RUSAL

UNITED COMPANY RUSAL, INTERNATIONAL PUBLIC JOINT-STOCK COMPANY

(Incorporated under the laws of Jersey with limited liability and continued in the Russian Federation as an international company)

(Stock Code: 486)

ANNUAL RESULTS ANNOUNCEMENT FOR THE YEAR ENDED 31 DECEMBER 2022

United Company RUSAL, international public joint-stock company (the "**Company**" or "**UC Rusal**"), together with its subsidiaries (the "**Group**"), hereby announces the consolidated results of the Company for the year ended 31 December 2022, together with the comparative figures for the corresponding periods in 2021 as follows:

FINANCIAL AND PRODUCTION INDICATORS

	2022	**2021**	**Change year-on-year, %**
USD million (unless otherwise specified)			
Revenue	13,974	11,994	16.5%
Adjusted EBITDA	2,028	2,893	(29.9%)
Adjusted EBITDA Margin	14.5%	24.1%	NA
EBIT	1,316	2,079	(36.7%)
Share of Profits from Associates and Joint Ventures	1,555	1,807	(13.9%)
Pre-Tax Profit	2,166	3,641	(40.5%)
Profit	1,793	3,225	(44.4%)
Profit Margin	12.8%	26.9%	NA
Adjusted Net Profit	725	1,536	(52.8%)
Adjusted Net Profit Margin	5.2%	12.8%	NA
Recurring Net Profit	2,165	3,298	(34.4%)
Basic Earnings Per Share (in USD)	0.118	0.212	(44.4%)
Total Assets	24,631	20,906	17.8%
Equity Attributable to Shareholders of the Company	12,307	10,524	16.9%
Net Debt	6,261	4,749	31.8%

Financial and Operating Highlights

	Six months ended 31 December 2022 *unaudited*	Six months ended 31 December 2021 *unaudited*	Change half-year on half-year, % (2H to 2H)	Six months ended 30 June 2022 *unaudited*	Change half-year on half-year, % (2H to 1H)	Year ended 31 December 2022	Year ended 31 December 2021	Change year-on-year, %
Key operating data								
('000 tonnes)								
Aluminium	1,944	1,896	2.5%	1,891	2.8%	3,835	3,764	1.9%
Alumina	2,653	4,202	(36.9%)	3,300	(19.6%)	5,953	8,304	(28.3%)
Bauxite	5,579	7,394	(24.5%)	6,740	(17.2%)	12,319	15,031	(18.0%)
Key pricing and performance data								
('000 tonnes)								
Sales of primary aluminium and alloys	2,133	1,904	12.0%	1,763	21.0%	3,896	3,904	(0.2%)
(USD per tonne)								
Production cost per tonne in Aluminium segment[1]	2,325	1,808	28.6%	2,028	14.6%	2,190	1,661	31.8%
Aluminium price per tonne quoted on the LME[2]	2,339	2,706	(13.6%)	3,075	(23.9%)	2,707	2,475	9.4%
Average premiums over LME price[3]	283	301	(6.0%)	342	(17.3%)	309	250	23.6%
Average sales price	2,654	2,832	(6.3%)	2,287	16.0%	2,976	2,553	16.6%
Alumina price per tonne[4]	327	376	(13.0%)	396	(17.4%)	362	329	10.0%

1 For any period, "Production cost per tonne in Aluminium segment" is calculated as aluminium segment revenue (excluding sales of third parties' metal and other products sales) less aluminium segment results less amortisation and depreciation (excluding margin on sales of third parties' metal and intersegment margin), divided by sales volume of the aluminium segment (excluding volumes of third parties' aluminium sold).

2 Aluminium price per tonne quoted on the London Metals Exchange ("**LME**") represents the average of the daily closing official LME prices for each period.

3 Average premiums over LME realized by the Company based on management accounts.

4 The average alumina price per tonne provided in this table is based on the daily closing spot prices of alumina according to Non-ferrous Metal Alumina Index FOB Australia USD per tonne.

	Six months ended 31 December		Change half-year on half-year, % (2H to 2H)	Six months ended 30 June	Change half-year on half-year, % (2H to 1H)	Year ended 31 December		Change year-on-year, %
	2022	2021		2022		2022	2021	
	unaudited	*unaudited*		*unaudited*				
Key selected data from the consolidated statement of income								
(USD million)								
Revenue	6,821	6,545	4.2%	7,153	(4.6%)	13,974	11,994	16.5%
Adjusted EBITDA	221	1,578	(86.0%)	1,807	(87.8%)	2,028	2,893	(29.9%)
margin (% of revenue)	3.2%	24.1%	NA	25.3%	NA	14.5%	24.1%	NA
Net Profit for the period	113	1,207	(90.6%)	1,680	(93.3%)	1,793	3,225	(44.4%)
margin (% of revenue)	1.7%	18.4%	NA	23.5%	NA	12.8%	26.9%	NA
Adjusted Net Profit for the period	36	857	(95.8%)	689	(94.8%)	725	1,536	(52.8%)
margin (% of revenue)	0.5%	13.1%	NA	9.6%	NA	5.2%	12.8%	NA
Recurring Net Profit for the period	159	1,495	(89.4%)	2,006	(92.1%)	2,165	3,298	(34.4%)
margin (% of revenue)	2.3%	22.8%	NA	28.0%	NA	15.5%	27.5%	NA

Key selected data from consolidated statement of financial position

	As at 31 December 2022	31 December 2021	Change year-on-year end, %
(USD million)			
Total assets	24,631	20,906	17.8%
Total working capital[5]	4,833	2,930	64.9%
Net Debt[6]	6,261	4,749	31.8%

[5] Total working capital is defined as inventories plus trade and other receivables, plus prepayments and input VAT, plus current income tax receivables minus trade and other payables, minus advances received, minus other tax payable.

[6] Net Debt is calculated as Total Debt less cash and cash equivalents as at the end of any period. Total Debt refers to UC RUSAL's loans and borrowings and bonds outstanding at the end of any period.

Key selected data from consolidated statement of cash flows

	Year ended 31 December 2022	Year ended 31 December 2021	Change year-on-year end, %
(USD million)			
Net cash flows (used in)/generated from operating activities	(412)	1,146	NA
Net cash flows generated from investing activities	472	490	(3.7%)
of which dividends from Norilsk Nickel	1,639	618	164.4%
of which CAPEX[7]	(1,239)	(1,192)	3.9%
Interest paid	(428)	(380)	12.6%

7 CAPEX is defined as payment for the acquisition of property, plant and equipment and intangible assets.

OVERVIEW OF TRENDS IN THE ALUMINIUM INDUSTRY AND BUSINESS ENVIRONMENT

Global aluminium demand

2022 has been a year full of challenges for the aluminium industry. Whilst the global economy has not yet recovered fully after pandemic, has continued struggling with rising inflation, the energy crisis, which started to emerge in Europe in autumn 2021, has clouded economic growth. The conflict in Ukraine and political tensions have added uncertainty in sustainable power supply and sent gas price into skyrocketing rise. Power cost became a trigger for rapidly growing costs of production of energy intensive industries and logistic, boosting the inflation. Zero-COVID policy[8], drought and power shortage in China kept constraints in the global supply chain. Fears of an approaching recession became more and more vocal in the second half of the year.

Amid negative macro environment, aluminium demand stayed relatively healthy, supported by new demand in electromobility, renewable energy infrastructure, packaging and all applications, related to green energy transition and sustainable development. Global primary aluminium demand in 2022 increased by 0.3% year-on-year to 69 million tonnes, where China contributed to 0.3% year-on-year to 40.6 million tonnes and the Rest of the World (World ex-China, the "RoW") to 0.3% year-on-year to 28.4 million tonnes.

In 2022, the automotive industry reconfirmed its status as the largest sector of aluminium consumption, amounted 24% of global aluminium demand. The sector recorded 2.7% growth compared to the previous year and was driven mainly by rapid increasing of electric vehicle production and gaining share by SUV segment, where aluminium content is above industry average.

Aluminium consumption in construction, the second largest sector of aluminium consumption, decreased by 3.9% year-on-year globally. Price pressures, rising interest rates and supply chain issues have all weighed heavily on construction volumes, leading to delays and higher costs of new projects. In the US real estate market, the abrupt end of a two-year construction boom has resulted in excessive building stocks, a freeze on current projects, and a decline in investor interest.

The demand in packaging sector has increased by 4.6% year-on-year globally compared to 2021, reflecting the ongoing process of industry transition from plastic and glass to aluminium along with general increasing consumption of bottled or canned drinks per capita. The use of aluminium in the packaging industry is expanding as environmentally friendly and sustainable packaging solutions become a core strategy of global brands, supported by end-consumers preferences, and stimulated by regulators.

Aluminium demand in the electricity sector grew 9.4% year-on-year, driven by expanding of renewable energy capacity, particularly solar and wind power generation, and updating the old transmission infrastructure. REPowerEU program and The Inflation Reduction Act (IRA) in the USA aim to reduce dependance on gas and stimulate and investments into green technology starting from power generation and transmission to charging infrastructure for electrical vehicle. Those initiatives create a solid ground for further aluminium demand growth in electrical sector.

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8 ZERO-COVID policy – Zero-COVID, also known as COVID-Zero and "Find, Test, Trace, Isolate, and Support" (FTTIS), is a public health policy that has been implemented by some countries, especially China, during the COVID-19 pandemic.

Global aluminium supply

The worldwide supply of primary aluminium was up by 1.4% year-on-year in 2022 to 68.1 million tonnes. The RoW production declined by 0.8% year-on-year to 28.0 million tonnes. High gas prices in Europe have caused significant disruption to the aluminium smelting production due to smelters' negative cash margins. Nine European smelters with 1.63 million tonnes per annum capacity executed or announced approximately 1 million tonnes of operating aluminium capacity cuts starting from the fourth quarter of 2021. At the same time, since EU gas prices declined significantly by end of 2022 thus with current aluminium price level and lower costs some smelters might consider restarts in the first half of 2023.

Aluminium production in China increased by 3% year-on-year in 2022 at 40.1 million tonnes and expected to grow further in 2023 as still new capacity will come online. In China, despite power supply tightness in certain provinces, Chinese aluminium industry registered around 2.6 million tonnes of net capacity increase year-on-year by end of 2022 as 2.1 million tonnes of new capacity and additional restart of previously closed production.

Overall, global aluminium market was in 0.9 million tonnes of deficit during 2022 with 0.4 million tonnes of deficit in the RoW and 0.5 million tonnes in China.

China shipped out a record volume of aluminium to the RoW in 2022. China's exports of unwrought aluminium, alloy and aluminium products rose 17.6% year-on-year to 6.6 million tonnes in 2022. This result was largely due to attractive export arbitrage, rising overseas demand and tightened global supply. At the same time, China's imports of unwrought aluminium and alloy fell during 11-month 2022 by 31.6% year-on-year to approximately 1.7 million tonnes.

During 2022, aluminium inventories in the LME dropped to their lowest level since 1990 in August, and after rising in October, ended the year at 447 thousand tonnes, also their multi-year low. Metal held outside of LME warehouses (off-warrant reported stocks) wavered during the year and fell to 189 thousand tonnes at the end of November and rebounded to 297 thousand tonnes at the end of December 2022.

Overall, regional aluminium premiums were rising during the first half of 2022, but during the second half of 2022 were mostly falling due to bearish sentiment amid the LME prices falling and rising fears of global economy recession. In December 2022, premiums have stabilized and rose to approximately USD200-230 per tonne for European P1020 Duty Unpaid premium at warehouse Rotterdam and approximately USD23-25 cent per lb for U.S. Midwest aluminium premium amid improving sentiment, low LME stocks and high near term contango.

Business future developments

Geopolitical tensions, since February 2022, significantly increased volatility on the commodities and currency markets. In present circumstances, any forecast or outlook made or previously made may very rapidly become irrelevant due to ongoing developments on the market and therefore the stakeholders should exercise due caution when making their analysis or decision. Management constantly evaluates the current situation and prepares forecasts taking into account different scenarios of the events and conditions development. The Group is also revising supply and sales chains, ensuring an optimal equity and debt ratio, searching for resolutions of logistic difficulties, as well as the ways to service its obligations in order to adapt the current economic changes to maintain the continuance of the Group's operations.

BUSINESS REVIEW

Aluminium production

- In 12M22, aluminium production totaled 3,835 thousand tonnes, almost unchanged (+1.9% year-on-year ("YoY"));

- In 12M22, aluminium sales decreased by 0.2% YoY, totaling 3,896 thousand tonnes. During this period sales of value added products ("VAP"[9]) decreased by 16.3% to 1,702 thousand tonnes. The share of VAP sales in total sales was 44% (vs 52% in 12M21).

- In 12M22, the average aluminium realized price[10] increased by 16.6% YoY to USD2,976 per tonne. The increase was driven both by the LME QP[11] component (+15.8% YoY to USD2,667 per tonne) and the average realized premium component (+23.6% YoY to USD309 per tonne).

Alumina production

- In 12M22 alumina output totaled 5,953 thousand tonnes (-28.3% YoY). The decrease in production volume by 28.3% was due to stopping the production of alumina at the Nikolaev alumina refinery plant, in connection with the introduction of martial law on the territory of Ukraine and the introduction of sanctions by the Australian government, which resulted in the inability to supply alumina from Queensland Alumina Ltd to the Company's enterprises.

Bauxite and nepheline ore production

- In 12M22, bauxite output totaled 12,319 thousand tonnes (-18.0% YoY). Nepheline output decreased by 0.6% YoY to 4,363 thousand tonnes.

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9 VAP includes alloyed ingots, slabs, billets, wire rod and special purity aluminium.

10 The realised price includes three components: LME component, commodity premium and VAP upcharge.

11 QP (quotation period) prices differs from the real time LME quotes due to a time lag between LME quotes and sales recognition and due to contract formula specialty.

FINANCIAL OVERVIEW

Revenue

	Year ended 31 December 2022			Year ended 31 December 2021		
	USD million	*kt*	*Average sales price (USD/tonne)*	*USD million*	*kt*	*Average sales price (USD/tonne)*
Sales of primary aluminium and alloys	11,593	3,896	2,976	9,966	3,904	2,553
Sales of alumina	550	1,169	470	610	1,677	364
Sales of foil and other aluminium products	581	–	–	515	–	–
Other revenue	1,250	–	–	903	–	–
Total revenue	**13,974**			**11,994**		

Total revenue increased by USD1,980 million or by 16.5% to USD13,974 million in 2022 compared to USD11,994 million in 2021.

	Six months ended 31 December 2022 *(unaudited)*	Six months ended 31 December 2021 *(unaudited)*	Change half-year on half-year, % (2H to 2H) 2022	Six months ended 30 June *(unaudited)*	Change half-year on half-year, % (2H to 1H)	Year ended 31 December 2022	Year ended 31 December 2021	Change year-on-year, %
Sales of primary aluminium and alloys								
USD million	5,661	5,392	5.0%	5,932	(4.6%)	11,593	9,966	16.3%
Kt	2,133	1,904	12.0%	1,763	21.0%	3,896	3,904	(0.2%)
Average sales price (USD/tonne)	2,654	2,832	(6.3%)	3,365	(21.1%)	2,976	2,553	16.6%
Sales of alumina								
USD million	251	334	(24.9%)	299	(16.1%)	550	610	(9.8%)
Kt	545	847	(53.5%)	624	(36.9%)	1,169	1,677	(30.3%)
Average sales price (USD/tonne)	461	394	17.0%	479	(3.8%)	470	364	29.1%
Sales of foil and other aluminium products *(USD million)*	295	283	4.2%	286	3.1%	581	515	12.8%
Other revenue *(USD million)*	614	536	14.6%	636	(3.5%)	1,250	903	38.4%
Total revenue (USD million)	**6,821**	**6,545**	**4.2%**	**7,153**	**4.6%**	**13,974**	**11,994**	**16.5%**

Revenue from sales of primary aluminium and alloys increased by USD1,627 million, or by 16.3%, to USD11,593 million in 2022, as compared to USD9,966 million in 2021, primarily due to 16.6% increase in the weighted-average realized aluminium price per tonne (to an average of USD2,976 per tonne in 2022 from USD2,553 per tonne in 2021) driven by an increase in the LME aluminium price (to an average of USD2,707 per tonne in 2022 from USD2,475 per tonne in 2021), while sales volumes remained almost flat in the compared periods.

Revenue from sales of alumina decreased by 9.8% to USD550 million for the year ended 31 December 2022 from USD610 million for the year ended 31 December 2021 due a decrease in the alumina sales volume by 30.3% which was partially offset by a 29.1% increase in the average sales price.

Revenue from sales of foil and other aluminium products increased by USD66 million, or by 12.8%, to USD581 million in 2022, as compared to USD515 million in 2021, due to an increase in revenue from sales of foil by 26.2% between the comparable periods.

Revenue from other sales, including sales of other products, bauxite and energy services increased by 38.4% to USD1,250 million for the year ended 31 December 2022 as compared to USD903 million for the previous year, due to a 40.9% increase in sales of other materials (such as anode blocks by 73.6%, aluminium powder 20.7%, silicon by 22.2%, hydrate by 19.0%) that was a result both by the increase in sales volumes along with the increase in average sales price.

Cost of sales

The following table demonstrates the breakdown of UC RUSAL's cost of sales for the year ended 31 December 2022 and 2021, respectively:

	Year ended 31 December		**Change year-on-year, %**	**Share of costs, %**
	2022	**2021**		
(USD million)				
Cost of alumina	1,847	741	149.3%	17.1%
Cost of bauxite	331	506	(34.6%)	3.1%
Cost of other raw materials and other costs	3,835	3,387	13.2%	35.6%
Purchases of primary aluminium from joint ventures	940	696	35.1%	8.7%
Energy costs	2,658	2,070	28.4%	24.7%
Depreciation and amortisation	481	572	(15.9%)	4.5%
Personnel expenses	781	618	26.4%	7.3%
Repairs and maintenance	532	407	30.7%	4.9%
Net change in provisions for inventories	171	28	510.7%	1.6%
Change in finished goods	(806)	(752)	7.2%	(7.5%)
Total cost of sales	**10,770**	**8,273**	**30.2%**	**100.0%**

Total cost of sales increased by USD2,497 million, or by 30.2%, to USD10,770 million for the year ended 31 December 2022, as compared to USD8,273 million for the year ended 31 December 2021.

The cost of alumina increased by USD1,106 million, or by 149.3%, to USD1,847 million in 2022 as compared to USD741 million in 2021 primarily due to the increase in alumina purchase price by 14.9% as well as the increase in alumina purchase volume by 263.4% between the periods following ban of Australian government for the export of alumina and bauxite to Russia introduced in March, 2022 and temporary suspension of production at Mykolaiv Alumina Refinery Company Ltd due to developments in Ukraine starting from 1 March 2022.

The cost of raw materials (other than alumina and bauxite) and other costs increased by 13.2% for the year ended 31 December 2022 compared to the same period of 2021, due to an increase in raw materials purchase price (prices for the raw petroleum coke by 52.9%, pitch by 33.7%, anode blocks by 63.8%, caustic soda by 87.9%).

Energy costs increased by USD588 million, or by 28.4%, to USD2,658 million for the year ended 31 December 2022, as compared to USD2,070 million for the year ended 31 December 2021 due to increase by 23.2% in the average electricity tariff between the comparable periods (US 3.69 cent/kWh[12] in 2022 as compared to US 3.00 cent/kWh in 2021) that was caused by both a 14.7% change in electricity tariffs in ruble equivalent and a 6.9% strengthening of the ruble exchange rate against the dollar during the reporting period.

The finished goods mainly consist of primary aluminium and alloys (approximately 96%). The dynamic of change between the reporting periods was driven by the fluctuations of primary aluminium and alloys physical inventory between the reporting dates: 33.3% increase in 2022 and 96.9% increase in 2021.

Gross profit

As a result of the foregoing factors, UC RUSAL reports a gross profit of USD3,204 million for the year ended 31 December 2022 as compared to USD3,721 million for the year ended 31 December 2021, representing gross margins over the periods of 22.9% and 31.0%, respectively.

Distribution, administrative and other expenses

Distribution expenses increased by 13.0% to USD697 million for the year ended 31 December 2022 from USD617 million for the year ended 31 December 2021 following by the increase in transport tariffs.

Administrative expenses increased to USD769 million in 2022 as compared to USD603 million in 2021 primarily due to increase in personnel costs.

[12] "kWh" means kilowatt hour.

Adjusted EBITDA and Results from operating activities

(USD million)	Year ended 31 December 2022	2021	Change year-on-year, %
Reconciliation of Adjusted EBITDA			
Results from operating activities	1,316	2,079	(36.7%)
Add:			
Amortisation and depreciation	503	596	(15.6%)
Impairment of non-current assets	196	209	(6.2%)
Loss on disposal of property, plant and equipment	13	9	44.4%
Adjusted EBITDA	**2,028**	**2,893**	**(29.9%)**

Adjusted EBITDA, defined as results from operating activities adjusted for amortisation and depreciation, impairment charges and loss on disposal of property, plant and equipment, decreased to USD2,028 million for the year ended 31 December 2022, as compared to USD2,893 million for the year ended 31 December 2021. The factors that contributed to the decrease in Adjusted EBITDA margin were the same that influenced the operating results of the Company.

Finance income and expenses

(USD million)	Year ended 31 December 2022	2021	Change, year-on-year,%
Finance income			
Interest income on third party loans and deposits	79	43	83.7%
Dividends from other investments	36	20	80.0%
Revaluation of investments measured at fair value through profit and loss, incl. forex income	18	–	100.%
	133	**63**	**111.1%**
Finance expenses			
Interest expense on bank loans and company loans, bonds and other bank charges, including	(421)	(359)	17.3%
Interest expense	*(372)*	*(329)*	*13.1%*
Bank charges	*(49)*	*(30)*	*63.3%*
Change in fair value of derivative financial instruments, including:	(191)	(352)	(45.7%)
Change in fair value of embedded derivatives	*(8)*	*21*	*NA*
Change in other derivatives instruments	*(183)*	*(373)*	*(50.9%)*
Net foreign exchange loss	(219)	(29)	655.2%
Interest expense on provisions	(1)	(8)	(87.5%)
Revaluation of investments measured at fair value through profit and loss	–	(47)	(100.0%)
Other finance costs	(2)	–	100.0%
Lease interest cost	(4)	(5)	(20.0%)
	(838)	**(800)**	**4.8%**

Finance income increased by USD70 million, or 111.1% to USD133 million for the year ended 31 December 2022 compared to USD63 million for the year ended 31 December 2021 primarily due to increase in the amounts of dividends from other investments and a profit from revaluation of investments measured at fair value through profit and loss as compared to the loss on this item between the comparable periods.

Finance expenses increased by USD38 million or by 4.8% to USD838 million in 2022 as compared to USD800 million in 2021 primarily due to an increase in net foreign exchange loss which was offset by a decrease in the net loss from change in fair value of derivative financial instruments between the comparable periods.

Share of profits of associates and joint ventures

(USD million)	Year ended 31 December 2022	2021	Change, year-on-year,%
Share of profits of Norilsk Nickel, *with Effective shareholding of*	1,440 *26.39%*	1,762 *26.39%*	(18.3%)
Share of profits of associates	**1,440**	**1,762**	**(18.3%)**
Share of profits of joint ventures	**115**	**45**	**155.6%**

The Company's share in profits of associates for the years ended 31 December 2022 and 2021 amounted to USD1,440 million and USD1,762 million, respectively. Share in results of associates in both periods resulted primarily from the profit from the Company's investment in Norilsk Nickel.

The market value of the investment in Norilsk Nickel at 31 December 2022 was USD8,775 million as compared to USD12,395 million as at 31 December 2021.

Share of profits of joint ventures was USD115 million for the year ended 31 December 2022 as compared to USD45 million for the same period in 2021. This represents the Company's share of profits in joint ventures, namely BEMO (the companies comprising the Boguchanskoye Energy and Metals Complex), LLP Bogatyr Komir and Mega Business and Alliance (coal and transportation business in Kazakhstan).

Profit before income tax

UC RUSAL earned a profit before income tax in an amount of USD2,166 million for the year ended 31 December 2022, as compared to a profit before income tax in an amount of USD3,641 million for the year ended 31 December 2021 due to reasons set out above.

Income tax

The Company recognized income tax expense in amount of USD373 million in 2022 as compared to USD416 million in 2021.

Current tax expenses decreased by USD29 million, or 8.6%, to USD310 million for the year ended 31 December 2022, as compared to USD339 million for the previous year due to decrease in taxable profit.

The Company recognized deferred tax expenses in amount of USD63 million in 2022 as compared to USD77 million for the previous year primarily due to the tax effect of accruals of certain temporary differences related to positive exchange rate differences on claims and liabilities.

Profit for the period

As a result of the above, the Company recorded a profit of USD1,793 million in 2022, as compared to USD3,225 million in 2021.

Adjusted and Recurring Net Profit

(USD million)	Six months ended 31 December 2022 unaudited	Six months ended 31 December 2021 unaudited	Change half-year on half-year, % (2H to 2H)	Six months ended 30 June 2022 unaudited	Change half-year on half-year, % (2H to 1H)	Year ended 31 December 2022	Year ended 31 December 2021	Change year-on-year, %
Reconciliation of Adjusted Net Profit								
Net profit for the period	113	1,207	(90.6%)	1,680	(93.3%)	1,793	3,225	(44.4%)
Adjusted for:								
Share of profits and other gains and losses attributable to Norilsk Nickel, net of tax effect	(123)	(638)	(80.7%)	(1,317)	(90.7%)	(1,440)	(1,762)	(18.3%)
Change in the fair value of derivative financial liabilities, net of tax (20%)	(127)	134	NA	303	NA	176	356	(50.6%)
Impairment of non-current assets	173	154	12.3%	23	652.2%	196	209	(6.2%)
Gain from partial disposal of investment in associate	–	–	0.0%	–	0.0%	–	(492)	(100.0%)
Adjusted Net Profit	**36**	**857**	**(95.8%)**	**689**	**(94.8%)**	**725**	**1,536**	**(52.8%)**
Add back:								
Share of profits of Norilsk Nickel, net of tax	123	638	(80.7%)	1,317	(90.7%)	1,440	1,762	(18.3%)
Recurring Net Profit	**159**	**1,495**	**(89.4%)**	**2,006**	**(92.1%)**	**2,165**	**3,298**	**(34.4%)**

Adjusted Net Profit/(Loss) for any period is defined as the net profit/(loss) adjusted for the net effect of the Company's investment in Norilsk Nickel, the net effect of derivative financial instruments and the net effect of non-current assets impairment. Recurring Net Profit/(Loss) for any period is defined as Adjusted Net Profit/(Loss) plus the Company's net effective share in Norilsk Nickel results.

Assets and liabilities

UC RUSAL's total assets increased by USD3,725 million, or 17.8%, to USD24,631 million as at 31 December 2022 as compared to USD20,906 million as at 31 December 2021. The increase in total assets was driven primarily by the increase in interests in associates, inventories, trade and other receivables, cash and cash equivalents.

Total liabilities increased by USD1,942 million, or 18.7%, to USD12,324 million as at 31 December 2022 as compared to USD10,382 million as at 31 December 2021 mainly due to the increase in the Company's outstanding financial debts.

Cash flows

The Company used the net cash in operating activities in the amount USD412 million for the year ended 31 December 2022 as compared to net cash generated from operating activities USD1,146 million for the previous year that was caused by the same factors that led to the decrease in Adjusted EBITDA between the comparable periods.

The Company generated USD472 million net cash from investing activities for the year ended 31 December 2022 as compared to USD490 million in the previous year primarily due to dividends received from associates and joint ventures in amount of USD1,639 million in 2022 along with a proceeds from a partial disposal of associate in amount USD1,421 million in 2021.

The Company generated USD1,415 million net cash from financing activities for the year ended 31 December 2022 as compared to USD1,891 million net cash used in the financing activities in the previous year primarily due to the net proceeds from borrowings of USD2,391 million for the year ended 31 December 2022 as compared to net repayment of borrowings of USD1,162 million for the preceding year.

Segment reporting

The Group has four reportable segments, as described in the annual report of the Company, which are the Group's strategic business units: Aluminium, Alumina, Energy and Mining and Metals. These business units are managed separately and results of their operations are reviewed by the General Director of the Company on a regular basis.

The core segments are Aluminium and Alumina.

	Year ended 31 December			
	2022		2021	
(USD million)	**Aluminium**	**Alumina**	**Aluminium**	**Alumina**
Segment revenue				
kt	*3,693*	*5,373*	*3,590*	*7,554*
USD million	*10,962*	*2,620*	*9,102*	*2,649*
Segment result	2,526	(77)	2,817	(72)
Segment result margin	23.0%	(2.9%)	31.0%	(2.7%)
Segment EBITDA[13]	2,872	2	3,139	113
Segment EBITDA margin	26.2%	0.1%	34.5%	4.3%
Total capital expenditure	(768)	(311)	(700)	(234)

The Company presents two metrics for Aluminium segment: (1) total segment information and (2) information on own aluminium production. The difference between two metrics relates to the intersegment margins, sales of third parties metal and related costs and other non-production costs and expenses. Segment information for the year ended 31 December 2022 presented above relates to own aluminium production that is different from the relevant segment information presented in the Company's consolidated financial statements for the year ended 31 December 2022.

Key drivers for the decrease in margin in the aluminium segment are disclosed in "Revenue", "Cost of sales" and "Adjusted EBITDA and results from operating activities" sections above. Detailed segment reporting can be found in the consolidated financial statements for the year ended 31 December 2022.

[13] Segment EBITDA for any period is defined as segment result adjusted for amortisation and depreciation for the segment.

Capital expenditure

UC RUSAL recorded a total capital expenditure of USD1,239 million for the year ended 31 December 2022. UC RUSAL's capital expenditure in 2022 was aimed at maintaining existing production facilities.

	Year ended 31 December	
	2022	**2021**
(USD million)		
Development capex	410	399
Maintenance		
Pot rebuilds costs	206	143
Re-equipment	623	650
Total capital expenditure	**1,239**	**1,192**

The BEMO project companies utilise the project financing proceeds to make necessary contributions to the ongoing construction projects and do not require contributions from the joint venture partners at this time.

Consolidated financial statements

The following section contains the audited consolidated financial statements of UC RUSAL for the year ended 31 December 2022 which were reviewed by the Audit Committee, preliminary reviewed and noted by the Board (the "**Board**") of Directors of the Company (the "**Directors**") of UC RUSAL on 16 March 2023 and recommended for the shareholders' approval.

The full set of audited consolidated financial statements of UC RUSAL, together with the report of the independent auditor is available on UC RUSAL's website at: *http://www.rusal.ru/en/investors/financial_stat.aspx.*

	Note	Year ended 31 December 2022 USD million	Year ended 31 December 2021 USD million
Revenue	5	13,974	11,994
Cost of sales	6(a)	(10,770)	(8,273)
Gross profit		**3,204**	**3,721**
Distribution expenses	6(b)	(697)	(617)
Administrative expenses	6(b)	(769)	(603)
Impairment of non-current assets	6(b), 13	(196)	(209)
Expected credit losses	6(b), 17(a)	(163)	(60)
Net other operating expenses	6(b)	(63)	(153)
Results from operating activities		**1,316**	**2,079**
Finance income	7	133	63
Finance expenses	7	(838)	(800)
Share of profits of associates and joint ventures	15	1,555	1,807
Gain from partial disposal of investment in associate	15	–	492
Profit before taxation		**2,166**	**3,641**
Income tax	8	(373)	(416)
Profit for the year		**1,793**	**3,225**
Attributable to Shareholders of the Company		1,793	3,225
Profit for the year		**1,793**	**3,225**
Earnings per share			
Basic and diluted earnings per share (USD)	12	0.118	0.212
Adjusted EBITDA	4, 6(d)	2,028	2,893

The consolidated statement of income is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 23 to 84.

	Note	Year ended 31 December 2022 USD million	2021 USD million
Profit for the year		**1,793**	**3,225**
Other comprehensive income or loss			
Items that will never be reclassified subsequently to profit or loss			
Actuarial gain/(loss) post retirement benefit plans	20	8	(8)
		8	**(8)**
Items that are or may be reclassified subsequently to profit or loss			
Reclassification of accumulated foreign currency translation loss to Statement of Income due to partial disposal of investment in associate	15	–	613
Change in fair value of cash flow hedges	21	(131)	(28)
Foreign currency translation differences for equity-accounted investees	15	369	21
Foreign currency translation differences on foreign subsidiaries		48	29
		286	**635**
Other comprehensive income for the year, net of tax		**294**	**627**
Total comprehensive income for the year		**2,087**	**3,852**
Attributable to:			
Shareholders of the Company		2,087	3,852
Total comprehensive income for the year		**2,087**	**3,852**

There was no significant tax effect relating to each component of other comprehensive income or loss.

The consolidated statement of comprehensive income is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 23 to 84.

	Note	31 December 2022 USD million	31 December 2021 USD million
Assets			
Non-current assets			
Property, plant and equipment and investment properties	13	5,829	5,350
Intangible assets	14	2,605	2,411
Interests in associates and joint ventures	15	5,174	4,014
Deferred tax assets	8	58	113
Derivative financial assets	21	90	22
Investments in equity securities measured at fair value through profit and loss	17(g)	458	315
Other non-current assets	17(f)	302	245
Total non-current assets		**14,516**	**12,470**
Current assets			
Inventories	16	4,489	3,692
Short-term investments	17(h)	89	167
Trade and other receivables	17(a)	1,286	1,019
Prepayments and input VAT	17(b)	763	611
Current income tax receivables		214	16
Dividends receivable		–	827
Derivative financial assets	21	78	120
Cash and cash equivalents	17(e)	3,196	1,984
Total current assets		**10,115**	**8,436**
Total assets		**24,631**	**20,906**
Equity and liabilities			
Equity	18		
Share capital		152	152
Share premium		15,786	15,786
Other reserves		2,682	2,805
Currency translation reserve		(9,033)	(9,450)
Retained earnings		2,720	1,231
Total equity		**12,307**	**10,524**
Non-current liabilities			
Loans and borrowings	19	6,910	4,839
Provisions	20	278	378
Deferred tax liabilities	8	427	429
Derivative financial liabilities	21	–	61
Other non-current liabilities		118	83
Total non-current liabilities		**7,733**	**5,790**
Current liabilities			
Loans and borrowings	19	2,547	1,894
Trade and other payables	17(c)	1,439	1,111
Advances received	17(d)	237	1,116
Other tax payable		243	181
Derivative financial liabilities	21	–	145
Provisions	20	125	145
Total current liabilities		**4,591**	**4,592**
Total liabilities		**12,324**	**10,382**
Total equity and liabilities		**24,631**	**20,906**
Net current assets		**5,524**	**3,844**
Total assets less current liabilities		**20,040**	**16,314**

Preliminary reviewed, approved and authorised for issue by the board of directors on 16 March 2023.

Evgenii V. Nikitin	**Alexander V. Popov**
General Director	Chief Financial Officer

The consolidated statement of financial position is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 23 to 84.

	Note	Share capital USD million	Share premium USD million	Other reserves USD million	Currency translation reserve USD million	Retained earnings/ (accumulated losses) USD million	Total equity USD million
Balance at 1 January 2022		**152**	**15,786**	**2,805**	**(9,450)**	**1,231**	**10,524**
Profit for the year		–	–	–	–	1,793	**1,793**
Other comprehensive (loss)/income for the year		–	–	(123)	417	–	**294**
Total comprehensive (loss)/income for the year		**–**	**–**	**(123)**	**417**	**1,793**	**2,087**
Dividends	11	–	–	–	–	(304)	**(304)**
Balance at 31 December 2022		**152**	**15,786**	**2,682**	**(9,033)**	**2,720**	**12,307**
Balance at 1 January 2021		**152**	**15,786**	**2,841**	**(10,113)**	**(2,123)**	**6,543**
Profit for the year		–	–	–	–	3,225	**3,225**
Other comprehensive (loss)/income for the year		–	–	(36)	663	–	**627**
Total comprehensive (loss)/income for the year		**–**	**–**	**(36)**	**663**	**3,225**	**3,852**
Share of equity transactions of an associate	15	–	–	–	–	129	**129**
Balance at 31 December 2021		**152**	**15,786**	**2,805**	**(9,450)**	**1,231**	**10,524**

The consolidated statement of changes in equity is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 23 to 84.

	Note	Year ended 31 December 2022 USD million	Year ended 31 December 2021 USD million
Operating activities			
Profit for the year		**1,793**	**3,225**
Adjustments for:			
Depreciation	6, 13	491	589
Amortisation	6, 14	12	7
Impairment of non-current assets	6(b)	196	209
Impairment of trade and other receivables	6(b)	163	60
Write-down of inventories to net realisable value		171	28
Pension provision	20, 6(c)	4	3
Provision for legal claims	20	2	6
Change in fair value of derivative financial instruments	7	191	352
Net foreign exchange loss	7	219	29
Loss on disposal of property, plant and equipment	6(b)	13	9
Interest expense	7	428	372
Interest income	7	(79)	(43)
Income tax expense	8	373	416
Dividends from other investments		(36)	(20)
Revaluation of investments measured at fair value through profit and loss	17(g)	(18)	47
Share of profits of associates and joint ventures	15	(1,555)	(1,807)
Gain on partial disposal of investment in associate	15	–	(492)
Cash from operating activities before changes in working capital and provisions		**2,368**	**2,990**
Increase in inventories		(1,245)	(1,387)
Increase in trade and other receivables and advances paid		(325)	(528)
(Decrease)/increase in trade and other payables and advances received		(846)	394
Decrease in provisions		(6)	(16)
Cash (spent)/generated from operations before income tax paid		**(54)**	**1,453**
Income tax paid	8(d)	(358)	(307)
Net cash (spent)/generated from operating activities		**(412)**	**1,146**
Investing activities			
Proceeds from disposal of property, plant and equipment		3	10
Interest received		70	37
Acquisition of property, plant and equipment		(1,202)	(1,164)
Dividends from associates and joint ventures		1,639	620
Dividends from other investments		32	20
Acquisition of intangible assets		(37)	(28)
Cash paid for investments in equity securities measured at fair value through profit and loss		(113)	(291)
Cash received from/(paid for) other investments		97	(50)
Cash outflow from disposal of subsidiary		(16)	–
Prepayment for and acquisition of subsidiaries		–	(85)
Change in restricted cash		(1)	–
Proceeds from partial disposal of associate		–	1,421
Net cash generated from investing activities		**472**	**490**
Financing activities			
Proceeds from borrowings		6,036	918
Repayment of borrowings		(3,645)	(2,080)
Refinancing fees and other expenses		(17)	(34)
Interest paid		(428)	(380)
Settlement of derivative financial instruments		(229)	(315)
Dividends paid	11	(302)	–
Net cash used in financing activities		**1,415**	**(1,891)**
Net increase/(decrease) in cash and cash equivalents		**1,475**	**(255)**
Cash and cash equivalents at the beginning of the year	17(e)	1,982	2,216
Effect of exchange rate fluctuations on cash and cash equivalents		(264)	21
Cash and cash equivalents at the end of the year	17(e)	**3,193**	**1,982**

Restricted cash amounted to USD3 million and USD2 million at 31 December 2022 and 31 December 2021, respectively.

The consolidated statement of cash flows is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 23 to 84.

1 Background

(a) Organisation

United Company RUSAL, international public joint-stock company (United Company RUSAL Plc prior to 25 September 2020) ("UC RUSAL IPJSC", the "Company" or "UC RUSAL") was established by the controlling shareholder of RUSAL Limited ("RUSAL") as a limited liability company under the laws of Jersey on 26 October 2006. On 27 January 2010, the Company successfully completed a placing on the Main Board of The Stock Exchange of Hong Kong Limited ("Hong Kong Stock Exchange") and changed its legal form from a limited liability company to a public limited company.

On 23 March 2015, the shares of the Company were admitted to listing on PJSC Moscow Exchange MICEX-RTS ("Moscow Exchange") in the First Level quotation list. The trading of shares on Moscow Exchange commenced on 30 March 2015. There was no issue of new shares.

The extraordinary general meeting of the Company held on 1 August 2019 approved the application by the Company to the regulatory authorities in Russia for continuance as a company with the status of an International Company established under the laws of Russia (the "Redomiciliation"). On 25 September 2020 UC RUSAL changed its domicile to the Russian Federation as UC RUSAL IPJSC.

The Company's registered office as at 31 December 2022 is Oktyabrskaya st. 8, office 410, Kaliningrad, Kaliningrad Region, 236006, Russian Federation (prior to 25 September 2020: 3rd floor, 44 Esplanade, St Helier, Jersey, JE4 9WG, Channel Islands).

The Company directly or through its wholly owned subsidiaries controls a number of production and trading entities engaged in the aluminium business and other entities, which together with the Company are referred to as "the Group".

The shareholding structure of the Company as at 31 December 2022 and 2021 was as follows:

	31 December 2022	31 December 2021
EN+GROUP IPJSC ("EN+", formerly En+ Group Plc)	56.88%	56.88%
SUAL PARTNERS ILLC ("SUAL PARTNERS", formerly SUAL Partners Limited)	25.52%	21.52%
Zonoville Investments Limited ("Zonoville")	–	4.00%
Mr. Oleg V. Deripaska	0.01%	0.01%
Publicly held	17.59%	17.59%
Total	**100.00%**	**100.00%**

At 31 December 2022 and 2021 the immediate parent of the Group was EN+ GROUP International public joint-stock company (EN+GROUP IPJSC) with the registered office at Oktyabrskaya st. 8, office 34, Kaliningrad, Kaliningrad Region, 236006, Russian Federation.

Based on the information provided by EN+, at the reporting date there is no individual that has an indirect prevailing ownership interest in EN+ GROUP IPJSC exceeding 50%, who could exercise voting rights in respect of more than 35% of EN+ GROUP IPJSC's issued share capital or has an opportunity to exercise control over EN+ GROUP IPJSC. As at 31 December 2022 and 31 December 2021 Mr. Oleg Deripaska beneficially controls and exercises voting rights in respect of 35% of the voting shares of EN+ GROUP IPJSC and cannot exceed his direct or indirect shareholding over 44.95% of the shares of the EN+ GROUP IPJSC.

In 2022 SUAL Partners Limited re-domiciled to Russian Federation and changed its' name to SUAL PARTNERS International Limited Liability Company. According to the information disclosed at the Stock Exchange of Hong Kong Limited Zonoville Investments Limited and SUAL PARTNERS were associates. Major ultimate beneficiaries of SUAL PARTNERS are Mr. Victor Vekselberg and Mr. Len Blavatnik.

Related party transactions are disclosed in note 25.

(b) Operations

The Group operates in the aluminium industry primarily in the Russian Federation, Ukraine, Guinea, Jamaica, Ireland, Italy and Sweden and is principally engaged in the mining and refining of bauxite and nepheline ore into alumina, the smelting of primary aluminium from alumina and the fabrication of aluminium and aluminium alloys into semi-fabricated and finished products. The Group sells its products primarily in Europe, Russia, other countries of the Commonwealth of Independent States ("CIS"), Asia and North America.

(c) Business environment in emerging economies

The Russian Federation, Ukraine, Jamaica and Guinea have been experiencing political and economic changes that have affected, and may continue to affect, the activities of enterprises operating in these environments. Consequently, operations in these countries involve risks that typically do not exist in other markets, including reconsideration of privatisation terms in certain countries where the Group operates following changes in governing political powers.

The imposition of economic sanctions on Russian individuals and legal entities by the European Union, the United States of America, Japan, Canada, Australia and others, as well as counter sanctions imposed by the Russian government, has resulted in increased economic uncertainty including more volatile equity, commodity and currency markets. The longer term effects of implemented sanctions, as well as the threat of additional future sanctions, are difficult to determine.

The consolidated financial statements reflect management's assessment of the impact of the Russian, Ukrainian, Jamaican and Guinean business environments on the operations and the financial position of the Group. The future business environment may differ from management's assessment.

(d) OFAC Sanctions

On 6 April 2018, the U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC") designated, amongst others, the Company, as a Specially Designated National ("SDN") (the "OFAC Sanctions").

As a result, all property or interests in property of the Company and its subsidiaries located in the United States or in the possession of U.S. Persons were blocked, must have been frozen, and could not be transferred, paid, exported, withdrawn, or otherwise dealt in. Several general licenses were issued at the time of the designation and later on authorizing certain transactions with the Company, its majority shareholder EN+ GROUP IPJSC ("EN+", former En+ Group Plc), and with their respective debt and equity.

On 27 January 2019 OFAC announced removal of the Company and En+ from OFAC's SDN List with immediate effect. The removal was subject to and conditional upon the satisfaction of a number of conditions including, but not limited to, corporate governance changes, including, inter alia, overhauling the composition of the Board to ensure that independent directors constitute the majority of the Board, stepping down of the Chairman of the Board, and ongoing reporting and certifications by the Company to OFAC concerning compliance with the conditions for removal.

(e) Going concern

These consolidated financial statements have been prepared assuming that the Group will continue as a going concern. Accordingly, these statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts, the amounts and classification of liabilities or any other adjustments that might result from the Group being unable to continue as a going concern.

Ban of Australian government for the export of alumina and bauxite to Russia introduced in March 2022 and temporary suspension of production at Mykolaiv Alumina Refinery Company Ltd due to developments in Ukraine starting from 1 March 2022 influenced the availability of alumina and bauxite or increase the purchase prices for the Group. Difficulties with logistics caused the Group to rebuild the supply and sales chains and lead to additional logistics costs. If the situation in Ukraine and overall geopolitical tension persists or continues to develop significantly, including the loss of significant parts of foreign markets, which cannot be reallocated to new markets, it may affect the Group's business, financial condition, prospects and results of operations.

Potentially the Group may have difficulties with equipment deliveries that may postpone realization of some investment projects and modernization programs for existing production facilities.

The facts described above, as well as the volatility of commodity markets, stock, currency markets and interest rates, create material uncertainty in the Group's ability to meet its financial obligations on time and continue as a going concern entity. Management constantly evaluates the current situation and prepares forecasts taking into account different scenarios of the events and conditions development. The Group's management expects that prices on the world commodity markets will grow and improve the results of operating activities. The Group is also revising supply and sales chains, ensuring an optimal equity and debt ratio, searching for resolutions of logistic difficulties, as well as the ways to service its obligations in order to adapt the current economic changes to maintain the continuance of the Group's operations (note 28).

2 Basis of preparation

(a) Statement of compliance

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRSs"), which collective term includes all International Accounting Standards and related interpretations, promulgated by the International Accounting Standards Board ("IASB"), and the disclosure requirements of the Hong Kong Companies Ordinance.

These consolidated financial statements also comply with the applicable disclosure provisions of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited. Preparation of these consolidated financial statements is also regulated by Russian Federal Law 208-FZ dated 27 July 2010 *On consolidated financial statements* and Russian Federal Law 290-FZ dated 3 August 2018 *On international companies and international funds*.

Certain reclassifications have been made to the prior periods' consolidated financial statements to conform to the current year presentation. Such reclassifications affect the presentation of certain items in the consolidated statement of financial position, consolidated statement of comprehensive income, consolidated statement of cash flows and notes to the consolidated financial statements and have no impact on net income or equity.

(b) Standards issued but not effective

The new and amended standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group's financial statements are disclosed below. The Group intends to adopt these new and amended standards and interpretations, if applicable, when they become effective.

- IFRS 17 *Insurance Contracts*;
- Amendments to IAS 1: *Classification of Liabilities as Current or Non-current*;
- Amendments to IAS 1: *Non-current Liabilities with Covenants*;
- *Definition of Accounting Estimates* – Amendments to IAS 8;
- *Disclosure of Accounting Policies* – Amendments to IAS 1 and IFRS Practice Statement 2;
- *Deferred Tax related to Assets and Liabilities arising from a Single Transaction* – Amendments to IAS 12;
- Amendments to IFRS 16: *Lease Liability in a Sale and Leaseback*.

The Group is currently assessing the impact the amendments will have on current practice, when they become effective.

3 Significant accounting policies

(a) New and amended standards and interpretations adopted by the Group

The Group applied for the first-time certain standards and amendments, which are effective for annual periods beginning on or after 1 January 2022 (unless otherwise stated).

- *Onerous Contracts – Costs of Fulfilling a Contract* – Amendments to IAS 37;
- *Reference to the Conceptual Framework* – Amendments to IFRS 3;
- *Property, Plant and Equipment: Proceeds before Intended Use* – Amendments to IAS 16;
- IFRS 1 *First-time Adoption of International Financial Reporting Standards* – Subsidiary as a first-time adopter;
- IFRS 9 *Financial Instruments* – Fees in the '10 per cent' test for derecognition of financial liabilities.

These amendments had no impact on the consolidated financial statements of the Group

(b) Basis of measurement

The consolidated financial statements have been prepared in accordance with the historical cost basis except as set out in the significant accounting policies in the related notes below.

(c) Functional and presentation currency

The Company's functional currency is the United States Dollar ("USD") because it reflects the economic substance of the underlying events and circumstances of the Company. The functional currencies of the Group's significant subsidiaries are the currencies of the primary economic environment and key business processes of these subsidiaries and include USD, Russian Roubles ("RUB"), Ukrainian Hryvna, Chinese Yen ("CNY") and Euros ("EUR"). The consolidated financial statements are presented in USD, rounded to the nearest million, except as otherwise stated herein.

The functional currencies of investments in associates and joint ventures are RUB, Kazakhstani tenge and Australian dollar.

(d) Use of judgements, estimates and assumptions

The preparation of consolidated financial statements in conformity with IFRSs requires management to make judgements, estimates and assumptions that affect the application of accounting policies and reported amounts of assets and liabilities and the disclosure of contingent liabilities at the date of the consolidated financial statements, and the reported revenue and costs during the relevant period.

Management bases its judgements and estimates on historical experience and various other factors that are believed to be appropriate and reasonable under the circumstances, the results of which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions and conditions.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Judgements made by management in the application of IFRSs that have a significant effect on the consolidated financial statements and estimates with a significant risk of material adjustment in the next year relate to:

- Measurement of recoverable amount of property, plant and equipment (note 13) and goodwill (note 14);
- Measurement of net realizable value of inventories (note 16);
- Measurement of recoverable amount of investments in associates and joint ventures (note 15);
- Measurement of recoverable amount of deferred tax assets (note 8);
- Estimates in respect of legal proceedings, restoration and exploration, taxation and pension reserve (note 20);
- Measurement of fair value of derivative financial instruments (note 21);
- Measurement of expected credit losses on financial assets (note 17).

(e) Basis of consolidation

(i) Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. When assessing whether the Group has power, only substantive rights (held by the Group and other parties) are considered.

An investment in a subsidiary is consolidated into the consolidated financial statements from the date that control commences until the date that control ceases. Intra-group balances, transactions and cash flows and any unrealised profits arising from intra-group transactions are eliminated in full in preparing the consolidated financial statements. Unrealised losses resulting from intra-group transactions are eliminated in the same way as unrealised gains but only to the extent that there is no evidence of impairment.

When the group loses control of a subsidiary, it is accounted for as a disposal of the entire interest in that subsidiary, with a resulting gain or loss being recognised in profit or loss. Any interest retained in that former subsidiary at the date when control is lost is recognised at fair value and this amount is regarded as the fair value on initial recognition of a financial asset or, when appropriate, the cost on initial recognition of an investment in an associate or joint venture.

(ii) Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealised gains arising from transactions with equity accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

(f) Foreign currencies

(i) Foreign currency transactions

Transactions in foreign currencies are translated into the respective functional currencies of Group entities at the exchange rates ruling at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are retranslated to the functional currency at the exchange rate at that date. The foreign currency gain or loss on monetary items is the difference between the amortised cost in the functional currency at the beginning of the period, adjusted for effective interest and payments during the period, and the amortised cost in foreign currency translated at the exchange rate at the end of the reporting period. Non-monetary items in a foreign currency are measured based on historical cost and translated using the exchange rate at the date of transaction. Foreign currency differences arising on retranslation are recognised in the statement of income, except for differences arising on the retranslation of qualifying cash flow hedges to the extent the hedge is effective, which is recognised in the other comprehensive income.

(ii) Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated from their functional currencies to USD at the exchange rates ruling at the reporting date. The income and expenses of foreign operations are translated to USD at exchange rates approximating exchange rates at the dates of the transactions.

Foreign currency differences arising on translation are recognised in the statement of comprehensive income and presented in the currency translation reserve in equity. For the purposes of foreign currency translation, the net investment in a foreign operation includes foreign currency intra-group balances for which settlement is neither planned nor likely in the foreseeable future and foreign currency differences arising from such a monetary item are recognised as part of other comprehensive income in the statement of comprehensive income.

When a foreign operation is disposed of, such that control, significant influence or joint control is lost, the cumulative amount of the currency translation reserve is transferred to the statement of income as part of the gain or loss on disposal. When the Group disposes of only part of its interest in a subsidiary that includes a foreign operation while retaining control, the relevant proportion of the cumulative amount is reattributed to non-controlling interests. When the Group disposes of only part of its investment in an associate or joint venture that includes a foreign operation while retaining significant influence or joint control, the relevant proportion of the cumulative amount is reclassified to the statement of income.

4 Segment reporting

(a) Reportable segments

An operating segment is a component of the Group that engages in business activities from which it may earn revenue and incur expenses, including revenue and expenses that relate to transactions with any of the Group's other components. All operating segments' operating results are reviewed regularly by the Group's CEO to make decisions about resources to be allocated to the segment and assess its performance and for which discrete financial information or statements are available.

Individually material operating segments are not aggregated for financial reporting purposes unless the segments have similar economic characteristics and are similar in respect of the nature of products and services, the nature of production processes, the type or class of customers, the methods used to distribute the products or provide the services and the nature of the regulatory environment. Operating segments which are not individually material may be aggregated if they share a majority of these criteria.

The Group has four reportable segments, as described below, which are the Group's strategic business units. These business units are managed separately and the results of their operations are reviewed by the CEO on a regular basis.

Aluminium. The Aluminium segment is involved in the production and sale of primary aluminium and related products.

Alumina. The Alumina segment is involved in the mining and refining of bauxite into alumina and the sale of alumina.

Energy. The Energy segment includes the Group companies and projects engaged in the mining and sale of coal and the generation and transmission of electricity produced from various sources. Where the generating facility is solely a part of an alumina or aluminium production facility it is included in the respective reportable segment.

Mining and Metals. The Mining and Metals segment includes the equity investment in PJSC MMC Norilsk Nickel ("Norilsk Nickel").

Other operations include manufacturing of semi-finished products from primary aluminium for the transportation, packaging, building and construction, consumer goods and technology industries; and the activities of the Group's administrative centres. None of these segments meet any of the quantitative thresholds for determining reportable segments in 2022 and 2021.

The Aluminium and Alumina segments are vertically integrated whereby the Alumina segment supplies alumina to the Aluminium segment for further refining and smelting with limited sales of alumina outside the Group. Integration between the Aluminium, Alumina and Energy segments also includes shared servicing and distribution.

(b) Segment results, assets and liabilities

For the purposes of assessing segment performance and allocating resources between segments, the Group's senior executive management monitor the results, assets and liabilities attributable to each reportable segment on the following bases:

Segment assets include all tangible, intangible assets and current assets with the exception of income tax assets and corporate assets. Segment liabilities include trade and other payables attributable to the production and sales activities of the individual segments. Loans and borrowings are not allocated to individual segments as they are centrally managed by the head office.

Revenue and expenses are allocated to the reportable segments with reference to sales generated by those segments and the expenses incurred by those segments or which otherwise arise from the depreciation or amortisation of assets attributable to those segments excluding impairment.

The measure used for reporting segment results is the statement of income before income tax adjusted for items not specifically attributed to individual segments, such as finance income, costs of loans and borrowings and other head office or corporate administration costs. The segment profit or loss is included in the internal management reports that are reviewed by the Group's CEO. Segment profit or loss is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries.

In addition to receiving segment information concerning segment results, management is provided with segment information concerning revenue (including inter-segment revenue), the carrying value of investments and share of profits/(losses) of associates and joint ventures, depreciation, amortisation, impairment and additions of non-current segment assets used by the segments in their operations. Inter-segment pricing is determined on a consistent basis using market benchmarks.

Segment capital expenditure is the total cost incurred during the year to acquire property, plant and equipment and intangible assets other than goodwill.

(i) Reportable segments

Year ended 31 December 2022

	Aluminium USD million	Alumina USD million	Energy USD million	Mining and Metals USD million	Total segment result USD million
Revenue from external customers	11,751	1,194	–	–	**12,945**
Inter-segment revenue	354	3,640	–	–	**3,994**
Total segment revenue	**12,105**	**4,834**	**–**	**–**	**16,939**
Segment profit	**2,282**	**(501)**	**–**	**–**	**1,781**
Depreciation/amortisation	(374)	(106)	–	–	**(480)**
Segment EBITDA	**2,656**	**(395)**	**–**	**–**	**2,261**
Reversal of impairment/(impairment) of non-current assets	(6)	(83)	–	–	**(89)**
Share of profits of associates and joint ventures	–	–	115	1,440	**1,555**
Non-cash expense other than depreciation	(34)	(97)	–	–	**(131)**
Capital expenditure	(768)	(311)	–	–	**(1,079)**
Non-cash additions to non-current segment assets related to site restoration	3	90	–	–	**93**
Segment assets	11,110	2,230	–	–	**13,340**
Interests in associates and joint ventures	–	–	889	4,285	**5,174**
Total segment assets					**18,514**
Segment liabilities	(1,030)	(619)	(15)	–	**(1,664)**
Total segment liabilities					**(1,664)**

Year ended 31 December 2021

	Aluminium USD million	Alumina USD million	Energy USD million	Mining and Metals USD million	Total segment result USD million
Revenue from external customers	10,054	1,014	–	–	**11,068**
Inter-segment revenue	365	2,796	–	–	**3,161**
Total segment revenue	**10,419**	**3,810**	**–**	**–**	**14,229**
Segment profit	**2,494**	**96**	**–**	**–**	**2,590**
Depreciation/amortisation	(348)	(212)	–	–	**(560)**
Segment EBITDA	**2,842**	**308**	**–**	**–**	**3,150**
Reversal of impairment/(impairment) of non-current assets	623	(797)	–	–	**(174)**
Share of profits of associates and joint ventures	–	–	81	1,762	**1,843**
Non-cash expense other than depreciation	(8)	(16)	–	–	**(24)**
Capital expenditure	(700)	(234)	–	–	**(934)**
Non-cash additions to non-current segment assets related to site restoration	(62)	–	–	–	**(62)**
Segment assets	9,477	2,055	–	–	**11,532**
Interests in associates and joint ventures	–	–	738	3,274	**4,012**
Total segment assets					**15,544**
Segment liabilities	(1,095)	(758)	(14)	–	**(1,867)**
Total segment liabilities					**(1,867)**

(ii) Reconciliation of reportable segment revenue, profit or loss, assets and liabilities

	Year ended 31 December 2022 USD million	Year ended 31 December 2021 USD million
Revenue		
Reportable segment revenue	16,939	14,229
Elimination of inter-segment revenue	(3,994)	(3,161)
Unallocated revenue	1,029	926
Consolidated revenue	**13,974**	**11,994**

	Year ended 31 December 2022 USD million	Year ended 31 December 2021 USD million
Profit		
Reportable segment profit	1,781	2,590
Impairment of non-current assets	(196)	(209)
Share of profits of associates and joint ventures	1,555	1,807
Loss on disposal of property, plant and equipment	(13)	(9)
Finance income	133	63
Finance expenses	(838)	(800)
Gain from partial disposal of investment in asscociate	0	492
Unallocated profit/(loss)	(256)	(293)
Consolidated profit before taxation	**2,166**	**3,641**

	Year ended 31 December 2022 USD million	Year ended 31 December 2021 USD million
Adjusted EBITDA		
Reportable segment EBITDA	2,261	3,150
Unallocated depreciation	23	36
Unallocated profit/(loss)	(256)	(293)
Consolidated adjusted EBITDA	**2,028**	**2,893**

	31 December 2022	31 December 2021
	USD million	USD million
Assets		
Reportable segment assets	18,514	15,544
Unallocated assets	6,117	5,362
Consolidated total assets	**24,631**	**20,906**

	31 December 2022	31 December 2021
	USD million	USD million
Liabilities		
Reportable segment liabilities	(1,664)	(1,867)
Unallocated liabilities	(10,660)	(8,515)
Consolidated total liabilities	**(12,324)**	**(10,382)**

(iii) Geographic information

The Group's operating segments are managed on a worldwide basis, but operate in four principal geographical areas: the CIS, Europe, Africa and the Americas. In the CIS, production facilities operate in Russia. In Europe, production facilities are located in Italy, Ireland and Sweden. African production facilities are represented by bauxite mines and an alumina refinery in Guinea. In the Americas the Group operates one production facility in Jamaica.

The following table sets out information about the geographical location of (i) the Group's revenue from external customers and (ii) the Group's property, plant and equipment, intangible assets and interests in associates and joint ventures ("specified non-current assets"). The geographical location of customers is based on the location at which the services were provided or the goods were delivered. The geographical location of the specified non-current assets is based on the physical location of the asset. Unallocated specified non-current assets comprise mainly goodwill and interests in associates and joint ventures.

	Revenue from external customers	
	Year ended 31 December	
	2022	2021
	USD million	USD million
Russia	3,746	3,389
South Korea	1,184	314
China	1,122	772
Turkey	1,011	1,108
Japan	963	744
Netherlands	884	443
USA	645	741
Germany	406	325
Poland	384	328
Mexico	354	280
Greece	339	367
Italy	299	260
Norway	248	267
Sweden	238	209
France	223	247
Ireland	221	148
Other countries	1,707	2,052
	13,974	**11,994**

	Specified non-current assets	
	31 December 2022	31 December 2021
	USD million	USD million
Russia	10,370	8,697
Ireland	94	82
Guinea	237	232
Ukraine	2	6
Sweden	53	68
Unallocated	3,760	3,385
	14,516	**12,470**

5 Revenue

Accounting policies

IFRS 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognised.

The details of significant accounting policies in relation to the Group's various goods and services are set out below:

Sales of goods: comprise sale of primary aluminium, alloys, alumina, bauxite and other products. Customers obtain control of the goods supplied when the goods are delivered to the point when risks are transferred based on Incoterms delivery terms stated in the contract, legal title to the asset and physical possession of the asset is transferred. Invoices are generated and revenue is recognised at that point in time. Invoices are usually payable within 60 days or in advance. Under certain Group sale contracts the final price for the goods shipped is determined a few months later than the delivery took place. Under current requirements the Group determines the amount of revenue at the moment of recognition based on estimated selling price at the date of the invoice issued. At price finalisation the difference between estimated price and actual one is recognised as other revenue.

Rendering of transportation services: as part of sales of goods the Group also performs transportation to the customer under contract terms. In certain cases the control for goods delivered is transferred to customer at earlier point than the transportation is completed. In these cases rendering of transportation services from when the control of goods has transferred is considered as a separate performance obligation.

Rendering of electricity supply services: The Group is involved in sales of energy to 3rd and related parties. Invoices are issued once a month at the end of month and paid within 30 days. Revenue is recognised over time during the month of energy supply.

Disclosures

	Year ended 31 December	
	2022	2021
	USD million	USD million
Revenue from contracts with customers	**13,974**	**11,994**
Sales of products	**13,585**	**11,702**
Sales of primary aluminium and alloys	11,593	9,966
Sales of alumina and bauxite	557	612
Sales of foil and other aluminium products	581	515
Sales of other products	854	609
Provision of services	**389**	**292**
Supply of energy	310	226
Provision of transportation services	8	7
Provision of other services	71	59

	Year ended 31 December	
	2022	2021
	USD million	USD million
Total revenue by types of customers	**13,974**	**11,994**
Third parties	12,967	11,083
Related parties – companies capable of exerting significant influence	235	320
Related parties – companies related through parent company	235	223
Related parties – associates and joint ventures	537	368
Total revenue by primary regions	**13,974**	**11,994**
Europe	4,989	4,401
CIS	4,074	3,903
America	1,035	1,087
Asia	3,762	2,461
Other	114	142

Revenue from sale of primary aluminium and alloys relates to aluminium segment (note 4). Revenue from sales of alumina and bauxite relates to alumina segment which also includes sale of other products. Revenue from sale of foil and other aluminium products and other products and services relates mostly to the revenue of non-reportable segments.

6 Cost of sales and operating expenses

(a) Cost of sales

	Year ended 31 December	
	2022	2021
	USD million	USD million
Cost of alumina, bauxite and other materials	**(5,364)**	**(3,693)**
Third parties	(5,311)	(3,638)
Related parties – companies capable of exerting significant influence	(30)	(24)
Related parties – companies related through parent company	(12)	(13)
Related parties – associates and joint ventures	(11)	(18)
Purchases of primary aluminium	**(1,164)**	**(1,229)**
Third parties	(220)	(517)
Related parties – companies related through parent company	(4)	(16)
Related parties – associates and joint ventures	(940)	(696)
Energy costs	**(2,658)**	**(2,070)**
Third parties	(1,538)	(1,288)
Related parties – companies capable of exerting significant influence	(48)	(33)
Related parties – companies related through parent company	(1,027)	(714)
Related parties – associates and joint ventures	(45)	(35)
Personnel costs	**(781)**	**(618)**
Depreciation and amortisation	**(481)**	**(572)**
Change in finished goods	**806**	**752**
Other costs	**(1,128)**	**(843)**
Third parties	(1,066)	(702)
Related parties – companies related through parent company	(32)	(30)
Related parties – associates and joint ventures	(30)	(111)
	(10,770)	**(8,273)**

(b) Distribution, administrative and other operating expenses, impairment of non-current assets and expected credit losses

	Year ended 31 December	
	2022	2021
	USD million	USD million
Transportation expenses	(538)	(443)
Personnel costs	(404)	(301)
Impairment of non-current assets	(196)	(209)
Expected credit losses	(163)	(60)
Consulting and legal expenses	(94)	(86)
Packaging materials	(58)	(38)
Taxes other than on income	(56)	(50)
Security	(55)	(33)
Customs duties	(48)	(99)
Repair and other services	(40)	(25)
Charitable donations	(34)	(45)
Depreciation and amortization	(22)	(24)
Loss on disposal of property, plant and equipment	(13)	(9)
Short-term lease and variable lease payments	(8)	(5)
Auditors' remuneration	(5)	(6)
Provision for legal claims	(2)	(6)
Other expenses	(152)	(203)
	(1,888)	**(1,642)**

On 28 April 2022 the Group sold its subsidiary Rusal America Corporation (RAC) to its local management for US$15 million. Following this transaction the Group has also recorded a realized gain of USD121 million related to the selling prices of inventory held by RAC at the date of demerger.

(c) Personnel costs

Accounting policies

Personnel costs comprise salaries, annual bonuses, annual leave, cost of non-monetary benefits and social contributions. Salaries, annual bonuses, paid annual leave and cost of non-monetary benefits are accrued in the year in which the associated services are rendered by employees. Where payment or settlement is deferred and the effect would be material, these amounts are stated at their present values.

The employees of the Group are also members of retirement schemes operated by local authorities. The Group is required to contribute a certain percentage of their payroll to these schemes to fund the benefits. The Group's total contribution to those schemes charged to the statement of income during the years presented is shown below.

The Group's net obligation in respect of defined benefit pension and other post-retirement plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value and the fair value of any plan assets are deducted. The discount rate is the yield at the reporting date on government bonds that have maturity dates approximating the terms of the Group's obligations. The calculation is performed using the projected unit credit method. When the calculation results in a benefit to the Group, the recognised asset is limited to the net total of any unrecognised past service costs and the present value of any future refunds from the plan or reductions in future contributions to the plan.

Where there is a change in actuarial assumptions, the resulting actuarial gains and losses are recognised directly in other comprehensive income.

When the benefits of a plan are improved, the portion of the increased benefit relating to past service by employees is recognised in the statement of income on a straight-line basis over the average period until the benefits become vested. To the extent that the benefits vest immediately, the expense is recognised immediately.

The Group recognises gains and losses on the curtailment or settlement of a defined benefit plan when the curtailment or settlement occurs.

The gain or loss on curtailment comprises any resulting change in the fair value of plan assets, any change in the present value of the defined benefit obligation, any related actuarial gains and losses.

Disclosures

	Year ended 31 December	
	2022	**2021**
	USD million	**USD million**
Contributions to defined contribution retirement plans	244	193
Contributions to defined benefit retirement plans	4	3
Total retirement costs	**248**	**196**
Wages and salaries	937	723
	1,185	**919**

(d) EBITDA and operating effectiveness measures

Adjusted EBITDA is the key non-IFRS financial measure used by the Group as reference for assessing operating effectiveness.

	Year ended 31 December	
	2022	**2021**
	USD million	**USD million**
Results from operating activities	1,316	2,079
Add:		
Amortisation and depreciation	503	596
Impairment of non-current assets	196	209
Loss on disposal of property, plant and equipment	13	9
Adjusted EBITDA	**2,028**	**2,893**

7 Finance income and expenses

Accounting policies

Finance income comprises interest income on funds invested, changes in the fair value of financial assets at fair value through profit or loss and foreign currency gains. Interest income is recognised as it accrues, using the effective interest method.

Finance expenses comprise interest expense on borrowings, unwinding of the discount on provisions, foreign currency losses and changes in the fair value of investments measured at fair value through profit or loss, derivative financial instruments. All borrowing costs are recognised in the statement of income using the effective interest method, except for borrowing costs related to the acquisition, construction and production of qualifying assets which are recognised as part of the cost of such assets.

Foreign currency gains and losses are reported on a net basis. Foreign exchange loss on loans and borrowing for the year ended 31 December 2022 equalled to USD156 million (31 December 2021: loss in the amount of USD3 million).

Disclosures

	Year ended 31 December	
	2022	**2021**
	USD million	**USD million**
Finance income		
Interest income on third party loans and deposits	79	43
Dividends from other investments	36	20
Revaluation of investments measured at fair value through profit and loss, incl. forex income	18	–
	133	**63**
Finance expenses		
Interest expense on bank loans and bonds wholly repayable within 5 years and other bank charges	(421)	(284)
Interest expense on bank loans and bonds wholly repayable after 5 years	–	(75)
Change in fair value of derivative financial instruments (refer to note 21)	(191)	(352)
Net foreign exchange loss	(219)	(29)
Interest expense on provisions	(1)	(8)
Revaluation of investments measured at fair value through profit and loss, incl. forex income	–	(47)
Other finance costs	(2)	–
Leases interest costs	(4)	(5)
	(838)	**(800)**

8 Income tax

Accounting policies

Income tax expense comprises current and deferred tax. Income tax expense is recognised in the statement of income and other comprehensive income except to the extent that it relates to items recognised directly in equity, in which case it is recognised in equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the following temporary differences: the initial recognition of goodwill, the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit, and differences relating to investments in subsidiaries to the extent that they probably will not reverse in the foreseeable future. New information may become available that causes the Company to change its judgement regarding the adequacy of existing tax liability. Such changes to tax liabilities will impact tax expenses in the period that such a determination is made. Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date. Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same taxation authority and the Group has both the right and the intention to settle its current tax assets and liabilities on a net or simultaneous basis.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which temporary differences can be utilised. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Additional income taxes that arise from the distribution of dividends are recognised at the same time as the liability to pay the related dividends is recognised.

Disclosures

(a) Income tax expense

	Year ended 31 December	
	2022	**2021**
	USD million	**USD million**
Current tax		
Current tax for the year	310	339
Deferred tax		
Origination and reversal of temporary differences	63	77
Actual tax expense	**373**	**416**

The Company is considered a Russian tax resident with an applicable corporate tax rate of 20%, for dividend income of the Company tax rate is 0%. Subsidiaries pay income taxes in accordance with the legislative requirements of their respective tax jurisdictions. For subsidiaries domiciled in Russia, the applicable tax rate is 20%; in Ukraine of 18%; Guinea of 0% to 35%; China of 25%; Kazakhstan of 20%; Australia of 30%; Jamaica of 25%; Ireland of 12.5%; Sweden of 20.6% and Italy of 27.9%. For the Group's subsidiaries domiciled in Switzerland the applicable tax rate for the period is the corporate income tax rate in the Canton of Zug, Switzerland, which may vary depending on the subsidiary's tax status. The rate consists of a federal income tax and cantonal/communal income and capital taxes. The latter includes a base rate and a multiplier, which may change from year to year. Applicable income tax rate are 9.06% and 11.8% for Swiss subsidiaries. For the Group's significant trading companies, the applicable tax rate is 0%. The applicable tax rates for the year ended 31 December 2021 were the same as for the year ended 31 December 2022 except for tax rates for subsidiaries domiciled in Switzerland which amounted to 9.55% and 11.85% subsequently, subsidiary domiciled in Italy which amounted to 26.9% and subsidiaries domiciled in Guinea of 0% to 30%.

	Year ended 31 December			
	2022		**2021**	
	USD million	**%**	**USD million**	**%**
Profit before taxation	**2,166**	**100**	**3,641**	**100**
Income tax at tax rate applicable to the tax residence of the Company	433	20	728	20
Effect of different income tax rates	143	7	106	3
Effect of changes in investment in Norilsk Nickel	(288)	(13)	(451)	(12)
Change in unrecognised deferred tax assets	125	6	72	1
Effect of reversal/accrual of impairment	18	–	(42)	(1)
Other non-taxable income and non-deductible expenses	(58)	(3)	3	–
Actual tax expense	**373**	**17**	**416**	**11**

(b) Recognised deferred tax assets and liabilities

Deferred tax assets and liabilities are attributable to the following temporary differences:

	Assets		Liabilities		Net	
USD million	**31 December 2022**	**31 December 2021**	**31 December 2022**	**31 December 2021**	**31 December 2022**	**31 December 2021**
Property, plant and equipment	100	85	(582)	(551)	**(482)**	**(466)**
Inventories	38	67	(37)	(19)	**1**	**48**
Trade and other receivables	72	52	(52)	(30)	**20**	**22**
Trade and other payables and advances received	18	17	–	–	**18**	**17**
Derivative financial assets/(liabilities)	–	3	–	(5)	**–**	**(2)**
Tax loss carry-forwards	129	54	–	–	**129**	**54**
Others	90	100	(145)	(89)	**(55)**	**11**
Deferred tax assets/(liabilities)	447	378	(816)	(694)	**(369)**	**(316)**
Set-off of deferred taxation	(389)	(265)	389	265	–	**–**
Net deferred tax assets/(liabilities)	**58**	**113**	**(427)**	**(429)**	**(369)**	**(316)**

Movement in deferred tax assets/(liabilities) during the year

USD million	1 January 2021	Recognised in profit or loss	Foreign currency translation	31 December 2021
Property, plant and equipment	(510)	33	11	(466)
Inventories	46	1	1	48
Trade and other receivables	10	12	–	22
Trade and other payables and advances received	24	(7)	–	17
Derivative financial assets/(liabilities)	2	(4)	–	(2)
Tax loss carry-forwards	173	(122)	3	54
Others	1	10	–	11
Total	**(254)**	**(77)**	**15**	**(316)**

USD million	1 January 2022	Recognised in profit or loss	Foreign currency translation	31 December 2022
Property, plant and equipment	(466)	(21)	5	(482)
Inventories	48	(47)	–	1
Trade and other receivables	22	(2)	–	20
Trade and other payables and advances received	17	1	–	18
Derivative financial assets/(liabilities)	(2)	2	–	–
Tax loss carry-forwards	54	73	2	129
Others	11	(69)	3	(55)
Total	**(316)**	**(63)**	**10**	**(369)**

Recognised tax losses expire in the following years:

Year of expiry	31 December 2022 USD million	31 December 2021 USD million
Without expiry	129	54
	129	**54**

(c) Unrecognised deferred tax

At 31 December 2022 and 2021 the Group has not recognized deferred tax in respect to temporary differences associated with investments in subsidiaries as the Group is able to control the timing of reversal of those investments and does not intend to reverse them in the foreseeable future.

At 31 December 2022 and 2021 the Group has not recognized deferred tax in respect to temporary differences associated with investments in associates and joint ventures as both distribution of dividends and profit on sales are non-taxable.

Deferred tax assets have not been recognised in respect of the following items:

	31 December 2022 USD million	31 December 2021 USD million
Deductible temporary differences	993	972
Tax loss carry-forwards	451	347
	1,444	**1,319**

Deferred tax assets have not been recognised in respect of these items because it is not probable that future taxable profits will be available against which the Group can utilise the benefits therefrom. Tax losses expire in the following years:

Year of expiry	31 December 2022 USD million	31 December 2021 USD million
Without expiry	448	347
From 6 to 10 years	3	–
	451	**347**

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

	31 December 2022 USD million	31 December 2021 USD million
Net income tax receivable at the beginning of the year	**(24)**	**4**
Income tax for the year	(310)	(339)
Income tax paid	358	307
Translation difference	18	4
	42	**(24)**
Represented by:		
Current tax liabilities (note 17(c))	(172)	(40)
Prepaid income tax	214	16
Net income tax (payable)/receivable	**42**	**(24)**

9 Directors' remuneration

Directors' remuneration disclosed pursuant to section 383(1) of the Hong Kong Companies Ordinance and Part 2 of the Companies (Disclosure of information about Benefits of Directors) Regulations are as follows:

Year ended 31 December 2022

	Directors' fees USD thousand	Salaries, allowances, benefits in kind USD thousand	Discretionary bonuses USD thousand	Total USD thousand
Executive Directors				
Evgenii Nikitin	–	1,670	1,286	**2,956**
Evgenii Vavilov	–	53	11	**64**
Evgeny Kuryanov	–	303	244	**547**
Non-executive Directors				
Marco Musetti	277	–	–	**277**
Vyacheslav Solomin (a)	139	–	–	**139**
Vladimir Kolmogorov	225	–	–	**225**
Independent Non-executive Directors				
Bernard Zonneveld (Chairman)	1,625	–	–	**1,625**
Christopher Burnham	274	–	–	**274**
Nicholas Jordan	143	–	–	**143**
Kevin Parker	297	–	–	**297**
Evgeny Svarts	269	–	–	**269**
Randolph Reynolds	266	–	–	**266**
Dmitry Vasiliev(b)	200	–	–	**200**
Anna Vasilenko (c)	269	–	–	**269**
Mikhail Khardikov(d)	143	–	–	**143**
Lyudmila Galenskaya(d)	123	–	–	**123**
	4,250	**2,026**	**1,541**	**7,817**

Year ended 31 December 2021

	Directors' fees	Salaries, allowances, benefits in kind	Discretionary bonuses	Total
	USD thousand	USD thousand	USD thousand	USD thousand
Executive Directors				
Evgenii Nikitin	–	1,433	992	**2,425**
Evgenii Vavilov	–	41	5	**46**
Evgeny Kuryanov	–	262	232	**494**
Non-executive Directors				
Marco Musetti	306	–	–	**306**
Vyacheslav Solomin	324	–	–	**324**
Vladimir Kolmogorov	259	–	–	**259**
Independent Non-executive Directors				
Bernard Zonneveld (Chairman)	1,562	–	–	**1,562**
Christopher Burnham	305	–	–	**305**
Nicholas Jordan	322	–	–	**322**
Elsie Leung Oi-Sie (e)	149	–	–	**149**
Kevin Parker	336	–	–	**336**
Evgeny Svarts	307	–	–	**307**
Randolph Reynolds	295	–	–	**295**
Dmitry Vasiliev	348	–	–	**348**
Anna Vasilenko (c)	151	–	–	**151**
	4,664	**1,736**	**1,229**	**7,629**

a. Vyacheslav Solomin resigned from his position as Non-executive Director in June 2022.

b. Dmitry Vasiliev resigned from his position as Non-executive Director in August 2022.

c. Anna Vasilenko was appointed as Independent Non-executive Directors in June 2021.

d. Mikhail Khardikov and Lyudmila Galenskaya were appointed as Independent Non-executive Directors in June 2022

e. Elsie Leung Oi-Sie resigned from her position as Independent Non-executive Director in June 2021.

The remuneration of the executive directors disclosed above includes compensation received starting from the date of the appointment and/or for the period until their termination as a member of the Board of Directors.

Executive directors remuneration for the year ended 31 December 2022 includes contributions to the state pension funds in the following amounts: Mr. Nikitin – USD286 thousand, Mr. Vavilov – USD7 thousand, Mr. Kuryanov – USD22 thousand. Executive directors remuneration for the year ended 31 December 2021 includes contributions to the state pension funds in the following amounts: Mr. Nikitin – USD225 thousand, Mr. Vavilov – USD8 thousand, Mr. Kuryanov – USD49 thousand.

10 Individuals with highest emoluments

	Year ended 31 December	
	2022	2021
	USD thousand	USD thousand
Salaries	21,926	16,601
Discretionary bonuses	16,871	11,833
Retirement scheme contributions	2,145	2,165
	40,942	**30,599**

The emoluments of individuals with the highest emoluments are within the following bands:

	Year ended 31 December	
	2022	2021
	Number of individuals	Number of individuals
HK$36,000,001-HK$36,500,000 (US$4,600,001 – US$4,700,000)	–	1
HK$38,000,001-HK$38,500,000 (US$4,800,001 – US$4,900,000)	–	1
HK$39,000,001-HK$39,500,000 (US$4,900,001 – US$5,000,000)	–	1
HK$44,500,001-HK$45,000,000 (US$5,700,001 – US$5,800,000)	1	–
HK$47,500,001-HK$48,000,000 (US$6,000,001 – US$6,100,000)	1	–
HK$54,000,001-HK$54,500,000 (US$6,900,001 – US$7,000,000)	1	–
HK$56,500,001-HK$57,000,000 (US$7,200,001 – US$7,300,000)	–	1
HK$69,000,001-HK$69,500,000 (US$8,800,001 – US$8,900,000)	–	1
HK$73,000,001-HK$73,500,000 (US$9,300,001 – US$9,400,000)	1	–
HK$100,500,001-HK$101,000,000 (US$12,800,001 – US$12,900,000)	1	–

No emoluments have been paid to these individuals as an inducement to join or upon joining the Group or as compensation for loss of office during the years presented.

The remuneration for the years ended 31 December 2022 and 31 December 2021 includes contributions to the state pension funds.

11 Dividends

On 30 September 2022 the Board of Directors of the Company approved an interim dividend in the aggregate amount of USD304 million (USD0.02 per ordinary share) for the financial year ending 31 December 2022. The interim dividend was paid in cash in November 2022.

No dividends were declared and paid by the Company during the year ended 31 December 2021.

The Company is subject to external capital requirements (refer to note 22(f)).

12 Earnings per share

The calculation of earnings per share is based on the profit attributable to ordinary equity shareholders of the Company and the weighted average number of shares in issue during the years ended 31 December 2022 and 31 December 2021. Weighted average number of shares:

	Year ended 31 December	
	2022	2021
Issued ordinary shares at beginning of the year	15,193,014,862	15,193,014,862
Effect of treasury shares	–	–
Weighted average number of shares at end of the year	**15,193,014,862**	**15,193,014,862**
Profit for the year, USD million	1,793	3,225
Basic and diluted earnings per share, USD	**0.118**	**0.212**

There were no outstanding dilutive instruments during the years ended 31 December 2022 and 2021.

13 Property, plant and equipment and investment properties

Accounting policies

Property, plant and equipment

(i) Recognition and measurement

Items of property, plant and equipment are measured at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the asset to a working condition for its intended use, the costs of dismantling and removing the items and restoring the site on which they are located and capitalised borrowing costs. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

The cost of periodic relining of electrolysers is capitalised and depreciated over the expected production period.

Gains or losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognised net within gain/(loss) on disposal of property, plant and equipment in the statement of income.

(ii) Subsequent costs

The cost of replacing a part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in the statement of income as incurred.

(iii) Exploration and evaluation assets

Exploration and evaluation activities involve the search for mineral resources, the determination of technical feasibility and the assessment of commercial viability of an identified resource. Exploration and evaluation activities include:

- Researching and analysing historical exploration data;
- Gathering exploration data through topographical, geochemical and geophysical studies;
- Exploratory drilling, trenching and sampling;
- Determining and examining the volume and grade of the resource;
- Surveying transportation and infrastructure requirements; and
- Conducting market and finance studies.

Administration costs that are not directly attributable to a specific exploration area are charged to the statement of income.

License costs paid in connection with a right to explore in an existing exploration area are capitalised and amortised over the term of the permit.

Exploration and evaluation expenditure is capitalised as exploration and evaluation assets when it is expected that expenditure related to an area of interest will be recouped by future exploitation, sale, or, at the reporting date, the exploration and evaluation activities have not reached a stage that permits a reasonable assessment of the existence of commercially recoverable ore reserves. Capitalised exploration and evaluation expenditure is recorded as a component of property, plant and equipment at cost less impairment losses. As the asset is not available for use, it is not depreciated. All capitalised exploration and evaluation expenditure is monitored for indications of impairment. Where there are indicators of potential impairment, an assessment is performed for each area of interest in conjunction with the group of operating assets (representing a cash-generating unit) to which the exploration is attributed. Exploration areas at which reserves have been discovered but which require major capital expenditure before production can begin are continually evaluated to ensure that commercial quantities of reserves exist or to ensure that additional exploration work is underway or planned. To the extent that capitalised expenditure is not expected to be recovered it is charged to the statement of income.

Exploration and evaluation assets are transferred to mining property, plant and equipment or intangible assets when development is sanctioned.

(iv) Stripping costs

Expenditure relating to the stripping of overburden layers of ore, including estimated site restoration costs, is included in the cost of production in the period in which it is incurred.

However, to the extent the benefit is improved access to ore, the Group recognises these costs as a non-current asset, if only: (a) it is probable that the future economic benefit (improved access to the ore body) associated with the stripping activity will flow to the entity; (b) the entity can identify the component of the ore body for which access has been improved; and (c) the costs relating to the stripping activity associated with that component can be measured reliably.

(v) Mining assets

Mining assets are recorded as construction in progress and transferred to mining property, plant and equipment when a new mine reaches commercial production.

Mining assets include expenditure incurred for:

- Acquiring mineral and development rights;
- Developing new mining operations.

Mining assets include interest capitalised during the construction period, when financed by borrowings.

(vi) Depreciation

The carrying amounts of property, plant and equipment (including initial and any subsequent capital expenditure) are depreciated to their estimated residual value over the estimated useful lives of the specific assets concerned, or the estimated life of the associated mine or mineral lease, if shorter. Estimates of residual values and useful lives are reassessed annually and any change in estimate is taken into account in the determination of remaining depreciation charges. Leased assets are depreciated over the shorter of the lease term and their useful lives. Freehold land is not depreciated.

The property, plant and equipment is depreciated on a straight-line or units of production basis over the respective estimated useful lives as follows:

• Buildings	30 to 50 years;
• Plant, machinery and equipment	5 to 40 years;
• Electrolysers	4 to 15 years;
• Mining assets	Units of production on proven and probable reserves;
• Other (except for exploration and evaluation assets)	1 to 20 years.

On 1 January 2022, the Group revised the residual useful lives for items of property, plant and equipment that expire in the next 24 months, and the Group has plans to continue using them after that period. For the movables (machinery and equipment, other fixed assets), the useful lives were extended by an average of 2 years, for the immovables (buildings) – by an average of 5 years. In this regard, depreciation expenses for 2022 decreased by USD22 million.

The effect of the adjustment for the movables (machinery and equipment, other fixed assets) for the next 2 years amounts to USD21 million, the effect for the immovables (buildings) for the next 5 years amounts to USD1 million.

Investment properties

Investment properties is property held by the Group to earn rental income or for capital appreciation, or both, and is not occupied by the Group. Investment properties is measured initially at cost, including transaction costs. Subsequently investment properties is measured at historical cost less accumulated depreciation and impairment. If any indication exists that investment properties may be impaired, the Group estimates the recoverable amount as the higher of value in use and fair value less costs to sell. The carrying amount of investment properties is written down to its recoverable amount through a charge to profit or loss for the period. An impairment loss recognised in prior periods is reversed if there has been a subsequent change in the estimates used to determine the asset's recoverable amount. If an investment property becomes owner-occupied, it is reclassified to land and buildings.

Disclosures

USD million	Land and buildings	Machinery and equipment	Electro-lysers	Other	Mining assets	Construc-tion in progress	Total
Cost / deemed cost							
Balance at 1 January 2021	**3,735**	**6,760**	**2,868**	**268**	**467**	**2,248**	**16,346**
Additions	230	31	143	1	63	874	**1,342**
Acquired through business combination	8	6	–	1	–	–	**15**
Disposals	(54)	(71)	–	(1)	(1)	(6)	**(133)**
Transfers	121	431	35	(106)	9	(490)	**–**
Foreign currency translation	(19)	(15)	(14)	4	(9)	(8)	**(61)**
Balance at 31 December 2021	**4,021**	**7,142**	**3,032**	**167**	**529**	**2,618**	**17,509**
Balance at 1 January 2022	**4,021**	**7,142**	**3,032**	**167**	**529**	**2,618**	**17,509**
Additions	6	53	–	–	21	1,162	**1,242**
Acquired through business combination	8	19	–	10	–	–	**37**
Disposals	(12)	(61)	(16)	(2)	(122)	(8)	**(221)**
Transfers	106	313	295	14	5	(733)	**–**
Foreign currency translation	23	33	(13)	2	3	8	**56**
Balance at 31 December 2022	**4,152**	**7,499**	**3,298**	**191**	**436**	**3,047**	**18,623**
Accumulated depreciation and impairment losses							
Balance at 1 January 2021	**2,159**	**5,182**	**2,536**	**153**	**424**	**1,037**	**11,491**
Depreciation charge	108	313	164	3	29	–	**617**
Impairment loss/(reversal) of impairment loss	143	436	(15)	26	68	(474)	**184**
Disposals	(6)	(61)	–	(1)	–	–	**(68)**
Transfers	–	30	–	(30)	–	–	**–**
Foreign currency translation	(20)	(19)	(13)	1	(10)	(4)	**(65)**
Balance at 31 December 2021	**2,384**	**5,881**	**2,672**	**152**	**511**	**559**	**12,159**
Balance at 1 January 2022	**2,384**	**5,881**	**2,672**	**152**	**511**	**559**	**12,159**
Depreciation charge	106	237	169	4	2	–	**518**
Impairment loss/(reversal) of impairment loss	6	111	(4)	5	(87)	146	**177**
Disposals	(5)	(51)	(12)	(2)	(8)	–	**(78)**
Transfers	–	–	–	–	–	–	**–**
Foreign currency translation	5	16	(11)	1	2	5	**18**
Balance at 31 December 2022	**2,496**	**6,194**	**2,814**	**160**	**420**	**710**	**12,794**
Net book value							
At 31 December 2021	**1,637**	**1,261**	**360**	**15**	**18**	**2,059**	**5,350**
At 31 December 2022	**1,656**	**1,305**	**484**	**31**	**16**	**2,337**	**5,829**

Depreciation expense of USD465 million (2021: USD565 million) has been charged to cost of goods sold, USD4 million (2021: USD3 million) to distribution expenses and USD18 million (2021: USD21 million) to administrative expenses.

During the year ended 31 December 2022 interest expense of USD36 million was capitalised in the course of active construction at several projects. The average capitalisation rate was 6.47% (2021: USD7 million; 1.95%).

Included into land and buildings at 31 December 2022 is investment property of USD73 million. The amount at 31 December 2021 was USD72 million.

Included into construction in progress at 31 December 2022 and 2021 are advances to suppliers of property, plant and equipment of USD133 million and USD157 million, respectively.

The carrying value of property, plant and equipment subject to lien under loan agreements was USD4 million as at 31 December 2022 (31 December 2021: USD29 million), refer to note 19.

(vii) Impairment

In accordance with the Group's accounting policies, each asset or cash generating unit is evaluated every reporting period to determine whether there are any indications of impairment. If any such indication exists, a formal estimate of recoverable amount is performed and an impairment loss recognised to the extent that the carrying amount exceeds the recoverable amount. The recoverable amount of an asset or cash generating group of assets is measured at the higher of fair value less costs to sell and value in use.

Fair value is determined as the amount that would be obtained from the sale of the asset in an arm's length transaction between knowledgeable and willing parties and is generally determined as the present value of the estimated future cash flows expected to arise from the continued use of the asset, including any expansion prospects, and its eventual disposal.

Value in use is also generally determined as the present value of the estimated future cash flows, but only 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), bauxite reserve estimate, operating costs, restoration and rehabilitation costs and future capital expenditure.

Bauxite reserves are estimates of the amount of product that can be economically and legally extracted from the Group's properties. In order to calculate reserves, estimates and assumptions are required about a range of geological, technical and economic factors, including quantities, grades, production techniques, recovery rates, production costs, transport costs, commodity demand, commodity prices and exchange rates. The Group determines ore reserves under the Australasian Code for Reporting of Mineral Resources and Ore Reserves September 1999, known as the JORC Code. The JORC Code requires the use of reasonable investment assumptions to calculate reserves.

Management identified that significant increase of aluminium prices as a result of LME appreciation indicated that for a number of Group's cash-generating units previously recognised impairment loss may require reversal. At the same time due to significant increase of oil and gas prices and overall market instability impairment loss may be recognised for a number of cash-generating units. For alumina cash generating units, major influence was from unfavourable dynamics in prices of energy resources being a significant part of cash cost.

Based on results of impairment testing as at 31 December 2022, management has concluded that an impairment loss relating to property, plant and equipment of Sayanal and PGLZ in the amount of USD85 million should be recognised in these consolidated financial statements.

Based on results of impairment testing as at 31 December 2021, management has concluded that a reversal of previously recognised impairment loss relating to property, plant and equipment should be recognised in these consolidated financial statements in respect of KAZ, VgAZ, Kubal and Taishet aluminium smelters (the latter aluminium smelter under construction) in the amount of USD699 million. Additionally management concluded that at the same date an impairment loss relating to property, plant and equipment of Mykolaiv alumina refinery and Aughinish Alumina in the amount of USD693 million should be recognised in these consolidated financial statements.

For the purposes of impairment testing the recoverable amount of each cash generating unit was determined by discounting expected future net cash flows of the cash generating unit. Assumptions used to determine the recoverable amount of the cash generating units are the same as disclosed in note 14(vi). Values assigned to key assumptions and estimates used to measure the units' recoverable amount was based on external sources of information and historic data. Management believes that the values assigned to the key assumptions and estimates represented the most realistic assessment of future trends. The pre-tax discount rates applied to the above mentioned cash generating units, estimated in nominal terms based on an industry weighted average cost of capital, are presented in the table below.

	Year ended 31 December	
	2022	**2021**
Taishet aluminium smelter	16.0%	11.2%
RUSAL Sayanal	14.3%	20.0%
PGLZ	14.3%	13.0%

The recoverable amount of a number of the cash generating units tested for impairment are particularly sensitive to changes in forecast aluminium and alumina prices, foreign exchange rates and applicable discount rates.

The results of impairment testing of Taishet aluminium smelter are particularly sensitive to the following key assumptions:

- Five percent reduction in the projected aluminium price level will result in a decrease in the recoverable amount of Taishet aluminium smelter and will lead to an additional impairment in the total amount of USD323 million;
- One percent increase in the discount rate applied will result in a decrease in the recoverable amount of Taishet aluminium smelter and will lead to an additional impairment in the total amount of USD161 million.

Additionally, management identified specific items of property, plant and equipment that are no longer in use and therefore are not considered to be recoverable amounting to USD99 million at 31 December 2022 (2021: USD190 million). These assets have been impaired in full. No further impairment of property, plant and equipment or reversal of previously recorded impairment was identified by management.

(viii) Leases

The Group assesses whether a contract is or contains a lease based on whether the contract conveys a right to control the use of an identified asset for a period of time in exchange for consideration. At inception or on reassessment or modification of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease and non-lease component on the basis of their relative stand-alone prices. However, for the leases of properties in which Group acts as a lessee, the Group does not separate non-lease components and account for the lease and non-lease components as a single lease component.

The Group applies judgement to determine the lease term for some lease contracts in which it is a lessee that include renewal options, the assessment of whether the Group is reasonably certain to exercise such options impacts the lease term, which significantly affects the amount of lease liabilities and right-of-use assets recognised.

In determining the enforceable period (i.e. the maximum lease term), the Group considers whether both it and the lessor has a right to terminate the lease without permission from the other party and, if so, whether that termination would result in more than an insignificant penalty. If a more than insignificant penalty exists, then the enforceable period extends until the point at which a no more than an insignificant penalty exists.

The Group leases many assets, including land, properties and production equipment. The Group recognises a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost and subsequently measured at cost less any accumulated depreciation and impairment losses and adjusted for certain remeasurements of the lease liability as required by IFRS 16.

The cost comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case the right-of-use asset is depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The Group presents right-of-use assets as part of property plant and equipment, the same line item as it presents underlying assets of the same nature that it owns. Additions to right-of-use assets were in the amount of USD33 million during the year ended 31 December 2022 (31 December 2021: USD22 million). The carrying amounts of right-of-use assets are presented below.

	Property, plant and equipment		
USD million	**Land and buildings**	**Machinery and equipment**	**Total**
Balance at 1 January 2022	11	11	**22**
Balance at 31 December 2022	11	22	**33**

Total depreciation charges related to the right-of-use assets for the year ended 31 December 2022 amount to USD14 million (31 December 2021: USD13 million).

USD(2) million of impaired right-of-use assets have been reversed during the year ended 31 December 2022 (31 December 2021: USD15 million impaired). The Group's total cash outflow for leases was in the amount of USD17 million for the year ended 31 December 2022 (31 December 2021: USD20 million).

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate. Generally, the Group uses its incremental borrowing rate as the discount rate.

In accordance with IFRS 16 variable payments which do not depend on index or rate, e.g. which do not reflect changes in market rental rates, should not be included in the measurement of lease liability. In respect of municipal or federal land leases where lease payments are based on cadastral value of the land plot and do not change until the next revision of that value or the applicable rates (or both) by the authorities, the Group has determined that, under the current revision mechanism, the land lease payments cannot be considered as either variable that depend on index or rate or in-substance fixed, and therefore these payments are not included in the measurement of the lease liability. Future cash outflows to which the Group is potentially exposed that are not recognised in right-to-use assets and are not reflected in the measurement of lease liabilities and which arise from variable lease payments not linked to index or rate are in the amount of USD57 million as at 31 December 2022 (31 December 2021: USD63 million).

The lease liability is subsequently increased by the interest cost on the lease liability and decreased by lease payment made. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, a change in the estimate of the amount expected to be payable under a residual value guarantee, or as appropriate, changes in the assessment of whether a purchase or extension option is reasonably certain to be exercised or a termination option is reasonably certain not to be exercised.

The Group presents lease liabilities as part of other payables and other non-current liabilities in the statement of financial position depending on the period to which future lease payments relate. Total non-current part of lease liabilities as at 31 December 2022 amounted to USD27 million (31 December 2021: USD35 million).

Total interest costs on leases recognised for the year ended 31 December 2022 amount to USD4 million (31 December 2021: USD5 million).

The Group does not recognise right-of-use assets and lease liabilities for some leases of low-value assets and short-term leases. The Group recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term. The expense relating to short-term and low-value leases in the amount of USD25 million is included in cost of sales or administrative expenses depending on type of underlying asset for the year ended 31 December 2022 (31 December 2021: USD15 million).

When the Group is an intermediate lessor the sub-leases are classified with reference to the right-of the use asset arising from the head lease, not with reference to the underlying asset.

14 Intangible assets

Accounting policies

(i) Goodwill

On the acquisition of a subsidiary, an interest in a joint venture or an associate or an interest in a joint arrangement that comprises a business, the identifiable assets, liabilities and contingent liabilities of the acquired business (or interest in a business) are recognised at their fair values unless the fair values cannot be measured reliably. Where the fair values of assumed contingent liabilities cannot be measured reliably, no liability is recognised but the contingent liability is disclosed in the same manner as for other contingent liabilities.

The Group accounts for business combinations using the acquisition method when the acquired set of activities and assets meets the definition of a business and control is transferred to the Group. In determining whether a particular set of activities and assets is a business, the Group assesses whether the set of assets and activities acquired includes, at a minimum, an input and substantive process and whether the acquired set has the ability to produce outputs.

The Group has an option to apply a ‘concentration test’ that permits a simplified assessment of whether an acquired set of activities and assets is not a business. The optional concentration test is met if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets. If concentration test is met the acquired set of activities and assets is not a business.

Business combinations are accounted for using the acquisition method as at the acquisition date, which is the date on which control is transferred to the Group.

Goodwill arises when the cost of acquisition exceeds the fair value of the Group’s interest in the net fair value of identifiable net assets acquired. The Group measures goodwill at the acquisition date as the fair value of the consideration transferred plus the recognised amount of any non-controlling interests in the acquiree less the net recognised amount (generally fair value) of the identifiable assets acquired and liabilities assumed. The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognised in profit or loss. Transaction costs, other than those associated with the issue of debt or equity securities, that the Group incurs in connection with a business combination are expensed as incurred.

Goodwill is not amortised but is tested for impairment annually. For this purpose, goodwill arising on a business combination is allocated to the cash-generating units expected to benefit from the acquisition and any impairment loss recognised is not reversed even where circumstances indicate a recovery in value.

When the fair value of the Group’s share of identifiable net assets acquired exceeds the cost of acquisition, the difference is recognised immediately in the statement of income.

In respect of associates or joint ventures, the carrying amount of goodwill is included in the carrying amount of the interest in the associate and joint venture and the investment as a whole is tested for impairment whenever there is objective evidence of impairment. Any impairment loss is allocated to the carrying amount of the interest in the associate and joint venture.

(ii) Research and development

Expenditure on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, is recognised in the statement of income when incurred.

Development activities involve a plan or design for the production of new or substantially improved products and processes. Development expenditure is capitalised only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable and the Group intends to and has sufficient resources to complete development and to use or sell the asset. The expenditure capitalised includes the cost of materials, direct labour and overhead costs that are directly attributable to preparing the asset for its intended use and capitalised borrowing costs. Other development expenditure is recognised in the statement of income when incurred.

Capitalised development expenditure is measured at cost less accumulated amortisation and accumulated impairment losses.

(iii) Other intangible assets

Other intangible assets that are acquired by the Group, which have finite useful lives, are measured at cost less accumulated amortisation and accumulated impairment losses.

(iv) Subsequent expenditure

Subsequent expenditure is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, is recognised in the statement of income when incurred.

(v) Amortisation

Amortisation is recognised in the statement of income on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill, from the date that they are available for use. The estimated useful lives are as follows:

- Software 5 years;
- Other 2-8 years.

The amortisation method, useful lives and residual values are reviewed at each financial year end and adjusted if appropriate.

Disclosures

	Goodwill	Other intangible assets	Total
	USD million	USD million	USD million
Cost			
Balance at 1 January 2021	**2,722**	**561**	**3,283**
Additions	2	28	**30**
Disposals	–	(2)	**(2)**
Foreign currency translation	(6)	3	**(3)**
Balance at 31 December 2021	**2,718**	**590**	**3,308**
Balance at 1 January 2022	**2,718**	**590**	**3,308**
Additions	135	37	**172**
Disposals	–	(5)	**(5)**
Foreign currency translation	30	9	**39**
Balance at 31 December 2022	**2,883**	**631**	**3,514**
Amortisation and impairment losses			
Balance at 1 January 2021	**(449)**	**(427)**	**(876)**
Amortisation charge	–	(7)	**(7)**
Disposals	–	–	**–**
Impairment loss	–	(14)	**(14)**
Balance at 31 December 2021	**(449)**	**(448)**	**(897)**
Balance at 1 January 2022	**(449)**	**(448)**	**(897)**
Amortisation charge	–	(16)	**(16)**
Disposals	–	4	**4**
Impairment loss	–	–	**–**
Balance at 31 December 2022	**(449)**	**(460)**	**(909)**
Net book value			
At 31 December 2021	**2,269**	**142**	**2,411**
At 31 December 2022	**2,434**	**171**	**2,605**

The amortisation charge is included in cost of sales in the consolidated statement of income.

Goodwill recognised in these consolidated financial statements as at 31 December 2022 initially arose on the formation of the Group in 2000-2003. The amount of goodwill was principally increased in 2007 as a result of the acquisition of certain businesses of SUAL Partners and Glencore.

(vi) Impairment

For the purposes of impairment testing, the entire amount of goodwill is allocated to the aluminium segment of the Group's operations. The aluminium segment represents the lowest level within the Group at which the goodwill is monitored for internal management purposes. The recoverable amount represents value in use as determined by discounting the future cash flows generated from the continuing use of the plants within the Group's aluminium segment.

Similar considerations to those described above in respect of assessing the recoverable amount of property, plant and equipment apply to goodwill.

At 31 December 2022, management analysed changes in the economic environment and developments in the aluminium industry and the Group's operations since 31 December 2021 and performed an impairment test for goodwill at 31 December 2022 using the following assumptions to determine the recoverable amount of the segment:

- Total production was estimated based on average sustainable production levels of 3.8 million metric tonnes of primary aluminium, of 5.4 million metric tonnes of alumina and of 16.5 million metric tonnes of bauxite. Bauxite and alumina will be used primarily internally for production of primary aluminium;
- The aluminium and alumina prices were based on the long-term aluminium and alumina price outlook derived from available industry and market sources and were as follows:

	2023	**2024**	**2025**	**2026**	**2027**
Aluminium sales prices, based on the long-term aluminium price outlook, USD per tonne	2,422	2,512	2,588	2,606	2,571
Alumina sales prices, based on the long-term alumina price outlook, USD per tonne	324	331	341	349	360
Nominal foreign currency exchange rates, RUB per 1USD	70.5	71.9	73.3	75.4	76.9
Inflation in RUB	7.0%	7.0%	6.0%	5.0%	4.0%
Inflation in USD	4.3%	2.2%	1.9%	2.0%	2.0%

- Operating costs were projected based on the historical performance adjusted for inflation. Nominal foreign currency exchange rates applied to convert operating costs of the Group denominated in RUB into USD and inflation in RUB and USD assumed in determining recoverable amounts were as above;
- The pre-tax discount rate was estimated in nominal terms based on the weighted average cost of capital basis and was 17.5%;
- A terminal value was derived following the forecast period assuming a 2.0% annual growth rate.

Values assigned to key assumptions and estimates used to measure the units' recoverable amount were based on external sources of information and historic data. Management believes that the values assigned to the key assumptions and estimates represented the most realistic assessment of future trends. The results were particularly sensitive to the following key assumptions:

- A 5% reduction in the projected aluminium and alumina price levels would result in a decrease in the recoverable amount by 13% but would not lead to an impairment;
- A 5% increase in the projected level of electricity and alumina costs in the aluminium production would have resulted in a 6% decrease in the recoverable amount but would not lead to an impairment;
- A 1% increase in the discount rate would have resulted in a 8% decrease in the recoverable amount but would not lead to an impairment.

Based on results of impairment testing of goodwill, management concluded that no impairment should be recorded in the consolidated financial statements as at 31 December 2022.

At 31 December 2021, management analysed changes in the economic environment and developments in the aluminium industry and the Group's operations since 31 December 2020 and performed an impairment test for goodwill at 31 December 2021 using the following assumptions to determine the recoverable amount of the segment:

- Total production was estimated based on average sustainable production levels of 3.8 million metric tonnes of primary aluminium, of 8.4 million metric tonnes of alumina and of 16.7 million metric tonnes of bauxite. Bauxite and alumina will be used primarily internally for production of primary aluminium;
- The aluminium and alumina prices were based on the long-term aluminium and alumina price outlook derived from available industry and market sources and were as follows:

	2022	**2023**	**2024**	**2025**	**2026**
Aluminium sales prices, based on the long-term aluminium price outlook, USD per tonne	2,623	2,476	2,371	2,375	2,411
Alumina sales prices, based on the long-term alumina price outlook, USD per tonne	345	319	316	320	352
Nominal foreign currency exchange rates, RUB per 1USD	72.2	74.7	76.8	79.2	80.7
Inflation in RUB	6.6%	4.5%	3.6%	4.2%	3.3%
Inflation in USD	4.0%	2.1%	2.1%	2.0%	2.1%

- Operating costs were projected based on the historical performance adjusted for inflation. Nominal foreign currency exchange rates applied to convert operating costs of the Group denominated in RUB into USD and inflation in RUB and USD assumed in determining recoverable amounts were as above;
- The pre-tax discount rate was estimated in nominal terms based on the weighted average cost of capital basis and was 11.5%;
- A terminal value was derived following the forecast period assuming a 2.0% annual growth rate.

Values assigned to key assumptions and estimates used to measure the units' recoverable amount were based on external sources of information and historic data. Management believes that the values assigned to the key assumptions and estimates represented the most realistic assessment of future trends. The results were particularly sensitive to the following key assumptions:

- A 5% reduction in the projected aluminium and alumina price levels would result in a decrease in the recoverable amount by 18% but would not lead to an impairment;
- A 5% increase in the projected level of electricity and alumina costs in the aluminium production would have resulted in a 6% decrease in the recoverable amount but would not lead to an impairment;
- A 1% increase in the discount rate would have resulted in a 9% decrease in the recoverable amount but would not lead to an impairment.

Based on results of impairment testing of goodwill, management concluded that no impairment should be recorded in the consolidated financial statements as at 31 December 2021.

15 Interests in associates and joint ventures

Accounting policies

An associate is an entity in which the Group or Company has significant influence, but not control or joint control, over its management, including participation in the financial and operating policy decisions.

A joint venture is an arrangement whereby the Group or Company and other parties contractually agree to share control of the arrangement, and have rights to the net assets of the arrangement.

An investment in an associate or a joint venture is accounted for in the consolidated financial statements under the equity method, unless it is classified as held for sale (or included in a disposal group that is classified as held for sale). Under the equity method, the investment is initially recorded at cost, adjusted for any excess of the Group's share of the acquisition-date fair values of the investee's identifiable net assets over the cost of the investment (if any). Thereafter, the investment is adjusted for the post acquisition change in the Group's share of the investee's net assets and any impairment loss relating to the investment. Any acquisition-date excess over cost, the Group's share of the post-acquisition, post-tax results of the investees and any impairment losses for the year are recognised in the consolidated statement of income, whereas the Group's share of the post-acquisition post-tax items of the investees' other comprehensive income is recognised in the other comprehensive income, the Group's share of the post-acquisition results recorded directly in the statement of changes in equity is recognized in the consolidated statement of changes in equity as the share of other changes in equity of associate.

When the Group's share of losses exceeds its interest in the associate or the joint venture, the Group's interest is reduced to nil and recognition of further losses is discontinued except to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the investee.

Unrealised profits and losses resulting from transactions between the Group and its associates and joint venture are eliminated to the extent of the group's interest in the investee, except where unrealised losses provide evidence of an impairment of the asset transferred, in which case they are recognised immediately in profit or loss.

In accordance with the Group's accounting policies, each investment in an associate or joint venture is evaluated every reporting period to determine whether there are any indications of impairment after application of the equity method of accounting. If any such indication exists, a formal estimate of recoverable amount is performed and an impairment loss recognised to the extent that the carrying amount exceeds the recoverable amount. The recoverable amount of an investment in an associate or joint venture is measured at the higher of fair value less costs to sell and value in use.

Similar considerations to those described above in respect of assessing the recoverable amount of property, plant and equipment apply to investments in associates or joint venture. In addition to the considerations described above the Group may also assess the estimated future cash flows expected to arise from dividends to be received from the investment, if such information is available and considered reliable.

Disclosures

	31 December	
	2022	**2021**
	USD million	**USD million**
Balance at the beginning of the year	**4,014**	**3,822**
Group's share of profits	1,555	1,807
Group's share of equity transactions	–	129
Partial disposal of investment in associate	–	(313)
Dividends	(764)	(1,452)
Foreign currency translation	369	21
Balance at the end of the year	**5,174**	**4,014**
Goodwill included in interests in associates	2,404	2,300

The following list contains only the particulars of associates and joint ventures, all of which are corporate entities, which principally affected the results or assets of the Group.

Name of associate / joint venture	Place of incorporation and operation	Particulars of issued and paid up capital	Ownership interest: Group's effective interest	Ownership interest: Group's nominal interest	Principal activity
PJSC MMC Norilsk Nickel	Russian Federation	153,654,624 shares, RUB1 par value	26.39%	26.39%	Nickel and other metals production
Queensland Alumina Limited	Australia	2,212,000 shares, AUD2 par value	20%	20%	Production of alumina under a tolling agreement
BEMO project	Cyprus, Russian Federation	BOGES Limited, BALP Limited – 10,000 shares EUR1.71 each	50%	50%	Energy / Aluminium production

The summary of the consolidated financial statements of associates and joint ventures for the year ended 31 December 2022 is presented below:

	PJSC MMC Norilsk Nickel		Queensland Alumina Limited		BEMO project		Other joint ventures	
	Group share*	100%	Group share*	100%	Group share*	100%	Group share*	100%
Non-current assets	6,614	17,392	182	1,053	1,367	2,559	211	432
Current assets	2,218	8,403	27	163	201	391	88	175
Non-current liabilities	(2,517)	(9,539)	(92)	(495)	(808)	(1,616)	(98)	(195)
Current liabilities	(2,029)	(7,689)	(117)	(653)	(33)	(66)	(40)	(79)
Net assets	**4,286**	**8,567**	**–**	**68**	**727**	**1,268**	**161**	**333**

* *Groups share of assets and liabilities attributable to shareholders of the parent company.*

	PJSC MMC Norilsk Nickel		Queensland Alumina Limited		BEMO project		Other joint ventures	
	Group share*	100%	Group share*	100%	Group share*	100%	Group share*	100%
Revenue	4,454	16,876	110	550	678	1,356	133	266
Profit/(loss) from continuing operations	1,440	5,854	–	(20)	102	210	13	26
Other comprehensive income	336	920	–	(25)	29	56	4	11
Total comprehensive income	**1,776**	**6,774**	**–**	**(45)**	**131**	**266**	**17**	**37**

* *Groups share of profit/(loss) and other comprehensive income attributable to shareholders of the parent company.*

The summary of the consolidated financial statements of associates and joint ventures for the year ended 31 December 2021 is presented below:

	PJSC MMC Norilsk Nickel		Queensland Alumina Limited		BEMO project		Other joint ventures	
	Group share*	100%	Group share*	100%	Group share*	100%	Group share*	100%
Non-current assets	5,590	13,565	185	933	1,362	2,548	214	433
Current assets	2,605	9,870	34	176	152	293	61	122
Non-current liabilities	(2,788)	(10,564)	(103)	(448)	(862)	(1,724)	(90)	(180)
Current liabilities	(2,133)	(8,083)	(116)	(580)	(57)	(115)	(40)	(81)
Net assets	**3,274**	**4,788**	**–**	**81**	**595**	**1,002**	**145**	**294**

* *Groups share of assets and liabilities attributable to shareholders of the parent company.*

	PJSC MMC Norilsk Nickel		Queensland Alumina Limited		BEMO project		Other joint ventures	
	Group share*	100%	Group share*	100%	Group share*	100%	Group share*	100%
Revenue	4,711	17,852	111	555	487	974	133	266
Profit/(loss) from continuing operations	1,762	6,974	–	(30)	58	97	(13)	49
Other comprehensive income	24	98	–	(5)	(3)	(7)	–	(3)
Total comprehensive income	**1,786**	**7,072**	**–**	**(35)**	**55**	**90**	**(13)**	**46**

* *Groups share of profit/(loss) and other comprehensive income attributable to shareholders of the parent company.*

(i) PJSC MMC Norilsk Nickel

In 2021 the Group has participated in the repurchase of Norilsk Nickel shares to raise additional funds to finance its own investment programme. The Group sold 3,691,465 shares for RUB27,780 per share, with the aggregate consideration of USD1,418 million. The carrying value of the shares sold amounted to USD313 million, and USD613 million of currency translation reserve attributed to the shares sold was reclassified to profit/(loss) for the period, resulting in net gain of USD492 million recognised in the consolidated statement of income. The effective interest in Norilsk Nickel held by the Group after the transaction comprised 26.39%, the average effective interest for the year 2021 was 27.11%.

The Group's investment in Norilsk Nickel is accounted for using equity method and the carrying value as at 31 December 2022 and 31 December 2021 amounted USD4,286 million and USD3,274 million, respectively. The Group's share of profit of Norilsk Nickel was USD1,440 million, the foreign currency translation gain was USD336 million for the year ended 31 December 2022.

As at 31 December 2020 Group's associate PJSC MMC Norilsk Nickel recognized a liability on the execution of a put option held by owners of 13.3% non-controlling interest in the share capital in LLC "GRK "Bystrinskoye" in the amount of USD428 million. Since the non-controlling interest owners did not exercise their right under the put option before its expiry date of 31 December 2021, PJSC MMC Norilsk Nickel derecognised the liability on the execution of the put option as at 31 December 2021. PJSC MMC Norilsk Nickel recorded derecognition of the liability directly in the consolidated statement of changes in equity as Other effects related to transactions with non-controlling interest owners in the amount of USD490 million, which was its fair value at 31 December 2021 immediately before derecognition. The Group recognized its share of this change of interest in the net assets of the associate directly in the consolidated statement of changes in equity as Share of other effects of associate recognized in the equity in the amount USD129 million.

The fair value of the investment amounted USD8,775 million and USD12,395 million as at 31 December 2022 and 31 December 2021, respectively, and is determined by multiplying the quoted bid price per share on the Moscow Exchange on the year-end date by the number of shares held by the Group.

(ii) Queensland Alumina Limited ("QAL")

The carrying value of the Group's investment in Queensland Alumina Limited as at both 31 December 2022 and 31 December 2021 amounted to USD nil million. At 31 December 2022 management has not identified any impairment reversal indicators relating to the Group's investment in QAL and as a result no detailed impairment testing was performed in relation to this investment.

(iii) BEMO project

The carrying value of the Group's investment in BEMO project as at 31 December 2022 and 31 December 2021 amounted USD727 million and USD595 million, respectively.

For the purposes of impairment testing, the BEMO project was separated into two cash generating units – the Boguchansky Aluminium Smelter ("BoAZ') and the Boguchansky Hydro Power Plant ("BoGES"). The recoverable amount was determined by discounting the expected future net cash flows of each cash generating unit.

At 31 December 2022 management has not identified any impairment indicators relating to the Group's investment in BoGES as well as any impairment reversal indicators relating to investments in BoAZ and as a result no detailed impairment testing was performed in relation to this investment.

At 31 December 2022, accumulated losses of USD73 million (2021: USD51 million) related to BoAZ have not been recognised because the Group's investment has already been fully written down to USD nil million.

Summary of the additional financial information of the Group's effective interest in BEMO project for the year ended 31 December 2022 and 31 December 2021 is presented below (all in USD million):

	31 December 2022 USD million	31 December 2021 USD million
Cash and cash equivalents	78	32
Current financial liabilities	(1)	(25)
Non-current financial liabilities	(633)	(770)
Depreciation and amortisation	(66)	(53)
Interest income	3	1
Interest expense	(6)	(13)
Income tax expense	(25)	(14)

16 Inventories

Accounting policies

Inventories are measured at the lower of cost or net realisable value. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

The cost of inventories is determined under the weighted average cost method, and includes expenditure incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. In the case of manufactured inventories and work in progress, cost includes an appropriate share of production overheads based on normal operating capacity.

The production costs include mining and concentrating costs, smelting, treatment and refining costs, other cash costs and depreciation and amortisation of operating assets.

The Group recognises write-downs of inventories based on an assessment of the net realisable value of the inventories. A write-down is applied to the inventories where events or changes in circumstances indicate that the net realisable value is less than cost. The determination of net realisable value requires the use of judgement and estimates. Where the expectation is different from the original estimates, such difference will impact the carrying value of the inventories and the write-down of inventories charged to the statement of income in the periods in which such estimate has been changed.

Disclosures

	31 December 2022 USD million	31 December 2021 USD million
Raw materials and consumables	1,542	1,363
Work in progress	906	779
Finished goods and goods held for resale	2,041	1,550
	4,489	**3,692**

Inventories at 31 December 2022 and 31 December 2021 are stated at net realizable value.

There are no inventories pledge at 31 December 2022. Inventory with a carrying value of USD781 million was pledged under existing trading contracts at 31 December 2021.

The analysis of the amount of inventories recognised as an expense is as follows:

	Year ended 31 December	
	2022	2021
	USD million	USD million
Carrying amount of inventories sold	10,433	8,182
Write off of inventories	(171)	(28)
	10,262	**8,154**

17 Non-derivative financial instruments

Accounting policies

Non-derivative financial instruments comprise investments in securities, trade and other receivables (excluding prepayments and tax assets), cash and cash equivalents, loans and borrowings and trade and other payables (excluding advances received and tax liabilities).

Non-derivative financial instruments except for trade and other receivables are recognised initially at fair value plus any directly attributable transaction costs. Trade and other receivables are recognised at transaction price.

(i) Non-derivative financial assets

A financial instrument is recognised when the Group becomes a party to the contractual provisions of the instrument. Financial assets are derecognised if the Group's contractual rights to the cash flows from the financial assets expire or if the Group transfers the financial asset to another party without retaining control or substantially all risks and rewards of the asset. Financial assets and financial liabilities are offset and the net amount is reported in the consolidated statement of financial position if there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, to realise the assets and settle the liabilities simultaneously.

(ii) Non-derivative financial liabilities

The Group initially recognises debt securities issued and liabilities on the date that they are originated. All other financial liabilities are recognised initially on the trade date at which the Group becomes a party to the contractual provisions of the instrument.

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled or expire.

IFRS 9 *Financial Instruments* sets out requirements for recognising and measuring financial assets, financial liabilities and some contracts to buy or sell non-financial items. The details of significant accounting policies are set out below.

Classification and measurement of financial assets and financial liabilities

IFRS 9 contains such classification and measurement approach for financial assets that reflects their cash flow characteristics and the business model in which assets are managed.

IFRS 9 contains three principal classification categories for financial assets: measured at amortised cost, fair value through other comprehensive income ("FVOCI") and fair value through profit or loss ("FVTPL"). The classification of financial assets under IFRS 9 is generally based on its contractual cash flow characteristics and on the business model in which a financial asset is managed. Under IFRS 9, derivatives embedded in contracts where the host is a financial asset in the scope of the standard are never bifurcated. Instead, the hybrid financial instrument as a whole is assessed for classification.

The Group's financial assets mostly fall within category of financial assets measured at amortised cost. The only exception is derivative financial assets measured at fair value through profit or loss (note 21), cash flow hedges accounted through other comprehensive income (note 21) and other investments measured at fair value through profit or loss (note 17(g)). The Group's financial liabilities fall within category of financial assets measured at amortised cost.

Disclosures

As 31 December 2022 the Group presented non-derivative financial and non-financial assets and liabilities separately. Balances for 31 December 2021 were presented respectively for comparative purposes.

(a) Trade and other receivables

	31 December 2022 USD million	31 December 2021 USD million
Trade receivables from third parties	1,067	757
Impairment loss on trade receivables	(75)	(17)
Net trade receivables from third parties	**992**	**740**
Trade receivables from related parties, including:	**94**	**184**
Related parties – companies capable of exerting significant influence	*45*	*105*
Impairment loss on trade receivables from related parties – companies capable of exerting significant influence	*–*	*(1)*
Net trade receivables from related parties – companies capable of exerting significant influence	45	104
Related parties – companies related through parent company	48	64
Related parties – associates and joint ventures	1	16
Other receivables from third parties	211	163
Impairment loss on other receivables	(16)	(71)
Net other receivables from third parties	**195**	**92**
Other receivables from related parties, including:	**5**	**3**
Related parties – companies related through parent company	*28*	*22*
Impairment loss on other receivables from related parties – companies related through parent company	*(23)*	*(19)*
Net other receivables to related parties – companies related through parent company	5	3
	1,286	**1,019**

All of the trade and other receivables are expected to be settled within one year or are repayable on demand.

(i) Ageing analysis

Included in trade and other receivables are trade receivables (net of loss allowance for expected credit losses) with the following ageing analysis as of the reporting dates:

	31 December 2022 USD million	31 December 2021 USD million
Current (not past due)	**890**	**896**
1-30 days past due	122	16
31-60 days past due	42	–
61-90 days past due	1	1
More than 90 days past due	31	11
Amounts past due	**196**	**28**
	1,086	**924**

Ageing analysis is performed based on number of days receivable is overdue. Trade receivables are on average due within 60 days from the date of billing. The receivables that are neither past due nor impaired (i.e. current) relate to a wide range of customers for whom there was no recent history of default.

Receivables that were past due but not impaired relate to a number of customers that have a good track record with the Group. The Group does not hold any collateral over these balances. Further details of the Group's credit policy are set out in note 22(e).

(ii) Impairment of trade receivables

Under IFRS 9, loss allowances are measured on either of the following bases:

- *12-month ECLs*: these are ECLs that result from possible default events within the 12 months after the reporting date; and
- *Lifetime ECLs*: these are ECLs that result from all possible default events over the expected life of a financial instrument.

The Group measures loss allowances at an amount equal to lifetime ECLs, except for bank balances and loans and borrowings for which credit risk (i.e. the risk of default occurring over the expected life of the financial instrument) has not increased significantly since initial recognition. The Group measures loss allowances for trade receivables at an amount equal to lifetime ECLs.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's historical experience and informed credit assessment and including forward-looking information.

The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due.

The Group considers a financial asset to be in default when:

- The borrower is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held); or
- The financial asset is more than 90 days past due, but additional analysis is conducted for each such receivable and assessment is updated accordingly.

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Group expects to receive). ECLs are discounted at the effective interest rate of the financial asset in case of long-term assets.

At each reporting date, the Group assesses whether financial assets carried at amortised cost are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Loss allowances for financial assets measured at amortised cost are deducted from the gross carrying amount of the assets. Impairment losses related to trade and other receivables are presented as part of net other operating expenses.

The following analysis provides further detail about the calculation of ECLs related to trade receivables. The Group uses an allowance matrix to measure the ECLs of trade receivables from the customers. Loss rates are calculated using a 'roll rate' method based on the probability of a receivable progressing through successive stages of delinquency to write-off. The ECLs were calculated based on actual credit loss experience over the past two years. The Group performed the calculation of ECL rates separately for the customers of each key trading company of the Group. Exposures within each trading company were not further segmented except for individually significant customers which bear specific credit risk depending on the repayment history of the customer and relationship with the Group.

The following table provides information about determined ECLs rates for trade receivables both as at 1 January 2022 and 31 December 2022.

	Weighted-average loss rate		
	31 December 2022	**1 January 2022**	**Credit-impaired**
Current (not past due)	1%	1%	No
1-30 days past due	10%	18%	No
31-60 days past due	50%	45%	No
61-90 days past due	48%	52%	No
More than 90 days past due	38%	63%	Yes

The group directly reduce the gross carrying amount of trade receivable when there is no reasonable expectations of recovering a financial assets in its entirety or a portion thereof.

The movement in the allowance for credit losses during the period is as follows:

	Year ended 31 December	
	2022	**2021**
	USD million	**USD million**
Balance at the beginning of the year	**(18)**	**(24)**
(Impairment loss recognised) / reversal of impairment	(57)	7
Uncollectible amounts written off	–	(1)
Balance at the end of the year	**(75)**	**(18)**

(b) Prepayments and input VAT

	31 December 2022	**31 December 2021**
	USD million	**USD million**
VAT recoverable	509	382
Impairment loss on VAT recoverable	(60)	(25)
Net VAT recoverable	**449**	**357**
Advances paid to third parties	297	118
Impairment loss on advances paid	(9)	(1)
Net advances paid to third parties	**288**	**117**
Advances paid to related parties, including:	**2**	**110**
Related parties – companies related through parent company	2	1
Related parties – associates and joint ventures	87	109
Impairment loss on advances paid from related parties – associates and joint ventures	(87)	–
Net advances paid to related parties – associates and joint ventures	–	109
Prepaid expenses	**7**	**8**
Prepaid other taxes	**17**	**19**
	763	**611**

(c) Trade and other payables

	31 December 2022 USD million	31 December 2021 USD million
Accounts payable to third parties	**865**	**742**
Accounts payable to related parties, including:	**175**	**154**
Related parties – companies capable of exerting significant influence	6	6
Related parties – companies related through parent company	61	51
Related parties – associates and joint ventures	108	97
Other payables and accrued liabilities to third parties	**224**	**171**
Other payables and accrued liabilities to related parties, including:	**3**	**4**
Related parties – companies related through parent company	3	4
Current tax liabilities	**172**	**40**
	1,439	**1,111**

All of the trade and other payables are expected to be settled or recognised as income within one year or are repayable on demand.

Included in trade and other payables are trade payables with the following ageing analysis as at the reporting date. Ageing analysis is performed based on number of days payable overdue.

	31 December 2022 USD million	31 December 2021 USD million
Current	**906**	**738**
Past due 0-90 days	99	139
Past due 91-120 days	2	2
Past due over 120 days	33	17
Amounts past due	**134**	**158**
	1,040	**896**

Lease liabilities that are expected to be settled within one year for the amount of USD21 million are included in other payables and accrued liabilities as at 31 December 2022 (31 December 2021: USD8 million).

(d) Advances received

	31 December 2022 USD million	31 December 2021 USD million
Advances received	**223**	**1,115**
Advances received from related parties, including:	**14**	**1**
Related parties – companies related through parent company	1	1
Related parties – associates and joint ventures	13	–
	237	**1,116**

Advances received represent contract liabilities to perform obligations under contracts with customers. Advances received are short-term and revenue in respect of the contract liabilities recognized as at the reporting date is fully recognized during next twelve months.

(e) Cash and cash equivalents

	31 December 2022 USD million	31 December 2021 USD million
Bank balances, USD	116	549
Bank balances, RUB	1,390	167
Bank balances, EUR	79	83
Bank balances, CNY	110	–
Bank balances, other currencies	20	74
Cash in transit	17	–
Short-term bank deposits, USD	700	830
Short-term bank deposits, RUB	17	270
Short-term bank deposits, EUR	89	5
Short-term bank deposits, CNY	626	–
Other cash equivalents	29	4
Cash and cash equivalents in the consolidated statement of cash flows	**3,193**	**1,982**
Restricted cash	3	2
	3,196	**1,984**

As at 31 December 2022 and 31 December 2021 included in cash and cash equivalents was restricted cash of USD3 million and USD2 million, respectively.

(f) Other non-current assets

	31 December 2022 USD million	31 December 2021 USD million
Long-term deposits	121	137
Prepayment for subsidiary acquisition	–	73
Other non-current assets	181	35
	302	**245**

(g) Investments in equity securities measured at fair value through profit and loss

During the year 2022 the Group continued to acquire equity securities of RusHydro, 10,893,422,000 shares were bought for a total consideration USD113 million, at the 31 December 2022 RUSAL's investment amounted to 42,320,119,466 shares or 9.7% of RusHydro. Investment is treated as equity securities measured at fair value through profit and loss.

Fair value is estimated in accordance with Level 1 of the fair value hierarchy. The market value was determined by multiplying the quoted bid price per share on the Moscow Exchange on reporting date by the number of shares held by the Group.

(h) Short-term investments

Primarily consist of short-term bank deposits and promissory notes of the company under common control.

(i) Fair value measurement

Management believes that the fair values of financial assets and liabilities approximate their carrying amounts.

18 Equity

(a) Share capital

	31 December 2022		31 December 2021	
	USD	Number of shares	USD	Number of shares
Ordinary shares at the end of the year, authorised	200 million	20 billion	200 million	20 billion
Ordinary shares at 1 January	151,930,148	15,193,014,862	151,930,148	15,193,014,862
Ordinary shares at the end of the year of USD0.01 each, issued and paid	**151,930,148**	**15,193,014,862**	**151,930,148**	**15,193,014,862**

(b) Other reserves

Other reserves include the amounts related to: effect of transaction of reorganization under common control, cumulative unrealised actuarial gains and losses on the Group's defined post retirement benefit plans, the effective portion of the accumulative net change in fair value of cash flow hedges and the Group's share of other comprehensive income of associates.

(c) Distributions

Following Company's redomiciliation in September 2020 (note 1(a)), the Company may distribute dividends from retained earnings and profit for the reporting period in compliance with the current legislation of the Russian Federation and the provisions of its Charter.

(d) Currency translation reserve

The currency translation reserve comprises all foreign exchange differences arising from the translation of the consolidated financial statements of foreign subsidiaries and equity accounted investees. The reserve is dealt with in accordance with the accounting policies set out in note 3(f).

(e) Movement in components of equity within the Company

USD million	Share capital	Reserves	Total
Balance at 1 January 2021	**152**	**16,528**	**16,680**
Profit for the year	–	2,368	**2,368**
Balance at 31 December 2021	**152**	**18,896**	**19,048**
Balance at 1 January 2022	**152**	**18,896**	**19,048**
Loss for the year	–	(329)	**(329)**
Dividends	–	(304)	**(304)**
Balance at 31 December 2022	**152**	**18,263**	**18,415**

19 Loans and borrowings

This note provides information about the contractual terms of the Group's loans and borrowings. For more information about the Group's exposure to interest rate and foreign currency risk refer to notes 22(c)(ii) and 22(c)(iii), respectively.

	31 December 2022 USD million	31 December 2021 USD million
Non-current liabilities		
Secured bank loans	2,876	3,490
Unsecured bank loans	815	33
Bonds	3,219	1,316
	6,910	**4,839**
Current liabilities		
Secured bank loans	745	343
Unsecured bank loans	385	380
Bonds	1,348	1,118
Accrued interest	69	53
	2,547	**1,894**

(a) Loans and borrowings

Terms and debt repayment schedule as at 31 December 2022

	Total USD million	2023 USD million	2024 USD million	2025 USD million	2026 USD million	2027 USD million	2028-2035 USD million
Secured bank loans							
Variable							
USD – 3M Libor + 3.0%	**2,100**	–	180	423	559	938	–
USD – 3M Libor + 2.1%	**718**	359	359	–	–	–	–
USD 3M Libor + 1.7%	**125**	100	25	–	–	–	–
RUB KeyRate + 1.9%	**254**	–	–	–	–	254	–
RUB KeyRate + 3.15%	**140**	3	11	2	2	3	119
Fixed							
RUB 11%	**284**	284	–	–	–	–	–
	3,621	**746**	**575**	**425**	**561**	**1,195**	**119**
Unsecured bank loans							
Variable							
EUR – 6M Euribor + (0.45%-0.67%)	**40**	6	7	7	6	5	9
Fixed							
CNY 3.75%	**777**	–	–	777	–	–	–
CNY 4.2%	**375**	375	–	–	–	–	–
RUB other	**8**	3	–	–	5	–	–
	1,200	**384**	**7**	**784**	**11**	**5**	**9**
Total	**4,821**	**1,130**	**582**	**1,209**	**572**	**1,200**	**128**
Accrued interest	**21**	21	–	–	–	–	–
Total	**4,842**	**1,151**	**582**	**1,209**	**572**	**1,200**	**128**

As at 31 December 2022 and 31 December 2021 rights, including all monies and claims, arising out of certain sales contracts between the Group's trading subsidiaries and its ultimate customers, were assigned to secure the syndicated Pre-Export Finance Term Facility Agreement (PXF) dated 25 October 2019 and dated 28 January 2021.

As at 31 December 2022 and 31 December 2021 the secured bank loans are secured by certain pledges of shares of a number of Group subsidiaries, 25% +1 share of Norilsk Nickel (Group's associate) and property, plant and equipment with a carrying amount of USD4 million and USD3 million, respectively.

The nominal value of the Group's loans and borrowings was USD4,883 million at 31 December 2022 (31 December 2021: USD4,266 million).

As at 31 December 2022, the amount of accrued interest on unsecured bank loans and secured bank loans was USD4 million and USD17 million, respectively (31 December 2021: USD3 million and USD6 million, respectively).

Terms and debt repayment schedule as at 31 December 2021

	Total	**2022**	**2023**	**2024**	**2025**	**2026**	**2027-2035**
	USD million	**USD million**	**USD million**	**USD million**	**USD million**	**USD million**	**USD million**
Secured bank loans							
Variable							
USD – 3M Libor + 3.0%	**2,098**	–	–	180	423	559	936
USD – 3M Libor + 2.1%	**986**	268	359	359	–	–	–
USD 3M Libor + 1.7%	**200**	75	100	25	–	–	–
RUB KeyRate + 1.9%	**240**	–	–	–	–	–	240
RUB KeyRate + 3.15%	**309**	–	4	23	5	5	272
	3,833	**343**	**463**	**587**	**428**	**564**	**1,448**
Unsecured bank loans							
Variable							
EUR – 6M Euribor + (0.45%-0.67%)	**38**	5	6	6	6	5	10
Fixed							
USD 2.15%	**200**	200	–	–	–	–	–
USD 2.25%	**175**	175	–	–	–	–	–
	413	**380**	**6**	**6**	**6**	**5**	**10**
Total	**4,246**	**723**	**469**	**593**	**434**	**569**	**1,458**
Accrued interest	**9**	9	–	–	–	–	–
Total	**4,255**	**732**	**469**	**593**	**434**	**569**	**1,458**

On 28 January 2021, the Group entered into new three-year sustainability-linked pre-export finance facility for up to USD200 million. The interest rate is subject to a sustainability discount or premium depending on the Company's fulfilment of the sustainability key performance indicators (KPIs). The proceeds were used to refinance the principal outstanding under the existing debt.

During the year Group acquired an investment property with related loan of USD96 million-which has been repaid in full.

(b) Bonds

As at 31 December 2022 the Group had outstanding (traded in the market) bonds nominated in roubles, Chinese yuan, eurobonds nominated in US dollars.

Type	Series	The number of bonds traded in the market	Nominal value, USD million	Nominal interest rate	Put-option date	Maturity date
Bond	BO-01	30,263	–	0.01%	–	07.04.2026
Bond	BO-001P-01	3,490,970	49	9.50%	25.10.2023	16.04.2029
Bond	BO-001P-02	15,000,000	213	8.60%	25.01.2023	28.06.2029
Bond	BO-002P-01	10,000,000	142	6.50%	09.06.2023	28.05.2030
Eurobond	–	458,785	459	5.3%	–	03.05.2023
Eurobond	–	484,712	485	4.85%	–	01.02.2023
Bond	BO-05	2,000,000	281	3.90%	05.08.2024	28.07.2027
Bond	BO-06	2,000,000	281	3.90%	05.08.2024	28.07.2027
Bond	BO-001P-01	6,000,000	844	3.75%	–	24.04.2025
Bond	BO-001P-02	1,000,000	141	3.95%	–	23.12.2025
Bond	BO-001P-03	3,000,000	422	LPR1Y + 0.2%	–	24.12.2025
Bond	001PC-01	2,379,660	335	3.75%	–	07.03.2025
Bond	001PC-02	2,352,869	331	3.75%	–	07.03.2025
Bond	001PC-03	2,367,763	333	3.75%	–	07.03.2025
Bond	001PC-04	1,778,060	251	3.75%	–	07.03.2025

On 3 August 2022 the Company placed its exchange-traded non-convertible interest-bearing yuan bonds series BO-05, BO-06 in the total amount of CNY4 billion with a coupon rate fixed at 3.9% p.a. on the Moscow Exchange. Maturity of the bonds is five years, with the put-option in 2 years.

On 27 October 2022 the Company placed its exchange-traded non-convertible interest-bearing yuan bonds series BO-001P-01 in the amount of CNY6 billion with a coupon rate fixed at 3.75% p.a. on the Moscow Exchange. Maturity of the bonds is 2.5 years.

On 27 December 2022 the Company placed its exchange-traded non-convertible interest-bearing yuan bonds series BO-001P-02 in the amount of CNY1 billion with a coupon rate fixed at 3.95% p.a. on the Moscow Exchange. Maturity of the bonds is 3 years.

On 28 December 2022 the Company placed its exchange-traded non-convertible interest-bearing yuan bonds series BO-001P-03 in the amount of CNY3 billion with the floating rate linked to LPR 1Y + 0.2% on the Moscow Exchange. The interest rate for the first coupon period was set at 3.85% p.a. Maturity of the bonds is 3 years.

In November 2022 the Company placed its commercial non-convertible interest-bearing yuan bonds series 001PC-01, 001PC-02, 001PC-03, 001PC-04 in the total amount CNY8,878,352,000 with a coupon rate fixed at 3.75% p.a. Maturity of the bonds is March 2025.

On 8 September 2022 the exchange-traded non-convertible interest-bearing RUB denominated bonds of RUSAL Bratsk series BO-001P-03 were fully repaid.

On 10 November 2022 the exchange-traded non-convertible interest-bearing RUB denominated bonds of RUSAL Bratsk series BO-001P-04 were fully repaid.

As at 31 December 2022, the amount of accrued interest on bonds was USD48 million (31 December 2021: USD44 million).

Total foreign exchange gain on bonds for the year ended 31 December 2022 accounted in other comprehensive loss as part of cash flow hedge result amounted to USD96 million (USD4 million income for the year ended 31 December 2021).

20 Provisions

Accounting policies

A provision is recognised if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as finance costs.

Disclosures

USD million	Pension liabilities	Site restoration	Provisions for legal claims	Total
Balance at 1 January 2021	**55**	**401**	**17**	**473**
Provisions made during the year	6	–	6	**12**
Provisions reversed during the year	–	–	–	**–**
Actuarial loss	8	–	–	**8**
Provisions utilised during the year	(4)	–	(10)	**(14)**
Foreign currency translation	1	68	–	**69**
The effect of the passage of time	–	5	–	**5**
Change in inflation rate	–	(2)	–	**(2)**
Discount rate change	–	(28)	–	**(28)**
Balance at 31 December 2021	**66**	**444**	**13**	**523**
Non-current	*62*	*316*	*–*	***378***
Current	*4*	*128*	*13*	***145***
Balance at 1 January 2022	**66**	**444**	**13**	**523**
Provisions made during the year	9	–	6	**15**
Provisions reversed during the year	–	–	(4)	**(4)**
Actuarial gain	(8)	–	–	**(8)**
Provisions utilised during the year	(4)	–	(3)	**(7)**
Foreign currency translation	(3)	(10)	–	**(13)**
The effect of the passage of time	–	(4)	–	**(4)**
Change in inflation rate	–	19	–	**19**
Discount rate change	–	(118)	–	**(118)**
Balance at 31 December 2022	**60**	**331**	**12**	**403**
Non-current	*55*	*223*	*–*	***278***
Current	*5*	*108*	*12*	***125***

(a) Pension liabilities

Group subsidiaries in the Russian Federation

The Group voluntarily provides long-term and post-employment benefits to its former and existing employees including death-in-service, jubilee, lump sum upon retirement, material support for pensioners and death-in-pension benefits. Furthermore, the Group provides regular social support payments to some of its veterans of World War II.

The above employee benefit programs are of a defined benefit nature. The Group finances these programs on a pay-as-you-go basis, so plan assets are equal to zero.

Group subsidiaries in Ukraine

Due to legal requirements, the Ukrainian subsidiaries are responsible for partial financing of the state hardship pensions for those of its employees who worked, or still work, under severe and hazardous labour conditions (hardship early retirement pensions). These pensions are paid until the recipient reaches the age of entitlement to the State old age pension (55-60 years for female (dependent on year of birth) and 60 years for male employees). In Ukraine, the Group also voluntarily provides long-term and post-employment benefits to its employees including death-in-service, lump sum benefits upon retirement and death-in-pension benefits.

The above employee benefit programs are of a defined benefit nature. The Group finances these programs on a pay-as-you-go basis, so plan assets are equal to zero.

Group subsidiaries outside the Russian Federation and Ukraine

At its Guinean entities the Group provides a death-in-service benefit and lump-sum benefits upon disability and old-age retirement.

At its Guyana subsidiary, the Group provides a death-in-service benefit.

At its Italian subsidiary (Eurallumina) the Group only provides lump sum benefits upon retirement, which relate to service up to 1 January 2007.

In Sweden (Kubikenborg Aluminium AB), the Group provides defined benefit lifelong and temporary pension benefits. The lifelong benefits are dependent on the past service and average salary level of the employee, with an accrual rate that depends on the salary bracket the employee is in. The liability relates only to benefits accrued before 1 January 2004.

The number of employees in all jurisdictions eligible for the plans as at 31 December 2022 and 2021 was 51,783 and 50,518, respectively. The number of pensioners in all jurisdictions as at 31 December 2022 and 2021 was 39,302 and 42,086, respectively.

The Group expects to pay under the defined benefit retirement plans an amount of USD5 million during the 12 month period beginning on 1 January 2023.

Actuarial valuation of pension liabilities

The actuarial valuation of the Group and the portion of the Group funds specifically designated for the Group's employees were completed by a qualified actuary, Konstantin Kozlov, as at 31 December 2022, using the projected unit credit method as stipulated by IAS 19.

The key actuarial assumptions (weighted average, weighted by DBO) are as follows:

	31 December 2022	**31 December 2021**
	% per annum	**% per annum**
Discount rate	9.5	7.9
Future salary increases	8.6	8.7
Future pension increases	5.0	4.2
Staff turnover	4.7	4.7
Mortality	USSR population table for 1985, Ukrainian population table for 2000	USSR population table for 1985, Ukrainian population table for 2000
Disability	70% Munich Re for Russia; 40% of death probability for Ukraine	70% Munich Re for Russia; 40% of death probability for Ukraine

As at 31 December 2022 and 31 December 2021 the Group's obligations were fully uncovered as the Group has only wholly unfunded plans.

(b) Site restoration

The mining, refining and smelting activities of the Group can give rise to obligations for site restoration and rehabilitation. Restoration and rehabilitation works can include facility decommissioning and dismantling, removal or treatment of waste materials, land rehabilitation, and site restoration. The extent of work required and the associated costs are dependent on the requirements of law and the interpretations of the relevant authorities.

The Group provides for site restoration obligations when there is a specific legal or constructive obligation for mine reclamation, landfill closure (primarily comprising red mud basin disposal sites) or specific lease restoration requirements. The Group does not record any obligations with respect to decommissioning of its refining or smelting facilities and restoration and rehabilitation of the surrounding areas unless there is a specific plan to discontinue operations at a facility. This is because any significant costs in connection with decommissioning of refining or smelting facilities and restoration and rehabilitation of the surrounding areas would be incurred no earlier than when the facility is closed and the facilities are currently expected to operate over a term in excess of 50-100 years due to the perpetual nature of the refineries and smelters and continuous maintenance and upgrade programs resulting in the fair values of any such liabilities being negligible.

Costs included in the provision encompass obligated and reasonably estimable restoration and rehabilitation activities expected to occur progressively over the life of the operation and at the time of closure in connection with disturbances at the reporting date. Routine operating costs that may impact the ultimate restoration and rehabilitation activities, such as waste material handling conducted as an integral part of a mining or production process, are not included in the provision. Costs arising from unforeseen circumstances, such as the contamination caused by unplanned discharges, are recognised as an expense and liability when the event gives rise to an obligation which is probable and capable of reliable estimation.

Restoration and rehabilitation provisions are measured at the expected value of future cash flows, discounted to their present value and determined according to the probability of alternative estimates of cash flows occurring for each operation. Discount rates used are specific to the country in which the operation is located. Significant judgements and estimates are involved in forming expectations of future activities and the amount and timing of the associated cash flows. Those expectations are formed based on existing environmental and regulatory requirements.

When provisions for restoration and rehabilitation are initially recognised, the corresponding cost is capitalised as an asset, representing part of the cost of acquiring the future economic benefits of the operation. The capitalised cost of restoration and rehabilitation activities is amortised over the estimated economic life of the operation on a units of production or straight-line basis. The value of the provision is progressively increased over time as the effect of discounting unwinds, creating an expense recognised as part of finance expenses.

Restoration and rehabilitation provisions are also adjusted for changes in estimates. Those adjustments are accounted for as a change in the corresponding capitalised cost, except where a reduction in the provision is greater than the unamortised capitalised cost of the whole asset, to which the provision relates, in which case the capitalised cost is reduced to nil and the remaining adjustment is recognised in the statement of income. Changes to the capitalised cost result in an adjustment to future amortisation charges. Adjustments to the estimated amount and timing of future restoration and rehabilitation cash flows are a normal occurrence in light of the significant judgements and estimates involved. Factors influencing those changes include revisions to estimated reserves, resources and lives of operations; developments in technology; regulatory requirements and environmental management strategies; changes in the estimated costs of anticipated activities, including the effects of inflation and movements in foreign exchange rates; and movements in general interest rates affecting the discount rate applied.

The site restoration provision recorded in these consolidated financial statements relates primarily to mine reclamation and red mud basin disposal sites at alumina refineries and is estimated by discounting the risk-adjusted expected expenditure to its present value based on the following key assumptions:

	31 December 2022	31 December 2021
Timing of inflated cash outflows	2023: USD108 million 2024-2028: USD27 million 2029-2038: USD124 million after 2038: USD332 million	2022: USD127 million 2023-2027: USD15 million 2028-2037: USD121 million after 2037: USD298 million
Risk free discount rate after adjusting for inflation[(a)]	3.6%	1.19%

(a) The risk free rate for the year 2021-2022 represents an effective rate, which comprises rates differentiated by years of obligation settlement and by currencies in which the provisions were calculated.

At each reporting date the Directors have assessed the provisions for site restoration and environmental matters and concluded that the provisions and disclosures are adequate.

(c) Provisions for legal claims

In the normal course of business the Group may be involved in legal proceedings. Where management considers that it is more likely than not that proceedings will result in the Group compensating third parties a provision is recognised for the best estimate of the amount expected to be paid. Where management considers that it is more likely than not that proceedings will not result in the Group compensating third parties or where, in rare circumstances, it is not considered possible to provide a sufficiently reliable estimate of the amount expected to be paid, no provision is made for any potential liability under the litigation but the circumstances and uncertainties involved are disclosed as contingent liabilities. The assessment of the likely outcome of legal proceedings and the amount of any potential liability involves significant judgement. As law and regulations in many of the countries in which the Group operates are continuing to evolve, particularly in the areas of taxation, sub-soil rights and protection of the environment, uncertainties regarding litigation and regulation are greater than those typically found in countries with more developed legal and regulatory frameworks.

The Group's subsidiaries are subject to a variety of lawsuits and claims in the ordinary course of its business. As at 31 December 2022, there were several claims filed against the Group's subsidiaries contesting breaches of contract terms and non-payment of existing obligations. Management has reviewed the circumstances and estimated that the amount of probable outflow related to these claims should not exceed USD12 million (31 December 2021: USD13 million). The amount of claims, where management assesses outflow as possible approximates USD33 million (31 December 2021: USD21 million).

At each reporting date the Directors have assessed the provisions for litigation and claims and concluded that the provisions and disclosures are adequate.

(d) Tax provisions

The Group's accounting policy for taxation requires management's judgement in assessing whether deferred tax assets and certain deferred tax liabilities are recognised in the statement of financial position. Deferred tax assets, including those arising from carried forward tax losses, capital losses and temporary differences, are recognised only where it is considered more likely than not that they will be recovered, which is dependent on the generation of sufficient future taxable profits. Deferred tax liabilities arising from temporary differences in investments, caused principally by retained earnings held in foreign tax jurisdictions, are recognised unless repatriation of retained earnings can be controlled and is not expected to occur in the foreseeable future.

Assumptions about the generation of future taxable profits and repatriation of retained earnings depend on management's estimates of future cash flows. These depend on estimates of future production and sales volumes, commodity prices, reserves, operating costs, restoration and rehabilitation costs, capital expenditure, dividends and other capital management transactions. Assumptions are also required about the application of income tax legislation. These estimates and assumptions are subject to risk and uncertainty, hence there is a possibility that changes in circumstances will alter expectations, which may impact the amount of deferred tax assets and deferred tax liabilities recognised on the statement of financial position and the amount of other tax losses and temporary differences not yet recognised. In such circumstances, some or all of the carrying amount of recognised deferred tax assets and liabilities may require adjustment, resulting in a corresponding credit or charge to the statement of income.

The Group generally provides for current tax based on positions taken (or expected to be taken) in its tax returns. Where it is more likely than not that upon examination by the tax authorities of the positions taken by the Group additional tax will be payable, the Group provides for its best estimate of the amount expected to be paid (including any interest and/or penalties) as part of the tax charge.

At the reporting date management has assessed the provisions for taxation and concluded that the provisions and disclosures are adequate.

21 Derivative financial assets/liabilities

Accounting policies

The Group enters, from time to time, into various derivative financial instruments to manage its exposure to commodity price risk, foreign currency risk and interest rate risk.

Embedded derivatives are separated from the host contract and accounted for separately if the economic characteristics and risks of the host contract and the embedded derivative are not closely related, a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative and the combined instrument is not measured at fair value through profit or loss.

On initial designation of the derivative as a hedging instrument, the Group formally documents the relationship between the hedging instrument and hedged item, including the risk management objectives and strategy in undertaking the hedge transaction and the hedged risk, together with the methods that will be used to assess the effectiveness of the hedging relationship. The Group makes an assessment, both at the inception of the hedge relationship as well as on an ongoing basis, of whether the hedging instruments are expected to be highly effective in offsetting the changes in the fair value or cash flows of the respective hedged items attributable to the hedged risk, and whether the actual results of each hedge are within a range of 80-125%. For a cash flow hedge of a forecast transaction, the transaction should be highly probable to occur and should present an exposure to variation in cash flows that ultimately could affect reported profit or loss.

Derivatives are recognised initially at fair value; attributable transaction costs are recognised in the statement of income when incurred. Subsequent to initial recognition, derivatives are measured at fair value.

The measurement of fair value of derivative financial instruments, including embedded derivatives, is based on quoted market prices. Where no price information is available from a quoted market source, alternative market mechanisms or recent comparable transactions, fair value is estimated based on the Group's views on relevant future prices, net of valuation allowances to accommodate liquidity, modelling and other risks implicit in such estimates. Changes in the fair value therein are accounted for as described below.

When a derivative is designated as the hedging instrument in a hedge of the variability in cash flows attributable to a particular risk associated with a recognised asset or liability or a highly probable forecast transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative is recognised in the other comprehensive income and presented in the hedging reserve in equity. Any ineffective portion of changes in the fair value of a derivative is recognised in the statement of income.

When the hedged item is a non-financial asset, the amount accumulated in equity is included in the carrying amount of the asset when the asset is recognised. In other cases, the amount accumulated in equity is reclassified to the statement of income in the same period that the hedged item affects profit or loss. If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated or exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. If the forecast transaction is no longer expected to occur, then the balance in equity is reclassified to the statement of income.

Changes in the fair value of separated embedded derivatives and derivative financial instruments not designated for hedge accounting are recognised immediately in the statement of income.

Disclosures

	31 December 2022 USD million		31 December 2021 USD million	
	Derivative assets	**Derivative liabilities**	**Derivative assets**	**Derivative liabilities**
Petroleum coke supply contracts and other raw materials	–	–	24	15
Forward contracts for aluminium and other instruments	168	–	118	26
Cross currency swap	–	–	–	165
Total	**168**	**–**	**142**	**206**
Non-current	*90*	–	*22*	*61*
Current	*78*	–	*120*	*145*

Derivative financial instruments are recorded at their fair value at each reporting date. Fair value is estimated in accordance with Level 3 of the fair value hierarchy based on management estimates and consensus economic forecasts of relevant future prices, net of valuation allowances to accommodate liquidity, modelling and other risks implicit in such estimates. The Group's policy is to recognise transfers between levels of fair value hierarchy as at the date of the event or change in circumstances that caused the transfer. The movement in the balance of Level 3 fair value measurements of derivatives is as follows:

	31 December	
	2022	**2021**
	USD million	**USD million**
Balance at the beginning of the year	**(64)**	**(135)**
Unrealised changes in fair value recognised in statement of income (finance (expense)/income) during the period	(191)	(352)
Unrealised changes in fair value recognised in other comprehensive income (cash flow hedge) during the period	(131)	(28)
Realised portion of electricity, coke and raw material contracts and cross currency swap	554	451
Balance at the end of the year	**168**	**(64)**

During the year 2022 there have been no changes in valuation techniques used to calculate the derivative financial instruments compared to prior year.

Management believes that the values assigned to the key assumptions and estimates represented the most realistic assessment of future trends. The results for the derivative instruments are not particularly sensitive to any factors other than the assumptions disclosed above.

The Group sells products to various third parties at prices that are influenced by changes in London Metal Exchange aluminium prices. From time to time the Group enters into forward sales and purchase contracts for a portion of its anticipated primary aluminium sales and purchases to reduce the risk of fluctuating prices on these sales. During the year ended 31 December 2022 the Group recognised a total net loss of USD191 million in relation to the above contracts (31 December 2021: loss of USD352 million).

Unrealised changes in fair value recognised in other comprehensive income (cash flow hedge) during the period are fully attributable to cross currency swap (note 19 (b)).

22 Financial risk management and fair values

(a) Fair values

Management believes that the fair values of short-term financial assets and liabilities approximate their carrying amounts.

The methods used to estimate the fair values of the financial instruments are as follows:

Trade and other receivables, cash and cash equivalents, short-term investments, current loans and borrowings and trade and other payables: the carrying amounts approximate fair value because of the short maturity period of the instruments.

Investments in equity securities: measured at fair value through profit and loss, so, its carrying amount is equal its fair value.

Long-term loans and borrowings, other non-current liabilities: the fair values of Eurobonds, RUSAL Bratsk bonds and IPJSC bonds issued are approximate their carrying value, other than other non-current liabilities. The fair value of the loans and borrowings with fixed and floating interest rate as at 31 December 2022, 2021 and 2020 was calculated based on the present value of future principal and interest cash flows, using discount interest rate that take into account the currency of the debt, expected maturity dates and credit risks associated with the Group that existed at the reporting date.

Derivatives: the fair value of derivative financial instruments, including embedded derivatives, is based on quoted market prices. Where no price information is available from a quoted market source, alternative market mechanisms or recent comparable transactions, fair value is estimated based on the Group's views on relevant future prices, net of valuation allowances to accommodate liquidity, modelling and other risks implicit in such estimates. Option-based derivatives are valued using Black-Scholes models and Monte-Carlo simulations. The derivative financial instruments are recorded at their fair value at each reporting date.

The following table presents the fair value of Group's financial instruments measured at the end of the reporting period on a recurring basis, as well as for instruments for which fair value is disclosed, categorised into the three-level fair value hierarchy as defined by IFRS 13 *Fair Value Measurement*. The level into which a fair value measurement is classified is determined with reference to the observability and significance of the inputs used in the valuation technique as follows:

- Level 1 valuations: fair value measured using only Level 1 inputs i.e. unadjusted quoted prices in active markets for identical assets or liabilities at the measurement date.
- Level 2 valuations: fair value measured using Level 2 inputs i.e. observable inputs which fail to meet Level 1, and not using significant unobservable inputs. Unobservable inputs are inputs for which market data are not available.
- Level 3 valuations: fair value measured using significant unobservable inputs.

The Group as at 31 December 2022

		Carrying amount				Fair value			
	Note	Derivatives USD million	Loans and receivables USD million	Other financial assets/ (liabilities) USD million	Total USD million	Level 1 USD million	Level 2 USD million	Level 3 USD million	Total USD million
Financial assets measured at fair value									
Petroleum coke supply contracts and other raw materials	21	–	–	–	**–**	–	–	–	**–**
Forward contracts for aluminium and other instruments	21	168	–	–	**168**	–	–	168	**168**
Investments in equity securities	17	–	–	458	**458**	458	–	–	**458**
		168	**–**	**458**	**626**	**458**	**–**	**168**	**626**
Financial assets not measured at fair value*									
Trade and other receivables	17	–	1,735	–	**1,735**	–	1,735	–	**1,735**
Other non-current assets	17	–	–	302	**302**	–	302	–	**302**
Short-term investments		–	89	–	**89**	–	89	–	**89**
Cash and cash equivalents	17	–	3,196	–	**3,196**	–	3,196	–	**3,196**
		–	**5,020**	**302**	**5,322**	**–**	**5,322**	**–**	**5,322**
Financial liabilities measured at fair value									
Cross-currency swaps	21	–	–	–	**–**	–	–	–	**–**
Petroleum coke supply contracts and other raw materials	21	–	–	–	**–**	–	–	–	**–**
Forward contracts for aluminium and other instruments	21	–	–	–	**–**	–	–	–	**–**
		–	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Financial liabilities not measured at fair value*									
Secured bank loans and company loans	19	–	–	(3,690)	**(3,690)**	–	(3,777)	–	**(3,777)**
Unsecured bank loans	19	–	–	(1,200)	**(1,200)**	–	(1,196)	–	**(1,196)**
Unsecured bond issue	19	–	–	(4,567)	**(4,567)**	(1,935)	(2,615)	–	**(4,550)**
Trade and other payables	17	–	–	(1,682)	**(1,682)**	–	(1,682)	–	**(1,682)**
		–	**–**	**(11,139)**	**(11,139)**	**(1,935)**	**(9,270)**	**–**	**(11,205)**

* *The Group considers that the carrying amounts of short-term trade receivables and payables are a reasonable approximation of fair values.*

The Group as at 31 December 2021

		Carrying amount				Fair value			
	Note	Derivatives USD million	Loans and receivables USD million	Other financial liabilities USD million	Total USD million	Level 1 USD million	Level 2 USD million	Level 3 USD million	Total USD million
Financial assets measured at fair value									
Petroleum coke supply contracts and other raw materials	21	24	–	–	**24**	–	–	24	**24**
Forward contracts for aluminium and other instruments	21	118	–	–	**118**	–	–	118	**118**
Investments in equity securities	17	–	–	315	**315**	315	–	–	**315**
		142	**–**	**315**	**457**	**315**	**–**	**142**	**457**
Financial assets not measured at fair value*									
Trade and other receivables	17	–	1,376	–	**1,376**	–	1,376	–	**1,376**
Other non-current assets	17	–	–	245	**245**	–	245	–	**245**
Short-term investments		–	167	–	**167**	–	167	–	**167**
Cash and cash equivalents	17	–	1,984	–	**1,984**	–	1,984	–	**1,984**
		–	**3,527**	**245**	**3,772**	**–**	**3,772**	**–**	**3,772**
Financial liabilities measured at fair value									
Cross-currency swaps	21	165	–	–	**165**	–	–	165	**165**
Petroleum coke supply contracts and other raw materials	21	15	–	–	**15**	–	–	15	**15**
Forward contracts for aluminium and other instruments	21	26	–	–	**26**	–	–	26	**26**
		206	**–**	**–**	**206**	**–**	**–**	**206**	**206**
Financial liabilities not measured at fair value*									
Secured bank loans and company loans	19	–	–	(3,886)	**(3,886)**	–	(4,027)	–	**(4,027)**
Unsecured bank loans	19	–	–	(413)	**(413)**	–	(409)	–	**(409)**
Unsecured bond issue	19	–	–	(2,434)	**(2,434)**	(941)	(1,524)	–	**(2,465)**
Trade and other payables	17	–	–	(1,292)	**(1,292)**	–	(1,292)	–	**(1,292)**
		–	**–**	**(8,025)**	**(8,025)**	**(941)**	**(7,252)**	**–**	**(8,193)**

* *The Group considers that the carrying amounts of short-term trade receivables and payables are a reasonable approximation of fair values.*

(b) Financial risk management objectives and policies

The Group's principal financial instruments comprise bank loans, bonds and trade payables. The main purpose of these financial instruments is to raise finance for the Group's operations. The Group has various financial assets such as trade receivables and cash and short-term deposits, which arise directly from its operations.

The main risks arising from the Group's financial instruments are interest rate risk, liquidity risk, foreign currency risk and credit risk. Management reviews and agrees policies for managing each of these risks which are summarised below.

The Board of Directors has overall responsibility for the establishment and oversight of the Group's risk management framework. The Board has established a risk management group within its Department of Internal Control, which is responsible for developing and monitoring the Group's risk management policies. The Department reports regularly to the Board of Directors on its activities.

The Group's risk management policies are established to identify and analyse the risks faced by the Group, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group's activities. The Group, through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Group's Audit Committee oversees how management monitors compliance with the Group's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by the Group. The Group's Audit Committee is assisted in its oversight role by the Group's Internal Audit function which undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the Audit Committee.

(c) Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, interest rates and equity prices will affect the Group's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising returns.

(i) Commodity price risk

During the years ended 31 December 2022 and 2021, the Group has entered into certain long term electricity contracts and other commodity derivatives contracts in order to manage its exposure of commodity price risks. Details of the contracts are disclosed in notes 21 and 25(c).

(ii) Interest rate risk

The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's long-term debt obligations with floating interest rates (refer to note 19). The Group's policy is to manage its interest costs by monitoring changes in interest rates with respect to its borrowings.

The following table details the interest rate profile of the Group's borrowings at the reporting date.

	31 December 2022		**31 December 2021**	
	Effective interest rate, %	**USD million**	**Effective interest rate, %**	**USD million**
Fixed rate loans and borrowings				
Loans and borrowings	0.01-11.00%	5,584	0.01-9.00%	2,809
		5,584		**2,809**
Variable rate loans and borrowings				
Loans and borrowings	2.86-9.48%	3,804	0.45-11.65%	3,871
		3,804		**3,871**
		9,388		**6,680**

The following table demonstrates the sensitivity to cash flows from interest rate risk arising from floating rate non-derivative instruments held by the Group at the reporting date in respect of a reasonably possible change in interest rates, with all other variables held constant. The impact on the Group's profit before taxation and equity and retained profits/accumulated losses is estimated as an annualised input on interest expense or income of such a change in interest rates. The analysis has been performed on the same basis for all years presented.

	Increase/ decrease in basis points	Effect on profit before taxation for the year	Effect on equity for the year, net of income tax
		USD million	USD million
As at 31 December 2022			
Basis percentage points	+100	(38)	(30)
Basis percentage points	-100	38	30
As at 31 December 2021			
Basis percentage points	+100	(39)	(31)
Basis percentage points	-100	39	31

(iii) Foreign currency risk

The Group is exposed to currency risk on sales, purchases and borrowings that are denominated in a currency other than the respective functional currencies of group entities, primarily USD but also the Russian Rouble, Ukrainian Hryvna and Euros. The currencies in which these transactions primarily are denominated are RUB, USD and EUR.

Borrowings are primarily denominated in currencies that match the cash flows generated by the underlying operations of the Group, primarily USD but also RUB and EUR. This provides an economic hedge.

In respect of other monetary assets and liabilities denominated in foreign currencies, the Group ensures that its net exposure is kept to an acceptable level by buying or selling foreign currencies at spot rates when necessary to address short-term imbalances or entering into currency swap arrangements.

The Group's exposure at the reporting date to foreign currency risk arising from recognised assets and liabilities denominated in a currency other than the functional currency of the entity to which they relate is set out in the table below. Differences resulting from the translation of the financial statements of foreign operations into the Group's presentation currency are ignored.

	USD-denominated vs. RUB functional currency		RUB-denominated vs. USD functional currency		EUR-denominated vs. USD functional currency		Denominated in other currencies vs. USD functional currency	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December	USD million	USD million	USD million	USD million	USD million	USD million	USD million	USD million
Non-current assets	–	–	86	38	21	–	–	–
Trade and other receivables	–	2	914	821	219	184	60	69
Cash and cash equivalents	–	–	1,378	428	148	81	683	50
Loans and borrowings	–	–	(684)	(549)	–	(19)	(1,152)	–
Provisions	–	–	(66)	(84)	–	(21)	(17)	(18)
Derivative financial liabilities	–	–	–	(16)	–	–	–	–
Non-current liabilities	–	–	(46)	(1)	(3)	(6)	(2)	–
Income taxation	–	–	(157)	(24)	–	–	–	(1)
Bonds	–	–	(406)	(1)	–	–	(3,219)	–
Trade and other payables	(1)	(1)	(514)	(1,080)	(111)	(104)	(119)	(135)
Net exposure arising from recognised assets and liabilities	**(1)**	**1**	**505**	**(468)**	**274**	**115**	**(3,766)**	**(35)**

Foreign currency sensitivity analysis

The following tables indicate the instantaneous change in the Group's profit before taxation (and accumulated losses) and other comprehensive income that could arise if foreign exchange rates to which the Group has significant exposure at the reporting date had changed at that date, assuming all other risk variables remained constant.

	Year ended 31 December 2022		
	Change in exchange rates	**Effect on profit before taxation for the year USD million**	**Effect on equity for the year USD million**
Depreciation of USD vs. RUB	15%	76	76
Depreciation of USD vs. EUR	10%	27	27
Depreciation of USD vs. other currencies	5%	(188)	(188)

	Year ended 31 December 2021		
	Change in exchange rates	**Effect on profit before taxation for the year USD million**	**Effect on equity for the year USD million**
Depreciation of USD vs. RUB	15%	(70)	(70)
Depreciation of USD vs. EUR	10%	11	11
Depreciation of USD vs. other currencies	5%	(2)	(2)

Results of the analysis as presented in the above tables represent an aggregation of the instantaneous effects on the Group entities' profit before taxation and other comprehensive income measured in the respective functional currencies, translated into USD at the exchange rates ruling at the reporting date for presentation purposes.

The sensitivity analysis assumes that the change in foreign exchange rates had been applied to re-measure those financial instruments held by the Group which expose the Group to foreign currency risk at the reporting date. The analysis excludes differences that would result from the translation of financial statements of foreign operations into the Group's presentation currency. The analysis has been performed on the same basis for all years presented.

(d) Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The group policy is to maintain sufficient cash and cash equivalents or have available funding through an adequate amount of committed credit facilities to meet its operating and financial commitments.

Where the Group enters into financial guarantee contracts to guarantee the indebtedness of other companies, controlled by the shareholder which is a beneficial owner of the Group at the reporting date, the Group considers these to be insurance arrangements and accounts for them as such. In this respect, the Group treats the guarantee contract as a contingent liability until such time as it becomes probable that the Group will be required to make a payment under the guarantee.

The following tables show the remaining contractual maturities at the reporting date of the Group's non-derivative financial liabilities, which are based on contractual undiscounted cash flows (including interest payment computed using contractual rates, or if floating, based on rates current at the reporting date) and the earliest the Group can be required to pay.

	31 December 2022 Contractual undiscounted cash outflow					
	Within 1 year or on demand	**More than 1 year but less than 2 years**	**More than 2 years but less than 5 years**	**More than 5 years**	**Total**	**Carrying amount**
	USD million	**USD million**	**USD million**	**USD million**	**USD million**	**USD million**
Trade and other payables to third parties	1,504	–	–	–	**1,504**	1,504
Trade and other payables to related parties	178	–	–	–	**178**	178
Bonds, including interest payable	1,143	685	2,709	–	**4,537**	4,567
Loans and borrowings, including interest payable	1,433	839	3,397	230	**5,899**	4,890
Other contractual obligations	40	79	–	–	**119**	–
	4,298	**1,603**	**6,106**	**230**	**12,237**	**11,139**

	31 December 2021 Contractual undiscounted cash outflow					
	Within 1 year or on demand	**More than 1 year but less than 2 years**	**More than 2 years but less than 5 years**	**More than 5 years**	**Total**	**Carrying amount**
	USD million	**USD million**	**USD million**	**USD million**	**USD million**	**USD million**
Trade and other payables to third parties	1,134	–	–	–	**1,134**	1,134
Trade and other payables to related parties	158	–	–	–	**158**	158
Bonds, including interest payable	1,234	1,354	–	–	**2,588**	2,434
Loans and borrowings, including interest payable	945	584	1,919	1,704	**5,152**	4,299
Other contractual obligations	44	69	–	–	**113**	–
	3,515	**2,007**	**1,919**	**1,704**	**9,145**	**8,025**

At 31 December 2022 and 31 December 2021 the Group's contractual undertaking to provide loans under the loan agreement between the Group, PJSC RusHydro and BoAZ is included at maximum exposure for the Group in the liquidity risk disclosure above.

(e) Credit risk

The Group trades only with recognised, creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms are subject to credit verification procedures. The majority of the Group's third party trade receivables represent balances with the world's leading international corporations operating in the metals industry. In addition, receivable balances are monitored on an ongoing basis with the result that the Group's exposure to credit loss is not significant. Goods are normally sold subject to retention of title clauses, so that in the event of non-payment the Group may have a secured claim. The Group does not require collateral in respect of trade and other receivables. The details of impairment of trade and other receivables are disclosed in note 17. The extent of the Group's credit exposure is represented by the aggregate balance of financial assets and financial guarantees and loan commitments given.

At 31 December 2022 and 2021, the Group has certain concentration of credit risk as 31.5% and 14.3% of the total trade receivables were due from the Group's five largest customers. With respect to credit risk arising from guarantees, the Group's policy is to provide financial guarantees only to wholly-owned subsidiaries, associates and joint ventures.

(f) Capital risk management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

The Group manages its capital structure and makes adjustments to it, in light of changes in economic conditions. To maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

The Board's policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board of Directors monitors the return on capital, which the Group defines as net operating income divided by total shareholders' equity, excluding non-controlling interests. The Board of Directors also monitors the level of dividends to ordinary shareholders.

The Board seeks to maintain a balance between higher returns that might be possible with higher levels of borrowings and the advantages and security afforded by a sound capital position.

There were no changes in the Group's approach to capital management during the year.

The Company and its subsidiaries were subject to externally imposed capital requirements in the both years presented in these consolidated financial statements.

(g) Master netting or similar agreements

The Group may enter into sales and purchase agreements with the same counterparty in the normal course of business. The related amount receivable and payable do not always meet the criteria for offsetting in the statement of financial position. This is because the Group may not have any currently legally enforceable right to offset recognised amounts, because the right to offset may be enforceable only on the occurrence of future events.

There are no financial instruments that meet the offsetting criteria in the statement of financial position for the year ended 31 December 2022 and 31 December 2021.

23 Commitments

(a) Capital commitments

The Group has entered into contracts that result in contractual obligations primarily relating to various construction and capital repair works. The commitments at 31 December 2022 and 31 December 2021 approximated USD376 million and USD248 million, including VAT respectively. These commitments are due over a number of years.

(b) Purchase commitments

Commitments with third parties for purchases of alumina, bauxite, other raw materials and other purchases in 2023-2034 under supply agreements are estimated from USD3,450 million to USD5,169 million at 31 December 2022 (31 December 2021: USD2,517 million to USD4,534 million) depending on the actual purchase volumes and applicable prices.

Commitments with related parties for purchases of primary aluminium, alloys and other purchases in 2023-2030 under supply agreements are estimated from USD4,824 million to USD7,283 million at 31 December 2022 (31 December 2021: USD5,733 million to USD7,540 million) depending on the actual purchase volumes and applicable prices. Electricity purchase commitments are disclosed in note 25.

(c) Sale commitments

Commitments with third parties for sales of alumina and other raw materials in 2023-2034 are estimated from USD852 million to USD1,275 million at 31 December 2022 (31 December 2021: from USD1,187 million to USD1,596 million) and will be settled at market prices at the date of delivery. There are no commitments with related parties for sales of alumina as at 31 December 2022.

Commitments with related parties for sales of primary aluminium and alloys in 2023 are estimated from USD305 million to USD373 million at 31 December 2022 (31 December 2021: from USD563 million to USD688 million). Commitments with third parties for sales of primary aluminium and alloys in 2023-2027 are estimated to range from USD5,505 million to USD8,386 million at 31 December 2022 (31 December 2021: from USD8,842 million to USD12,148 million).

(d) Social commitments

The Group contributes to the maintenance and upkeep of the local infrastructure and the welfare of its employees, including contributions toward the development and maintenance of housing, hospitals, transport services, recreation and other social needs of the regions of the Russian Federation where the Group's production entities are located. The funding of such assistance is periodically determined by management and is appropriately capitalised or expensed as incurred.

24 Contingencies

(a) Taxation

Russian tax, currency and customs legislation is subject to varying interpretations, and changes, which can occur frequently. Management's interpretation of such legislation as applied to the transactions and activities of the Group may be challenged by the relevant local, regional and federal authorities. Notably recent developments in the Russian environment suggest that the authorities in this country are becoming more active in seeking to enforce, through the Russian court system, interpretations of the tax legislation, in particular in relation to the use of certain commercial trading structures, which may be selective for particular tax payers and different to the authorities' previous interpretations or practices. Different and selective interpretations of tax regulations by various government authorities and inconsistent enforcement create further uncertainties in the taxation environment in the Russian Federation.

As at 31 December 2021 management considered that there were no significant tax positions taken by the Group where it was reasonably possible (though less than 50% likely) that additional tax may be payable upon examination by the tax authorities or in connection with ongoing disputes with tax authorities. As at 31 December 2022 management considered that are uncertain tax positions in the amount approximately USD40 million where it was reasonably possible (though less than 50% likely) that additional tax may be payable upon examination by the tax authorities or in connection with ongoing disputes with tax authorities.

(b) Environmental contingencies

The Group and its predecessor entities have operated in the Russian Federation, Ukraine, Jamaica, Guyana, the Republic of Guinea and the European Union for many years and certain environmental problems have developed. Governmental authorities are continually considering environmental regulations and their enforcement and the Group periodically evaluates its obligations related thereto. As obligations are determined, they are recognised immediately. The outcome of environmental liabilities under proposed or any future legislation, or as a result of stricter enforcement of existing legislation, cannot reasonably be estimated. Under current levels of enforcement of existing legislation, management believes there are no possible liabilities, which will have a material adverse effect on the financial position or the operating results of the Group. However, the Group anticipates undertaking significant capital projects to improve its future environmental performance and to bring it into full compliance with current legislation.

(c) Legal contingencies

The Group's business activities expose it to a variety of lawsuits and claims which are monitored, assessed and contested on the ongoing basis. Where management believes that a lawsuit or another claim would result in the outflow of the economic benefits for the Group, a best estimate of such outflow is included in provisions in the consolidated financial statements (refer to note 20). As at 31 December 2022 the amount of claims, where management assesses outflow as possible approximates USD33 million (31 December 2021: USD21 million).

(d) Other contingent liabilities

In September 2013 the Group and PJSC RusHydro entered into an agreement with BoAZ to provide loans, if the latter is unable to fulfil its obligations under its credit facilities. The aggregate exposure under the agreement is limited to RUB16.8 billion (31 December 2022 and 2021 USD239 million and USD226 million, respectively) and is split between the Group and PJSC RusHydro in equal proportion.

25 Related party transactions

(a) Transactions with management and close family members

Management remuneration

Key management received the following remuneration, which is included in personnel costs (refer to note 6(c)):

	Year ended 31 December	
	2022	2021
	USD million	USD million
Salaries and bonuses	79	63
	79	**63**

(b) Transactions with associates and joint ventures

Sales to associates and joint ventures are disclosed in note 5, purchases from associates and joint ventures are disclosed in note 6, accounts receivable from associates and joint ventures as well as accounts payable to associates and joint ventures are disclosed in note 17.

(c) Transactions with other related parties

The Group transacts with other related parties, the majority of which are companies related through parent company or under the control of SUAL Partners Limited or its controlling shareholders.

Sales to related parties for the year are disclosed in note 5, purchases from related parties are disclosed in note 6, accounts receivable from related parties as well as accounts payable to related parties are disclosed in note 17, commitments with related parties are disclosed in note 23, directors remuneration in notes 9 and 10 and dividends attributed to shareholders are disclosed in note 11.

Electricity contracts

In November 2016, the Group entered into the new long-term electricity contracts to supply several Group's smelters from En+ subsidiaries over the years 2016-2026. Purchases will be made under a price formula close to market prices. The volumes committed under the long-term electricity contracts are as follows:

Year	2023	2024	2025	2026
Mln kWh	37,598	37,701	37,598	25,194
Mln USD	523	524	523	322

(d) Related parties balances

At 31 December 2022, there are no balances of related parties included in non-current assets (31 December 2021: USD2 million). At 31 December 2022, included in non-current liabilities are balances of related parties – associates and joint ventures of USD16 million (31 December 2021: USD14 million).

At 31 December 2022, included in current assets as short-term investments are balances of related parties – companies related through parent company of USD50 million (31 December 2021: companies related through parent company of USD50 million).

(e) Pricing policies

Prices for transactions with related parties are determined on a case by case basis but are not necessarily at arm's length.

The Group has entered into three categories of related-party transactions: (i) those entered into on an arm's length basis, (ii) those entered into on non-arm's length terms but as part of a wider deal resulting from arms' length negotiations with unrelated third parties, and (iii) transactions unique to the Group and the counterparty.

(f) Connected transactions

Not all the related party transactions and balances disclosed above meet the definition of connected transactions as per Chapter 14A of the Listing Rules of Hong Kong Stock Exchange. For particulars of the continuing connected transactions please refer to the Director's Report section of the Annual Report of the Company for the year ended 31 December 2022.

26 Particulars of subsidiaries

As at 31 December 2022 and 2021, the Company has direct and indirect interests in the following subsidiaries, which principally affected the results, assets and liabilities of the Group:

Name	Place of incorporation and operation	Date of incorporation	Particulars of issued and paid up capital	Attributable equity interest	Principal activities
Compagnie Des Bauxites De Kindia S.A.	Guinea	29 November 2000	2,000 shares of GNF 25,000 each	100.0%	Bauxite mining
Friguia SA	Guinea	9 February 1957	758,966,200,000 GNF	100.0%	Alumina
JSC RUSAL Achinsk	Russian Federation	20 April 1994	4,188,531 shares of RUB1 each	100.0%	Alumina
Mykolaiv Alumina Refinery Company Ltd	Ukraine	16 September 2004	1,524,126,720 UAH	100.0%	Alumina
JSC RUSAL Boxitogorsk Alumina	Russian Federation	27 October 1992	1,012,350 shares of RUB1 each	100.0%	Alumina
Eurallumina SpA	Italy	21 March 2002	10,000,000 shares of EUR1.55 each	100.0%	Alumina
PJSC RUSAL Bratsk	Russian Federation	26 November 1992	5,505,305 shares of RUB0.2 each	100.0%	Smelting
JSC RUSAL Krasnoyarsk	Russian Federation	16 November 1992	85,478,536 shares of RUB20 each	100.0%	Smelting
JSC RUSAL Novokuznetsk	Russian Federation	26 June 1996	53,997,170 shares of RUB0.1 each	100.0%	Smelting
JSC RUSAL Sayanogorsk	Russian Federation	29 July 1999	208,102,580,438 shares of RUB0.068 each	100.0%	Smelting
RUSAL RESAL LLC	Russian Federation	15 November 1994	charter fund of RUB67,706,217.29	100.0%	Processing
JSC RUSAL SAYANAL	Russian Federation	29 December 2001	59,902,661,099 shares of RUB0.006 each	100.0%	Foil
CJSC RUSAL ARMENAL	Armenia	17 May 2000	36,699,295 shares of AMD 1,000 each	100.0%	Foil
RUS-Engineering LLC	Russian Federation	18 August 2005	charter fund of RUB 1,751,832,184	100.0%	Repairs and maintenance
JSC Russian Aluminium	Russian Federation	25 December 2000	23,124,000,000 shares of RUB1 each	100.0%	Holding company

Name	**Place of incorporation and operation**	**Date of incorporation**	**Particulars of issued and paid up capital**	**Attributable equity interest**	**Principal activities**
Rusal Global Management B.V.	Netherlands	8 March 2001	charter fund of EUR25,000	100.0%	Management company
JSC United Company RUSAL Trading House	Russian Federation	15 March 2000	163,660 shares of RUB100 each	100.0%	Trading
RS International GmbH	Switzerland	22 May 2007	1 share with nominal value of CHF 20,000	100.0%	Trading
Rusal Marketing GmbH	Switzerland	22 May 2007	Capital quota of CHF2,000,000	100.0%	Trading
RTI Limited	Jersey	27 October 2006	978,492,901 shares of USD1 each	100.0%	Trading
Alumina & Bauxite Company Limited	British Virgin Islands	3 March 2004	231,179,727 shares of USD1 each	100.0%	Trading
JSC Bauxite-Timana	Russian Federation	29 December 1992	44,500,000 shares of RUB10 each	100.0%	Bauxite mining
JSC Severo-Uralsky Bauxite Mine	Russian Federation	24 October 1996	10,506,609 shares of RUB275.85 each	100.0%	Bauxite mining
JSC RUSAL Ural	Russian Federation	26 September 1996	2,542,941,932 shares of RUB1 each	100.0%	Primary aluminum and alumina production
SUAL-PM LLC	Russian Federation	20 October 1998	charter fund of RUB56,300,959	100.0%	Aluminum powders production
JSC Kremniy	Russian Federation	3 August 1998	320,644 shares of RUB1,000 each	100.0%	Silicon production
RUSAL-Kremniy-Ural LLC	Russian Federation	1 March 1999	charter fund of RUB8,763,098	100.0%	Silicon production
UC RUSAL Alumina Jamaica Limited	Jamaica	26 April 2001	1,000,000 shares of JMD1 each	100.0%	Alumina
Kubikenborg Aluminium AB	Sweden	26 January 1934	25,000 shares of SEK 1,000 each	100.0%	Smelting
RFCL Limited (RFCL S.ar.l prior to 28 August 2020)	Cyprus	13 March 2013	90,000,000 RUB	100.0%	Finance services
International LLC AKTIVIUM (Aktivium B.V. prior to 6 December 2019)	Russian Federation	28 December 2010	215,458,134,321 shares of RUB1 each	100.0%	Holding and investment company
Aughinish Alumina Ltd	Ireland	22 September 1977	1,000 shares of EUR2 each	100.0%	Alumina
LLC RUSAL Energo	Russian Federation	26 December 2005	715,000,000 RUB	100.0%	Electric power
Limerick Alumina Refining Ltd.	Ireland	30 March 1995	54,019,819 shares of USD1 each	100.0%	Alumina
JSC RUSAL Management	Russian Federation	26 December 2018	1,000,000 shares of RUB1 each	100.0%	Management company
RUSAL Taishet LLC	Russian Federation	11 September 2006	Charter fund of RUB 12,158,878,747.58	100.0%	Smelting
UC RUSAL Anode Plant LLC	Russian Federation	9 April 2008	Charter fund of RUB1,064,280,000	100.0%	Anodes
RUSAL Products GmbH	Switzerland	27 December 2017	Charter fund of CHF20,000	100.0%	Trading
Casting and mechanical plant "SKAD" Ltd.	Russian Federation	29 August 2002	Charter fund of RUB 468,458,663.94	75.0%	Other aluminum production
"PGLZ" LLC	Russian Federation	4 April 2016	Charter fund of RUB 119,500,000	99.9%	Alumina

Trading entities are engaged in the sale of products to and from the production entities.

27 Statement of Financial Position of the Company as at 31 December 2022

	31 December 2022 USD million	31 December 2021 USD million
Assets		
Non-current assets		
Investments in subsidiaries	18,479	20,167
Other investments	207	191
Loans to related parties	1,039	1,295
Other non-current assets	131	44
Total non-current assets	**19,856**	**21,697**
Current assets		
Loans to related parties	5,491	1,696
Other receivables	108	112
Cash and cash equivalents	1,446	4
Total current assets	**7,045**	**1,812**
Total assets	**26,901**	**23,509**
Equity and liabilities		
Equity		
Share capital	152	152
Reserves	18,263	18,896
Total equity	**18,415**	**19,048**
Non-current liabilities		
Loans and borrowings	6,734	3,572
Total non-current liabilities	**6,734**	**3,572**
Current liabilities		
Loans and borrowings	909	884
Trade and other payables	843	5
Total current liabilities	**1,752**	**889**
Total liabilities	**8,486**	**4,461**
Total equity and liabilities	**26,901**	**23,509**
Net current assets	**5,293**	**923**
Total assets less current liabilities	**25,149**	**22,620**

28 Events subsequent to the reporting date

In February 2023, RUSAL entered into a new credit facility with a Russian bank in the total amount up to USD4.4 billion and maturity – 24 December 2027. On 3 February 2023 the funds in the amount of 15.8 billion Chinese yuan were partially drawdown with an interest rate 4.75% and were used to refinance the principal outstanding under the existing debt with a Russian bank

On 8 February 2023 pursuant to the Extraordinary resolution of the noteholders Rusal redeemed the Eurobond with a coupon 4.85% to noteholders who hold Eurobond through NSD and other Russian custodians being the NSD direct participants in the amount of USD418 million. The redemption to noteholders who hold Eurobond through foreign clearing and settlement systems will be made in accordance with terms of the Extraordinary resolution of the noteholders.

In February 2023 the High Anticorruption Court of Ukraine decided to transfer the ownership over Mykolaiv Alumina Refinery Company Ltd from the Group in favor of Ukrainian Government. As of the date of authorization of these consolidated financial statements for issue, management of the Group is planning to submit an appeal against the Court's decision. Due to the developments of geopolitical situation so far, the carrying values of assets of Mykolaiv Alumina Refinery Company Ltd were written off as of 31 December 2022.

EXTRACT OF INDEPENDENT AUDITOR'S REPORT

Below is an extract of the report by the auditor of the Company, regarding the consolidated financial statements of the Group for the year ended 31 December 2022.

Opinion

We have audited the consolidated financial statements of IPJSC UC RUSAL and its subsidiaries (hereinafter collectively referred to as the "Group"), which comprise the consolidated statement of income, consolidated statement of comprehensive income, consolidated statement of financial position as at 31 December 2022, and consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2022 and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

Material Uncertainty Related to Going Concern

We draw attention to Note 1 of the consolidated financial statements as of 31 December 2022, which indicates that the geopolitical tensions and sanctions imposed by a range of countries, accompanied by the volatility of commodity, stock and currency markets, may significantly affect operational, investing and financing activity of the Group. As stated in Note 1, these events or conditions, along with other matters as set forth in Note 1 of the consolidated financial statements, indicate that material uncertainty exists that may cast significant doubt about the Group's ability to continue as a going concern. Our opinion is not modified in respect of this matter.

Purchase, sale or redemption of UC Rusal's listed securities

Save as the redemption of bonds as disclosed in note 19(b) to the consolidated financial statements, neither the Company nor any of its subsidiaries repurchased, sold or redeemed any of their securities during the financial year ended 31 December 2022.

Code of Corporate Governance Practices

UC RUSAL adopted a corporate code of ethics that sets out UC RUSAL's values and principles for many of its areas of operations.

The Directors adopted a corporate governance code which is based on the Code on Corporate Governance Practices as set out in Appendix 14 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited ("**Hong Kong Listing Rules**"). The Directors consider that save for code provision C.5.7 (physical board meetings at which Directors have material interests) and C.1.6 (attendance of Directors at annual general meeting), for reasons set out below and also on pages 92 to 93 of UC RUSAL's interim report for the six months ended 30 June 2022, UC RUSAL has complied with the provisions as set out in the Corporate Governance Code and Corporate Governance Report in Appendix 14 to the Hong Kong Listing Rules during the period from 1 January 2022 to 31 December 2022.

The Board endeavoured throughout the twelve-month period ended 31 December 2022 to ensure that it did not deal with business by the way of written resolution where a substantial shareholder of the Company or a Director had disclosed an interest in a matter to be considered by the Board which the Board determined to be material. As a result, there were no occurrence (out of the 27 instances of absentee voting of the Board during the period) when urgent business was dealt with by the Board by way of written resolution where a material interest of a Director was stated to have been disclosed.

Of the 7 Board meetings held in presentia in the twelve-month period ended 31 December 2022 where one or more Directors had disclosed a material interest, all the independent non-executive Directors were present at 6 of the Board meetings held.

Of the 37 Board meetings held, there were 7 occasions where executive Director/non-executive Director(s) might have a material interest in the transaction. On such occurrences, those executive Director/non-executive Director(s) abstained from voting and the resolutions approving entry into such transactions were passed by the requisite majority excluding those executive Director/non-executive Director(s) who might have a material interest.

Certain executive directors, non-executive directors and independent non-executive directors were unable to attend the Company's annual general meeting of shareholders and Company's extraordinary general meetings of shareholders held in 2022 due to conflicting business schedules.

Audit Committee

The Board established an Audit Committee to assist it in providing an independent view of the effectiveness of the Company's financial reporting process, risk management and internal control systems, and internal audit function, to oversee the audit process and to perform other duties and responsibilities as are assigned to the Audit Committee by the Board. The Audit Committee is assisted by the Company's internal audit function which undertakes both regular and ad hoc reviews of risk management, internal controls and procedures, the results of which are reported to the Audit Committee. The Audit Committee consists of independent non-executive Directors. The members are as follows: Mr. Kevin Parker (chairman of the committee, independent non-executive Director), Ms. Anna Vasilenko (independent non-executive Director) and Mr. Bernard Zonneveld (independent non-executive Director).

On 15 March 2023, the Audit Committee has reviewed the financial results of the Company for the year ended 31 December 2022.

Material events since the end of the year

01 February 2023	RUSAL started production of master alloys for high-tech alloys.
07 February 2023	RUSAL began production of low-carbon alloys for car manufacturers.
27 February 2023	RUSAL introduced new aluminium pigment pastes.
01 March 2023	RUSAL began production of raw materials for catalysts in addition to the production of VOGA fire retardants.
02 March 2023	RUSAL and the government of Khakassia have agreed to implement a joint investment project to increase the capacity of cold-rolled belt at the SAYANAL foil-rolling plant.

Compliance

The Directors confirm that the information contained in this announcement does not contain any false statements, misleading representations or material omissions, and all of them jointly and severally accept responsibility as to the truthfulness, accuracy and completeness of the content of this announcement.

Forward-looking statements

This announcement contains statements about future events, projections, forecasts and expectations that are forward-looking statements. Any statement in this announcement that is not a statement of historical fact is a forward-looking statement that involves known and unknown risks, uncertainties and other factors which may cause UC RUSAL's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These risks and uncertainties include those discussed or identified in the prospectus for UC RUSAL. In addition, past performance of UC RUSAL cannot be relied on as a guide to future performance. UC RUSAL makes no representation on the accuracy and completeness of any of the forward-looking statements, and, except as may be required by applicable law, assumes no obligations to supplement, amend, update or revise any such statements or any opinion expressed to reflect actual results, changes in assumptions or in UC RUSAL's expectations or changes in factors affecting these statements. Accordingly, any reliance you place on such forward-looking statements will be at your sole risk.

For and on behalf of
United Company RUSAL,
international public joint-stock company
Evgenii Nikitin
General Director, Executive Director

17 March 2023

As at the date of this announcement, the members of the Board of Directors are the following: the executive Directors are Mr. Evgeny Kuryanov, Mr. Evgenii Nikitin and Mr. Evgenii Vavilov, the non-executive Directors are Mr. Mikhail Khardikov, Mr. Vladimir Kolmogorov and Mr. Marco Musetti and the independent non-executive Directors are Mr. Christopher Burnham, Ms. Liudmila Galenskaia, Mr. Kevin Parker, Mr. Randolph N. Reynolds, Dr. Evgeny Shvarts, Ms. Anna Vasilenko, and Mr. Bernard Zonneveld (Chairman).

All announcements published by the Company are available on its website under the links http://www.rusal.ru/en/investors/info.aspx and http://rusal.ru/investors/info/moex/, respectively.