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**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 2021**

Key highlights

- As widely reported in the media, in late February and March 2022, certain countries and multilateral organisations announced new packages of sanctions against the public debt of the Russian Federation, Russia's central bank, a number of Russian banks and certain Russian-government related entities and institutions, as well as personal sanctions against a number of individual as well as certain other restrictions. Due to the growing geopolitical tensions, since February 2022, there has been a significant increase in volatility on the securities and currency markets, as well as a significant depreciation of the ruble against the US dollar and the euro. It is expected that these events will affect the activities of Russian enterprises in various sectors of the economy. The quantitative effect of these events cannot be accurately estimated at the moment with any degree of confidence.
- Due to all these circumstances the Company may potentially face difficulties in supply of equipment, which may lead to the postponement of investment projects. Probable necessity to replace foreign currency credit facilities with debt nominated in RUB may have negative affect on financial results of the Company due to high interest rates on local RUB market caused by general instability and key rate set by Bank of Russia at 20%. Recently announced intention by the Russian Government to change regulation of domestic metals' sales prices may have an adverse effect on the Company's profitability.

- On the 1 March 2022, the Company has announced that due to unavoidable logistical and transport challenges on the Black Sea and surrounding area, it has been obliged to temporarily halt production at the Nikolaev Alumina Refinery located in Nikolaev Region, Ukraine. 2021 output of this refinery amounted to 1.8 million tonnes of alumina. Also, on 20 March Australian government imposed an immediate ban on exports of alumina and aluminum ores, including bauxite, to Russia. This action will affect, among other things, the alumina export from Australia that is almost 20% of RUSAL demand.
- Currently, the Company's management is evaluating the effect of all of the above and analyzing the possible impact of changing and uncertain micro- and macroeconomic conditions on the Company's future financial position and results of operations in 2022 and onwards, and will make further announcements if and when it is necessary or required.
- The Company's revenue for the year ended 31 December 2021 increased by 40.0% to USD11,994 million as compared to USD8,566 million for 2020. The increase was due to growth of the average aluminium realized price to USD2,553/t (+41.4% YoY), which was driven both by the LME QP component¹ (+38.9% YoY to USD2,303/t) and the average realized premium component² (+70.4% YoY to USD250/t). Sales of VAP increased by 18.1% to 2,034 thousand tonnes reaching 52% out of total output (vs 44% in 2020).
- At the same time, global market turbulence has led to the production cost increase. Cost per tonne in aluminium segment in 2021 shifted up by 9.9% to USD1,661 per tonne (vs USD1,512 per tonne in 2020) driven by growth in energy and other material costs.
- As a result of these factors RUSAL has registered EBITDA of USD2,893 million in 2021.

¹ 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.

² The average realised premium includes Commodity premium and VAP upcharge.

Financial and Operating Highlights

	Six months ended 31 December		Change half-year on half-year, % (2H to 2H)	Six months ended 30 June 2021 <i>unaudited</i>	Change half-year on half-year, % (2H to 1H)	Year ended 31 December		Change year-on-year, %
	2021 <i>unaudited</i>	2020 <i>unaudited</i>				2021	2020	
Key operating data								
<i>('000 tonnes)</i>								
Aluminium	1,896	1,888	0.4%	1,868	1.5%	3,764	3,755	0.2%
Alumina	4,202	4,160	1.0%	4,102	2.4%	8,304	8,182	1.5%
Bauxite	7,394	7,369	0.3%	7,637	(3.2%)	15,031	14,838	1.3%
Key pricing and performance data								
<i>('000 tonnes)</i>								
Sales of primary aluminium and alloys	1,904	2,036	(6.5%)	2,000	(4.8%)	3,904	3,926	(0.6%)
<i>(USD per tonne)</i>								
Production cost per tonne in Aluminium segment ³	1,808	1,464	23.5%	1,523	18.7%	1,661	1,512	9.9%
Aluminium price per tonne quoted on the LME ⁴	2,706	1,812	49.3%	2,245	20.5%	2,475	1,702	45.4%
Average premiums over LME price ⁵	301	151	99.3%	203	48.3%	250	147	70.1%
Average sales price	2,832	1,852	52.9%	2,287	23.8%	2,553	1,805	41.4%
Alumina price per tonne ⁶	376	278	35.3%	288	30.6%	329	271	14.0%

3 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).

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

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

6 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 2021 <i>unaudited</i>	Change half-year on half-year, % (2H to 1H)	Year ended 31 December		Change year-on-year, %
	2021 <i>unaudited</i>	2020 <i>unaudited</i>				2021	2020	
Key selected data from the consolidated statement of income <i>(USD million)</i>								
Revenue	6,545	4,551	43.8%	5,449	20.1%	11,994	8,566	40.0%
Adjusted EBITDA	1,578	652	142.0%	1,315	20.0%	2,893	871	232.1%
margin (% of revenue)	24.1%	14.3%	NA	24.1%	NA	24.1%	10.2%	NA
Profit for the period	1,207	883	36.7%	2,018	(40.2%)	3,225	759	324.9%
margin (% of revenue)	18.4%	19.4%	NA	37.0%	NA	26.9%	8.9%	NA
Adjusted Net Profit for the period	857	123	596.7%	679	26.2%	1,536	60	2,460.0%
margin (% of revenue)	13.1%	2.7%	NA	12.5%	NA	12.8%	0.7%	NA
Recurring Net Profit for the period	1,495	1,066	40.2%	1,803	(17.1%)	3,298	990	233.1%
margin (% of revenue)	22.8%	23.4%	NA	33.1%	NA	27.5%	11.6%	NA

Key selected data from consolidated statement of financial position

	As at 31 December		Change year-on-year end, %
	2021	2020	
<i>(USD million)</i>			
Total assets	20,906	17,378	20.3%
Total working capital ⁷	2,930	1,619	81.0%
Net Debt ⁸	4,749	5,563	(14.6%)

Key selected data from consolidated statement of cash flows

	Year ended 31 December		Change year-on-year end, %
	2021	2020	
<i>(USD million)</i>			
Net cash flows generated from operating activities	1,146	1,091	5.0%
Net cash flows generated from investing activities	490	128	282.8%
of which dividends from Norilsk Nickel	618	1,161	(46.8%)
of which CAPEX ⁹	(1,192)	(897)	32.9%
Interest paid	(380)	(465)	(18.3%)

⁷ Total working capital is defined as inventories plus trade and other receivables minus trade and other payables.

⁸ 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.

⁹ 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

Current situation on the market is largely affected by various sanctions imposed. 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.

BUSINESS REVIEW

Aluminium production

- In 12M21, aluminium production totaled 3,764 thousand tonnes, almost unchanged (+0.2% year-on-year (“YoY”));
- In 12M21, aluminium sales decreased by 0.5% YoY, totaling 3,904 thousand tonnes. During this period sales of value added products (“VAP”¹⁰) increased by 18.1% to 2,034 thousand tonnes, demonstrating the recovery of VAP share in total sales mix to 52% in 12M21, compared to 44% in 12M20, that was then affected by market volatility caused by the COVID-19 pandemic;
- In 12M21 the share of Europe in sales mix decreased to 41% (vs 45% in 12M20). The shift was toward Russian & CIS and American sales that increased to 27% (vs 23% in 12M20) and 8% (vs 7% in 12M20) respectively;
- In 12M21 aluminium sales in Russia alone amounted to 865 thousand tonnes (+18.8% YoY). Should we include the volumes of aluminium allocated to internal downstream production of foil, wheels and powder, the total volume of deliveries within Russia was 957 thousand tonnes (+18.8% YoY). Sales in Russia and CIS increased to a record 1.2 million tons;
- In 12M21, the average aluminium realized price¹¹ increased by 41.4% YoY to USD2,553/t. The increase was driven both by the LME QP¹² component (+38.9% YoY to USD2,303/t) and the average realized premium component (+70.4% YoY to USD250/t). The increase of realized premium during 12M21 is attributed to the improved commodity component, as well as the growth of the VAP share in product sales mix and a positive shift in VAP upcharge.

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

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

12 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.

Alumina production

- In 12M21 alumina output totaled 8,304 thousand tonnes (+1.5% YoY). The performance of the Company's alumina assets was largely in line with the production plan.

Bauxite and nepheline ore production

- In 12M21, bauxite output totaled 15,031 thousand tonnes (+1.3% YoY). Nepheline output decreased by 4.6% YoY to 4,390 thousand tonnes.

FINANCIAL OVERVIEW

Revenue

	Year ended 31 December 2021			Year ended 31 December 2020		
	<i>USD million</i>	<i>kt</i>	<i>Average sales price (USD/tonne)</i>	<i>USD million</i>	<i>kt</i>	<i>Average sales price (USD/tonne)</i>
Sales of primary aluminium and alloys	9,966	3,904	2,553	7,088	3,926	1,805
Sales of alumina	610	1,677	364	533	1,729	308
Sales of foil and other aluminium products	515	–	–	381	–	–
Other revenue	903	–	–	564	–	–
Total revenue	11,994			8,566		

Total revenue increased by USD3,428 million or by 40.0% to USD11,994 million in 2021 compared to USD8,566 million in 2020.

	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, %
	2021	2020		2021			2021	2020	
	<i>(unaudited)</i>	<i>(unaudited)</i>		<i>(unaudited)</i>					
Sales of primary aluminium and alloys									
USD million	5,392	3,770	43.0%	4,574	17.9%		9,966	7,088	40.6%
Kt	3,904	2,036	91.7%	2,000	95.2%		3,904	3,926	(0.6%)
Average sales price (USD/t)	2,553	1,852	37.9%	2,287	11.6%		2,553	1,805	41.4%
Sales of alumina	334	291	14.8%	276	21.0%		610	533	14.4%
USD million									
Kt	847	953	(11.1%)	830	2.0%		1,677	1,729	(3.0%)
Average sales price (USD/t)	394	305	29.2%	333	18.3%		364	308	18.2%
Sales of foil and other aluminium products (USD million)	283	203	39.4%	232	22.0%		515	381	35.2%
Other revenue (USD million)	536	287	86.8%	367	46.0%		903	564	60.1%
Total revenue (USD million)	6,545	4,551	43.8%	5,449	20.1%		11,994	8,566	40.0%

Revenue from sales of primary aluminium and alloys increased by USD2,878 million, or by 40.6%, to USD9,966 million in 2021, as compared to USD7,088 million in 2020, primarily due to 41.4% increase in the weighted-average realized aluminium price per tonne (to an average of USD2,553 per tonne in 2021 from USD1,805 per tonne in 2020) driven by an increase in the LME aluminium price (to an average of USD2,475 per tonne in 2021 from USD1,702 per tonne in 2020), while sales volumes remained almost flat in the compared periods.

Revenue from sales of alumina increased by 14.4% to USD610 million for the year ended 31 December 2021 from USD533 million for the year ended 31 December 2020 due a increase in the average sales price by 18.2% which was partially offset by a 3.0% decrease in the alumina sales volume.

Revenue from sales of foil and other aluminium products increased by USD134 million, or by 35.2%, to USD515 million in 2021, as compared to USD381 million in 2020, due to an increase in revenue from sales of aluminium wheels by 58.6% together with an increase in sales of foil by 28.3% between the comparable periods.

Revenue from other sales, including sales of other products, bauxite and energy services increased by 60.1% to USD903 million for the year ended 31 December 2021 as compared to USD564 million for the previous year, due to a 54.3% increase in sales of other materials (such as aluminium powder 68.6%, silicon by 100.6%, hidrate by 103.7%, anode blocks by 26.7%) 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 2021 and 2020, respectively:

	Year ended 31 December		Change year-on- year, %	Share of costs, %
	2021	2020		
<i>(USD million)</i>				
Cost of alumina	741	608	21.9%	9.0%
Cost of bauxite	506	447	13.2%	6.1%
Cost of other raw materials and other costs	3,387	2,298	47.4%	40.9%
Purchases of primary aluminium from JV	696	465	49.7%	8.4%
Energy costs	2,070	1,868	10.8%	25.0%
Depreciation and amortisation	572	542	5.5%	6.9%
Personnel expenses	618	512	20.7%	7.5%
Repairs and maintenance	407	381	6.8%	4.9%
Net change in provisions for inventories	28	(2)	NA	0.3%
Change in finished goods	(752)	(7)	10,642.9%	(9.1%)
Total cost of sales	8,273	7,112	16.3%	100.0%

Total cost of sales increased by USD1,161 million, or by 16.3%, to USD8,273 million for the year ended 31 December 2021, as compared to USD7,112 million for the year ended 31 December 2020. The dynamic was predominantly driven by the increase in alumina and other raw material prices, average electricity and transportation tariffs.

The finished goods mainly consist of primary aluminium and alloys (app.95%). The dynamic of change between the reporting periods was driven by the fluctuations of primary aluminium and alloys physical inventory between the reporting dates: 96.9% increase in 2021 and 2.6% increase in 2020.

Gross profit

As a result of the foregoing factors, UC RUSAL reports a gross profit of USD3,721 million for the year ended 31 December 2021 as compared to USD1,454 million for the year ended 31 December 2020, representing gross margins over the periods of 31.0% and 17.0%, respectively.

Adjusted EBITDA and Results from operating activities

	Year ended 31 December 2021	2020	Change year-on- year, %
<i>(USD million)</i>			
Reconciliation of Adjusted EBITDA			
Results from operating activities	2,079	279	645.2%
Add:			
Amortisation and depreciation	596	570	4.6%
Impairment of non-current assets	209	9	2,222.2%
Loss on disposal of property, plant and equipment	9	13	(30.8%)
Adjusted EBITDA	<u>2,893</u>	<u>871</u>	232.1%

Adjusted EBITDA, defined as results from operating activities adjusted for amortisation and depreciation, impairment charges and loss on disposal of property, plant and equipment, increased to USD2,893 million for the year ended 31 December 2021, as compared to USD871 million for the year ended 31 December 2020. The factors that contributed to the increase in Adjusted EBITDA margin were the same that influenced the operating results of the Company.

Finance income and expenses

	Year ended 31 December		Change, year-on-year, %
	2021	2020	
<i>(USD million)</i>			
Finance income			
Interest income on third party loans and deposits	43	33	30.3%
Dividends from other investments	20	–	100.0%
Foreign exchange gain	–	118	(100.0%)
	<u>63</u>	<u>151</u>	(58.3%)
Finance expenses			
Interest expense on bank loans and company			
loans, bonds and other bank charges, including	(359)	(450)	(20.2%)
<i>Interest expense</i>	(329)	(417)	(21.1%)
<i>Bank charges</i>	(30)	(33)	(9.1%)
Change in fair value of derivative financial			
instruments, including:	(352)	(226)	55.8%
<i>Change in fair value of embedded derivatives</i>	21	(17)	NA
<i>Change in other derivatives instruments</i>	(373)	(209)	78.5%
Net foreign exchange loss	(29)	–	100.0%
Interest expense on provisions	(8)	(3)	166.7%
Revaluation of investments measured at			
fair value through profit and loss	(47)	–	100.0%
Other finance costs	–	(2)	(100.0%)
Lease interest cost	(5)	(9)	(44.4%)
	<u>(800)</u>	<u>(690)</u>	15.9%

Finance income decreased by USD88 million, or 58.3% to USD63 million for the year ended 31 December 2021 compared to USD151 million for the year ended 31 December 2020 primarily due to the net foreign exchange loss in 2021 as compared to the net foreign exchange gain in 2020.

Finance expenses increased by USD110 million or by 15.9% to USD800 million in 2021 as compared to USD690 million in 2020 primarily due to the reason described above as well as an increase in net loss from change in fair value of derivative financial instruments in 2021 due to strong appreciation in prices for the metal hedged which were offset by a 20.2% decrease of interest expense and other bank charges.

Share of profits of associates and joint ventures

	Year ended 31 December 2021	2020	Change, year-on-year, %
<i>(USD million)</i>			
Share of profits of Norilsk Nickel, <i>with Effective shareholding of</i>	1,762 <i>26.39%</i>	930 <i>27.82%</i>	89.5%
Share of profits of associates	1,762	930	89.5%
Share of profits of joint ventures	45	46	(2.2%)

The Company's share in profits of associates for the years ended 31 December 2021 and 2020 amounted to USD1,762 million and USD930 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 2021 was USD12,395 million as compared to USD14,123 million as at 31 December 2020.

Share of profits of joint ventures was USD45 million for the year ended 31 December 2021 as compared to USD46 million for the same period in 2020. This represents the Company's share of profits in joint ventures, namely BEMO, 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 USD3,641 million for the year ended 31 December 2021, as compared to a profit before income tax in an amount of USD716 million for the year ended 31 December 2020 due to reasons set out above.

Income tax

The Company recognized income tax expense in amount of USD416 million in 2021 as compared to income tax credit in amount of USD43 million in 2020.

Income tax expense for the current period is driven by sharp appreciation of LME price through the year and consequent effect on taxable profits.

Income tax credit for the previous period was primarily driven by recognition of deferred tax asset on taxable losses incurred by various Group companies following the deterioration of market environment in the second quarter of 2020.

Current tax expenses increased by USD296 million, or 688.4%, to USD339 million for the year ended 31 December 2021, as compared to USD43 million for the previous year due to the reason mentioned above.

The Company recognized deferred tax expenses in amount of USD77 million in 2021 as compared to deferred tax benefit in amount USD86 million for the previous year primarily due to realisation of deferred tax asset related to tax losses incurred by various Group companies.

Profit for the period

As a result of the above, the Company recorded a profit of USD3,225 million in 2021, as compared to USD759 million in 2020.

Adjusted and Recurring Net Profit

	Six months ended 31 December		Change half- year on half- year, % (2H to 2H)	Six months ended 30 June 2021	Change half- year on half- year, % (2H to 1H)	Year ended 31 December		Change year-on-year, %
	2021	2020				2021	2020	
(USD million)	unaudited	unaudited		unaudited				
Reconciliation of Adjusted Net Profit								
Net profit for the period	1,207	883	36.7%	2,018	(40.2%)	3,225	759	324.9%
Adjusted for:								
Share of profits and other gains and losses attributable to Norilsk Nickel, net of tax effect	(638)	(943)	(32.3%)	(1,124)	(43.2%)	(1,762)	(930)	89.5%
Change in the fair value of derivative financial liabilities, net of tax (20%)	134	225	(40.4%)	222	(39.6%)	356	222	60.4%
Impairment/(reversal of impairment)/of non-current assets, net of tax	154	(42)	NA	55	180.0%	209	9	2,222.2%
Gain from partial disposal of investment in associate	–	–	0.0%	(492)	(100.0%)	(492)	–	100.0%
Adjusted Net Profit	857	123	596.7%	679	26.2%	1,536	60	2,460.0%
Add back:								
Share of profits of Norilsk Nickel, net of tax	638	943	(32.3%)	1,124	(43.2%)	1,762	930	89.5%
Recurring Net Profit	1,495	1,066	40.2%	1,803	(17.1%)	3,298	990	233.1%

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 USD3,528 million, or 20.3%, to USD20,906 million as at 31 December 2021 as compared to USD17,378 million as at 31 December 2020. The increase in total assets was driven primarily by the increase in property, plant and equipment, inventories, trade and other receivables and advances paid and dividends receivable.

Total liabilities decreased by USD453 million, or 4.2%, to USD10,382 million as at 31 December 2021 as compared to USD10,835 million as at 31 December 2020 mainly due to the decrease in the Company's outstanding financial debts.

Cash flows

The Company generated net cash from operating activities of USD1,146 million for the year ended 31 December 2021 as compared to USD1,091 million for the previous year driven by the same factors that led to the increase in Adjusted EBITDA between the comparable periods.

The Company generated USD490 million net cash from investing activities for the year ended 31 December 2021 as compared to USD128 million in the previous year primarily due to a proceeds from partial disposal of associate in amount USD1,421 million in 2021 as well as an increase by USD295 million in an acquisition of property, plant and equipment and an acquisition of intangible and a decrease by USD550 million of dividends from associates and joint ventures between the comparable periods.

Increase in the financing cash outflow to USD1,891 million for the year ended 31 December 2021 as compared to USD694 million for 2020 was primarily driven by an increase in net debt repayments in 2021.

Segment reporting

The Group has four reportable segments, as described in the Annual Report, 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 on a regular basis.

The core segments are Aluminium and Alumina.

	Year ended 31 December			
	2021		2020	
	Aluminium	Alumina	Aluminium	Alumina
<i>(USD million)</i>				
Segment revenue				
<i>kt</i>	3,590	7,554	3,702	7,844
<i>USD million</i>	9,102	2,649	6,666	2,310
Segment result	2,817	(72)	733	(106)
Segment result margin	31.0%	(2.7%)	11.0%	(4.6%)
Segment EBITDA ¹³	3,139	113	1,068	48
Segment EBITDA margin	34.5%	4.3%	16.0%	2.1%
Total capital expenditure	(700)	(234)	(611)	(238)

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

Key drivers for the increase 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 2021.

Capital expenditure

UC RUSAL recorded a total capital expenditure of USD1,192 million for the year ended 31 December 2021. UC RUSAL’s capital expenditure in 2021 was aimed at maintaining existing production facilities.

	Year ended 31 December	
	2021	2020
<i>(USD million)</i>		
Development capex	399	398
Maintenance		
Pot rebuilds costs	143	120
Re-equipment	650	379
Total capital expenditure	<u>1,192</u>	<u>897</u>

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 ventures 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 2021 which were reviewed by the Audit Committee, preliminary reviewed and noted by the Board of Directors of UC RUSAL (the “**Directors**”) on 29 March 2022 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.

		Year ended 31 December	
		2021	2020
	Note	USD million	USD million
Revenue	5	11,994	8,566
Cost of sales	6(a)	(8,273)	(7,112)
Gross profit		3,721	1,454
Distribution expenses	6(b)	(617)	(469)
Administrative expenses	6(b)	(603)	(553)
Impairment of non-current assets	6(b), 13	(209)	(9)
Expected credit losses	17(a)	(60)	(6)
Net other operating expenses	6(b)	(153)	(138)
Results from operating activities		2,079	279
Finance income	7	63	151
Finance expenses	7	(800)	(690)
Share of profits of associates and joint ventures	15	1,807	976
Gain from partial disposal of investment in associate	15	492	–
Profit before taxation		3,641	716
Income tax	8	(416)	43
Profit for the year		3,225	759
Attributable to Shareholders of the Company		3,225	759
Profit for the year		3,225	759
Earnings per share			
Basic and diluted earnings per share (USD)	12	0.212	0.050
Adjusted EBITDA	4, 6(d)	2,893	871

		Year ended 31 December	
		2021	2020
	Note	USD million	USD million
Profit for the year		3,225	759
Other comprehensive income or loss			
<i>Items that will never be reclassified subsequently to profit or loss</i>			
Actuarial (loss)/gain on post retirement benefit plans	20	(8)	2
		(8)	2
<i>Items that are or may be reclassified subsequently to profit or loss</i>			
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	(28)	(53)
Foreign currency translation differences for equity-accounted investees	15	21	(665)
Foreign currency translation differences on foreign operations		29	(247)
		635	(965)
Other comprehensive income/(loss) for the year, net of tax		627	(963)
Total comprehensive income/(loss) for the year		3,852	(204)
<i>Attributable to:</i>			
Shareholders of the Company		3,852	(204)
Total comprehensive income/(loss) for the year		3,852	(204)

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

		31 December 2021	31 December 2020
	Note	USD million	USD million
Assets			
Non-current assets			
Property, plant and equipment and investment properties	13	5,350	4,855
Intangible assets	14	2,411	2,407
Interests in associates and joint ventures	15	4,014	3,822
Deferred tax assets	8	113	199
Derivative financial assets	21	22	20
Investments in equity securities measured at fair value through profit and loss	17 (e)	315	74
Other non-current assets	17(d)	245	124
Total non-current assets		12,470	11,501
Current assets			
Inventories	16	3,692	2,292
Short-term investments	17(f)	167	163
Trade and other receivables and advances paid	17(a)	1,646	1,163
Dividends receivable		827	–
Derivative financial assets	21	120	30
Cash and cash equivalents	17(c)	1,984	2,229
Total current assets		8,436	5,877
Total assets		20,906	17,378
Equity and liabilities			
Equity	18		
Share capital		152	152
Share premium		15,786	15,786
Other reserves		2,805	2,841
Currency translation reserve		(9,450)	(10,113)
Retained earnings / (accumulated losses)		1,231	(2,123)
Total equity		10,524	6,543
Non-current liabilities			
Loans and borrowings	19	4,839	7,062
Provisions	20	378	405
Deferred tax liabilities	8	429	453
Derivative financial liabilities	21	61	28
Other non-current liabilities		83	96
Total non-current liabilities		5,790	8,044
Current liabilities			
Loans and borrowings	19	1,894	730
Trade and other payables and advances received	17(b)	2,408	1,836
Derivative financial liabilities	21	145	157
Provisions	20	145	68
Total current liabilities		4,592	2,791
Total liabilities		10,382	10,835
Total equity and liabilities		20,906	17,378
Net current assets		3,844	3,086
Total assets less current liabilities		16,314	14,587

Preliminary reviewed, approved and authorised for issue by the board of directors on 29 March 2022.

Evgenii V. Nikitin
General Director

Alexander V. Popov
Chief Financial Officer

	Note	Share capital USD million	Share premium USD million	Other reserves USD million	Currency translation reserve USD million	(Accumulated losses) / retained earnings USD million	Total equity USD million
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
Balance at 1 January 2020		152	15,786	2,892	(9,201)	(2,882)	6,747
Profit for the year		–	–	–	–	759	759
Other comprehensive loss for the year		–	–	(51)	(912)	–	(963)
Total comprehensive (loss)/income for the year		–	–	(51)	(912)	759	(204)
Balance at 31 December 2020		152	15,786	2,841	(10,113)	(2,123)	6,543

	Note	Year ended 31 December	
		2021	2020
		USD million	USD million
Operating activities			
Profit for the year		3,225	759
<i>Adjustments for:</i>			
Depreciation	6, 13	589	564
Amortisation	6, 14	7	6
Impairment of non-current assets	6(b)	209	9
Impairment / (reversal of impairment) of trade and other receivables	6(b)	60	6
Write-down of inventories to net realisable value	16	28	(2)
Pension provision	20	3	5
Provision for legal claims	20	6	—
Change in fair value of derivative financial instruments	7	352	226
Net foreign exchange loss/(gain)	7	29	(118)
Loss on disposal of property, plant and equipment	6(b)	9	13
Interest expense	7	372	464
Interest income	7	(43)	(33)
Income tax expense/(gain)	8	416	(43)
Dividends from other investments		(20)	—
Revaluation of investments measured at fair value through profit and loss	17(e)	47	—
Share of profits of associates and joint ventures	15	(1,807)	(976)
Gain on partial disposal of investment in associate	15	(492)	—
Cash from operating activities before changes in working capital and provisions		2,990	880
(Increase)/decrease in inventories		(1,387)	195
(Increase)/decrease in trade and other receivables and advances paid		(528)	201
Increase/(decrease) in trade and other payables and advances received		394	(135)
Decrease in provisions		(16)	(7)
Cash generated from operations before income tax paid		1,453	1,134
Income tax paid	8(e)	(307)	(43)
Net cash generated from operating activities		1,146	1,091
Investing activities			
Proceeds from disposal of property, plant and equipment		10	11
Interest received		37	26
Acquisition of property, plant and equipment		(1,164)	(877)
Dividends from associates and joint ventures		620	1,170
Dividends from other investments		20	—
Acquisition of intangible assets		(28)	(20)
Cash paid for investments in equity securities measured at fair value through profit and loss		(291)	—
Cash paid for other investments		(50)	(191)
Return of contribution to joint venture		—	10
Prepayment for and acquisition of subsidiaries		(85)	(1)
Proceeds from partial disposal of associate		1,421	—
Net cash generated from investing activities		490	128
Financing activities			
Proceeds from borrowings		918	491
Repayment of borrowings		(2,080)	(493)
Refinancing fees and other expenses		(34)	(12)
Interest paid		(380)	(465)
Settlement of derivative financial instruments		(315)	(215)
Net cash used in financing activities		(1,891)	(694)
Net (decrease)/increase in cash and cash equivalents		(255)	525
Cash and cash equivalents at the beginning of the year	17(c)	2,216	1,768
Effect of exchange rate fluctuations on cash and cash equivalents		21	(77)
Cash and cash equivalents at the end of the year	17(c)	1,982	2,216

Restricted cash amounted to USD2 million and USD13 million at 31 December 2021 and 31 December 2020, respectively.

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 2021 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 2021 and 2020 was as follows:

	31 December 2021	31 December 2020
EN+GROUP IPJSC (“EN+”, formerly En+ Group Plc)	56.88%	56.88%
SUAL Partners Limited (“SUAL Partners”)	21.52%	22.10%
Zonoville Investments Limited (“Zonoville”)	4.00%	4.00%
Mr. Oleg V. Deripaska	0.01%	0.01%
Publicly held	17.59%	17.01%
Total	100.00%	100.00%

At 31 December 2021 and 2020 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 2021 and 31 December 2020 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.

According to the information disclosed at the Stock Exchange of Hong Kong Limited Zonoville Investments Limited and SUAL Partners Limited are 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 markets, a depreciation of the Russian Rouble, a reduction in both local and foreign direct investment inflows and a significant tightening in the availability of credit. In particular, some Russian entities may be experiencing difficulties in accessing international equity and debt markets and may become increasingly dependent on Russian state banks to finance their operations. 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.

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*” in all aspects, except for language and functional and presentation currencies, which are regulated by 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*;
- *Reference to the Conceptual Framework* – Amendments to IFRS 3;
- *Property, Plant and Equipment: Proceeds before Intended Use* – Amendments to IAS 16;
- *Onerous Contracts – Costs of Fulfilling a Contract* – Amendments to IAS 37;
- IFRS 1 *First-time Adoption of International Financial Reporting Standards* – Subsidiary as a first-time adopter;
- *Definition of Accounting Estimates* – Amendments to IAS 8;
- IFRS 9 *Financial Instruments* – Fees in the ‘10 per cent’ test for derecognition of financial liabilities;
- *Disclosure of Accounting Policies* – Amendments to IAS 1 and IFRS Practice Statement 2;

These amendments are not expected to have a material impact on the Group.

Amendments to IAS 1 Classification of Liabilities as Current or Non-current

In January 2020, the IASB issued amendments to paragraphs 69 to 76 of IAS 1 to specify the requirements for classifying liabilities as current or non-current. The amendments clarify:

- What is meant by a right to defer settlement;
- That a right to defer must exist at the end of the reporting period;
- That classification is unaffected by the likelihood that an entity will exercise its deferral right;
- That only if an embedded derivative in a convertible liability is itself an equity instrument would the terms of a liability not impact its classification.

The amendments are effective for annual reporting periods beginning on or after 1 January 2023 and must be applied retrospectively. The Group is currently assessing the impact the amendments will have on current practice.

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 2021 (unless otherwise stated). The Group has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

Interest Rate Benchmark Reform – Phase 2: Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16

The amendments provide temporary reliefs which address the financial reporting effects when an interbank offered rate (IBOR) is replaced with an alternative nearly risk-free interest rate (RFR). The amendments include some practical expedients.

These amendments had no impact on the Consolidated financial statements of the Group. The Group intends to use the practical expedients in future periods if they become applicable.

Covid-19-Related Rent Concessions beyond 30 June 2021 Amendments to IFRS 16

On 28 May 2020, the IASB issued *Covid-19-Related Rent Concessions* – amendment to IFRS 16 *Leases*. The amendments provide relief to lessees from applying IFRS 16 guidance on lease modification accounting for rent concessions arising as a direct consequence of the Covid-19 pandemic. As a practical expedient, a lessee may elect not to assess whether a Covid-19 related rent concession from a lessor is a lease modification. A lessee that makes this election accounts for any change in lease payments resulting from the Covid-19 related rent concession the same way it would account for the change under IFRS 16, if the change were not a lease modification.

The amendment was intended to apply until 30 June 2021, but as the impact of the Covid-19 pandemic is continuing, on 31 March 2021, the IASB extended the period of application of the practical expedient to 30 June 2022. The amendment applies to annual reporting periods beginning on or after 1 April 2021. However, the Group has not received Covid-19-related rent concessions, but plans to apply the practical expedient if it becomes applicable within allowed period of application.

(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 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 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 consolidated 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 2021 and 2020.

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 2021

	Aluminium	Alumina	Energy	Mining and Metals	Total segment result
	USD million	USD million	USD million	USD million	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)

Year ended 31 December 2020

	Aluminium	Alumina	Energy	Mining and Metals	Total segment result
	USD million	USD million	USD million	USD million	USD million
Revenue from external customers	7,158	811	–	–	7,969
Inter-segment revenue	217	2,429	–	–	2,646
Total segment revenue	7,375	3,240	–	–	10,615
Segment profit	365	213	–	–	578
Depreciation/amortisation	(350)	(183)	–	–	(533)
Segment EBITDA	715	396	–	–	1,111
Reversal of impairment/(impairment) of non-current assets	74	(59)	–	–	15
Share of profits of associates and joint ventures	–	–	76	930	1,006
Non-cash (expense)/income other than depreciation	(2)	6	–	–	4
Capital expenditure	(611)	(238)	–	–	(849)
Non-cash additions/(disposals) to non-current segment assets related to site restoration	6	(39)	–	–	(33)
Segment assets	6,987	2,572	–	–	9,559
Interests in associates and joint ventures	–	–	662	3,122	3,784
Total segment assets					13,343
Segment liabilities	(854)	(668)	(13)	–	(1,535)
Total segment liabilities					(1,535)

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

	Year ended 31 December	
	2021	2020
	USD million	USD million
Revenue		
Reportable segment revenue	14,229	10,615
Elimination of inter-segment revenue	(3,161)	(2,646)
Unallocated revenue	926	597
Consolidated revenue	11,994	8,566

	Year ended 31 December	
	2021	2020
	USD million	USD million
Profit		
Reportable segment profit	2,590	578
Impairment of non-current assets	(209)	(9)
Share of profits of associates and joint ventures	1,807	976
Loss on disposal of property, plant and equipment	(9)	(13)
Finance income	63	151
Finance expenses	(800)	(690)
Gain from partial disposal of investment in associate	492	–
Unallocated expenses	(293)	(277)
Consolidated profit before taxation	3,641	716

	Year ended 31 December	
	2021	2020
	USD million	USD million
Adjusted EBITDA		
Reportable segment EBITDA	3,150	1,111
Unallocated depreciation	36	37
Unallocated expenses	(293)	(277)
Consolidated adjusted EBITDA	2,893	871

	31 December 2021	31 December 2020
	USD million	USD million
Assets		
Reportable segment assets	15,544	13,343
Unallocated assets	5,362	4,035
Consolidated total assets	20,906	17,378

	31 December 2021	31 December 2020
	USD million	USD million
Liabilities		
Reportable segment liabilities	(1,867)	(1,535)
Unallocated liabilities	(8,515)	(9,300)
Consolidated total liabilities	(10,382)	(10,835)

(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 and Ukraine. 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 and a trading subsidiary in the United States of America.

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	
	2021	2020
	USD million	USD million
Russia	3,389	2,139
Turkey	1,108	956
China	772	615
Japan	744	471
USA	741	469
Netherlands	443	727
Greece	367	236
Poland	328	337
South Korea	314	329
Germany	325	190
Mexico	280	103
Norway	267	134
Italy	260	225
France	247	164
Taiwan	236	185
Other countries	2,173	1,285
	11,994	8,566

	Specified non-current assets	
	31 December	31 December
	2021	2020
	USD million	USD million
Russia	8,697	7,331
Ireland	82	606
Guinea	232	225
Ukraine	6	229
Sweden	68	-
Unallocated	3,385	3,110
	12,470	11,501

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. 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	
	2021	2020
	USD million	USD million
Revenue from contracts with customers	11,994	8,566
Sales of products	11,702	8,397
Sales of primary aluminium and alloys	9,966	7,088
Sales of alumina and bauxite	612	534
Sales of foil and other aluminium products	515	381
Sales of other products	609	394
Provision of services	292	169
Supply of energy	226	111
Provision of transportation services	7	8
Provision of other services	59	50
Total revenue by types of customers	11,994	8,566
Third parties	11,083	7,796
Related parties – companies capable of exerting significant influence	320	317
Related parties – companies related through parent company	223	141
Related parties – associates and joint ventures	368	312
Total revenue by primary regions	11,994	8,566
Europe	4,401	3,574
CIS	3,903	2,486
America	1,087	624
Asia	2,461	1,829
Other	142	53

In 2020 transactions with Glencore International AG (a member of Glencore International) have exceeded 10% of the Group's revenue and amounted to USD1,259 million.

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	
	2021	2020
	USD million	USD million
Cost of alumina, bauxite and other materials	(3,693)	(2,924)
Third parties	(3,638)	(2,898)
Related parties – companies capable of exerting significant influence	(24)	(15)
Related parties – companies related through parent company	(13)	(11)
Related parties – associates and joint ventures	(18)	–
Purchases of primary aluminium	(1,229)	(605)
Third parties	(517)	(129)
Related parties – companies related through parent company	(16)	(11)
Related parties – associates and joint ventures	(696)	(465)
Energy costs	(2,070)	(1,868)
Third parties	(1,288)	(1,094)
Related parties – companies capable of exerting significant influence	(33)	(27)
Related parties – companies related through parent company	(714)	(721)
Related parties – associates and joint ventures	(35)	(26)
Personnel costs	(618)	(512)
Depreciation and amortisation	(572)	(542)
Change in finished goods	752	7
Other costs	(843)	(668)
Third parties	(702)	(529)
Related parties – companies related through parent company	(30)	(28)
Related parties – associates and joint ventures	(111)	(111)
	(8,273)	(7,112)

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

	Year ended 31 December	
	2021	2020
	USD million	USD million
Transportation expenses	(443)	(388)
Personnel costs	(301)	(272)
Impairment of non-current assets	(209)	(9)
Customs duties	(99)	(14)
Consulting and legal expenses	(86)	(82)
Expected credit losses	(60)	(6)
Taxes other than on income	(50)	(42)
Charitable donations	(45)	(63)
Packaging materials	(38)	(33)
Security	(33)	(31)
Repair and other services	(25)	(20)
Depreciation and amortisation	(24)	(28)
Loss on disposal of property, plant and equipment	(9)	(13)
Auditors' remuneration	(6)	(6)
Provision for legal claims	(6)	–
Short-term lease and variable lease payments	(5)	(3)
Other expenses	(203)	(165)
	(1,642)	(1,175)

(c) Personnel costs

Accounting policies

Personnel costs comprise salaries, annual bonuses, annual leave and cost of non-monetary benefits. 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	
	2021	2020
	USD million	USD million
Contributions to defined contribution retirement plans	193	155
Contributions to defined benefit retirement plans	3	5
Total retirement costs	196	160
Wages and salaries	724	624
	920	784

(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	
	2021	2021
	USD million	USD million
Results from operating activities	2,079	279
<i>Add:</i>		
Amortisation and depreciation	596	570
Impairment of non-current assets	209	9
Loss on disposal of property, plant and equipment	9	13
Adjusted EBITDA	2,893	871

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 2021 equalled to USD3 million (31 December 2020: gain in the amount of USD291 million).

Disclosures

	Year ended 31 December	
	2021	2020
	USD million	USD million
Finance income		
Interest income on third party loans and deposits	43	33
Dividends from other investments	20	–
Net foreign exchange gain	–	118
	63	151
Finance expenses		
Interest expense on bank loans and bonds wholly repayable within 5 years and other bank charges	(284)	(437)
Interest expense on bank loans and bonds wholly repayable after 5 years	(75)	(13)
Change in fair value of derivative financial instruments (refer to note 21)	(352)	(226)
Net foreign exchange loss	(29)	–
Interest expense on provisions	(8)	(3)
Revaluation of investments measured at fair value through profit and loss	(47)	–
Other finance costs	–	(2)
Leases interest costs	(5)	(9)
	(800)	(690)

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 (credit)/expense

	Year ended 31 December	
	2021	2020
	USD million	USD million
Current tax		
Current tax for the year	339	43
Deferred tax		
Origination and reversal of temporary differences	77	(86)
Actual tax expense/(credit)	416	(43)

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 30%; China of 25%; Kazakhstan of 20%; Australia of 30%; Jamaica of 25%; Ireland of 12.5%; Sweden of 20.6% and Italy of 26.9%. 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 9.55% and 11.85% 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 2020 were the same as for the year ended 31 December 2021 except for tax rates for subsidiaries domiciled in Switzerland which amounted to 9.1% and 11.91% subsequently and subsidiary domiciled in Sweden which amounted to 21.4%.

	Year ended 31 December			
	2021		2020	
	USD million	%	USD million	%
Profit before taxation	3,641	100	716	100
Income tax at tax rate applicable to the tax residence of the Company	728	20	143	20
Effect of different income tax rates	106	3	(42)	(6)
Effect of changes in investment in Norilsk Nickel	(451)	(12)	(186)	(26)
Change in unrecognised deferred tax assets	72	1	191	27
Effect of reversal/accrual of impairment	(42)	(1)	(30)	(4)
Other non-taxable income and non-deductible expenses	2	—	(119)	(17)
Actual tax expense/(credit)	416	11	(43)	(6)

(b) Recognised deferred tax assets and liabilities

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

USD million	Assets		Liabilities		Net	
	31 December 2021	31 December 2020	31 December 2021	31 December 2020	31 December 2021	31 December 2020
Property, plant and equipment	85	62	(551)	(572)	(466)	(510)
Inventories	67	61	(19)	(15)	48	46
Trade and other receivables	52	33	(30)	(23)	22	10
Trade and other payables and advances received	17	24	—	—	17	24
Derivative financial assets/(liabilities)	3	8	(5)	(6)	(2)	2
Tax loss carry-forwards	54	173	—	—	54	173
Others	100	84	(89)	(83)	11	1
Deferred tax assets/(liabilities)	378	445	(694)	(699)	(316)	(254)
Set-off of deferred taxation	(265)	(246)	265	246	—	—
Net deferred tax assets/(liabilities)	113	199	(429)	(453)	(316)	(254)

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

USD million	1 January 2020	Recognised in profit or loss	Foreign currency translation	31 December 2020
Property, plant and equipment	(503)	(2)	(5)	(510)
Inventories	84	(38)	—	46
Trade and other receivables	7	3	—	10
Trade and other payables and advances received	23	1	—	24
Derivative financial assets/(liabilities)	(1)	3	—	2
Tax loss carry-forwards	66	107	—	173
Others	(11)	12	—	1
Total	(335)	86	(5)	(254)

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)

Recognised tax losses expire in the following years:

	31 December 2021	31 December 2020
Year of expiry	USD million	USD million
Without expiry	54	173
	54	173

(c) Unrecognised deferred tax assets

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

	31 December 2021	31 December 2020
	USD million	USD million
Deductible temporary differences	972	946
Tax loss carry-forwards	347	301
	1,319	1,247

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:

	31 December 2021	31 December 2020
Year of expiry	USD million	USD million
Without expiry	347	300
Up to one year	–	1
	347	301

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

	31 December 2021	31 December 2020
	USD million	USD million
Net income tax receivable at the beginning of the year	4	5
Income tax for the year	(339)	(43)
Income tax paid	307	43
Translation difference	4	(1)
	(24)	4
<i>Represented by:</i>		
Current tax liabilities (note 17(b))	(40)	(11)
Prepaid income tax (note 17(a))	16	15
Net income tax (payable)/receivable	(24)	4

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 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 (a)	149	–	–	149
Kevin Parker	336	–	–	336
Evgeny Svarts (b)	307	–	–	307
Randolph Reynolds	295	–	–	295
Dmitry Vasiliev	348	–	–	348
Anna Vasilenko (c)	151	–	–	151
	4,664	1,736	1,229	7,629

Year ended 31 December 2020

	Directors' fees	Salaries, allowances, benefits in kind	Discretionary bonuses	Total
	USD thousand	USD thousand	USD thousand	USD thousand
Executive Directors				
Evgenii Nikitin	–	1,537	1,156	2,693
Evgenii Vavilov	–	32	5	37
Evgeny Kuryanov	–	194	14	208
Non-executive Directors				
Marco Musetti	307	–	–	307
Vyacheslav Solomin	308	–	–	308
Vladimir Kolmogorov	246	–	–	246
Independent Non-executive Directors				
Bernard Zonneveld (Chairman)	1,445	–	–	1,445
Christopher Burnham	294	–	–	294
Nicholas Jordan	306	–	–	306
Elsie Leung Oi-Sie (a)	295	–	–	295
Kevin Parker	321	–	–	321
Evgeny Svarts (b)	187	–	–	187
Randolph Reynolds	285	–	–	285
Dmitry Vasiliev	338	–	–	338
Maksim Poletaev (d)	63	–	–	63
	4,395	1,763	1,175	7,333

- a. Elsie Leung Oi-Sie resigned from her position as Independent Non-executive Director in June 2021.
- b. Evgeny Svarts was appointed as Independent Non-executive Director in April 2020.
- c. Anna Vasilenko was appointed as Independent Non-executive Directors in June 2021.
- d. Maksim Poletaev resigned from his position as Independent Non-executive Director in April 2020.

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 2021 includes contributions to the state pension funds in the following amounts: Mr. Nikitin – USD225 thousand, Mr. Vavilov – USD9 thousand, Mr. Kuryanov – USD49 thousand. Executive directors remuneration for the year ended 31 December 2020 includes contributions to the state pension funds in the following amounts: Mr. Nikitin – USD243 thousand, Mr. Vavilov – USD5 thousand, Mr. Kuryanov – USD21 thousand.

10 Individuals with highest emoluments

	Year ended 31 December	
	2021	2020
	USD thousand	USD thousand
Salaries	16,601	13,301
Discretionary bonuses	11,833	24,307
Retirement scheme contributions	2,165	3,315
	30,599	40,923

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

	Year ended 31 December	
	2021	2020
	Number of individuals	Number of individuals
HK\$30,500,001-HK\$31,000,000 (US\$3,900,001 – US\$4,000,000)	–	1
HK\$32,000,001-HK\$32,500,000 (US\$4,100,001 – US\$4,200,000)	1	–
HK\$36,500,001-HK\$37,000,000 (US\$4,700,001 – US\$4,800,000)	–	1
HK\$37,500,001-HK\$38,000,000 (US\$4,800,001 – US\$4,900,000)	1	1
HK\$52,000,001-HK\$52,500,000 (US\$6,700,001 – US\$6,800,000)	1	–
HK\$55,500,001-HK\$56,000,000 (US\$7,100,001 – US\$7,200,000)	1	–
HK\$56,000,001-HK\$56,500,000 (US\$7,200,001 – US\$7,300,000)	1	–
HK\$90,000,001-HK\$90,500,000 (US\$11,600,001 – US\$11,700,000)	–	1
HK\$100,000,001-HK\$100,500,000 (US\$12,850,001 – US\$12,950,000)	–	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 2021 and 31 December 2020 includes contributions to the state pension funds.

11 Dividends

No dividends were declared and paid by the Company during the year ended 31 December 2021 and the year ended 31 December 2020.

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 2021 and 31 December 2020. Weighted average number of shares:

	Year ended 31 December	
	2021	2020
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	3,225	759
Basic and diluted earnings per share, USD	0.212	0.050

There were no outstanding dilutive instruments during the years ended 31 December 2021 and 2020.

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. The cost of property, plant and equipment at 1 January 2004, the date of transition to IFRSs, was determined by reference to its fair value at that date.

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 electrolyzers 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.

(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.

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	Electrolysers	Other	Mining assets	Construction in progress	Total
Cost / deemed cost							
Balance at 1 January 2020	3,682	6,622	2,713	159	493	2,059	15,728
Additions	67	4	120	—	31	765	987
Acquired through business combination	10	8	—	1	—	2	21
Disposals	(11)	(85)	—	(3)	(10)	(11)	(120)
Transfers	52	284	43	121	1	(501)	—
Foreign currency translation	(65)	(73)	(8)	(10)	(48)	(66)	(270)
Balance at 31 December 2020	3,735	6,760	2,868	268	467	2,248	16,346
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
Accumulated depreciation and impairment losses							
Balance at 1 January 2020	2,137	4,985	2,385	147	451	1,124	11,229
Depreciation charge	97	303	156	14	1	—	571
Impairment loss/(reversal) of impairment loss	(29)	27	3	(3)	21	(60)	(41)
Disposals	(4)	(78)	—	(2)	(3)	—	(87)
Foreign currency translation	(42)	(55)	(8)	(3)	(46)	(27)	(181)
Balance at 31 December 2020	2,159	5,182	2,536	153	424	1,037	11,491
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
Net book value							
At 31 December 2020	1,576	1,578	332	115	43	1,211	4,855
At 31 December 2021	1,637	1,261	360	15	18	2,059	5,350

Depreciation expense of USD565 million (2020: USD536 million) has been charged to cost of goods sold, USD3 million (2020: USD3 million) to distribution expenses and USD21 million (2020: USD25 million) to administrative expenses.

During the year ended 31 December 2021 interest expense of USD7 million was capitalised in the course of active construction at several projects. The average capitalisation rate was 1.95% (2020: USD10 million; 3.8%).

Included into land and buildings at 31 December 2021 is investment property of USD72 million. The amount at 31 December 2020 was USD nil million.

Included into construction in progress at 31 December 2021 and 2020 are advances to suppliers of property, plant and equipment of USD157 million and USD149 million, respectively.

The carrying value of property, plant and equipment subject to lien under loan agreements was USD29 million as at 31 December 2021 (31 December 2020: USD28 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 several factors that indicated that for a number of Group's cash-generating units previously recognised impairment loss may require reversal and for a number of cash-generating units impairment loss shall be recognised. These include significant increase of aluminium prices as a result of LME appreciation, significant increase of oil and gas prices and overall market instability. For alumina cash generating units, major influence was on the part of unfavourable dynamics in prices of energy resources being a significant part of cash cost. Bauxite cash generating units incurred more or less stable sale price and cash cost of bauxite.

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.

Based on results of impairment testing as at 31 December 2020, 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 Taishet aluminium smelter (aluminium smelter under construction) and Mykolaiv alumina refinery in the amount of USD158 million.

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	
	2021	2020
Taishet aluminium smelter	11.2%	11.8%
Mykolaiv alumina refinery	16.5%	18.7%
Kubikenborg Aluminium (Kubal)	14.3%	19.8%
KAZ (Kandalaksha aluminium smelter)	15.8%	15.5%
VgAZ (Volgograd aluminium smelter)	15.2%	14.8%
Aughinish Alumina	10.8%	11.9%

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.

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 USD190 million at 31 December 2021 (2020: USD117 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 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 USD27 million during the year ended 31 December 2021 (31 December 2020: USD67 million). The carrying amounts of right-of-use assets are presented below.

USD Million	Property, plant and equipment		
	Land and buildings	Machinery and equipment	Total
Balance at 1 January 2021	57	6	63
Balance at 31 December 2021	11	11	22

Total depreciation charges related to the right-of-use assets for the year ended 31 December 2021 amount to USD13 million (31 December 2020: USD19 million).

USD15 million of right-of-use assets have been impaired during the year ended 31 December 2021 (31 December 2020: USD2 million). The Group's total cash outflow for leases was in the amount of USD20 million for the year ended 31 December 2021 (31 December 2020: USD28 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 USD63 million as at 31 December 2021 (31 December 2020: USD61 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 2021 amounted to USD35 million (31 December 2020: USD49 million).

Total interest costs on leases recognised for the year ended 31 December 2021 amount to USD5 million (31 December 2020: USD9 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 leases in the amount of USD15 million is included in cost of sales or administrative expenses depending on type of underlying asset for the year ended 31 December 2021 (31 December 2020: USD9 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.

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 2020	2,877	598	3,475
Additions	33	20	53
Disposals	–	(48)	(48)
Foreign currency translation	(188)	(9)	(197)
Balance at 31 December 2020	2,722	561	3,283
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
Amortisation and impairment losses			
Balance at 1 January 2020	(449)	(469)	(918)
Amortisation charge	–	(6)	(6)
Disposals	–	48	48
Balance at 31 December 2020	(449)	(427)	(876)
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)
Net book value			
At 31 December 2020	2,273	134	2,407
At 31 December 2021	2,269	142	2,411

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 2021 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.

Impairment

For the purposes of impairment testing, the entire amount of goodwill is allocated to the aluminium segment of the Group's operations, except for goodwill arisen from PGLZ LLC acquisition (Note 17). 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 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.

At 31 December 2020, management analysed changes in the economic environment and developments in the aluminium industry and the Group's operations since 31 December 2019 and performed an impairment test for goodwill at 31 December 2020 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 8.5 million metric tonnes of alumina and of 15.7 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:

	2021	2022	2023	2024	2025
Aluminium sales prices, based on the long-term aluminium price outlook, USD per tonne	1,919	1,906	1,927	1,955	2,003
Alumina sales prices, based on the long-term alumina price outlook, USD per tonne	295	304	307	318	335
Nominal foreign currency exchange rates, RUB per 1 USD	73.2	71.9	71.2	72.5	74.1
Inflation in RUB	3.8%	4.0%	3.9%	4.0%	4.1%
Inflation in USD	1.5%	1.8%	2.2%	1.9%	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 11.4%;
- 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 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 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 33% 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 25% decrease in the recoverable amount but would not lead to an impairment;
- A 1% increase in the discount rate would have resulted in a 11% 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 2020.

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 consolidated statement of 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	
	2021	2020
	USD million	USD million
Balance at the beginning of the year	3,822	4,240
Group's share of profits, impairment and reversal of impairment	1,807	976
Group's share of equity transactions	129	–
Partial disposal of investment in associate	(313)	–
Return of prepayment	–	(11)
Dividends	(1,452)	(718)
Foreign currency translation	21	(665)
Balance at the end of the year	4,014	3,822
Goodwill included in interests in associates	2,300	2,034

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		Principal activity
			Group's effective interest	Group's nominal interest	
PJSC MMC Norilsk Nickel	Russian Federation	153,654,624 shares, RUB1 par value	26.39%	26.25%	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 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.

The summary of the consolidated financial statements of associates and joint ventures for the year ended 31 December 2020 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	5,206	12,147	199	777	1,420	2,680	238	402
Current assets	2,381	8,559	35	181	132	255	48	96
Non-current liabilities	(2,959)	(10,619)	(92)	(359)	(945)	(1,890)	(95)	(190)
Current liabilities	(1,506)	(5,412)	(142)	(478)	(67)	(134)	(31)	(62)
Net assets	3,122	4,675	–	121	540	911	160	246

* 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	4,325	15,545	123	617	364	728	134	268
Profit from continuing operations	930	3,634	–	(20)	51	52	(5)	50
Other comprehensive income	(562)	(699)	–	1	(95)	(189)	(8)	(20)
Total comprehensive income	368	2,935	–	(19)	(44)	(137)	(13)	30

* 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 RUR27,780 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 2021 and 31 December 2020 amounted USD3,274 million and USD3,122 million, respectively. The Group's share of profit of Norilsk Nickel was USD1,762 million, other comprehensive income was USD nil million, the foreign currency translation gain of USD24 million, other effects related to transactions with non-controlling interest owners of USD129 million for the year ended 31 December 2021.

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 market value amounted USD12,395 million and USD14,123 million as at 31 December 2021 and 31 December 2020, 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 2021 and 31 December 2020 amounted to USD nil million. At 31 December 2021 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 2021 and 31 December 2020 amounted USD595 million and USD540 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 2021 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 2021, accumulated losses of USD51 million (2020: USD443 million) related to impairment charges at 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 2021 and 31 December 2020 is presented below (all in USD million):

	31 December 2021	31 December 2020
	USD million	USD million
Cash and cash equivalents	32	30
Current financial liabilities	(25)	(43)
Non-current financial liabilities	(770)	(859)
Depreciation and amortisation	(53)	(17)
Interest income	1	1
Interest expense	(13)	(15)
Income tax expense	(14)	(13)

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 2021	31 December 2020
	USD million	USD million
Raw materials and consumables	1,505	1,033
Work in progress	796	598
Finished goods and goods held for resale	1,551	799
	3,852	2,430
Write-down to net realisable value	(160)	(138)
	3,692	2,292

Inventories at 31 December 2021 and 31 December 2020 are stated at cost.

Inventory with a carrying value of USD781 million was pledged under existing trading contracts at 31 December 2021 (31 December 2020: USD738 million).

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

	Year ended 31 December	
	2021	2020
	USD million	USD million
Carrying amount of inventories sold	8,182	6,446
Write off of inventories	(28)	2
	8,154	6,448

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.

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 liabilities are derecognised if the Group's obligations specified in the contract expire or are discharged or cancelled.

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(e)). The same applies to the Group's financial liabilities.

Disclosures

(a) Trade and other receivables and advances paid

	31 December 2021	31 December 2020
	USD million	USD million
Trade receivables from third parties	757	429
Impairment loss on trade receivables	(17)	(23)
Net trade receivables from third parties	740	406
Trade receivables from related parties, including:	184	70
Related parties – companies capable of exerting significant influence	105	50
Impairment loss on trade receivables from related parties – companies capable of exerting significant influence	(1)	(1)
Net trade receivables from related parties – companies capable of exerting significant influence	104	49
Related parties – companies related through parent company	64	13
Related parties – associates and joint ventures	16	8
VAT recoverable	382	325
Impairment loss on VAT recoverable	(25)	(24)
Net VAT recoverable	357	301
Advances paid to third parties	118	105
Impairment loss on advances paid	(1)	(2)
Net advances paid to third parties	117	103
Advances paid to related parties, including:	110	67
Related parties – companies capable of exerting significant influence	–	1
Related parties – companies related through parent company	1	–
Related parties – associates and joint ventures	109	66
Prepaid expenses	8	8
Prepaid income tax	16	15
Prepaid other taxes	19	29
Other receivables from third parties	163	170
Impairment loss on other receivables	(71)	(9)
Net other receivables from third parties	92	161
Other receivables from related parties, including:	3	3
Related parties – companies related through parent company	22	18
Impairment loss on other receivables from related parties – companies related through parent company	(19)	(15)
Net other receivables to related parties – companies related through parent company	3	3
	1,646	1,163

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 2021	31 December 2020
	USD million	USD million
Current (not past due)	896	385
1-30 days past due	16	77
31-60 days past due	–	2
61-90 days past due	1	1
More than 90 days past due	11	11
Amounts past due	28	91
	924	476

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 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 2021 and 31 December 2021.

	Weighted-average loss rate		Credit-impaired
	31 December 2021	1 January 2021	
Current (not past due)	1%	1%	No
1-30 days past due	18%	4%	No
31-60 days past due	45%	10%	No
61-90 days past due	52%	71%	No
More than 90 days past due	63%	86%	Yes

Impairment losses in respect of trade receivables are recorded using an allowance account unless the Group is satisfied that recovery of the amount is remote, in which case the impairment loss is written off against trade receivables directly.

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

	Year ended 31 December	
	2021	2020
	USD million	USD million
Balance at the beginning of the year	(24)	(31)
Reversal of impairment	7	7
Uncollectible amounts written off	(1)	–
Balance at the end of the year	(18)	(24)

(b) Trade and other payables and advances received

	31 December 2021	31 December 2020
	USD million	USD million
Accounts payable to third parties	742	547
Accounts payable to related parties, including:	154	96
Related parties – companies capable of exerting significant influence	6	3
Related parties – companies related through parent company	51	44
Related parties – associates and joint ventures	97	49
Advances received	1,115	860
Advances received from related parties, including:	1	–
Related parties – companies related through parent company	1	–
Other payables and accrued liabilities to third parties	171	159
Other payables and accrued liabilities to related parties, including:	4	4
Related parties – companies related through parent company	4	4
Current tax liabilities	40	11
Other taxes payable	181	159
	2,408	1,836

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

Advances received represent contract liabilities to perform obligations under contracts with customers and are recognized in Trade and other payables and advances received line in the statement of financial position. Advances received are short-term and revenue in respect of the contract liability at the beginning of the period is fully recognized during the period.

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 is overdue.

	31 December 2021	31 December 2020
	USD million	USD million
Current	738	529
Past due 0-90 days	139	93
Past due 91-120 days	2	8
Past due over 120 days	17	13
Amounts past due	158	114
	896	643

Lease liabilities that are expected to be settled within one year for the amount of USD8 million are included in other payables and accrued liabilities as at 31 December 2021 (31 December 2020: USD25 million).

(c) Cash and cash equivalents

	31 December 2021	31 December 2020
	USD million	USD million
Bank balances, USD	549	1,027
Bank balances, RUB	167	467
Bank balances, EUR	83	94
Bank balances, other currencies	74	33
Short-term bank deposits	1,105	595
Other cash equivalents	4	–
Cash and cash equivalents in the consolidated statement of cash flows	1,982	2,216
Restricted cash	2	13
	1,984	2,229

As at 31 December 2021 and 31 December 2020 included in cash and cash equivalents was restricted cash of USD2 million and USD13 million, respectively.

(d) Other non-current assets

	31 December 2021	31 December 2020
	USD million	USD million
Long-term deposits	137	111
Prepayment for subsidiary acquisition	73	–
Other non-current assets	35	13
	245	124

In September 2020 the Group obtained control of PGLZ LLC (note 26) by acquiring 99.9% of its shares. The Group has determined that together the acquired inputs and processes significantly contribute to the ability to create revenue and has concluded that the acquired set is a business. Total consideration paid amounted to USD71 million and was paid in cash as at 1 January 2020. Fair value of acquired assets and liabilities amounted to USD24 million from which USD21 million related to property, plant and equipment (note 13).

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

The Group accumulated 31,426,697,466 shares or 7% of RusHydro for a total consideration of USD366 million through several transactions from July 2020 till April 2021 and treats them as equity securities measured at fair value through profit and loss.

(f) Short-term investments

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

18 Equity

(a) Share capital

	31 December 2021		31 December 2020	
	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

The acquisition of RUSAL Limited by the Company has been accounted for as a non-substantive acquisition. The consolidated share capital and share premium represent only the share capital and share premium of the Company and the share capital and other paid in capital of RUSAL Limited prior to the acquisition has been included in other reserves.

In addition, other reserves include the 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 operations 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 2020	152	15,743	15,895
Profit for the year	—	785	785
Balance at 31 December 2020	152	16,528	16,680
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

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 2021 USD million	31 December 2020 USD million
Non-current liabilities		
Secured bank loans	3,490	4,603
Unsecured bank loans	33	22
Bonds	1,316	2,437
	4,839	7,062
Current liabilities		
Secured bank loans	343	270
Unsecured bank loans	380	403
Bonds	1,118	1
Accrued interest	53	56
	1,894	730

(a) Loans and borrowings

Terms and debt repayment schedule as at 31 December 2021

	Total USD million	2022 USD million	2023 USD million	2024 USD million	2025 USD million	2026 USD million	2027-2035 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	–	–	–	–	–
Total	4,246	723	469	593	434	569	1,458
Accrued interest	9	9	–	–	–	–	–
Total	4,255	732	469	593	434	569	1,458

As at 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 2020 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 Agreements (PXFs) dated 25 October 2019.

As at 31 December 2021 and 31 December 2020 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 USD3 million and USD28 million, respectively.

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.

The nominal value of the Group's loans and borrowings was USD4,266 million at 31 December 2021 (31 December 2020: USD5,329 million).

As at 31 December 2021, the amount of accrued interest on unsecured bank loans and secured bank loans was USD3 million and USD6 million, respectively (31 December 2020: USD3 million and USD9 million, respectively).

Terms and debt repayment schedule as at 31 December 2020

	Total	2021	2022	2023	2024	2025	2026-2028
	USD	USD	USD	USD	USD	USD	USD
	million	million	million	million	million	million	million
Secured bank loans							
Variable							
USD – 3M Libor + 3.0%	2,097	–	–	–	180	424	1,493
USD – 3M Libor + 2.1%	1,073	–	358	359	356	–	–
USD 3M Libor + 1.5%	192	192	–	–	–	–	–
USD 3M Libor + 1.35%	68	68	–	–	–	–	–
RUB KeyRate + 1.9%	1,433	–	–	–	123	289	1,021
Fixed							
RUB 8.75%	10	10	–	–	–	–	–
	4,873	270	358	359	659	713	2,514
Unsecured bank loans							
Variable							
USD – 1M Libor + 2.4%	200	200	–	–	–	–	–
EUR – 6M Euribor + 0.67%	10	1	1	1	1	1	5
RUB – other	15	2	10	3	–	–	–
Fixed							
USD 2.97%	200	200	–	–	–	–	–
Total	5,298	673	369	363	660	714	2,519
Accrued interest	12	12	–	–	–	–	–
Total	5,310	685	369	363	660	714	2,519

As at 31 December 2020 the Group through its subsidiaries had outstanding REPO loans backed by Norilsk Nickel shares in number of 1,123,968, in the amount of USD260 million and maturing in June 2021.

(b) Bonds

As at 31 December 2021 the Group had bonds nominated in roubles, eurobonds nominated in US dollars outstanding (traded in the market).

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%	18.04.2019	07.04.2026
Bond	BO-001P-01	15,000,000	202	9.00%	27.04.2022	16.04.2029
Bond	BO-001P-02	15,000,000	202	8.60%	25.01.2023	28.06.2029
Bond	BO-001P-03	15,000,000	202	8.25%	12.09.2022	30.08.2029
Bond	BO-001P-04	15,000,000	202	7.45%	14.11.2022	01.11.2029
Bond	BO-002P-01	10,000,000	134	6.50%	09.06.2023	28.05.2030
Eurobond	–	511,998	512	5.125%	–	02.02.2022
Eurobond	–	481,985	482	5.3%	–	03.05.2023
Eurobond	–	497,642	498	4.85%	–	01.02.2023

As at 31 December 2021, the amount of accrued interest on bonds was 44 million (31 December 2020: USD44 million).

Total foreign exchange gain on bonds for the year ended 31 December 2021 accounted in other comprehensive income as part of cash flow hedge result amounted to USD4 million (USD167 million for the year ended 31 December 2020).

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 2020	60	371	17	448
Provisions made during the year	9	57	—	66
Provisions reversed during the year	(1)	(23)	—	(24)
Actuarial gain	(2)	—	—	(2)
Provisions utilised during the year	(4)	(3)	—	(7)
Foreign currency translation	(7)	(1)	—	(8)
Balance at 31 December 2020	55	401	17	473
<i>Non-current</i>	<i>51</i>	<i>354</i>	<i>—</i>	<i>405</i>
<i>Current</i>	<i>4</i>	<i>47</i>	<i>17</i>	<i>68</i>
Balance at 1 January 2021	55	401	17	473
Provisions made during the year	6	89	6	101
Provisions reversed during the year	—	(23)	—	(23)
Actuarial loss	8	—	—	8
Provisions utilised during the year	(4)	(2)	(10)	(16)
Foreign currency translation	1	(21)	—	(20)
Balance at 31 December 2021	66	444	13	523
<i>Non-current</i>	<i>62</i>	<i>316</i>	<i>—</i>	<i>378</i>
<i>Current</i>	<i>4</i>	<i>128</i>	<i>13</i>	<i>145</i>

(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 2021 and 2020 was 50,518 and 48,548, respectively. The number of pensioners in all jurisdictions as at 31 December 2021 and 2020 was 42,086 and 43,422, respectively.

The Group expects to pay under the defined benefit retirement plans an amount of USD4 million during the 12 month period beginning on 1 January 2021.

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, Robert van Leeuwen AAG, as at 31 December 2021, 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 2021	31 December 2020
	% per annum	% per annum
Discount rate	7.9	5.7
Future salary increases	8.7	7.1
Future pension increases	4.2	3.6
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 2021 and 31 December 2020 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, 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 2021	31 December 2020
Timing of inflated cash outflows	2022: USD127 million 2023-2027: USD15 million 2028-2037: USD121 million after 2037: USD298 million	2021: USD47 million 2022-2026: USD21 million 2027-2036: USD101 million after 2036: USD312 million
Risk free discount rate after adjusting for inflation ^(a)	1.19%	0.73%

(a) *The risk free rate for the year 2020-2021 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 2021, 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 USD13 million (31 December 2020: USD17 million). The amount of claims, where management assesses outflow as possible approximates USD21 million (31 December 2020: 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 statement of 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 2021		31 December 2020	
	USD million		USD million	
	Derivative assets	Derivative liabilities	Derivative assets	Derivative liabilities
Petroleum coke supply contracts and other raw materials	24	15	31	43
Forward contracts for aluminium and other instruments	118	26	19	9
Cross currency swap	—	165	—	133
Total	142	206	50	185
<i>Non-current</i>	22	61	20	28
<i>Current</i>	120	145	30	157

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 following significant assumptions were used in estimating derivative instruments:

	2022	2023	2024	2025	2026
LME Al Cash, USD per tonne	2,795	2,658	2,466	2,315	2,272
Platt's FOB Brent, USD per barrel	76	71	68	66	65
Bloomberg's implied forward exchange rate, RUB per USD	75.15-	81.46-			
	80.69	83.55			

The movement in the balance of Level 3 fair value measurements of derivatives is as follows:

	31 December	
	2021	2020
	USD million	USD million
Balance at the beginning of the year	(135)	54
Unrealised changes in fair value recognised in statement of income (finance (expense)/income) during the period	(352)	(226)
Unrealised changes in fair value recognised in other comprehensive income (cash flow hedge) during the period	(28)	(53)
Realised portion of electricity, coke and raw material contracts and cross currency swap	451	90
Balance at the end of the year	(64)	(135)

During the year 2021 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 entered into various petroleum coke supply contracts and other raw materials where the price of coke is determined with reference to the Brent oil price, to the LME aluminium price and average monthly aluminium quotations. The Group also 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 2021 the Group recognised a total net loss of USD352 million in relation to the above contracts (31 December 2020: loss of USD226 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 other non-current liabilities are based on the present value of the anticipated cash flows and approximate carrying value, other than Eurobonds and RUSAL Bratsk bonds issued. The fair value of the loans and borrowings with fixed and floating interest rate as at 31 December 2021, 2020 and 2019 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, 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 2021

	Note	Carrying amount				Fair value			
		Derivatives	Loans and receivables	Other financial assets/ (liabilities)	Total	Level 1	Level 2	Level 3	Total
		USD million	USD million	USD million	USD million	USD million	USD million	USD million	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.

The Group as at 31 December 2020

	Note	Carrying amount				Fair value			
		Derivatives	Loans and receivables	Other financial liabilities	Total	Level 1	Level 2	Level 3	Total
		USD million	USD million	USD million	USD million	USD million	USD million	USD million	USD million
Financial assets measured at fair value									
Petroleum coke supply contracts and other raw materials	21	31	–	–	31	–	–	31	31
Forward contracts for aluminium and other instruments	21	19	–	–	19	–	–	19	19
Other non-currents assets	17	–	–	74	74	74	–	–	74
		50	–	74	124	74	–	50	124
Financial assets not measured at fair value*									
Trade and other receivables	17	–	941	–	941	–	941	–	941
Other non-current assets	17	–	–	124	124	–	124	–	124
Short-term investments		–	163	–	163	–	163	–	163
Cash and cash equivalents	17	–	2,229	–	2,229	–	2,229	–	2,229
		–	3,333	124	3,457	–	3,457	–	3,457
Financial liabilities measured at fair value									
Cross-currency swaps	21	(133)	–	–	(133)	–	–	(133)	(133)
Petroleum coke supply contracts and other raw materials	21	(43)	–	–	(43)	–	–	(43)	(43)
Forward contracts for aluminium and other instruments	21	(9)	–	–	(9)	–	–	(9)	(9)
		(185)	–	–	(185)	–	–	(185)	(185)
Financial liabilities not measured at fair value*									
Secured bank loans and company loans	19	–	–	(4,929)	(4,929)	–	(4,766)	–	(4,766)
Unsecured bank loans	19	–	–	(425)	(425)	–	(426)	–	(426)
Unsecured bond issue	19	–	–	(2,438)	(2,438)	(972)	(1,574)	–	(2,546)
Trade and other payables	17	–	–	(976)	(976)	–	(976)	–	(976)
		–	–	(8,768)	(8,768)	(972)	(7,742)	–	(8,714)

* 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 cash flow 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 2021 and 2020, 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 2021		31 December 2020	
	Effective interest rate %	USD million	Effective interest rate %	USD million
Fixed rate loans and borrowings				
Loans and borrowings	0.01-9.00%	2,809	0.01-9.00%	2,648
		2,809		2,648
Variable rate loans and borrowings				
Loans and borrowings	0.45-11.65%	3,871	0.67-6.22%	5,088
		3,871		5,088
		6,680		7,736

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.

	<u>Increase/ decrease in basis points</u>	<u>Effect on profit before taxation for the year USD million</u>	<u>Effect on equity for the year, net of income tax USD million</u>
As at 31 December 2021			
Basis percentage points	+100	(39)	(31)
Basis percentage points	-100	39	31
As at 31 December 2020			
Basis percentage points	+100	(51)	(41)
Basis percentage points	-100	51	41

(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.

	<u>USD-denominated vs. RUB functional currency</u>		<u>RUB-denominated vs. USD functional currency</u>		<u>EUR-denominated vs. USD functional currency</u>		<u>Denominated in other currencies vs. USD functional currency</u>	
	<u>2021</u>	<u>2020</u>	<u>2021</u>	<u>2020</u>	<u>2021</u>	<u>2020</u>	<u>2021</u>	<u>2020</u>
	<u>USD</u>	<u>USD</u>	<u>USD</u>	<u>USD</u>	<u>USD</u>	<u>USD</u>	<u>USD</u>	<u>USD</u>
As at 31 December	million	million	million	million	million	million	million	million
Non-current assets	–	–	38	–	–	1	–	–
Trade and other								
receivables	2	1	821	582	184	64	69	31
Cash and cash equivalents	–	1	428	508	81	104	50	25
Derivative financial								
assets	–	–	–	31	–	–	–	–
Loans and borrowings	–	(260)	(549)	(1,433)	(19)	–	–	–
Provisions	–	–	(84)	(78)	(21)	(27)	(18)	(12)
Derivative financial								
liabilities	–	–	(16)	(32)	–	(6)	–	–
Non-current liabilities	–	–	(1)	(1)	(6)	(6)	–	–
Income taxation	–	–	(24)	(2)	–	–	(1)	(6)
Short-term bonds	–	–	(1)	(1)	–	–	–	–
Trade and other payables	(1)	–	(1,080)	(404)	(104)	(49)	(135)	(88)
Net exposure arising from recognised assets and liabilities	1	(258)	(468)	(830)	115	81	(35)	(50)

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

Year ended 31 December 2020		
	USD million	USD million
Change in exchange rates	Effect on profit before taxation for the year	Effect on equity for the year
Depreciation of USD vs. RUB	15%	(86)
Depreciation of USD vs. EUR	10%	8
Depreciation of USD vs. other currencies	5%	(3)

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 other 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 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	5,152	4,299
Other contractual obligations	44	69	–	113	–
	3,515	2,007	1,919	9,145	8,025

31 December 2020					
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	876	–	–	876	876
Trade and other payables to related parties	100	–	–	100	100
Bonds, including interest payable	153	1,251	1,356	2,760	2,438
Loans and borrowings, including interest payable	864	553	2,214	6,301	5,354
Other contractual obligations	69	45	–	114	–
	2,062	1,849	3,570	10,151	8,768

At 31 December 2021 and 31 December 2020 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 2021 and 2020, the Group has certain concentration of credit risk as 14.3% and 7% 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 2021 and 31 December 2020.

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 2021 and 31 December 2020 approximated USD248 million and USD516 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 2022-2034 under supply agreements are estimated from USD2,517 million to USD4,534 million at 31 December 2021 (31 December 2020: USD3,256 million to USD4,644 million) depending on the actual purchase volumes and applicable prices.

Commitments with related parties for purchases of primary aluminium, alloys and other purchases in 2022-2030 under supply agreements are estimated from USD5,733 million to USD7,540 million at 31 December 2021 (31 December 2020: USD4,741 million to USD6,964 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 2022-2034 are estimated from USD1,187 million to USD1,596 million at 31 December 2021 (31 December 2020: from USD865 million to USD1,375 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 2021.

Commitments with related parties for sales of primary aluminium and alloys in 2022 are estimated from USD563 million to USD688 million at 31 December 2021 (31 December 2020: from USD391 million to USD436 million). Commitments with third parties for sales of primary aluminium and alloys in 2022-2025 are estimated to range from USD8,842 million to USD12,148 million at 31 December 2021 (31 December 2020: from USD7,738 million to USD11,602 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.

Both as at 31 December 2021 and 31 December 2020 management considers that there are no significant tax positions taken by the Group where it is 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 2021 the amount of claims, where management assesses outflow as possible approximates USD21 million (31 December 2020: 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 2021 and 2020 USD226 million and USD227 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	
	2021	2020
	USD million	USD million
Salaries and bonuses	63	65
	63	65

(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 other transactions with 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	2022	2023	2024	2025	2026
Mln kWh	37,598	37,598	37,701	37,598	25,194
Mln USD	403	403	404	403	264

(d) Related parties balances

At 31 December 2021, included in non-current assets are balances of related parties – associates and joint ventures of USD2 million (31 December 2020: USD4 million). At 31 December 2021, included in non-current liabilities are balances of related parties – associates and joint ventures of USD14 million (31 December 2020: USD12 million).

At 31 December 2021, included in current assets as short-term investments are balances of related parties – companies related through parent company of USD50 million (31 December 2020: 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 14 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 2021.

26 Particulars of subsidiaries

As at 31 December 2021 and 2020, 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
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
Rusal America Corp.	USA	29 March 1999	1,000 shares of USD 0.01 each	100.0%	Trading

Name	Place of incorporation and operation	Date of incorporation	Particulars of issued and paid up capital	Attributable equity interest	Principal activities
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 2021

	31 December 2021	1 January 2021
	USD million	USD million
Assets		
Non-current assets		
Investments in subsidiaries	20,167	19,833
Other investments	191	–
Loans to related parties	1,295	1,187
Other non-current assets	44	–
Total non-current assets	21,697	21,020
Current assets		
Loans to related parties	1,696	1,258
Other receivables	112	167
Cash and cash equivalents	4	23
Total current assets	1,812	1,448
Total assets	23,509	22,468
Equity and liabilities		
Equity		
Share capital	152	152
Reserves	18,896	16,528
Total equity	19,048	16,680
Non-current liabilities		
Loans and borrowings	3,572	5,514
Total non-current liabilities	3,572	5,514
Current liabilities		
Loans and borrowings	884	223
Trade and other payables	8	51
Total current liabilities	889	274
Total liabilities	4,461	5,788
Total equity and liabilities	23,509	22,468
Net current assets	923	1,174
Total assets less current liabilities	22,620	22,194

28 Events subsequent to the reporting date

The growing geopolitical tensions and the recent developments in Ukraine have had a negative impact on the Russian economy, including difficulties in obtaining international funding, significant increase in volatility on the securities and currency markets as well as significant devaluation of national currency and high inflation.

The United States of America and the European Union imposed sanctions against a number of Russian banks, which restrict their access to European financial markets, foreign assets were frozen for certain banks, and sanctions were introduced that restrict the access of Russian organisations to Euro and US dollar markets.

A number of other countries announced new packages of sanctions against certain Russian legal entities and personal sanctions against a number of individuals.

In March 2022 new temporary restrictive economic measures were introduced in Russian Federation, which include among others a prohibition to issue loans by residents to non-residents in foreign currency, deposit foreign currency to own bank accounts by residents in foreign currency, limitations on dividends and other payments on securities to foreign investors.

In March 2022 Australia has banned the export of alumina and bauxite to Russia. At the beginning of March 2022 the Group has temporarily suspended the production at Mykolaiv Alumina Refinery Company Ltd in view of developments in Ukraine. These measures and the events may influence the availability of alumina and bauxite or increase the purchase prices for Group. Major international shippers have suspended bookings to and from Russia which will cause the Group to rebuild the supply and sales chains and may lead to additional logistics costs.

If the situation 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.

The Group regards these events as non-adjusting events after the reporting period. Additional sanctions and restrictions on the business activity of Russian legal entities and individuals, as well as counter measures from Russian authorities might be introduced, the full range and possible consequences of which cannot be assessed.

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

Save as the redemption of bonds as disclosed in note 19 (g) 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 2021.

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 (the "**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 91 to 92 of UC RUSAL's interim report for the six months ended 30 June 2021, 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 2021 to 31 December 2021.

The Board of Directors of the Company (the "**Board**") endeavoured throughout the twelve-month period ended 31 December 2021 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 only 2 occurrences (out of the 17 written resolutions the Board passed 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. In those instances, the material interest of the Director was a potential conflict of interest by virtue of the fact that the Directors also held offices in companies in the same group as the entities contracting with the Group.

On those occurrences, the written resolutions were passed by the requisite majority excluding the materially interested Directors.

Of the 6 Board meetings held in the twelve-month period ended 31 December 2021 where one or more Directors had disclosed a material interest, all the independent non-executive Directors were present at all 5 of the Board meetings held.

Of the 12 Board meetings held, there were 6 occasions where non-executive Directors might have a material interest in the transaction. On such occurrences, those non-executive Directors abstained from voting and the resolutions approving entry into such transactions were passed by the requisite majority excluding those non-executive Directors 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 2021 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), Mr. Dmitry Vasiliev (independent non-executive Director) and Mr. Bernard Zonneveld (independent non-executive Director).

On 25 March 2022, the Audit Committee has reviewed the financial results of the Company for the year ended 31 December 2021.

Material events since the end of the year

19 January 2022	Four additional production sites of RUSAL (The Kandalaksha aluminium smelter, two aluminium foil plants Sayanal and Armenal (Armenia) and Europe's largest alumina refinery Aughinish (Ireland)) achieved Aluminium Stewardship Initiative (ASI) certification. ASI certification aims at fostering better sustainability practices across the whole supply chain.
09 February 2022	RUSAL announced fourth quarter and full year 2021 operating results.
10 February 2022	RUSAL introduced a new aluminium alloy for anodising. The Company developed an optimised 5xxx series aluminium alloy for further anodising. Production has now started at the Bratsk Aluminium Smelter (BrAZ).
17 February 2022	RUSAL completed the scheduled repayment of Eurobonds in the amount of USD512 million out of its own funds.
01 March 2022	RUSAL announced that due to unavoidable logistical and transport challenges on the Black Sea and surrounding area, it has been obliged to temporarily halt production at the Nikolaev Alumina Refinery located in Nikolaev Region, Ukraine.
20 March 2022	The Company noted that on 20 March 2022 the Australian government imposed an immediate ban on exports of alumina and aluminum ores, including bauxite, to Russia.

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.

By virtue of the power of attorney on behalf of
United Company RUSAL,
international public joint-stock company
Aby Wong Po Ying
Company Secretary

30 March 2022

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. Vladimir Kolmogorov, Mr. Marco Musetti and Mr. Vyacheslav Solomin and the independent non-executive Directors are Mr. Christopher Burnham, Mr. Nicholas Jordan, Mr. Kevin Parker, Mr. Randolph N. Reynolds, Dr. Evgeny Shvarts, Ms. Anna Vasilenko, Mr. Dmitry Vasiliev 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.