment during the year were capitalised at an annual rate of 4.00% (2020: 4.00% to 6.68%) (Note 29), and were included in additions to property, plant and equipment.

As at 31 December 2021, the Group pledged property, plant and equipment with a net carrying value amounting to RMB5,111 million (31 December 2020: RMB5,191 million) for interest-bearing loans and borrowings as set out in Note 24.

As at 31 December 2021, the carrying value of temporarily idle property, plant and equipment of the Group was RMB723 million (31 December 2020: RMB750 million).

7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment testing for property, plant and equipment

As at 31 December 2021, certain CGUs of the Group are discontinued or in status of temporarily idle or insufficient utilisation of capacity, due to the adjustment of overall production allocation within the Group or other specific adverse changes in circumstances related to the respective CGUs. The Group considered these CGUs had impairment indications and therefore performed impairment test on them. As a result, provision of impairment of RMB2,328 million was made for property, plant and equipment for the year ended 31 December 2021.

When any indicators of impairment are identified, property, plant and equipment are reviewed for impairment based on each CGU. The CGU is an individual plant or entity. The carrying values of these individual plants or entities were compared to the recoverable amounts of the CGUs, which were based predominantly on value-in-use. Value-in-use calculations use pre-tax cash flow projections based on financial budgets approved by management covering a five-year period. Cash flows beyond the five-year period are extrapolated using the same cash flow projections of the fifth year. Other key assumptions applied in the impairment testing include the future prices of aluminum and alumina, expected production and sales volumes, production costs and operating expenses. Management determined these key assumptions based on past performance and their expectations on market development. Further, the Group adopts a real pre-tax rate (excluding inflation) of 10.16% to 11.91% (2020: 10.16%) that reflects specific risks related to the CGUs as discount rate. The assumptions above are used in analysing the recoverable amounts of the CGUs within operating segments. These estimates and judgments may be affected by unexpected changes in the future market or economic conditions.

Notes to Financial Statements (Continued)

Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

8 INVESTMENT PROPERTIES

	Buildings	Land use rights	Total
Year ended 31 December 2021			
Opening net carrying amount	481,489	1,120,387	1,601,876
Transfer from property, plant and equipment (Note 7)	139,377	–	139,377
Transfer from right-of-use assets (Note 20(a))	–	90,314	90,314
Others	–	7,472	7,472
Depreciation	(11,900)	(12,550)	(24,450)
Closing net carrying amount	608,966	1,205,623	1,814,589
Year ended 31 December 2021			
Cost	779,253	1,346,953	2,126,206
Accumulated depreciation and impairment	(170,287)	(141,330)	(311,617)
Net carrying amount	608,966	1,205,623	1,814,589

8 INVESTMENT PROPERTIES (CONTINUED)

	Buildings	Land use rights	Total
Year ended 31 December 2020			
Opening net carrying amount	414,168	1,089,098	1,503,266
Transfer from property, plant and equipment (<i>Note 7</i>)	78,135	–	78,135
Transfer from right-of-use assets (<i>Note 20(a)</i>)	–	45,885	45,885
Disposal	–	(1,005)	(1,005)
Depreciation	(10,814)	(13,591)	(24,405)
Closing net carrying amount	481,489	1,120,387	1,601,876
Year ended 31 December 2020			
Cost	601,850	1,221,710	1,823,560
Accumulated depreciation and impairment	(120,361)	(101,323)	(221,684)
Net carrying amount	481,489	1,120,387	1,601,876

The Group's investment properties consist of land use rights held for rental income and buildings leased to third parties under operating leases.

Notes to Financial Statements (Continued)

9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES

(a) Investments in joint ventures

Movements in investments in joint ventures are as follows:

	31 December 2021	31 December 2020
As at 1 January	3,374,553	3,385,582
Capital injections	–	4,333
Share of profits for the year	164,100	180,502
Share of changes in reserves	60	1,491
Cash dividends declared	(187,754)	(197,355)
Impairment	–	–
As at 31 December	3,350,959	3,374,553

As at 31 December 2021, all joint ventures of the Group were unlisted.

As at 31 December 2021, particulars of the Group's material joint venture are as follows:

Name	Place of establishment and operation	Registered and paid- in capital	Principal activities	Effective equity interest held		
				Ownership interest	Voting power	Profit sharing
Guangxi Huayin Aluminum Co., Ltd. ("Guangxi Huayin") (廣西華銀鋁業有限公司)	PRC/Mainland China	2,441,987	Manufacturing	33.00%	33.00%	33.00%

Guangxi Huayin, which is considered a material joint venture of the Group, is accounted for using the equity method.

The English name represents the best effort by management of the Group in translating the Chinese name of the company as it does not have any official English name.

9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES (CONTINUED)

(a) Investments in joint ventures (Continued)

The following table illustrates the summarised financial information in respect of Guangxi Huayin:

	31 December 2021	31 December 2020
Cash and cash equivalents	224,154	247,680
Other current assets	1,498,110	970,096
Current assets	1,722,264	1,217,776
Non-current assets	5,024,444	5,361,592
Current liabilities	1,844,884	1,522,700
Non-current liabilities	526,827	580,419
Net assets	4,374,997	4,476,249
Reconciliation to the Group's interest in the joint venture:		
Proportion of the Group's ownership	33.00%	33.00%
The Group's share of net assets of the joint venture	1,443,749	1,477,162
Carrying amount of the investment	1,443,749	1,477,162

Notes to Financial Statements (Continued)

**9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES
 (CONTINUED)**

(a) Investments in joint ventures (Continued)

The following table illustrates the summarised financial information in respect of Guangxi Huayin: (Continued)

	31 December 2021	31 December 2020
Revenue	5,126,994	4,631,737
Gross profit	890,301	800,965
Interest income	14,465	7,388
Depreciation and amortisation	553,493	531,512
Interest expenses	40,506	51,855
Profit before income tax	246,447	195,189
Income tax	44,333	21,152
Other comprehensive income	–	–
Total comprehensive income for the year	202,114	174,037
Dividend received	99,000	99,000

9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES (CONTINUED)

(a) Investments in joint ventures (Continued)

The following table illustrates the aggregate financial information of the Group's joint ventures that are not individually material:

	31 December 2021	31 December 2020
Share of the joint ventures' profits and losses for the year	96,255	121,120
Share of the joint ventures' total comprehensive income	96,255	121,120
Aggregate carrying amount of the Group's investments in joint ventures	1,907,210	1,897,391

There were no material contingent liabilities relating to the Group's interests in the joint ventures and the joint ventures themselves.

Notes to Financial Statements (Continued)

**9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES
 (CONTINUED)**

(b) Investments in associates

Movements in investments in associates are as follows:

	31 December 2021	31 December 2020
As at 1 January	9,173,410	9,512,401
Investment to Yunnan Aluminum	320,000	–
Capital injections, other than to Yunnan Aluminum	309,251	–
Subsidiaries changed into associates	–	7,473
Capital reduction	(83,984)	(14,850)
Share of profits for the year	272,584	145,737
Dividends declared	(378,998)	(480,397)
Share of changes in reserves	24,371	3,046
As at 31 December	9,636,634	9,173,410

As at 31 December 2021, except for Yunnan Aluminum, all associates of the Group were unlisted.

As at 31 December 2021, no associate was individually material to the Group except for Yunnan Aluminum.

9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES (CONTINUED)

(b) Investments in associates (Continued)

As at 31 December 2021, particulars of the Group's material associate are as follows:

Name	Place of establishment and operation	Registered and paid-in capital	Principal activities	Effective equity interest held		
				Ownership interest	Voting power	Profit sharing
Yunnan Aluminum	PRC/Mainland China	3,448,207	Manufacturing	10.10%	10.10%	10.10%

Yunnan Aluminum, which is considered a material associate of the Group, is accounted for using the equity method.

The English name represents the best effort by management of the Group in translating the Chinese name of the company as it does not have any official English name.

Notes to Financial Statements (Continued)

**9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES
 (CONTINUED)**

(b) Investments in associates (Continued)

The following table illustrates the summarised financial information in respect of Yunnan Aluminum:

	31 December 2021	31 December 2020
Cash and cash equivalents	1,622,638	1,186,778
Other current assets	3,762,507	4,848,942
Current assets	5,385,145	6,035,720
Non-current assets	37,267,619	39,960,249
Current liabilities	9,782,242	17,360,609
Non-current liabilities	7,869,719	10,658,126
Net assets	25,000,803	17,977,234
Non-controlling interests	3,286,333	2,504,346

9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES (CONTINUED)

(b) Investments in associates (Continued)

	31 December 2021	31 December 2020
Reconciliation to the Group's interest in the associate:		
Proportion of the Group's ownership	10.10%	10.04%
The Group's share of net assets of the associate	2,193,161	1,553,478
Carrying amount of the investment	2,193,161	1,553,478
Revenue	41,668,819	29,567,864
Gross profit	9,440,917	4,084,535
Interest income	31,058	35,345
Depreciation and amortisation	1,866,030	1,571,308
Interest expenses	607,126	649,600
Profit before income tax	3,527,700	1,032,497
Income tax	436,429	122,384
Other comprehensive income	23,321	(36,602)
Total comprehensive income for the year	3,114,592	873,511

Notes to Financial Statements (Continued)

9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES (CONTINUED)

(b) Investments in associates (Continued)

The following table illustrates the aggregate financial information of the Group's associates that are not individually material:

	31 December 2021	31 December 2020
Share of the associates' profits and losses	(37,780)	83,519
Share of the associates' total other comprehensive income	6,292	–
Share of the associates' total comprehensive income	(31,488)	83,519
Aggregate carrying amount of the Group's investments in the associates	7,443,473	7,619,932

There were no material contingent liabilities relating to the Group's interests in the associates and the associates themselves.

As at 31 December 2020, the Group had pledged investments in associates amounting to RMB396 million as set out in Note 24 to the financial statements.

10 OTHER FINANCIAL ASSETS MEASURED AT FAIR VALUE

	31 December 2021	31 December 2020 (Restated)
Listed equity investments, at fair value		
Dongxing securities Co., Ltd. (東興證券股份有限公司)	7,674	8,812
Unlisted equity investments, at fair value		
Sanmenxia Dachang Mining Co., Ltd. (三門峽達昌礦業有限公司)	20,921	20,921
Inner Mongolia Ganqimaodu Port Development Co., Ltd. (內蒙古甘其毛都港務發展股份有限公司)	16,669	16,669
Yinchuan Economic and Technological Development Zone Investment Holding Co., Ltd. (銀川經濟技術開發區投資 控股有限公司)	20,577	17,234
China Color International Alumina Development Co., Ltd. (中色國際氧化鋁開發有限公司)	5,998	6,636
Luoyang Jianyuan Mining Co., Ltd. (洛陽建元礦業有限公司)	4,975	4,975
Ningxia Electric Power Trading Center Co., Ltd. (寧夏電力交易中心有限公司)	4,305	4,305
Ningxia Ningdian Logistics Transportation Co., Ltd. (寧夏寧電物流運輸有限公司)	1,640	1,640
Chinalco Innovative Development Investment Company Limited ("Chinalco Innovative") (中鋁創新開發投資有限公司) (ii)	–	329,234
Size Industry Investment Fund (四則產業投資基金) (i)	–	980,498
Fangchenggang Chisha Pier Co., Ltd. (防城港赤沙碼頭有限公司)	21,700	700
Xingxian Shengxing Highway Investment Management Co., Ltd. (興縣盛興公路投資管理有限公司)	135,079	135,079
	231,864	1,517,891
	239,538	1,526,703

The above equity investments were irrevocably designated at fair value through other comprehensive income as the Group considers these investments to be strategic in nature.

Notes to Financial Statements (Continued)

10 OTHER FINANCIAL ASSETS MEASURED AT FAIR VALUE (CONTINUED)

Note:

- (i) During the year ended 31 December 2021, the Group redeemed the investment in Size Industry Investment Fund with capital of RMB950 million, and dividend of RMB7 million received.
- (ii) During the year ended 31 December 2021, the Group appointed one out of seven directors of the Board of Directors of Chinalco Innovative, resulting in the ability to exert significant influence on Chinalco Innovative. Accordingly, the investment in Chinalco Innovative became an investment in an associate.

11 DEFERRED TAX

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current income tax assets against current income tax liabilities and when the deferred taxes relate to the same tax authority.

The movements in deferred tax assets and liabilities during the year ended 31 December 2021 without taking into consideration the offsetting of balances within the same tax jurisdiction, are as follows:

Movements in deferred tax assets:

	Provision for impairment	Accrued expenses	Tax losses	Unrealised profit at consolidation	Others	Total
As at 1 January 2020	445,322	209,395	576,190	169,355	179,427	1,579,689
Acquisition of subsidiaries	-	-	-	-	36	36
Credit/(charged) to profit or loss	65,196	(99,810)	(105,811)	56,731	51,116	(32,578)
As at 31 December 2020	510,518	109,585	470,379	226,086	230,579	1,547,147
As at 1 January 2021	510,518	109,585	470,379	226,086	230,579	1,547,147
Credit/(charged) to profit or loss	185,470	(85,912)	(226,769)	67,564	(41,937)	(101,584)
As at 31 December 2021	695,988	23,673	243,610	293,650	188,642	1,445,563

11 DEFERRED TAX (CONTINUED)

Movements in deferred tax liabilities:

	Interest capitalisation	Fair value changes of financial assets	Depreciation and amortization and others	Fair value adjustments arising from acquisition of subsidiaries	Total
As at 1 January 2020	38,007	7,731	23,873	1,700,088	1,769,699
Exchange realignment	-	-	-	(1,406)	(1,406)
Charged to other comprehensive income	-	(3,066)	-	-	(3,066)
Acquisition of subsidiaries	-	-	-	1,274	1,274
Credited to profit or loss	(12,167)	4,235	13,234	(268,804)	(263,502)
As at 31 December 2020	25,840	8,900	37,107	1,431,152	1,502,999
As at 1 January 2021	25,840	8,900	37,107	1,431,152	1,502,999
Charged to other comprehensive income	-	(11,117)	-	-	(11,117)
Credited to profit or loss	(7,915)	4,059	34,860	(84,951)	(53,947)
As at 31 December 2021	17,925	1,842	71,967	1,346,201	1,437,935

The temporary differences associated with investments in the Group's associates and joint ventures, for which a deferred tax liability has not been recognised in the periods presented, aggregate to RMB437 million (2020: RMB317 million), considering dividends from investments in associates and joint ventures are exempted from the PRC income tax and the Group has no plan to dispose any of these investees in the foreseeable future.

Notes to Financial Statements (Continued)

11 DEFERRED TAX (CONTINUED)

For presentation purposes, certain deferred tax assets and liabilities have been offset in the consolidated statement of financial position. The following is an analysis of the deferred tax balances of the Group for financial reporting purposes:

	31 December 2021	31 December 2020
Net deferred tax assets	1,386,147	1,481,235
Net deferred tax liabilities	1,378,519	1,437,087

As at 31 December 2021, the Group has not recognised deferred tax assets of RMB1,514 million (31 December 2020: RMB1,514 million) in respect of accumulated tax losses amounting to RMB6,930 million (31 December 2020: RMB6,593 million) arising in Mainland China that can be carried forward for offsetting against future taxable income, and deferred tax assets of RMB2,633 million (31 December 2020: RMB2,032 million) in respect of deductible temporary differences amounting to RMB12,051 million (31 December 2020: RMB8,849 million) as it was considered not probable that those assets would be realised.

As at 31 December 2021, the expiry profile of these tax losses not recognised for deferred tax assets was analysed as follows:

	31 December 2021	31 December 2020
Expiring in		
2021	–	213,992
2022	742,693	795,012
2023	590,293	536,394
2024	1,778,927	1,890,765
2025	2,405,862	2,590,350
2026 and beyond	1,412,128	566,997
	6,929,903	6,593,510

12 OTHER NON-CURRENT ASSETS

	31 December 2021	31 December 2020
Financial assets		
Long-term receivables	127,390	127,754
Less: impairment	(15,542)	–
	111,848	127,754
Prepayment for mining rights	806,534	809,722
Long-term prepaid expenses	593,011	654,291
Deferred losses for sale and leaseback transactions (i)	97,070	396,368
Input VAT to be deducted	294,420	388,271
Rent concessions	376,917	257,899
Others	195,146	531,615
	2,363,098	3,038,166
	2,474,946	3,165,920

- (i) In previous years, the Group entered into several sale and leaseback agreements (Note 20(a)). The deferred losses arising from the sale are classified as other non-current assets and were amortised over the useful lives of the assets leased back.

As at 31 December 2021 and 31 December 2020, long-term receivables were denominated in RMB and non-interest bearing.

Notes to Financial Statements (Continued)

Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

13 INVENTORIES

	31 December 2021	31 December 2020 (Restated)
Raw materials	5,628,872	7,450,822
Work-in-progress	8,732,604	7,290,838
Finished goods	4,310,607	4,835,098
Spare parts	645,564	789,136
Packaging materials and others	26,353	25,709
	19,344,000	20,391,603
Less: provision for impairment of inventories	(666,125)	(529,827)
	18,677,875	19,861,776

Movements in the provision for impairment of inventories are as follows:

	31 December 2021	31 December 2020
As at 1 January	529,827	560,066
Provision for impairment of inventories	471,162	1,492,153
Reversal arising from increase in net realisable value	(14,624)	(170,766)
Written off upon sales of inventories	(320,240)	(1,351,626)
As at 31 December	666,125	529,827

As at 31 December 2021 and 31 December 2020, the Group had no pledged inventories for bank and other borrowings.

14 TRADE RECEIVABLES AND NOTES RECEIVABLE

	31 December 2021	31 December 2020 (Restated)
Trade receivables	4,025,441	5,687,100
Less: impairment	(958,787)	(933,890)
	3,066,654	4,753,210
Notes receivable	3,838,196	4,560,437
	6,904,850	9,313,647

As at 31 December 2021, other than trade and notes receivables amounting to RMB512 million which were denominated in USD (31 December 2020: RMB685 million which were denominated in USD), all other trade and notes receivables were denominated in RMB.

Trade and notes receivables due from the Group's joint ventures and associates amounted to RMB641 million (31 December 2020: RMB741 million) and RMB11 million (31 December 2020: RMB14 million) respectively, which are repayable on credit terms similar to those offered to the major customers of the Group.

As at 31 December 2021, the Group pledged trade and notes receivable amounting to RMB1,983 million (31 December 2020: RMB2,748 million) as set out in Note 24 to the financial statements.

Notes to Financial Statements (Continued)

14 TRADE RECEIVABLES AND NOTES RECEIVABLE (CONTINUED)

Trade receivables and notes receivable are non-interest bearing and generally with credit terms of 3 to 12 months. Certain of the Group's sales were on advance payments or documents against payment. In some cases, these terms are extended for qualifying long term customers that have met specific credit requirements. As at 31 December 2021, the ageing analysis of trade receivables based on invoice date was as follows:

	For the year ended 31 December	
	2021	2020 (Restated)
Within 1 year	2,367,787	2,984,665
Between 1 and 2 years	153,161	1,031,050
Between 2 and 3 years	225,796	183,288
Over 3 years	1,278,697	1,488,097
	4,025,441	5,687,100
Less: loss allowance for impairment	(958,787)	(933,890)
	3,066,654	4,753,210

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on days past due for groupings of various customer segments with similar loss patterns (i.e., by geographical region, product type, customer type and rating, and coverage by letters of credit or other forms of credit insurance). The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions. The Group also assesses impairment loss individually if there is evidence of significant increases in credit risk at an individual level.

14 TRADE RECEIVABLES AND NOTES RECEIVABLE (CONTINUED)

Set out below is the information about the credit risk exposure on the Group's trade receivables using a provision matrix:

	As at 31 December 2021		
	Gross carrying amount	Expected credit losses	Expected credit losses loss rate (%)
Alumina and primary aluminum			
Within 1 year	172,625	1,574	0.91
Between 1 and 2 years	25,430	1,331	5.23
Between 2 and 3 years	3,146	1,708	54.29
Over 3 years	46,210	41,896	90.66
	247,411	46,509	
Trading			
Within 1 year	365,158	361	0.10
Between 1 and 2 years	6,131	103	1.68
Between 2 and 3 years	23	1	4.35
Over 3 years	2,918	1,525	52.26
	374,230	1,990	
Energy			
Within 1 year	1,108,505	52	0.00
Between 1 and 2 years	119,108	1,298	1.09
Between 2 and 3 years	138,660	3,332	2.40
Over 3 years	171,184	42,054	24.57
	1,537,457	46,736	

Notes to Financial Statements (Continued)

**14 TRADE RECEIVABLES AND NOTES RECEIVABLE
 (CONTINUED)**

	As at 31 December 2021		
	Gross carrying amount	Expected credit losses	Expected credit losses loss rate (%)
Corporate and other operating segments			
Within 1 year	10,138	610	6.02
Between 1 and 2 years	2,491	1,763	70.77
Between 2 and 3 years	1,887	1,792	94.97
Over 3 years	10,018	9,763	97.45
	24,534	13,928	
	2,183,632	109,163	
Individually assessed trade receivables	1,841,809	849,624	
	4,025,441	958,787	

14 TRADE RECEIVABLES AND NOTES RECEIVABLE (CONTINUED)

Set out below is the information about individually assessed trade receivables:

	As at 31 December 2021		
	Gross carrying amount	Expected credit losses	Expected credit losses loss rate (%)
China Aluminum Zibo International Trading Co.,Ltd	617,974	–	–
Zhuhai Hongfan nonferrous metal Chemical Co., Ltd	270,419	270,419	100.00
Aluminum Industry Co., Ltd., Luoyang, Henan	247,163	–	–
Xinjiang Jiarun Resources Holdings Co., Ltd.	213,293	213,293	100.00
Guizhou Jinpingguo Aluminum Rod Co., Ltd.	111,138	111,138	100.00
Others	381,822	254,774	66.73
	1,841,809	849,624	/

The Group has no individual provision for impairment of notes receivables. The Group measures the provision for loss on the basis of expected credit losses. The Group considers that notes receivables are not exposed to significant credit risk and has limited default risk.

Movements in the loss allowance for impairment of trade receivables are as follows:

	31 December 2021	31 December 2020 (Restated)
As at 1 January	933,890	715,597
Impairment loss	364,120	403,633
Write off	(285,178)	(122,459)
Reversal	(36,989)	(64,661)
Others	(17,056)	1,780
As at 31 December	958,787	933,890

Notes to Financial Statements (Continued)

Year ended 31 December 2021
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15 OTHER CURRENT ASSETS

	31 December 2021	31 December 2020 (Restated)
Financial assets		
– Deposits paid to suppliers	1,320,448	691,786
– Dividends receivable	373,252	412,736
– Receivables from disposal of businesses and assets	–	20,950
– Entrusted loans and loans receivable from third parties	1,466,236	1,530,452
– Entrusted loans and loans receivable from related parties	1,324,016	1,264,423
– Recoverable reimbursement for freight charges	251,113	381,866
– Receivable from disposal of aluminum capacity quota	–	538,655
– Other financial assets	693,068	1,365,951
	5,428,133	6,206,819
Less: impairment allowance	(3,153,226)	(2,224,511)
	2,274,907	3,982,308
Advances to employees	–	17,043
Deductible input value added tax receivables	529,760	1,379,288
Prepaid income tax	59,578	116,574
Prepayments to related parties for purchases	144,098	78,724
Prepayments to suppliers for purchases and others	870,762	726,487
Others	74,221	49,598
	1,678,419	2,367,714
Less: impairment allowance	–	(1,621)
	1,678,419	2,366,093
Total other current assets	3,953,326	6,348,401

15 OTHER CURRENT ASSETS (CONTINUED)

As at 31 December 2021, except for amounts included in other current assets amounting to RMB99 million, which were denominated in USD (31 December 2020: other current assets amounting to RMB152 million denominated in USD), remaining amounts in other current assets were denominated in RMB.

As at 31 December 2021 and 2020, except for entrusted loans and loans receivable which were interest-bearing assets, all amounts in other current assets were non-interest bearing.

As at 31 December 2021, the ageing analysis of financial assets included in other current assets was as follows:

	31 December 2021	31 December 2020 (Restated)
Within 1 year	1,832,596	2,385,470
Between 1 and 2 years	175,193	142,887
Between 2 and 3 years	36,709	191,228
Over 3 years	3,383,635	3,487,234
	5,428,133	6,206,819
Less: provision for impairment	(3,153,226)	(2,224,511)
	2,274,907	3,982,308

Notes to Financial Statements (Continued)

15 OTHER CURRENT ASSETS (CONTINUED)

Movements in the provision for impairment of in other current assets are as follows:

	2021	2020
At beginning of year	2,226,132	1,699,450
Impairment loss	1,046,565	657,200
Write off	(135,049)	(113,507)
Reversal	(4,524)	(17,011)
Others	20,102	–
As at 31 December	3,153,226	2,226,132

Financial assets included in other current assets at amortised cost are subject to impairment under the general approach and they are classified within the following stages for measurement of ECLs.

As at 31 December 2021	Gross carrying amount	Expected credit losses
Stage 1 – 12 months expected credit loss	1,943,470	2,988
Stage 2 – life time expected credit loss	188,324	7,713
Stage 3 – life time expected credit loss with credit-impaired	3,296,339	3,142,525
	5,428,133	3,153,226

15 OTHER CURRENT ASSETS (CONTINUED)

31 December 2020 (Restated)	Gross carrying amount	Expected credit losses
Stage 1 – 12 months expected credit loss	2,218,072	5,961
Stage 2 – life time expected credit loss	578,213	14,966
Stage 3 – life time expected credit loss with credit-impaired	3,410,534	2,203,584
	6,206,819	2,224,511

During the year ended 31 December 2021, RMB937 millions of provision for bad debt was made for certain long-aged stage 3 receivables, mainly due to further decreased in the value of securities for the related receivables based on the Group's assessment as at 31 December 2021.

16 CASH AND CASH EQUIVALENTS AND RESTRICTED CASH

	31 December 2021	31 December 2020 (Restated)
Restricted cash	1,324,748	1,056,037
Cash and cash equivalents	17,853,244	9,671,477
	19,177,992	10,727,514

Notes to Financial Statements (Continued)

16 CASH AND CASH EQUIVALENTS AND RESTRICTED CASH (CONTINUED)

Reconciliation to the consolidated statement of cash flow:

The above figures reconcile to the amount of cash and cash equivalent shown in the consolidated statement of cash flows at the end of the financial year as follows:

	31 December 2021	31 December 2020 (Restated)
Balances as above	17,853,244	9,671,477
Bank overdrafts	–	(899,955)
Balances per statement of cash flows	17,853,244	8,771,522

Restricted cash mainly represented deposits held for use in issuing notes payable and letters of credit.

As at 31 December 2021, cash and cash equivalent and restricted cash of the Group were denominated in the following currencies:

	31 December 2021	31 December 2020 (Restated)
RMB	17,605,127	9,621,499
USD	1,557,373	1,095,713
HKD	7,314	2,763
EUR	1,957	2,055
Others	6,221	5,484
	19,177,992	10,727,514

Cash at banks earns interest at floating rates based on daily bank deposit rates. The bank balances, time deposits and restricted cash are deposited with creditworthy banks with no recent history of default.

17 SHARE CAPITAL

As at 31 December 2020 and 31 December 2021, all issued shares were registered and fully paid. Both A shares and H shares rank pari passu with each other.

The number of the Company's authorised and issued ordinary shares was 17,022,672,951 at par value of RMB1.00 per share as at 31 December 2021.

	31 December 2021	31 December 2020
Listed A shares	13,078,707	13,078,707
Listed H shares	3,943,966	3,943,966
	17,022,673	17,022,673

18 RESERVES

The amounts of the Group's reserves and the movements therein for the current and prior years are presented in the consolidated statement of changes in equity of the financial statements.

As approved in the 2021 Annual General Meeting, the Company made up for the accumulated losses with the surplus reserve of RMB4,230 million in 2021.

Notes to Financial Statements (Continued)

Year ended 31 December 2021
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19 INTEREST-BEARING LOANS AND BORROWINGS

	31 December 2021	31 December 2020
Long-term loans and borrowings		
Lease liabilities <i>(Note 20(b))</i>	12,594,455	7,086,151
Medium-term notes and bonds <i>(Note (b))</i>		
– Unsecured	19,222,586	18,975,379
Long-term bank and other loans <i>(Note (a))</i>		
– Secured <i>(Note (f))</i>	11,008,215	9,216,299
– Guaranteed <i>(Note (e))</i>	3,132,529	4,846,446
– Unsecured	27,984,442	28,951,819
	42,125,186	43,014,564
Total long-term loans and borrowings	73,942,227	69,076,094
Current portion of lease liabilities	(987,664)	(828,272)
Current portion of medium-term notes and bonds	(2,999,599)	(7,100,711)
Current portion of long-term bank and other loans	(5,859,115)	(3,629,014)
	(9,846,378)	(11,557,997)
Non-current portion of long-term loans and borrowings	64,095,849	57,518,097

19 INTEREST-BEARING LOANS AND BORROWINGS (CONTINUED)

	31 December 2021	31 December 2020
Short-term loans and borrowings		
Bank and other loans (<i>Note (c)</i>)		
– Secured (<i>Note (f)</i>)	513,100	863,738
– Guaranteed (<i>Note (e)</i>)	–	50,000
– Unsecured	8,706,230	19,824,292
	9,219,330	20,738,030
Short-term bonds, unsecured (<i>Note (d)</i>)	5,440,414	2,411,256
Current portion of lease liabilities	987,664	828,272
Current portion of medium-term notes and bonds	2,999,599	7,100,711
Current portion of long-term bank and other loans	5,859,115	3,629,014
	15,286,792	13,969,253
Total short-term borrowings and current portion of long-term loans and borrowings	24,506,122	34,707,283

Notes to Financial Statements (Continued)

19 INTEREST-BEARING LOANS AND BORROWINGS (CONTINUED)

As at 31 December 2021, except for loans and borrowings of the Group amounting to RMB11 million (31 December 2020: RMB15 million) and RMB1,333 million (31 December 2020: RMB1,312 million) which were denominated in JPY and USD, respectively, all loans and borrowings were denominated in RMB.

As at 31 December 2021, included in the Group's interest-bearing loans and borrowings are loans provided by subsidiaries of Chinalco RMB13,029 million (31 December 2020: RMB8,887 million), as set out in Note 36(b). There were no interest-bearing loans and borrowings obtained from joint ventures and associates as at 31 December 2021 and 2020.

As at 31 December 2021, Shangdong Huayu Alloy Materials Co. Ltd. ("Shangdong Huayu"), a subsidiary of the Company did not repay short-term secured bank loans with principal amount of RMB113 million, which resulted in an event of default and there is no further impact extended to the Group.

(a) Long-term bank and other loans

The maturity of long-term bank and other loans is set out below:

	Loans from banks and other financial institutions		Other loans		Total of long-term bank and other loans	
	31 December 2021	31 December 2020	31 December 2021	31 December 2020	31 December 2021	31 December 2020
Within 1 year	5,856,967	3,626,564	2,148	2,450	5,859,115	3,629,014
Between 1 and 2 years	11,835,504	6,700,238	2,148	2,450	11,837,652	6,702,688
Between 2 and 5 years	9,764,992	15,630,738	6,445	7,350	9,771,437	15,638,088
Over 5 years	14,656,982	17,042,324	-	2,450	14,656,982	17,044,774
	42,114,445	42,999,864	10,741	14,700	42,125,186	43,014,564

19 INTEREST-BEARING LOANS AND BORROWINGS (CONTINUED)

(b) Medium-term notes and bonds

Outstanding medium-term bonds and private placement notes of the Group as at 31 December 2021 are summarised as follows:

	Face value/maturity	Effective interest rate	31 December 2021	31 December 2020
2018 Medium-term notes	2,000,000RMB/2021	5.84%	–	1,998,802
2019 Medium-term notes	2,000,000RMB/2024	4.31%	1,989,090	1,985,264
2020 Medium-term notes	900,000RMB/2023	3.04%	898,866	897,972
2021 Medium-term notes	1,000,000RMB/2024	3.21%	997,028	–
2018 Medium-term bonds	1,100,000RMB/2021	4.66%	–	1,099,284
2018 Medium-term bonds	900,000RMB/2023	5.06%	899,323	898,807
2018 Medium-term bonds	1,400,000RMB/2021	4.30%	–	1,398,160
2018 Medium-term bonds	1,600,000RMB/2023	4.57%	1,597,988	1,597,071
2019 Medium-term bonds	2,000,000RMB/2022	3.84%	1,999,809	1,999,196
2019 Medium-term bonds	2,000,000RMB/2029	4.57%	1,997,440	1,997,265
2019 Medium-term bonds	1,000,000RMB/2022	3.52%	999,790	999,623
2020 Medium-term bonds	500,000RMB/2025	3.31%	499,876	499,853
2020 Medium-term bonds	1,000,000RMB/2023	3.07%	999,787	999,617
2018 Hong Kong Medium-term bonds	400,000USD/2021	5.25%	–	2,604,465
2021 Hong Kong Medium-term bonds	500,000USD/2024	1.74%	3,173,180	–
2021 Hong Kong Medium-term bonds	500,000USD/2026	2.24%	3,170,409	–
			19,222,586	18,975,379

Medium-term notes and bonds were issued for capital expenditure and operating cash flows purposes, as well as for the purpose of re-financing of bank loans.

Notes to Financial Statements (Continued)

**19 INTEREST-BEARING LOANS AND BORROWINGS
 (CONTINUED)**

(c) Short-term bank and other loans

The weighted average annual interest rate of short-term bank and other loans for the year ended 31 December 2021 was 3.03% (2020: 3.46%).

(d) Short-term bonds

Outstanding short-term bonds as at 31 December 2021 are summarised as follows:

	Face value/maturity	Effective interest rate	31 December 2021	31 December 2020
short-term bonds	400,000RMB/2021	2.46%	–	405,997
short-term bonds	500,000RMB/2021	1.52%	–	501,781
short-term bonds	1,000,000RMB/2021	2.45%	–	1,002,925
short-term bonds	500,000RMB/2021	1.61%	–	500,553
short-term bonds	400,000RMB/2022	2.70%	406,036	–
short-term bonds	2,000,000RMB/2022	2.59%	2,022,571	–
short-term bonds	1,000,000RMB/2022	2.55%	1,006,240	–
short-term bonds	2,000,000RMB/2022	2.80%	2,005,567	–
			5,440,414	2,411,256

All the above short-term bonds were issued for working capital needs.

19 INTEREST-BEARING LOANS AND BORROWINGS (CONTINUED)

(e) Guaranteed interest-bearing loans and borrowings

Details of guarantors for the Group's interest-bearing loans and borrowings are set out as follows:

Guarantors	31 December 2021	31 December 2020
Long-term loans		
The Company	1,053,744	2,092,761
Baotou Aluminum Limited Company(包頭鋁業有限公司) and Baotou Communications Investment Group Limited Company(包頭交通投資集團有限公司) (i)	825,000	1,137,500
Ningxia Energy (ii)	935,000	1,134,400
The Company and COSCO SHIPPING BULK Limited company (中遠海運散貨運輸有限公司) (iii)	318,785	318,785
Yinyi Fengdian, Neimenggu, Alashan (ii)	–	144,000
Yinxing Energy (ii)	–	19,000
	3,132,529	4,846,446
Short-term loans		
Ningxia Energy (ii)	–	50,000
	3,132,529	4,896,446

Notes:

- (i) The guarantors are a subsidiary of the Company and a related party respectively.
- (ii) The guarantor is a subsidiary of the Company.
- (iii) The joint guarantors are the Company and a third party.

The English names represent the best effort by management of the Group in translating the Chinese names of the companies as they do not have any official English names.

- (f) Details of the assets pledged for bank and other borrowings were set out in Note 24 to the financial statements.

Notes to Financial Statements (Continued)

20 LEASE

The Group as a lessee

The Group has lease contracts for various items of plant and machinery, motor vehicles, other equipment and land use rights used in its operations.

(a) Right-of-use assets

The carrying amounts of the Group's right-of-use assets and the movements during 2021 and 2020 are as follows:

	Buildings	Machinery	Land use rights	Total
As at 1 January 2021	235,169	1,764,196	12,288,473	14,287,838
Additions	8,547	6,424	109,927	124,898
Transfer from property, plant and equipment (<i>Note 7</i>)	–	–	68,377	68,377
Lease modification	377,873	–	5,769,223	6,147,096
Transfer to property, plant and equipment	(143,646)	(1,199,382)	–	(1,343,028)
Transfer to investment properties (<i>Note 8</i>)	–	–	(90,314)	(90,314)
Disposal	–	–	(17,774)	(17,774)
Depreciation	(121,955)	(128,617)	(493,939)	(744,511)
Impairment losses	–	(67,744)	(22,346)	(90,090)
Currency translation differences	(23)	–	3,667	3,644
As at 31 December 2021	355,965	374,877	17,615,294	18,346,136

20 LEASE (CONTINUED)

The Group as a lessee (Continued)

(a) Right-of-use assets (Continued)

	Buildings	Machinery	Land use rights	Total
As at 1 January 2020	287,255	3,756,305	11,846,877	15,890,437
Additions	15,023	8,831	52,925	76,779
Transfer from property, plant and equipment (<i>Note 7</i>)	–	–	885,141	885,141
Lease modification	(12,301)	–	(43,496)	(55,797)
Transfer to property, plant and equipment	–	(1,663,686)	–	(1,663,686)
Transfer to investment properties (<i>Note 8</i>)	–	–	(45,885)	(45,885)
Disposal	–	–	(15,792)	(15,792)
Depreciation	(54,792)	(321,464)	(391,297)	(767,553)
Impairment losses	–	(15,790)	–	(15,790)
Currency translation differences	(16)	–	–	(16)
As at 31 December 2020	235,169	1,764,196	12,288,473	14,287,838

As at 31 December 2021, the Group has pledged land use rights at a net carrying value amounting to RMB180 million (2020: RMB273 million) for bank and other borrowings as set out in Note 24 to the financial statements.

20 LEASE (CONTINUED)

The Group as a lessee (Continued)

(b) Lease liabilities

The carrying amount of lease liabilities (included under interest-bearing bank and other borrowings) and the movements during the year are as follows:

	Year ended 31 December 2021
Carrying amount at 1 January	7,086,151
New leases	122,354
Lease modification (i)	6,147,096
Accretion of interest recognised during the year	366,858
Payments	(1,128,004)
Carrying amount at 31 December	12,594,455
Analysed into:	
Current portion	987,664
Non-current portion	11,606,791

- (i) Pursuant to the framework lease contract entered into between the Company and Chinalco in 2001 (Note 3(g)), the annual consideration for certain lands leased by the Group from Chinalco for the period commencing 1 January 2022 was re-negotiated between contract parties, which constitute lease modifications as at 31 December 2021 and results in remeasurement of the lease liabilities and a corresponding adjustment to the right-of-use assets.

20 LEASE (CONTINUED)

The Group as a lessee (Continued)

(c) The amounts recognised in profit or loss in relation to leases are as follows:

	31 December 2021
Interest on lease liabilities	366,858
Depreciation charge of right-of-use assets	744,511
Expense relating to short-term leases	46,691
Expense relating to leases of low-value assets	5,048
Total amount recognised in profit or loss	1,163,108

(d) The total cash outflow for leases is disclosed in Notes 35(c), to the financial statements.

The Group as a lessor

Rental income recognised by the Group during the year was RMB299 million (2020: RMB330 million), details of which are included in Note 5 to the financial statements. In the opinions of the directors, the undiscounted lease payments receivable by the Group in future periods under non-cancellable operating leases are not material.

Notes to Financial Statements (Continued)

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21 OTHER NON-CURRENT LIABILITIES

	31 December 2021	31 December 2020
Financial liabilities		
– Long-term payables for mining rights	798,204	1,014,169
– Other financial liabilities	82,660	22,748
	880,864	1,036,917
Obligations in relation to termination retirement schemes (i)	205,802	217,864
Deferred government grants	153,290	182,221
Deferred gain relating to sales and leaseback agreements	50,630	58,844
Contract liabilities	108,545	182,859
Provision for rehabilitation	393,896	316,812
Others	145,213	152,041
	1,057,376	1,110,641
	1,938,240	2,147,558

21 OTHER NON-CURRENT LIABILITIES (CONTINUED)

Note:

- (i) Obligations in relation to termination retirement schemes

Since 2014, certain subsidiaries and branches implemented termination retirement benefit schemes which allow qualified employees to early retire on a voluntary basis. The Group undertakes the obligations to pay the termination retirement employees' living expenses for a period of no more than five years in the future on a monthly basis according to the termination retirement benefit schemes, in addition to the social insurance and housing fund pursuant to the regulation of the local Social Security Office. Living expenses, social insurance and the housing fund are together referred to as "the Payments". The Payments are forecasted to increase by 3% per annum with reference to the inflation rate and adjusted based on the average death rate in China. The Payments are discounted at the treasury bond rate as at 31 December 2021. As at 31 December 2021, the current portion of the Payments payable within one year is included in "Other payables and accrued liabilities".

As at 31 December 2021, obligations in relation to retirement benefits under the Group's termination retirement schemes are as follows:

	31 December 2021	31 December 2020
As at 1 January	497,334	843,253
Provision made during the year (Note 30)	269,895	53,339
Interest costs	4,612	11,582
Payment during the year	(343,362)	(410,840)
As at 31 December	428,479	497,334
Non-current	205,802	217,864
Current (Note 22)	222,677	279,470
	428,479	497,334

Notes to Financial Statements (Continued)

22 OTHER PAYABLES AND ACCRUED LIABILITIES

	31 December 2021	31 December 2020 (Restated)
Financial liabilities		
– Payable for capital expenditures	2,990,377	4,677,705
– Interest payable	485,426	533,382
– Deposits	1,653,524	1,748,356
– Dividends payable by subsidiaries to non-controlling shareholders	369,465	289,791
– Consideration payable for investment projects	38,255	23,740
– Current portion of payables for mining rights (<i>Note 21</i>)	182,959	460,101
– Payable of the government levies on self-owned power plants	411,021	423,728
– Others	1,035,189	809,149
	7,166,216	8,965,952
Output value-added tax payable	263,297	271,963
Taxes other than income taxes payable (<i>ii</i>)	1,298,548	798,481
Accrued payroll and bonus	123,981	72,289
Staff welfare payables	213,305	323,214
Current portion of obligations in relation to termination retirement schemes (<i>Note 21</i>)	222,677	279,470
Contribution payable for pension insurance	19,278	22,935
Others	46,391	21,375
	2,187,477	1,789,727
	9,353,693	10,755,679

(ii) Taxes other than income taxes payable mainly comprise accruals for value-added tax, resource tax, city construction tax and education surcharge.

As at 31 December 2021, except for other payables and accrued liabilities of the Group amounting to RMB1.24 million and RMB0.16 million which were denominated in USD and HKD, respectively (31 December 2020: RMB92 million and RMB0.16 million which were denominated in USD and HKD, respectively), all remaining balances of payables and accrued liabilities were denominated in RMB.

23 TRADE AND NOTES PAYABLES

	31 December 2021	31 December 2020 (Restated)
Trade payables	10,946,272	9,976,432
Notes payable	4,559,171	5,467,922
	15,505,443	15,444,354

As at 31 December 2021, except for trade and notes payables of the Group amounting to RMB241 million which were denominated in USD (31 December 2020: RMB35 million in USD), all remaining balances of trade and notes payables were denominated in RMB.

The ageing analysis of trade and notes payables is as follows:

	31 December 2021	31 December 2020 (Restated)
Within 1 year	14,941,793	14,926,948
Between 1 and 2 years	131,152	210,587
Between 2 and 3 years	129,356	119,587
Over 3 years	303,142	187,232
	15,505,443	15,444,354

The trade and notes payables are non-interest bearing and are normally settled within one year.

Notes to Financial Statements (Continued)

24 PLEDGE OF ASSETS

The Group has pledged various assets as collateral against certain secured borrowings as set out in Note 19. As at 31 December 2021, a summary of these pledged assets was as follows:

	31 December 2021	31 December 2020
Property, plant and equipment (Note 7)	5,111,165	5,191,185
Right-of-use assets (Note 20(a))	179,683	273,451
Intangible assets (Note 6)	1,399,972	960,000
Trade receivables and notes receivables (Note 14)	1,982,986	2,747,768
Investments in joint ventures and associates (Note 9)	–	395,610
	8,673,806	9,568,014

As at 31 December 2021, in addition to the loans and borrowings which were secured by the above assets, the current portion of long-term loans and borrowings amounting to RMB1,525 million (31 December 2020: RMB1,209 million), and the non-current portion of long-term loans and borrowings amounting to RMB7,959 million (31 December 2020: RMB10,265 million) were secured by the contractual right to charge users for electricity generated in the future.

25 EXPENSE BY NATURE

	For the year ended 31 December	
	2021	2020 (Restated)
Purchase of inventories in relation to trading activities	149,177,935	102,515,791
Raw materials and consumables used, and changes in work-in-progress and finished goods	45,735,508	32,935,620
Power and utilities	24,283,691	16,766,950
Depreciation of right-of-use assets	744,511	767,553
Depreciation and amortisation (other than depreciation of right-of-use assets) expenses	7,969,871	7,920,108
Employee benefit expenses (<i>Note 30</i>)	8,878,784	7,877,451
Repairs and maintenance	2,797,464	1,595,880
Transportation expenses and logistic cost	5,662,341	4,079,157
Taxes other than income tax expense (<i>ii</i>)	2,247,649	1,601,728
Inventory impairment loss	456,538	1,321,387
Research and development expenses	1,842,295	1,014,604
Auditors' remuneration		
– PricewaterhouseCoopers and PricewaterhouseCoopers Zhong Tian LLP		
– Audit services	18,170	18,170
– Non-audit services	870	700
– Other auditors	2,746	12,436
Others	1,332,875	1,154,102
	251,151,248	179,581,637

Note:

- (i) Taxes other than income tax expense mainly comprise surcharges, land use tax, property tax and stamp duty.

Notes to Financial Statements (Continued)

26 NET IMPAIRMENT LOSSES ON FINANCIAL ASSETS

	For the year ended 31 December	
	2021	2020 (Restated)
Impairment losses on other non-current assets <i>(Note 12)</i>	15,716	–
Impairment losses on trade and notes receivable <i>(Note 14)</i>	327,131	338,972
Impairment losses on other current assets <i>(Note 15)</i>	1,042,041	640,189
	1,384,888	979,161

27 OTHER INCOME

For the year ended 31 December 2021, government grants amounting to RMB148 million (2020: RMB140 million) were recognised as income for the year to facilitate the Group's development. There are no unfulfilled conditions or contingencies attached to the grants.

28 OTHER (LOSSES)/GAINS-NET

	For the year ended 31 December	
	2021	2020
(Loss)/gain on disposal of subsidiaries	(27,404)	11,305
Realised and unrealised gains on futures, forward and option contracts, net <i>(i)</i>	(604,734)	512,984
(Loss)/gain on disposal of property, plant and equipment and intangible assets, net <i>(ii)</i>	(650,711)	319,796
Losses on derecognition of financial assets measured at amortised cost	(91,348)	–
Others	(249,306)	59,786
	(1,623,503)	903,871

(i) The Group does not apply hedge accounting for these futures, forward and option contracts.

(ii) During the year ended 31 December 2021, the Group abandoned or replaced certain idle or inefficient property, plant and equipment in the process of production line improvement or disposal, resulting in a loss of RMB651 million.

29 FINANCE INCOME/FINANCE COSTS

An analysis of finance income/finance costs is as follows:

	For the year ended 31 December	
	2021	2020 (Restated)
Finance income-interest income	(275,996)	(227,201)
Interest expense	3,522,241	3,986,264
Less: Interest expense capitalised in property, plant and equipment (<i>Note 7</i>)	(1,727)	(123,571)
Interest expense, net of capitalised interest	3,520,514	3,862,693
Interest on lease liability and amortisation of unrecognised finance expenses	401,927	481,512
Exchange losses, net	20,320	76,323
Finance costs	3,942,761	4,420,528
Finance costs, net	3,666,765	4,193,327
Capitalisation rate during the year (<i>Note 7</i>)	4.00%	4.00% to 6.68%

Notes to Financial Statements (Continued)

Year ended 31 December 2021
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unless otherwise stated)

30 EMPLOYEE BENEFIT EXPENSE

An analysis of employee benefit expenses is as follows:

	For the year ended 31 December	
	2021	2020 (Restated)
Salaries and bonuses	5,563,500	5,327,833
Housing fund	558,392	532,842
Staff welfare and other expenses (i)	2,435,282	1,955,447
Employment expense in relation to termination retirement schemes (Note 21)	269,895	53,339
Employment expenses in relation to termination benefits	51,715	7,990
	8,878,784	7,877,451

(i) Staff welfare and other expenses include staff welfare, staff union expenses, staff education expenses and unemployment insurance expenses etc.

In 2020, the Group entities in Mainland China were exempt from payment of employee social benefits during the period from February to December in 2020 under national Covid-19 supportive policies.

Employee benefit expenses include remuneration payables to directors, supervisors and senior management as set out in Note 31.

31 DIRECTORS' AND SUPERVISORS' REMUNERATION

(a) Directors' and supervisors' remuneration

Directors' and supervisors' remuneration for the year, disclosed pursuant to the Listing Rules, section 383(1) (a), (b), (c) and (f) of the Hong Kong Companies Ordinance and Part 2 of the Companies Regulation (Disclosure of Information about Benefits of Directors), is as follows:

	31 December 2021	31 December 2020
Fees	579	683
Basic salaries, other allowances and benefits in kind	4,526	3,996
Pension costs	449	207
	5,554	4,886

The remuneration of each director and supervisor of the Company for the year ended 31 December 2021 is set out below:

Names of directors and supervisors	Discretionary			Pension	Total
	Fees	Salaries	bonuses	costs	
Executive Directors:					
Liu Jianping (ii)	-	-	-	-	-
Zhu Runzhou	-	1,176	-	93	1,269
Ou Xiaowu (iii)	-	973	-	93	1,066
Jiang Tao (iv)	-	837	-	77	914
	-	2,986	-	263	3,249

Notes to Financial Statements (Continued)

**31 DIRECTORS' AND SUPERVISORS' REMUNERATION
(CONTINUED)**

(a) Directors' and supervisors' remuneration (Continued)

Names of directors and supervisors	Discretionary			Pension costs	Total
	Fees	Salaries	bonuses		
Non-executive Directors:					
Ao Hong (i)	–	–	–	–	–
Zhang Jilong (iv)	–	–	–	–	–
Wang Jun	–	–	–	–	–
Chen Lijie (x)	95	–	–	–	95
Lie-A-Cheong Tai-Chong, David	95	–	–	–	95
Hu Shihai	95	–	–	–	95
Qiu Guanzhou (vi)	98	–	–	–	98
Chen Yuanxiu (viii)	98	–	–	–	98
Yu Jingsong (vii)	98	–	–	–	98
	579	–	–	–	579
Supervisors:					
Ye Guohua	–	–	–	–	–
Shan Shulan	–	–	–	–	–
Guan Xiaoguang	–	770	–	93	863
Yue Xuguang	–	770	–	93	863
Lin Ni (ix)	–	–	–	–	–
Total	–	1,540	–	186	1,726

31 DIRECTORS' AND SUPERVISORS' REMUNERATION (CONTINUED)

(a) Directors' and supervisors' remuneration (Continued)

The remuneration of each director and supervisor of the Company for the year ended 31 December 2020 is set out below:

Names of directors and supervisors	Fees	Salaries	Discretionary bonuses	Pension costs	Total
Executive Directors:					
Lu Dongliang	-	-	-	-	-
He Zhihui	-	866	-	37	903
Jiang Yinggang	-	562	-	31	593
Zhu Runzhou	-	894	-	44	938
	-	2,322	-	112	2,434
Non-executive Directors:					
Ao Hong (ii)	-	-	-	-	-
Wang Jun	50	-	-	-	50
Chen Lijie (x)	211	-	-	-	211
Lie-A-Cheong Tai-Chong, David	211	-	-	-	211
Hu Shihai	211	-	-	-	211
	683	-	-	-	683
Supervisors:					
Ye Guohua	-	-	-	-	-
Ou Xiaowu (iii)	-	134	-	7	141
Shan shulan	-	-	-	-	-
Guan Xiaoguang	-	770	-	44	814
Yue Xuguang	-	770	-	44	814
Total	-	1,674	-	95	1,769

Notes to Financial Statements (Continued)

31 DIRECTORS' AND SUPERVISORS' REMUNERATION (CONTINUED)

(a) Directors' and supervisors' remuneration (Continued)

Notes:

- (i) On 29 June 2021, Mr. Ao Hong was resigned as a non-executive Director of the Company.
- (ii) On 29 June 2021, Mr. Liu Jianping was appointed as an executive Director of the Company in the seventh session of the Board of the Company.
- (iii) On 29 June 2021, Mr. Ou Xiaowu was appointed as an executive Director in the seventh session of the Board of the Company.
- (iv) On 29 June 2021, Mr. Jiang Tao was appointed as an executive Director of the Company in the seventh session of the Board of the Company.
- (v) On 29 June 2021, Mr. Zhang Jilong was appointed as a non-executive Director of the Company in the seventh session of the Board of the Company.
- (vi) On 29 June 2021, Mr. Qiu Guanzhou was appointed as an independent non-executive Director in the seventh session of the Board of the Company.
- (vii) On 29 June 2021, Mr. Yu Jinsong was appointed as an independent non-executive Director in the seventh session of the Board of the Company.
- (viii) On 29 June 2021, Ms. Chan Yuen Sau Kelly was appointed as an independent non-executive Director in the seventh session of the Board of the Company.
- (ix) On 21 December 2021, Ms. Lin Ni was appointed as the supervisor in the seventh session of the supervisory Committee of the Company.
- (x) On 29 June 2021, Ms. Chen Lijie, Mr. Hu Shihai and Mr. Lie-A-Cheong Tai-Chong, David were resigned as non-executive Directors of the Company.

During the year, no options were granted to the directors or the supervisors of the Company (2020: Nil).

During the year, no emoluments were paid to the directors or the supervisors of the Company (among which included the five highest paid employees) as an inducement to join or upon joining the Company or as compensation for loss of office (2020: Nil).

Director Wang Jun waived his director's remuneration with effect from May 2020. The annual remuneration before tax as a non-executive director of the Company is RMB150,000 for 2021.

31 DIRECTORS' AND SUPERVISORS' REMUNERATION (CONTINUED)

(b) Five highest paid individuals

During the year ended 31 December 2021, the five highest paid individuals of the Group include three directors (2020: three directors) whose remuneration is reflected in the analysis presented above. The remuneration payable to the remaining two individuals during 2021 (2020: two) is as follows:

	31 December 2021	31 December 2020
Basic salaries, housing fund, other allowances and benefits in kind	1,699	1,594
Discretionary bonuses	–	–
Pension costs	186	88
	1,885	1,682

The number of the remaining two highest paid individuals during 2021 (2020: two) whose remuneration fell within the following band is as follows:

	Number of individuals	
	31 December 2021	31 December 2020
Nil to RMB1,000,000	2	2



Notes to Financial Statements (Continued)

Year ended 31 December 2021
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unless otherwise stated)

32 INCOME TAX EXPENSE

	31 December 2021	31 December 2020 (Restated)
Current income tax expense	2,342,124	820,947
Deferred tax benefit/(expenses)	47,637	(230,924)
	2,389,761	590,023

In general, the Group's PRC entities are subject to PRC corporate income tax at the standard rate of 25% (2020: 25%) on their respective estimated assessable profits for the year. Certain branches and subsidiaries of the Company located in the western regions of the PRC are granted tax concessions including a preferential tax rate of 15% (2020: 15%).

32 INCOME TAX EXPENSE (CONTINUED)

A reconciliation of the tax expense applicable to profit before tax at the statutory rates for the countries in which the Company and the majority of its subsidiaries are domiciled to the tax expense at the effective tax rates, and a reconciliation of the applicable rates to the effective tax rates, are as follows:

	31 December 2021	31 December 2020 (Restated)
Profit before income tax	10,178,780	2,189,271
Tax expense calculated at the statutory tax rate of 25% (2020: 25%)	2,544,695	547,318
Tax effects of:		
Impact of different tax rates applied to subsidiaries	(80,794)	10,471
Preferential income tax rates applicable to certain branches and subsidiaries	(937,808)	(367,489)
Impact of change in income tax rate	32,107	(52,177)
Net impact of unrecognised temporary differences and tax losses for current and prior years	1,166,082	620,001
Expenses subject to additional deduction	(142,326)	(42,958)
Interest expenses of perpetual bonds	(76,807)	(86,034)
Expenses not deductible for tax purposes	42,786	51,583
Profits and losses attributable to joint ventures and associates	(156,762)	(70,577)
Others	(1,412)	(20,115)
Income tax expense	2,389,761	590,023
Effective tax rate	23%	27%

Notes to Financial Statements (Continued)

33 EARNINGS PER SHARE ATTRIBUTABLE TO OWNERS OF THE COMPANY

	For the year ended 31 December	
	2021	2020 (Restated)
Profit attributable to owners of the Company <i>(in thousands of RMB)</i>	5,079,562	764,306
Adjustment: cumulative distribution reserved of other equity instruments <i>(in thousands of RMB)</i>	(209,500)	(261,168)
Adjusted profit attributable to ordinary shares holders of the Company <i>(in thousands of RMB)</i>	4,870,062	503,138

For the purpose of calculating basic earnings per share, the Group adjusted the profit attributable to owners of the Company by deducting the after-tax amounts of cumulative distribution reserved for the year for other equity instruments, which were issued by the Group and classified as equity instrument (Note 40).

	For the year ended 31 December	
	2021	2020 (Restated)
Number of ordinary shares in issue as at 1 January <i>(thousands)</i>	17,022,673	17,022,673
Weighted average number of ordinary shares in issue	17,022,673	17,022,673
Basic and diluted earnings per share <i>(RMB)</i>	0.286	0.030

The Group had no potentially dilutive ordinary shares in issuance during the years ended 31 December 2021 and 2020, thus the diluted earnings per share were the same as basic earnings per share.

Basic earnings per share was calculated by dividing the adjusted profit attributable to ordinary shares holders of the Company by the weighted average number of shares in issue during the year.

34 DIVIDENDS

According to the articles of association of the Company, the Company considers the maximum limit of profit appropriation to its shareholders is the lowest of:

- (i) the sum of the net profit less statutory surplus reserve and the opening retained earnings for the current period in accordance with IFRSs;
- (ii) the sum of the net profit less statutory surplus reserve and the opening retained earnings for the current period in accordance with the PRC Accounting Standards for Business Enterprises; and
- (iii) the amount limited by the Company Law of the PRC.

According to the resolution of the Board of Directors dated 22 March 2022, the directors proposed a final dividend of RMB545 Million for the year ended 31 December 2021.

Notes to Financial Statements (Continued)

35 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

(a) Reconciliation of profit before taxation to cash generated from operations

	Notes	For the year ended 31 December	
		2021	2020 (Restated)
Cash flows generated from operating activities			
Profit before income tax		10,178,780	2,189,271
Adjustments for:			
Share of profits of joint ventures	9 (a)	(164,100)	(180,502)
Share of profits of associates	9 (b)	(272,584)	(145,737)
Depreciation of property, plant and equipment	7	7,375,559	7,161,476
Depreciation of investment properties	8	24,450	24,405
Depreciation of right-of-use assets	20(a)	744,511	767,553
Amortisation of intangible assets	6	377,714	459,482
Amortisation of prepaid expenses included in other non-current assets		192,148	274,745
Loss/(gain) on disposal of other property, plant and equipment, land use rights, net		650,711	(319,796)
Impairment losses on property, plant and equipment		2,328,131	416,842
Impairment loss of intangible assets		196,426	416
Impairment loss of right-of-use assets	20	90,090	15,790
Impairment loss of inventory		456,538	1,321,387
Impairment loss of trade and notes receivables	26	327,131	338,972
Impairment loss of other current assets	26	1,042,041	640,189
Impairment loss of other non-current assets	26	15,716	–
Realised and unrealised gains on futures, option and forward contracts		604,734	(512,984)
Loss/(gain) on disposal of subsidiaries	28	27,404	(11,305)
Loss on factoring of accounts receivable		83,293	–
Dividends from other financial assets measured at fair value		(10,912)	(82,794)
Finance cost		3,846,101	4,420,438
Others		127,680	5,106
		28,241,562	16,782,954

35 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

(a) Reconciliation of profit before taxation to cash generated from operations (Continued)

	Notes	For the year ended 31 December	
		2021	2020 (Restated)
Changes in working capital:			
Decrease/(increase) in inventories		727,363	(1,667,622)
Increase in trade and notes receivables		(1,294,952)	(4,524,806)
Decrease in other current assets		125,731	230,869
(Increase)/decrease in restricted cash		(268,711)	249,744
Decrease/(increase) in other non-current assets		25,803	(70,637)
Increase in trade and notes payables		1,318,486	3,004,899
Increase in other payables and accrued liabilities		1,702,821	1,884,283
Decrease in other non-current liabilities		(62,592)	(177,045)
Cash generated from operations		30,515,511	15,712,639
PRC corporate income taxes paid		(2,285,126)	(805,171)
Net cash generated from operating activities		28,230,385	14,907,468
Major non-cash transactions of investing activities and financing activities			
Notes receivables endorsed as payment liabilities		3,135,322	2,276,782
Increase/(decrease) of right-of-use assets		6,269,450	(7,361)
Acquisition of business		–	42,230
		9,404,772	2,311,651

Notes to Financial Statements (Continued)

35 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

(b) Reconciliation of liabilities arising from financing activities

The table below details changes in the Group's liabilities from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are liabilities for which cash flows was, or future cash flows will be, classified in the Group's consolidated statement of cash flows as cash flows from financing activities.

	Liabilities from financing activities				Other assets		Total
	Borrowings	Medium-term notes and bonds	Leases	Other payables arising from financing activities	Sub Total	Cash/bank Overdraft	
Net debt as at 1 January 2020	60,074,053	33,086,852	8,369,262	10,791,507	112,321,674	-	112,321,674
Financing cash flows	2,909,944	(11,689,958)	(1,748,202)	(4,021,065)	(14,549,281)	-	(14,549,281)
New leases and modification of contract	-	-	(7,361)	-	(7,361)	-	(7,361)
Foreign exchange adjustments	(131,358)	(178,972)	-	-	(310,330)	-	(310,330)
Other changes	-	-	-	-	-	-	-
Non-cash financing activities	-	168,713	472,452	4,282,403	4,923,568	-	4,923,568
Transfer between deposits and overdrafts	-	-	-	-	-	899,955	899,955
Net debt as at 31 December 2020	62,852,639	21,386,635	7,086,151	11,052,845	102,378,270	899,955	103,278,225
Financing cash flows	(11,477,586)	3,276,882	(639,675)	(3,966,393)	(12,806,772)	-	(12,806,772)
New leases and modification of contract	-	-	6,269,450	-	6,269,450	-	6,269,450
Foreign exchange adjustments	(30,537)	(143,597)	-	-	(174,134)	-	(174,134)
Other changes	-	-	-	-	-	-	-
Non-cash financing activities	-	143,080	(121,471)	3,677,507	3,699,116	-	3,699,116
Transfer between deposits and overdrafts	-	-	-	-	-	(899,955)	(899,955)
Net debt as at 31 December 2021	51,344,516	24,663,000	12,594,455	10,763,959	99,365,930	-	99,365,930

35 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

(c) Total cash outflow for leases

The total cash outflow for leases included in the statement of cash flows is as follows:

	For the year ended 31 December 2021
Within operating activities	51,739
Within financing activities	639,675
	691,414

Notes to Financial Statements (Continued)

36 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES

The Company is controlled by Chinalco, the parent company and a state-owned enterprise established in Mainland China. Chinalco itself is controlled by the PRC government, which also owns a significant portion of the productive assets in Mainland China. In accordance with IAS 24 Related Party Disclosures, government-related entities and their subsidiaries, directly or indirectly controlled, jointly controlled or significantly influenced by the PRC government are defined as related parties of the Group. On that basis, related parties include Chinalco and its subsidiaries (other than the Group), other government-related entities and their subsidiaries (“other state-owned enterprises”), other entities and corporations over which the Company is able to control or exercise significant influence and key management personnel of the Company and Chinalco as well as their close family members.

For the purposes of the related party transaction disclosures, the directors of the Company consider that meaningful information in respect of related party transactions has been adequately disclosed.

In addition to the related party information and transactions disclosed elsewhere in the consolidated financial statements, the following is a summary of significant related party transactions in the ordinary course of business between the Group and its related parties during the year.

36 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES(CONTINUED)

(a) Significant related party transactions

	Notes	For the year ended 31 December	
		2021	2020 (Restated)
Sales of goods and services rendered:			
Sales of materials and finished goods to:			
Chinalco and its subsidiaries	(i) (ix)	19,261,538	13,986,133
Associates of Chinalco		1,497,639	520,485
Joint ventures		9,071,474	6,694,824
Associates		672,403	9,232,432
Non-controlling shareholder of a subsidiary and its subsidiaries		–	42,298
		30,503,054	30,476,172
Provision of utility services to:			
Chinalco and its subsidiaries	(ii) (ix)	910,655	1,104,542
Associates of Chinalco		14,380	3,288
Joint ventures		250,525	470,984
Associates		375	18,568
		1,175,935	1,597,362

Notes to Financial Statements (Continued)

36 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(a) Significant related party transactions (Continued)

	Notes	For the year ended 31 December	
		2021	2020 (Restated)
Sales of goods and services rendered: (Continued)			
Rental revenue of land use rights and buildings from:			
	(vi)		
Chinalco and its subsidiaries	(ix)	34,221	39,284
Associates of Chinalco		237	237
Joint ventures		1,446	1,426
Associates		507	365
		36,411	41,312
Purchases of goods and services:			
Purchases of engineering, construction and supervisory services from:			
	(iii)		
Chinalco and its subsidiaries	(ix)	746,966	1,755,092
Associates of Chinalco		192	265
Joint ventures		251	–
Associates		12,413	12,233
		759,822	1,767,590
Provision of social services and logistics services by:			
	(v)		
Chinalco and its subsidiaries	(ix)	480,828	475,532
		480,828	475,532

36 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(a) Significant related party transactions (Continued)

	Notes	For the year ended 31 December	
		2021	2020 (Restated)
Purchases of primary and auxiliary materials, equipment and finished goods from:			
	(iv)		
Chinalco and its subsidiaries	(ix)	5,526,965	6,176,513
Associates of Chinalco		37,187	2,586
Joint ventures		8,141,929	5,501,158
Associates		7,407,805	10,576,907
Non-controlling shareholder of a subsidiary and its subsidiaries		–	30,101
		21,113,886	22,287,265
Purchases of utility services from:	(ii)		
Chinalco and its subsidiaries	(ix)	731,222	644,638
Associates of Chinalco		98,966	85,469
Joint ventures		820,031	443,290
		1,650,219	1,173,397
Purchases of other services by:	(vii)		
Chinalco and its subsidiaries	(ix)	270,972	373,655
		270,972	373,655

36 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(a) Significant related party transactions (Continued)

	Notes	For the year ended 31 December	
		2021	2020 (Restated)
Rental expense of land use rights and buildings from:			
Chinalco and its subsidiaries	(vi) (ix)	734,097	661,888
		734,097	661,888
New right-of-use assets in current period			
Additions			
Chinalco and its subsidiaries		83,249	22,936
Lease modification			
Chinalco and its subsidiaries		6,147,096	(43,395)
Interest expense on lease liabilities		309,064	342,782

36 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(a) Significant related party transactions (Continued)

	Notes	For the year ended 31 December	
		2021	2020 (Restated)
Other significant related party transactions:			
Borrowing from subsidiary of Chinalco	(vi) (viii)	3,370,000	1,925,000
Repayment of borrowing from subsidiaries of Chinalco	(viii)	5,318,000	1,676,000
Interest expense on borrowings and discounted notes	(viii)	61,878	87,985
Interest income from cash and cash equivalents deposited	(viii)	67,269	51,163
Trade receivable factor to a subsidiary of Chinalco	(viii)	1,566,707	–
Discounted notes receivable to a subsidiary of Chinalco	(viii)	128,000	36,750

Notes to Financial Statements (Continued)

36 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(a) Significant related party transactions (Continued)

All transactions with related parties were conducted at prices and on terms mutually agreed by the parties involved, which are determined as follows:

- (i) Sales of materials and finished goods comprised sales of alumina, primary aluminum, copper and scrap materials. Transactions entered into are covered by general agreements on a mutual provision of production supplies and ancillary services. The pricing policy is summarised below:
 - 1. The price prescribed by the PRC government ("state-prescribed price") is adopted;
 - 2. If there is no state-prescribed price, state-guidance price is adopted;
 - 3. If there is neither state-prescribed price nor state-guidance price, then the market price (being price charged to and from independent third parties) is adopted; and
 - 4. If none of the above is available, then the adoption of a contractual price (being reasonable costs incurred in providing the relevant services plus not more than 5% of such costs is adopted).
- (ii) Utility services, including electricity, gas, heat and water, are provided at the state-prescribed price.
- (iii) Engineering, project construction and supervisory services were provided for construction projects. The state-guidance price or prevailing market price (including the tender price where by way of tender) is adopted for pricing purposes.

36 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(a) Significant related party transactions (Continued)

- (iv) The pricing policy for purchases of key and auxiliary materials (including bauxite, limestone, carbon, cement and coal) is the same as that set out in (i) above.
- (v) Social services and logistics services provided by Chinalco Group cover public security, fire services, education and training, school and hospital services, cultural and physical education, newspaper and magazines, broadcasting and printing as well as property management, environmental and hygiene, greenery, nurseries and kindergartens, sanatoriums, canteens and offices, public transport and retirement management and other services. Provisions of these services are covered by the Comprehensive Social and Logistics Services Agreement. The pricing policy is the same as that set out in (i) above.
- (vi) Pursuant to the Land Use Right Lease Agreements entered into between the Group and Chinalco Group, operating leases for industrial or commercial land are charged at the market rent rate. The Group also entered into a building rental agreement with Chinalco Group and paid rents based on the market rate for its lease of buildings owned by Chinalco.
- (vii) Other services are environmental protection operation services. The prevailing market price is adopted for pricing purposes.
- (viii) Chinalco Finance Company Limited (“Chinalco Finance”) (中鋁財務有限責任公司), a wholly-owned subsidiary of Chinalco and a non-bank financial institution established in the PRC, provides deposit services, credit services and miscellaneous financial services to the Group. The terms for the provision of financial services to the Group are no less favourable than those of the same type of financial services provided by Chinalco Finance to Chinalco and other members of its group or those of the same type of financial services that may be provided to the Group by other financial institutions.

As at 31 December 2021, the Group derecognised accounts receivable of RMB1,650 million (31 December 2020: Nil) by factoring transaction with Chinalco Finance, and the related fees incurred were RMB83.29 million recognised in other losses (31 December 2020: Nil).

Notes to Financial Statements (Continued)

36 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(a) Significant related party transactions (Continued)

- (ix) These related party transactions also constitute connected transactions or continuing connected transactions as defined in Chapter 14A of the Listing Rules.

In September 2021, pursuant to the agreement entered into between China Rare Earth Co., Ltd. (“China Rare Earth”, “中國稀有稀土有限公司”, a subsidiary of Chinalco), Zunyi Aluminum Co., Ltd. (“Zunyi Aluminum”, “遵義鋁業股份有限公司”, a subsidiary of the Company), Chalco Mining Co., Ltd. (“Chalco Mining”, “中鋁礦業有限公司”, a subsidiary of the Company), the Group acquired the gallium business of China Rare Earth for a consideration of RMB396 million in cash. This transaction is regarded as a business combination under common control.

The English names represent the best effort made by management of the Group in translating the Chinese names of the Companies as they do not have any official English names.

36 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(b) Balances with related parties

Other than those disclosed elsewhere in the consolidated financial statements, the outstanding balances with related parties at the year-end are as follows:

	31 December 2021	31 December 2020 (Restated)
Cash and cash equivalents deposited with		
A subsidiary of Chinalco (<i>Note(i)</i>)	7,832,441	3,561,997
Trade and notes receivables		
Chinalco and its subsidiaries	1,476,833	762,489
Associates of Chinalco	45,180	44,958
Joint ventures	628,231	761,392
Associates	1	2,287
Non-controlling shareholder of a subsidiary and its subsidiaries	24,465	46,450
	2,174,710	1,617,576
Provision for impairment of receivables	(80,102)	(103,592)
	2,094,608	1,513,984

- (i) On 26 August 2011, the Company entered into an agreement with Chinalco Finance, pursuant to which, Chinalco Finance agreed to provide deposit services, credit services and other financial services to the Group. On 24 August 2012, 28 April 2015, 26 October 2017 and 27 April 2020, the Company renewed the financial service agreement with Chinalco Finance with a validation term of three years ending 25 October 2023.

Notes to Financial Statements (Continued)

36 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(b) Balances with related parties (Continued)

	31 December 2021	31 December 2020 (Restated)
Other current assets		
Chinalco and its subsidiaries	325,247	818,318
Associates of Chinalco	21,820	21,753
Joint ventures	1,486,510	1,364,615
Associates	359,917	421,947
Non-controlling shareholder of a subsidiary and its subsidiaries	7,450	11,700
Provision for impairment of other current assets	(1,310,379)	(496,703)
	890,565	2,141,630
Other non-current assets		
Associates	111,845	111,845
Interest-bearing loans and borrowings:		
Subsidiaries of Chinalco (including lease liabilities)	13,028,565	8,887,422
Associates of Chinalco	2,245	–
	13,030,810	8,887,422
Trade and notes payables		
Chinalco and its subsidiaries	301,386	437,732
Associates of Chinalco	26,288	1,511
Joint ventures	229,994	561,508
Associates	32,668	10,562
Non-controlling shareholder of a subsidiary and its subsidiaries	105,174	–
	695,510	1,011,313

36 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(b) Balances with related parties (Continued)

	31 December 2021	31 December 2020
Other payables and accrued liabilities		
Chinalco and its subsidiaries	1,054,724	2,193,344
Associates of Chinalco	42,659	1,019
Associates	19,926	28,424
Joint ventures	49,618	3,940
	1,166,927	2,226,727
Contract liabilities:		
Chinalco and its subsidiaries	150,730	17,460
Associates of Chinalco	27,190	13,453
Associates	1,536	79
Joint ventures	535	519
Non-controlling shareholder of subsidiary and its subsidiaries	–	656
	178,594	32,167

As at 31 December 2021, included in long-term loans and borrowings and short-term loans and borrowings were from other state-owned enterprises amounting to RMB37,287 million (31 December 2020: RMB35,029 million) RMB4,906 million (31 December 2020: RMB29,781 million), respectively.

The terms of all balances were unsecured.

36 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(c) Compensation of key management personnel

	2021	2020 (Restated)
Fees	580	683
Basic salaries, other allowances and benefits in kind	6,225	5,810
Pension costs	634	301
	7,439	6,794

Key management includes directors, supervisors and members of senior managements.

(d) Commitments with related parties

As at 31 December 2021 and 2020, except for the other capital commitments disclosed in Note 42(b) to these financial statements, the Group had no significant commitments with related parties.

37 FINANCIAL AND CAPITAL RISK MANAGEMENT

37.1 Financial risk management

The Group's activities expose it to a variety of financial risks, including market risk (including foreign currency risk, interest rate risk and commodity price risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimise the potential adverse effects on the Group's financial performance.

Risk management is carried out by the treasury management department (the "Group Treasury") under policies approved by the Board of Directors of the Company. The Group Treasury identifies, evaluates and hedges financial risks through close cooperation with the Group's operating units.

(a) Market risk

(i) Foreign currency risk

The Group's foreign currency risk arose from transaction conducted in currency other than the functional currency of the group entities. The Group's foreign currency risk primarily arises from foreign currency deposits, trade receivables, trade payables and short-term and long-term loans denominated in United States dollars ("USD"), Euro ("EUR"), Japanese yen ("JPY"), and Hong Kong dollars ("HKD"). Related exposures are disclosed in Notes 16, 14, 23, 15 and 19 to the financial statements, respectively. The Group Treasury closely monitors the international foreign currency market on the change of exchange rates and takes these into consideration when investing in foreign currency deposits and borrowing loans. As at 31 December 2021, the Group only had significant exposure to USD.

Notes to Financial Statements (Continued)

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.1 Financial risk management (Continued)

(a) Market risk (Continued)

(i) Foreign currency risk (Continued)

As at 31 December 2021, if RMB had strengthened/weakened by 5% against USD with all other variables held constant, the profit for the year would have been approximately RMB28 million higher/lower (2020: RMB74 million higher/lower), mainly as a result of foreign exchange gains and losses arising from translation of USD denominated borrowings, other payables and medium term notes.

As the assets and liabilities denominated in other foreign currencies other than USD were relatively minimal to the total assets and liabilities of the Group, the directors of the Company are of the opinion that the Group was not exposed to significant foreign currency risk arising from other assets and liabilities denominated in currency other than the functional currency of the group entities as at 31 December 2021 and 2020.

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.1 Financial risk management (Continued)

(a) Market risk (Continued)

(ii) Interest rate risk

As at 31 December 2021, as the Group had no significant interest-bearing assets or liabilities except for bank deposits (Note 16), entrusted loans (Note 15) and Interest-bearing loans (Note 19).

Most of the bank deposits are maintained in savings and time deposit accounts in the PRC. The interest rates are regulated by the People's Bank of China and the Group Treasury closely monitors the fluctuation on such rates periodically. The interest rates of entrusted loans are fixed. As the interest rates applied to the entrusted loans were fixed, the directors of the Company are of the opinion that the Group was not exposed to any significant interest rate risk for its financial assets held as at 31 December 2021 and 2020.

The interest rate risk for the Group's financial liabilities primarily arises from interest-bearing loans. Loans borrowed at floating interest rates expose the Group to cash flow interest rate risk. The Group enters into debt obligations to support general corporate purposes including capital expenditures and working capital needs. The Group Treasury closely monitors market interest rates and maintains a balance between variable rate and fixed rate borrowings in order to reduce the exposures to the interest rate risk described above.

As at 31 December 2021, if interest rates had been 100 basis points (31 December 2020: 100 basis points) higher/lower for bank and other loans borrowed at floating interest rates with all other variables held constant, net profit for the year would have been RMB421 million lower/higher (2020: RMB430 million), respectively, mainly as a result of the higher/lower interest expense on floating rate borrowings.

Notes to Financial Statements (Continued)

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.1 Financial risk management (Continued)

(a) Market risk (Continued)

(ii) Interest rate risk (Continued)

The fair value interest rate risk of the Group mainly arises from medium term notes and short term bonds issued at fixed rates. As the fluctuation of comparable interest rates of corporate bonds with similar terms was relatively low, the directors of the Company are of the opinion that the Group was not exposed to any significant fair value interest rate risk for its fixed interest rate borrowings held as at 31 December 2021 and 2020.

(iii) Commodity price risk

The Group uses futures and option contracts to reduce its exposure to fluctuations in the price of primary aluminum and other products. The Group uses the futures contract for offsetting other than speculation. With reference to the hedging of primary aluminum, production company hedges the output of primary aluminum and trading company hedges the quantities of buyout and self-supporting.

The Group uses mainly futures contracts and option contracts traded on the Shanghai Futures Exchange and London Metal Exchange ("LME") to hedge against fluctuations in primary aluminum prices. As at 31 December 2021, the fair values of the outstanding futures contracts amounting to RMB0 million (31 December 2020: RMB17 million) and RMB69 million (31 December 2020: RMB27 million) were recognised in financial assets and financial liabilities at fair value through profit or loss, respectively.

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.1 Financial risk management (Continued)

(a) Market risk (Continued)

(iii) Commodity price risk (Continued)

As at 31 December 2021, if the commodity futures prices had increased/decreased by 3% (31 December 2020:3%) and all other variables held constant, profit for the year would have changed by the amounts shown below:

	31 December 2021	31 December 2020
Primary aluminum	Decrease/increase RMB6 million	Decrease/increase RMB5 million

Notes to Financial Statements (Continued)

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.1 Financial risk management (Continued)

(b) Credit risk

Credit risk arises from balances with banks and financial institutions, trade and notes receivables, other current and non-current receivables as well as credit exposures of customers, including outstanding receivables and committed transactions.

The Group maintains substantially all of its bank balances and cash and short-term investments in several major state-owned banks in the PRC. With strong support from the PRC government to these state-owned banks, the directors of the Company are of the opinion that there is no significant credit risk on such assets being exposed to losses.

The Group applies the simplified approach to most of its trade receivables to provide for expected credit losses prescribed by IFRS 9, which permits the use of the lifetime expected loss provision for trade receivables. The Group has made individual assessment for trade receivables from clients with top rating and those receivables with pledged assets separately and impairment provisions are made.

To measure the expected credit losses of trade receivables other than those assessed individually as mentioned above, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The expected credit loss model also incorporates forward-looking information.

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.1 Financial risk management (Continued)

(b) Credit risk (Continued)

For other current and non-current receivables, the Group considers the probability of default upon initial recognition of an asset and whether there has been a significant increase in credit risk on an ongoing basis throughout each reporting period. To assess whether there is a significant increase in credit risk the company compares the risk of a default occurring on the asset as at the reporting date with the risk of default as at the date of initial recognition. It considers available reasonable and supportive forwarding-looking information. Especially the following indicators are incorporated:

- internal credit rating
- external credit rating
- actual or expected significant adverse changes in business, financial or economic conditions that are expected to cause a significant change to the borrower's ability to meet its obligations
- actual or expected significant changes in the operating results of individual clients
- significant changes in the expected performance and behaviour of the clients

The Group measures expected credit loss rates on the basis of a loss rate approach by segmenting its portfolio into appropriate groupings based on shared credit risk characteristics. At the end of each year, the Group updates its historical loss information with forward-looking information. As the historical credit loss rates were comparatively stable and no significant changes were expected to the forward-looking information after the consideration of reasonable and supportable forecasts of comparatively stable customer relationship and customers' credit ratings, the expected credit loss rates remained consistent during 2021.

Notes to Financial Statements (Continued)

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.1 Financial risk management (Continued)

(b) Credit risk (Continued)

The table below shows the credit quality and the maximum exposure to credit risk based on the Group's credit policy, which is mainly based on past due information unless other information is available without undue cost or effort, and year-end staging classification as at 31 December 2021. The amounts presented are carrying amounts for financial assets and the exposure to credit risk for the financial guarantee contracts.

	Stage 1	Stage 2	Stage 3	Simplified	Total
Trade receivables	–	–	–	3,066,654	3,066,654
Financial assets in other current assets	1,940,482	180,611	153,814	–	2,274,907
Restricted cash	1,324,748	–	–	–	1,324,748
Notes receivable	–	–	–	3,838,196	3,838,196
Cash and cash equivalents	17,853,244	–	–	–	17,853,244
Financial assets in other non-current assets	111,848	–	–	–	111,848
Total	21,230,322	180,611	153,814	6,904,850	28,469,597

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.1 Financial risk management (Continued)

(b) Credit risk (Continued)

The carrying amounts of short-term investments and these receivables included in Notes 12, 14, 15 and 16 represent the Group's maximum exposure to credit risk in relation to its financial assets. The directors of the Company are of the opinion that the Group was not exposed to any significant concentration of credit risk as at 31 December 2021 and 2020.

(c) Liquidity risk

Cash flow forecast is performed in the operating entities of the Group and aggregated by the Group Treasury. The Group Treasury monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining sufficient headroom on its undrawn committed borrowing facilities at all times so that the Group does not breach borrowing limits or covenants (where applicable) on any of its borrowing facilities. This forecast takes into consideration of the Group's debt financing plans, covenant compliance, compliance with internal balance sheet ratio targets and, if applicable, external regulatory or legal requirements, for example, currency restrictions.

Management also monitors rolling forecasts of the Group's liquidity reserve on the basis of expected cash flows.

Notes to Financial Statements (Continued)

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.1 Financial risk management (Continued)

(c) Liquidity risk (Continued)

As at 31 December 2021, the Group's current liabilities exceeded its current assets by approximately RMB3,467 million (31 December 2020 (restated): RMB16,364 million), please refer to Note 2.1.2 for the assessment made by the Company.

The table below analyses the maturity profile of the Group's financial liabilities as at the end of the reporting period. The amounts disclosed in the table are the contractual undiscounted cash flows.

	Within 1 year	1 to 2 years	2 to 5 years	Over 5 years	Total
As at 31 December 2021					
Lease liabilities, including current portion	1,590,204	1,473,711	4,347,713	15,394,370	22,805,998
Long-term bank and other loans, including current portion	5,859,115	11,837,652	9,771,437	14,656,982	42,125,186
Medium-term notes and bonds, including current portion	3,000,000	4,400,000	9,875,700	2,000,000	19,275,700
Short-term bonds	5,400,000	-	-	-	5,400,000
Short-term bank and other loans	9,219,330	-	-	-	9,219,330
Interest payables for loans and borrowings	2,620,867	2,147,795	3,941,541	1,680,396	10,390,599
Financial liabilities at fair value through profit or loss	68,871	-	-	-	68,871
Financial liabilities included other payables and accrued liabilities, excluding accrued interest	6,497,831	-	-	-	6,497,831
Financial liabilities included in other non-current liabilities	234,900	202,231	147,002	885,208	1,469,341
Trade and notes payables	15,505,443	-	-	-	15,505,443
	49,996,561	20,061,389	28,083,393	34,616,956	132,758,299

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.1 Financial risk management (Continued)

(c) Liquidity risk (Continued)

	Within 1 year	1 to 2 years	2 to 5 years	Over 5 years	Total
As at 31 December 2020					
Lease liabilities, including current portion	1,151,332	473,410	1,263,824	9,708,710	12,597,276
Long-term bank and other loans, including current portion	3,629,014	6,702,688	15,638,088	17,044,774	43,014,564
Medium-term notes and bonds, including current portion	7,109,960	3,000,000	6,900,000	2,000,000	19,009,960
Short-term bonds	2,400,000	-	-	-	2,400,000
Short-term bank and other loans	20,738,030	-	-	-	20,738,030
Interest payables for loans and borrowings	2,935,356	2,105,844	4,046,106	2,039,075	11,126,381
Financial liabilities at fair value through profit or loss	26,684	-	-	-	26,684
Financial liabilities included other payables and accrued liabilities, excluding accrued interest	7,972,469	-	-	-	7,972,469
Financial liabilities included in other non-current liabilities	460,101	194,609	74,367	767,941	1,497,018
Trade and notes payables	15,444,354	-	-	-	15,444,354
	61,867,300	12,476,551	27,922,385	31,560,500	133,826,736

Notes to Financial Statements (Continued)

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.2 Financial instruments

(a) Financial instruments by category

The carrying amounts of each of the categories of financial instruments of the Group as at the end of the reporting period are as follows:

Financial assets

	Group 31 December 2021				Total
	Financial assets at fair value through profit or loss-held for trading	Financial assets at amortised cost	Equity instruments at fair value through other comprehensive income	Debt instruments at fair value through other comprehensive income	
Current					
Trade receivables	-	3,066,654	-	-	3,066,654
Notes receivable	-	1,140,930	-	2,697,266	3,838,196
Restricted cash	-	1,324,748	-	-	1,324,748
Cash and cash equivalents	-	17,853,244	-	-	17,853,244
Financial assets included in other current assets	-	2,274,907	-	-	2,274,907
Subtotal	-	25,660,483	-	2,697,266	28,357,749
Non-current					
Other financial assets measured at fair value	-	-	239,538	-	239,538
Other non-current assets	-	111,848	-	-	111,848
Subtotal	-	111,848	239,538	-	351,386
Total	-	25,772,331	239,538	2,697,266	28,709,135

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.2 Financial instruments

(a) Financial instruments by category

Financial liabilities

	Group 31 December 2021		
	Financial assets at fair value through profit or loss-held for trading	Financial liabilities at amortised cost	Total
Current			
Financial liabilities at fair value through profit or loss	68,871	-	68,871
Interest-bearing loans and borrowings	-	24,506,122	24,506,122
Financial liabilities included in other payables and accrued liabilities (<i>Note 22</i>)	-	7,166,216	7,166,216
Trade and notes payables	-	15,505,443	15,505,443
Subtotal	68,871	47,177,781	47,246,652
Non-current			
Financial liabilities included in other non-current liabilities (<i>Note 21</i>)	-	880,864	880,864
Interest-bearing loans and borrowings	-	64,095,849	64,095,849
Subtotal	-	64,976,713	64,976,713
Total	68,871	112,154,494	112,223,365

Notes to Financial Statements (Continued)

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.2 Financial instruments (Continued)

(a) Financial instruments by category (Continued)

Financial assets

	Group 31 December 2020 (Restated)				Total
	Financial assets at fair value through profit or loss-held for trading	Financial assets at amortised cost	Equity instruments at fair value through other comprehensive income	Debt instruments at fair value through other comprehensive income	
Current					
Trade receivables	-	4,753,210	-	-	4,753,210
Notes receivable	-	-	-	4,560,437	4,560,437
Financial assets at fair value through profit or loss	17,311	-	-	-	17,311
Restricted cash	-	1,056,037	-	-	1,056,037
Cash and cash equivalents	-	9,671,477	-	-	9,671,477
Financial assets included in other current assets	-	3,982,308	-	-	3,982,308
Subtotal	17,311	19,463,032	-	4,560,437	24,040,780
Non-current					
Other financial assets measured at fair value	-	-	1,526,703	-	1,526,703
Other non-current assets	-	127,754	-	-	127,754
Subtotal	-	127,754	1,526,703	-	1,654,457
Total	17,311	19,590,786	1,526,703	4,560,437	25,695,237

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.2 Financial instruments (Continued)

(a) Financial instruments by category (Continued)

Financial Liabilities

	Group 31 December 2020 (Restated)		
	Financial assets at fair value through profit or loss-held for trading	Financial liabilities at amortised cost	Total
Current			
Financial liabilities at fair value through profit or loss	26,684	–	26,684
Interest-bearing loans and borrowings	–	34,707,283	34,707,283
Financial liabilities included in other payables and accrued liabilities (<i>Note 22</i>)	–	8,965,952	8,965,952
Trade and notes payables	–	15,444,354	15,444,354
Subtotal	26,684	59,117,589	59,144,273
Non-current			
Financial liabilities included in other non-current liabilities (<i>Note 21</i>)	–	1,036,917	1,036,917
Interest-bearing loans and borrowings	–	57,518,097	57,518,097
Subtotal	–	58,555,014	58,555,014
Total	26,684	117,672,603	117,699,287

Notes to Financial Statements (Continued)

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.2 Financial instruments (Continued)

(b) Fair value and fair value hierarchy

Fair value

The carrying amounts and fair values of the Group's financial instruments at amortised cost, other than those with carrying amounts that reasonably approximate to fair values and those carried at fair value, are as follows:

	Carrying amounts		Fair values	
	31 December 2021	31 December 2020	31 December 2021	31 December 2020
Financial liabilities				
Financial liabilities included in other non-current liabilities (<i>Note 21</i>)	880,864	1,036,917	767,922	903,141
Long-term interest-bearing loans and borrowings, excluding lease liability (<i>Note 19</i>)	52,489,058	51,260,218	49,233,629	49,729,548
	53,369,922	52,297,135	50,001,551	50,632,689

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.2 Financial instruments (Continued)

(b) Fair value and fair value hierarchy (Continued)

Fair value (Continued)

Except for financial assets and financial liabilities mentioned above, management has assessed that the fair values of cash and cash equivalents, restricted cash and time deposits, trade and notes receivables, financial assets included in other current assets, entrusted loans, trade and notes payables, financial liabilities included in other payables and accrued liabilities, short-term and the current portion of interest-bearing loans and borrowings, interest payable and the current portion of long-term payables approximate to their carrying amounts largely due to the short term maturities of these instruments.

The fair values of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale.

The fair values of the financial assets included in other non-current assets and financial liabilities included in other non-current liabilities and long-term interest bearing loans and borrowings have been calculated by discounting the expected future cash flows using rates currently available for instruments on with similar terms, credit risk and remaining maturities.

The Group's own non-performance risk for financial liabilities included in other non-current liabilities and long-term interest-bearing loans and borrowings as at 31 December 2021 was assessed to be insignificant.

Notes to Financial Statements (Continued)

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.2 Financial instruments (Continued)

(b) Fair value and fair value hierarchy (Continued)

Fair value hierarchy

The following tables illustrate the fair value measurement hierarchy of the Group's financial instruments:

Assets measured at fair value

As at 31 December 2021	Fair value measurement using			Total
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Financial assets at fair value through profit or loss:				
Notes receivable	–	–	2,697,266	2,697,266
Listed equity investments	7,674	–	–	7,674
Other unlisted investment	–	–	231,864	231,864
	7,674	–	2,929,130	2,936,804

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.2 Financial instruments (Continued)

(b) Fair value and fair value hierarchy (Continued)

Fair value hierarchy (Continued)

Assets measured at fair value (Continued)

As at 31 December 2020	Fair value measurement using			Total
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Financial assets at fair value through profit or loss:				
Futures contracts	17,311	–	–	17,311
Notes receivable	–	–	3,343,880	3,343,880
Listed equity investments	8,812	–	–	8,812
Other unlisted investment	–	–	1,517,891	1,517,891
	26,123	–	4,861,771	4,887,894

Notes to Financial Statements (Continued)

**37 FINANCIAL AND CAPITAL RISK MANAGEMENT
 (CONTINUED)**

37.2 Financial instruments (Continued)

(b) Fair value and fair value hierarchy (Continued)

Fair value hierarchy (Continued)

Liabilities measured at fair value

As at 31 December 2021

	Fair value measurement using			Total
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Financial liabilities at fair value through profit or loss:				
Futures contracts	68,871	-	-	68,871
	68,871	-	-	68,871

As at 31 December 2020

	Fair value measurement using			Total
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Financial liabilities at fair value through profit or loss:				
Futures contracts	26,684	-	-	26,684
	26,684	-	-	26,684

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.2 Financial instruments (Continued)

(b) Fair value and fair value hierarchy (Continued)

Fair value hierarchy (Continued)

Liabilities for which fair values are disclosed :

As at 31 December 2021	Fair value measurement using			Total
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Financial liabilities at amortised cost:				
Financial liabilities included in other non-current liabilities	-	767,922	-	767,922
Long-term interest-bearing loans and borrowings	-	49,233,629	-	49,233,629
	-	50,001,551	-	50,001,551

As at 31 December 2020	Fair value measurement using			Total
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Financial liabilities at amortised cost:				
Financial liabilities included in other non-current liabilities	-	903,141	-	903,141
Long-term interest-bearing loans and borrowings	-	49,729,548	-	49,729,548
	-	50,632,689	-	50,632,689

Notes to Financial Statements (Continued)

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.2 Financial instruments (Continued)

(b) Fair value and fair value hierarchy (Continued)

Fair value hierarchy (Continued)

During the year ended 31 December 2021 the Group had no transfers of fair value measurements between Level 1 and Level 2 and no transfers into or out of Level 3 for both financial assets and financial liabilities (2020: Nil).

Below is a summary of significant unobservable inputs to the valuation of financial instruments as at 31 December 2021:

	Valuation Technique	Significant unobservable input
Other equity investments		
31 December 2021	Discounted Cashflow model	Discounted rate
Notes receivable		
31 December 2021	Discounted Cashflow model	Discounted rate

37 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

37.3 Capital risk management

The Group's capital management objectives are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders, and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, issue new shares or sell assets to reduce debts.

Consistent with other entities in the industry, the Group monitors capital on the basis of its gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as total liabilities (excluding deferred tax liabilities, income tax payable and deferred government grants) less restricted cash, time deposits and cash and cash equivalents. Total capital is calculated as equity, as shown in the consolidated statement of financial position, plus net debt less non-controlling interests.

**37 FINANCIAL AND CAPITAL RISK MANAGEMENT
(CONTINUED)**

37.3 Capital risk management (Continued)

The gearing ratio as at 31 December 2021 and 2020 are as follows:

	31 December 2021	31 December 2020 (Restated)
Total liabilities (excluding deferred tax liabilities, income tax payable and deferred government grants)	117,492,000	121,816,774
Less: Restricted cash and cash and cash equivalents	19,177,992	10,727,514
Net debt	98,314,008	111,089,260
Total equity	72,783,497	71,305,164
Add: Net debt	98,314,008	111,089,260
Less: Non-controlling interests	15,518,810	16,855,847
Total capital attributable to owners of the company	155,578,695	165,538,577
Gearing ratio	63%	67%

38 NON-CONTROLLING INTERESTS

Other than the senior perpetual securities issued by a subsidiary of the Group that presented as non-controlling interests in the consolidated financial statements and disclosed in Note 40, details of the Group's subsidiaries that have material non-controlling interests are set out below:

	31 December 2021	31 December 2020 (Restated)
Percentage of equity interest held by non-controlling interests		
Ningxia Energy	29.18%	29.18%
Shanxi Zhongrun	60.00%	60.00%
Guizhou Huaren	60.00%	60.00%
Profit/(loss) for the year allocated to non-controlling interests		
Ningxia Energy	(90,237)	48,040
Shanxi Zhongrun	745,212	147,747
Guizhou Huaren	558,020	420,737
Dividends distributed to non-controlling interests		
Ningxia Energy	115,380	–
Shanxi Zhongrun	–	–
Guizhou Huaren	252,837	–
Accumulated balances of non-controlling interests at the year end		
Ningxia Energy	5,055,069	5,178,314
Shanxi Zhongrun	2,020,621	1,277,602
Guizhou Huaren	1,642,061	1,359,716

Notes to Financial Statements (Continued)

38 NON- CONTROLLING INTERESTS (CONTINUED)

The following tables illustrate the summarised financial information of the above subsidiaries. The amounts disclosed are before any inter-company eliminations:

	Ningxia Energy	
	2021	2020 (Restated)
Revenue	7,670,316	6,932,708
Total expenses	7,979,557	6,768,073
Profit for the year	(309,241)	164,635
Total comprehensive (loss)/income for the year	(309,241)	164,635
Current assets	2,912,805	6,037,632
Non-current assets	29,086,775	31,242,070
Current liabilities	8,256,229	9,779,461
Non-current liabilities	12,710,354	16,256,073
Net cash flows from operating activities	5,458,921	2,617,463
Net cash flows used in investing activities	(802,678)	(652,297)
Net cash flows used in financing activities	(5,381,480)	(1,792,661)
Effect of foreign exchange rate changes, net	-	-
Net (decrease)/increase in cash and cash equivalents	(725,237)	172,505

38 NON- CONTROLLING INTERESTS (CONTINUED)

	Shanxi Zhongrun	
	2021	2020 (Restated)
Revenue	8,028,780	3,561,831
Total expenses	6,786,760	3,315,585
Profit for the year	1,242,020	246,246
Total comprehensive income for the year	1,242,020	246,246
Current assets	375,567	643,121
Non-current assets	3,945,351	4,138,211
Current liabilities	890,245	2,595,397
Non-current liabilities	25,773	45,365
Net cash flows from operating activities	1,895,610	418,528
Net cash flows used in investing activities	(365,340)	(188,504)
Net cash flows used in financing activities	(1,530,330)	(404,548)
Effect of foreign exchange rate changes, net	-	-
Net decrease in cash and cash equivalents	(60)	(174,524)

Notes to Financial Statements (Continued)

Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

38 NON- CONTROLLING INTERESTS (CONTINUED)

	Guizhou Huaren	
	2021	2020 (Restated)
Revenue	7,284,585	6,094,811
Total expenses	6,354,551	5,393,582
Profit for the year	930,034	701,229
Total comprehensive income for the year	930,034	701,229
Current assets	2,150,014	1,610,363
Non-current assets	2,529,274	2,601,807
Current liabilities	1,026,955	1,003,650
Non-current liabilities	530,531	932,570
Net cash flows from operating activities	1,677,338	992,304
Net cash flows used in investing activities	(16,069)	(27,475)
Net cash flows used in financing activities	(974,588)	(612,892)
Effect of foreign exchange rate changes, net	-	-
Net increase in cash and cash equivalents	686,681	351,937

39 BUSINESS COMBINATION UNDER COMMON CONTROL

(a) Acquisition of gallium business

In September 2021, Pursuant to the agreement entered into between China Rare Earth Zunyi Aluminum and Chalco Mining, the Group acquired the gallium business of China Rare Earth for a cash consideration of RMB396 million. This transaction is regarded as a business combination under common control. The consolidated financial statements for the year ended 31 December 2021 has combined the financial statements of the acquired gallium business from the beginning of the earliest period presented (Note 2.3(a)). The comparative financial data have been restated accordingly.

Revenue and net profit of the gallium business for the period from 1 January 2021 to the acquisition date and for the year ended 31 December 2020 are as follows:

	For the period from 1 January 2021 to the acquisition date	2020
Revenue	178,229	112,428
Net profit	32,315	26,219
Details of the purchase consideration, the net assets acquired are as follows:		
Purchase consideration:		
Cash paid		395,624
Total purchase consideration		395,624

Notes to Financial Statements (Continued)

39 BUSINESS COMBINATION UNDER COMMON CONTROL (CONTINUED)

(a) Acquisition of gallium business (Continued)

The carrying amounts of assets, liabilities and equity of the gallium business at the acquisition date and 31 December 2020 are as follows:

	Acquisition date	31 December 2020
Current assets	103,353	66,215
Non-current assets	70,660	74,270
Current liabilities	(3,770)	(7,037)
Non-current liabilities	(4,480)	–
Net assets – closing balance	165,763	133,448
Net assets – beginning balance	133,448	95,389

The adjustment on the beginning balance of the Group's total equity amounting to RMB95 million and RMB133 million for the year ended 31 December 2020 and 2021, respectively, represented the net assets of the gallium business at the same date which were combined to the consolidated balance sheet of the Group. The consideration of RMB396 million paid in 2021 was treated as a decrease in capital reserves.

40 OTHER EQUITY INSTRUMENTS

On 19 November 2019, the Company issued RMB1,500 million perpetual medium-term notes with an initial distribution rate at 4.20% (the “2019 Perpetual Medium-term Notes”). The proceeds from the issuance of the 2019 Perpetual Medium-term Notes were RMB1,499 million. The proceeds were used for the repayment of interest-bearing loans and borrowings. Coupon payments of 4.20% per annum on the 2019 Perpetual Medium-term Notes have been made annually in arrears from 19 November 2019 and may be deferred at the discretion of the Company. The 2019 Perpetual Medium-term Notes have no fixed maturity date and are callable only at the Group’s option on 20 November 2022 or any coupon distribution date after 20 November 2022 at their principal amounts together with any accrued, unpaid or deferred coupon distribution payments. The coupon distribution rate will be reset to a percentage per annum equal to the sum of (a) the initial spread of 1.31 percent, (b) the China Treasury Rate, and (c) a margin of maximum 300 Bps every five years after 20 November 2022. While any coupon distribution payments are unpaid or deferred, the Company cannot declare or pay dividends to shareholders or decrease the share capital or make material fixed asset investments.

On 2 December 2020, the Company issued RMB1,000 million perpetual medium-term notes with an initial distribution rate at 4.45% (the “2020 Perpetual Medium-term Notes”). The proceeds from the issuance of the 2020 Perpetual Medium-term Notes were RMB1,000 million. The proceeds were used for the repayment of interest-bearing loans and borrowings. Coupon payments of 4.45% per annum on the 2020 Perpetual Medium-term Notes have been made annually in arrears from 2 December 2020 and may be deferred at the discretion of the Company. The 2020 Perpetual Medium-term Notes have no fixed maturity date and are callable only at the Group’s option on 3 December 2022 or any coupon distribution date after 3 December 2022 at their principal amounts together with any accrued, unpaid or deferred coupon distribution payments. The coupon distribution rate will be reset to a percentage per annum equal to the sum of (a) the initial spread of 1.42 percent, (b) the China Treasury Rate, and (c) a margin of maximum 300 Bps every five years after 3 December 2022. While any coupon distribution payments are unpaid or deferred, the Company cannot declare or pay dividends to shareholders or decrease the share capital or make material fixed asset investments.

Notes to Financial Statements (Continued)

40 OTHER EQUITY INSTRUMENTS (CONTINUED)

Pursuant to the terms and conditions of the 2019 Perpetual Medium-term Notes and the 2020 Perpetual Medium-term Notes, the Group has no contractual obligations to repay their principal or to pay any coupon distributions. Thus, in the opinion of the directors of the Company, they do not meet the definition of financial liabilities according to IAS 32 Financial Instruments: Presentation, and are classified as equity and subsequent distributions declared will be treated as distributions to equity owners.

On 21 October 2021, the Group redeemed RMB2 billion of the 2018 Perpetual Medium-term Notes and paid the principal amounts together with any accrued, unpaid or deferred coupon distribution payments.

On 7 November 2021, the Group redeemed USD500 million of the 2016 Senior Perpetual Securities and paid the principal amounts together with any accrued, unpaid or deferred coupon distribution payments.

41 CONTINGENT LIABILITIES

As at 31 December 2021 and the date of this report, the Group is in process of application with related government departments for re-verifying carbon emission data for certain coal-fired power plants to avoid unnecessary obligations of excessive emission, the conclusion of which will not result in material additional liabilities to be recognised by the Group.

The Group is a defendant in a number of lawsuits arising in the ordinary course of business. While the outcomes of such lawsuits cannot be determined at present, management believes that any resulting liabilities will not have a material adverse effect on the financial position or operating results the Group.

42 COMMITMENTS

(a) Capital commitments

	31 December 2021	31 December 2020 (Restated)
Property, plant and equipment	1,375,405	1,437,354

(b) Other capital commitments

As at 31 December 2021, the commitments to make capital contributions to the Group's joint ventures and associates were as follows:

	31 December 2021	31 December 2020 (Restated)
Associates	31,800	351,800
Joint ventures	410,000	410,000
	441,800	761,800

Notes to Financial Statements (Continued)

43 EVENTS AFTER THE BALANCE SHEET DATE

- (a) On 19 January 2022, the Group completed an issuance of short-term bonds with a total face value of RMB2 billion at par value of RMB100.00 per unit which will mature in October 2022 for working capital needs and repayment of bank borrowings. The fixed annual coupon interest rate of these bonds is 2.49%.
- (b) On 26 January 2022, the Group completed an issuance of medium-term bonds with a total face value of RMB2 billion, an annual interest rate of 3% which will mature in January 2025. The above medium-term notes will pay interest once a year from 26 January 2022, and the Company intends to use the proceeds from the offering to refinance existing debt.
- (c) On 22 March 2022, the Board of Directors proposed a final dividend of RMB545 million for the year ended 31 December 2021, which is subject to the approval of the shareholders of the Company at the forthcoming annual general meeting.

44 COMPARATIVE AMOUNT

Certain comparative amounts have been restated as a result of the business combinations under common control as disclosed in Note 39 and changes in accounting policies (Note 2.1.6).

45 STATEMENT OF FINANCIAL POSITION OF THE COMPANY

Information about the statement of financial position of the Company at the end of the reporting period is as follows:

	31 December 2021	31 December 2020 (Restated)	1 January 2020 (Restated)
ASSETS			
Non-current assets			
Intangible assets	941,660	1,011,635	922,741
Property, plant and equipment	8,937,731	10,583,996	12,852,420
Investment properties	39,143	39,914	21,069
Right-of-use assets	4,831,731	1,857,459	1,816,982
Investments in subsidiaries	60,247,462	62,082,134	62,463,767
Investments in joint ventures	1,805,137	1,865,006	1,922,895
Investments in associates	7,703,008	6,348,448	6,223,877
Other financial assets measured at fair value	13,670	1,325,181	2,034,398
Deferred tax assets	394,976	510,804	576,254
Other non-current assets	5,952,391	4,017,575	7,008,769
Total non-current assets	90,866,909	89,642,152	95,843,172
Current assets			
Inventories	2,162,094	1,958,966	2,202,255
Trade and notes receivables	695,624	901,927	912,872
Other current assets	20,744,429	24,778,036	22,428,349
Financial assets at fair value through profit or loss	–	17,311	3,500,000
Restricted cash	117,667	149,169	148,908
Cash and cash equivalents (excluding bank overdrafts)	11,519,416	4,847,057	3,385,377
Total current assets	35,239,230	32,652,466	32,577,761
Total assets	126,106,139	122,294,618	128,420,933

Notes to Financial Statements (Continued)

45 STATEMENT OF FINANCIAL POSITION OF THE COMPANY (CONTINUED)

	31 December 2021	31 December 2020 (Restated)	1 January 2020 (Restated)
EQUITY AND LIABILITIES			
EQUITY			
Equity attributable to owners of the parent			
Share capital	17,022,673	17,022,673	17,022,673
Other reserves	35,026,901	41,078,698	42,044,323
Retained earnings/(Accumulated losses)	1,342,012	(4,924,827)	(5,408,137)
Total equity	53,391,586	53,176,544	53,658,859
LIABILITIES			
Non-current liabilities			
Interest-bearing loans and borrowings	34,819,175	31,549,165	28,597,132
Other non-current liabilities	220,756	185,255	335,592
Total non-current liabilities	35,039,931	31,734,420	28,932,724
Current liabilities			
Interest-bearing loans and borrowings	11,666,136	17,853,062	29,637,697
Other payables and accrued liabilities	24,986,811	18,669,584	15,322,156
Contract liabilities	166,222	108,895	73,991
Trade and notes payables	844,107	752,113	795,506
Other financial liabilities measured at fair value	11,346	-	-
Total current liabilities	37,674,622	37,383,654	45,829,350
Total liabilities	72,714,553	69,118,074	74,762,074
Total equity and liabilities	126,106,139	122,294,618	128,420,933
Net current liabilities	(2,435,392)	(4,731,188)	(13,251,589)
Total assets less current liabilities	88,431,517	84,910,964	82,591,583

The statement of financial position of the Company was approved by the Board of Directors on 22 March 2022 and was signed on its behalf.

Liu Jianping
Director

Wang Jun
Chief Financial Officer

45 STATEMENT OF FINANCIAL POSITION OF THE COMPANY (CONTINUED)

Note:

A summary of the Company's reserves is as follows:

	Share premium	Other capital reserves	Statutory surplus reserve	Special reserve	Fair value Reserve	Other equity instruments	Retained earnings/ (Accumulated losses)	Total
Balance at 31 December 2019	27,768,820	2,853,449	5,867,557	18,239	20,777	5,487,104	(6,593,433)	35,422,513
Changes in accounting policies	-	-	-	28,377	-	-	1,185,296	1,213,673
At 1 January 2020 (Restated)	27,768,820	2,853,449	5,867,557	46,616	20,777	5,487,104	(5,408,137)	36,636,186
Profit for the year	-	-	-	-	-	-	758,310	758,310
Issuance of senior perpetual securities	-	-	-	-	-	1,000,000	-	1,000,000
Repayment of senior perpetual securities	-	-	-	-	-	(2,000,000)	-	(2,000,000)
Changes in fair value of equity investments at fair value through other comprehensive income, net of tax	-	-	-	-	(17,609)	-	-	(17,609)
Other appropriation	-	-	-	3,417	-	-	-	3,417
Share of reserves of joint ventures and associates	-	(48)	-	-	-	-	-	(48)
Other equity instruments' distribution	-	-	-	-	-	(675)	(275,000)	(275,675)
Release of deferred government subsidies	49,290	-	-	-	-	-	-	49,290
At 31 December 2020 (Restated)	27,818,110	2,853,401	5,867,557	50,033	3,168	4,486,429	(4,924,827)	36,153,871
At 31 December 2020	27,818,110	2,853,401	5,867,557	21,656	3,168	4,486,429	(6,170,655)	34,879,666
Changes in accounting policies	-	-	-	28,377	-	-	1,245,828	1,274,205
At 1 January 2021 (Restated)	27,818,110	2,853,401	5,867,557	50,033	3,168	4,486,429	(4,924,827)	36,153,871
Profit for the year	-	-	-	-	-	-	2,546,421	2,546,421
Business combination under common control	(110,436)	-	-	-	-	-	-	(110,436)
Repayment of senior perpetual securities	(12,000)	-	-	-	-	(1,988,000)	-	(2,000,000)
Changes in fair value of equity investments at fair value through other comprehensive income, net of tax	-	-	-	-	(35,054)	-	-	(35,054)
Appropriation to surplus reserves	-	-	254,642	-	-	-	(254,642)	-
Other appropriation	-	-	-	12,091	-	-	-	12,091
Surplus reserves used to offset accumulated losses	-	-	(4,229,913)	-	-	-	4,229,913	-
Disposal of other equity instrument investments	-	-	-	-	45,353	-	(45,353)	-
Share of reserves of joint ventures and associates	-	-	-	11,520	-	-	-	11,520
Other equity instruments' distribution	-	-	-	-	-	-	(209,500)	(209,500)
At 31 December 2021	27,695,674	2,853,401	1,892,286	73,644	13,467	2,498,429	1,342,012	36,368,913

Certain comparative amounts of the Company have been restated as a result of changes in accounting policies (Note 2.1.6).



Notes to Financial Statements (Continued)

*Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)*

46 APPROVAL OF THE FINANCIAL STATEMENT

The financial statements were approved and authorised for issue by the Board of Directors on 22 March 2022.

Corporate Information

1. Registered name 中國鋁業股份有限公司
 Abbreviation of Chinese name 中國鋁業
 Name in English ALUMINUM CORPORATION OF CHINA LIMITED
 Abbreviation of English name CHALCO

2. First registration date 10 September 2001
 Registered address No. 62 North Xizhimen Street, Haidian District, Beijing, the PRC (Postal code: 100082)
 Place of business No. 62 North Xizhimen Street, Haidian District, Beijing, the PRC (Postal code: 100082)
 Principal place of business in Hong Kong Room 4501, Far East Finance Centre, No. 16 Harcourt Road, Admiralty, Hong Kong

3. Legal representative Liu Jianping *(Note 1)*
 Company Secretary Wang Jun
 Telephone +86(10) 8229 8322
 Fax +86(10) 8229 8158
 E-mail IR@chalco.com.cn
 Address No. 62 North Xizhimen Street, Haidian District, Beijing, the PRC (Postal Code: 100082)
 Representative for the Company's securities related affairs Gao Lidong *(Note 2)*
 Telephone +86(10) 8229 8322
 Fax +86(10) 8229 8158
 E-mail IR@chalco.com.cn
 Address No. 62 North Xizhimen Street, Haidian District, Beijing, the PRC (Postal Code: 100082)
 Department for corporate information and inquiry Office of the Board
 Telephone for corporate information and inquiry +86(10) 8229 8322

4. Share registrar and transfer office
 H shares: Hong Kong Registrars Limited
 17M Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong
 A shares: China Securities Depository and Clearing Corporation Limited, Shanghai Branch
 3/F, China Insurance Building, No. 166, Lujiazui Road (East), Shanghai, the PRC
 American Depositary Receipt: The Bank of New York Corporate Trust Office
 240 Greenwich Street, New York, NY 10286, USA

Corporate Information (Continued)

- | | | |
|-----|---|---|
| 5. | Places of listing | The Stock Exchange of Hong Kong Limited
Shanghai Stock Exchange
New York Stock Exchange, Inc |
| | Stock name | CHALCO |
| | Stock codes | 2600 (HK)
601600 (China)
ACH (US) |
| 6. | Principal bankers | China Construction Bank
Industrial and Commercial Bank of China |
| 7. | Unified social credit code for corporate legal person | 911100007109288314 |
| 8. | Independent auditors | PricewaterhouseCoopers
Certified Public Accountants
Registered Public Interest Entity Auditor
22/F, Prince's Building, Central, Hong Kong SAR

PricewaterhouseCoopers Zhong Tian LLP
11th PricewaterhouseCoopers Center, Link Square II
202 Hubin Road, Huangpu District
Shanghai, the PRC |
| 9. | Legal advisers | <i>as to Hong Kong laws:</i>
Baker & McKenzie
14/F, One Taikoo Place, 979 King's Road, Quarry Bay,
Hong Kong

<i>as to PRC laws:</i>
Jincheng Tongda & Neal Law Firm
10/F, China World Trade Tower A,
1 Jianguomenwai Avenue, Chaoyang District, Beijing,
the PRC
Postal code: 100004

<i>as to United States laws:</i>
Sullivan & Cromwell (Hong Kong) LLP
28th Floor Nine Queen's Road Central, Central,
Hong Kong |
| 10. | Place for inspection of corporate information | Office of the Board of the Company |



Corporate Information (Continued)

Note 1: On 29 June 2021, the Company held the 2020 annual general meeting, elected and approved Mr. Liu Jianping as an executive Director of the seventh session of the Board of the Company; on the same day, the Company held the 21st meeting of the seventh session of the Board, and elected and approved Mr. Liu Jianping as the chairman of the seventh session of the Board of the Company. Pursuant to the relevant provisions of the Articles of Association, the Company has changed its legal representative to Mr. Liu Jianping.

Note 2: Ms. Zhao Hongmei, the former securities affairs representative of the Company, tendered her written resignation to the Board of the Company on 25 October 2021 to resign as the securities affairs representative of the Company due to work re-allocation. The Company convened the 23rd meeting of the seventh session of the Board on 26 October 2021, at which the Resolution on the Proposed Change of Securities Affairs Representative of the Company was considered and approved, approving the resignation of Ms. Zhao Hongmei as the securities affairs representative of the Company and the appointment of Mr. Gao Lidong as the securities affairs representative of the Company.

By order of the Board
Aluminum Corporation of China Limited*
Liu Jianping
Chairman

Beijing, the PRC
22 March 2022

As at the date of this announcement, the members of the Board comprise Mr. Liu Jianping, Mr. Zhu Runzhou, Mr. Ou Xiaowu and Mr. Jiang Tao (Executive Directors); Mr. Zhang Jilong and Mr. Wang Jun (Non-executive Directors); Mr. Qiu Guanzhou, Mr. Yu Jinsong and Ms. Chan Yuen Sau Kelly (Independent Non-executive Directors).

** For identification purposes only*