LISTING MEMORANDUM

U.S.$500,000,000

(a public limited company incorporated under the laws of England and Wales and registered with company number 01627889)

5.625% Senior Notes due 2032

On May 13, 2022, we issued U.S.$500,000,000 aggregate principal amount of our 5.625% Senior Notes due 2032 (the "notes"). We will pay interest on the notes semi-annually on May 13 and November 13 of each year, beginning on November 13, 2022. The notes will mature on May 13, 2032. Interest on the notes offered hereby accrue at a rate of 5.625% per annum from May 13, 2022. We may redeem the notes, in whole or in part, at any time at a redemption price based on a "make-whole" premium plus accrued and unpaid interest, if any, to the date of redemption. In addition, in the event of certain changes in applicable tax laws relating to payments of interest on the notes, we may redeem the notes in whole, but not in part, at 100% of their principal amount, plus accrued and unpaid interest, if any, to the date of redemption. There is no sinking fund for the notes.

The notes are our senior unsecured general obligations and rank equally in right of payment with all our existing and future senior unsecured indebtedness other than obligations preferred by statute or operation of law. The notes rank and will rank without any preference among themselves and equally with all our other unsubordinated obligations. The notes are effectively subordinated to all our existing and future secured indebtedness to the extent of the value of our assets securing such indebtedness. The notes are not guaranteed by any person or entity. See "Description of the Notes."

This listing memorandum has been approved by the Financial Conduct Authority (the "FCA"), as competent authority under Regulation (EU) 2017/1129 as it forms part of United Kingdom ("UK") domestic law by virtue of the European Union (Withdrawal) Act 2018 (the "EUWA") (the "UK Prospectus Regulation"). The FCA only approves this listing memorandum as meeting the standards of completeness, comprehensibility and consistency imposed by the UK Prospectus Regulation. Such approval should not be considered as an endorsement of the Issuer nor as an endorsement of the quality of the notes. Investors should make their own assessment as to the suitability of investing in the notes. This listing memorandum will constitute a prospectus for the purposes of the UK Prospectus Regulation.

Application has been made to the FCA for the notes to be admitted to the official list of the FCA (the "Official List") and application will be made to the London Stock Exchange plc (the "London Stock Exchange") for such notes to be admitted to trading on the London Stock Exchange's regulated market ("Main Market"). The Main Market is a regulated market for the purposes of Regulation (EU) 600/2014 on markets in financial instruments as it forms part of UK domestic law by virtue of the EUWA ("UK MiFIR"). Such approval will relate only to the notes which are to be admitted to trading on a regulated market for the purposes of UK MiFIR and/or which are to be offered to the public in the UK.

This listing memorandum is issued solely in connection with the admission of the notes to the Official List and to trading on the Main Market. This listing memorandum does not constitute, and under no circumstances is to be construed as, an offering of securities in any jurisdiction. The offering of notes referred to herein has been completed.

Investing in the notes involves risks. See "Risk Factors" beginning on page 22 for certain information that you should consider before investing in the notes. Neither the U.S. Securities and Exchange Commission (the "SEC") nor any other regulatory body has approved or disapproved of these securities or passed upon the adequacy or accuracy of this listing memorandum. Any representation to the contrary is a criminal offense.

Offering Price: 98.211% plus accrued interest, if any, from May 13, 2022.

The notes have not been, and will not be, registered under the U.S. Securities Act of 1933, as amended (the "Securities Act"), any state securities laws, or the securities laws of any other jurisdiction and may not be offered or sold in the United States or to U.S. persons (as defined in Regulation S under the Securities Act ("Regulation S")), except in transactions exempt from, or not subject to, the registration requirements of the Securities Act. Accordingly, the notes are being offered and sold in the United States only to qualified institutional buyers in compliance with Rule 144A under the Securities Act ("Rule 144A") and to persons other than U.S. persons in compliance with Regulation S. Prospective purchasers that are qualified institutional buyers are hereby notified that the seller of the notes may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A. For a description of eligible offerees and certain restrictions on transfer of the notes, see "Transfer Restrictions."

The notes have been delivered in book-entry form only through the facilities of The Depository Trust Company ("DTC") for the accounts of its direct and indirect participants, including Euroclear Bank S.A./N.V., as operator of the Euroclear System ("Euroclear"), and Clearstream Banking, *société anonyme* ("Clearstream"), on or about May 13, 2022.

Global Coordinators and Joint Book-Running Managers

Citigroup **J.P. Morgan**

Joint Book-Running Managers

BofA Securities **Scotiabank** **SMBC Nikko**

The date of this listing memorandum is May 30, 2022.

We have not, and the initial purchasers have not, authorized anyone to provide you with information that is different or additional from that contained in this listing memorandum, and we take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. You should assume that the information in this listing memorandum is accurate only as of the date on the front cover of this listing memorandum, regardless of time of delivery of this listing memorandum or any sale of the notes. Our business, financial condition, results of operations and prospects may change after the date on the front cover of this listing memorandum. This document may be used only where it is legal to sell the notes. Neither we nor any of the initial purchasers is making an offer to sell the notes in any jurisdiction where such an offer is not permitted.

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NOTICE TO INVESTORS

This listing memorandum is issued solely in connection with the admission of the notes to the Official List and to trading on the Main Market. This listing memorandum does not constitute, and under no circumstances is to be construed as, an offering of securities in any jurisdiction. The offering of notes referred to herein has been completed. The Company accepts responsibility for the information contained in this listing memorandum. To the best of the knowledge of the Company the information contained in this listing memorandum is in accordance with the facts and this listing memorandum makes no omission likely to affect its import.

This listing memorandum has been approved by the FCA, as competent authority under the UK Prospectus Regulation. The FCA only approves this listing memorandum as meeting the standards of completeness, comprehensibility and consistency imposed by the UK Prospectus Regulation. Such approval should not be considered as an endorsement of the Company that is the subject of this listing memorandum nor as an endorsement of the quality of the notes that are the subject of this listing memorandum. Investors should make their own assessment as to the suitability in investing in such notes.

This listing memorandum comprises a prospectus for the purposes of Article 6 of the UK Prospectus Regulation and for the purposes of giving information with regard to the Company and the notes, which, according to the particular nature of the Company and the notes, is necessary to an investor for making an informed assessment of the prospects of the Company, the rights attaching to the notes and the reasons for the issuance of the notes and its impact on the Company.

None of the Global Coordinators, the Joint Bookrunners nor any of their respective directors, officers, employees, affiliates, advisers or agents have authorized the whole or any part of this listing memorandum and none of them makes any representation or warranty or accepts any responsibility as to the accuracy or completeness of the information contained in this listing memorandum. None of the Global Coordinators, the Joint Bookrunners nor any of their respective directors, officers, employees, affiliates, advisers or agents has made any independent verification of the information contained in this listing memorandum in connection with the issue or offering of the notes and no representation or warranty, express or implied, is made by any of the Global Coordinators, the Joint Bookrunners or any of their respective directors, officers, employees, affiliates, advisers or agents with respect to the accuracy or completeness of such information. Nothing contained in this listing memorandum is, is to be construed as, or shall be relied upon as, a representation or warranty, whether to the past or the future, by any of the Global Coordinators, the Joint Bookrunners or any of their respective directors, officers, employees, affiliates, advisers or agents in any respect.

The Company has not authorized the making or provision of any representation or information regarding the Company or the notes other than as contained in this listing memorandum. Any other representation or information should not be relied upon as having been authorized by the Company, Global Coordinators or the Joint Bookrunners.

Neither the delivery of this listing memorandum nor the offering, sale or delivery of any note shall in any circumstance create any implication that there has been no adverse change, or event reasonably likely to involve any adverse change, in the condition (financial or otherwise) of the Company since the date of this listing memorandum.

The distribution of this listing memorandum and the offering, sale and delivery of the notes in certain jurisdictions may be restricted by law. Persons into whose possession this listing memorandum comes are required by the Company, the Global Coordinators and the Joint Bookrunners to inform themselves about and to observe any such restrictions. For a description of certain restrictions on offers, sales and deliveries of the notes and on the distribution of this listing memorandum and other offering materials relating to the notes, see “*Plan of Distribution*” and “*Transfer Restrictions.*”

This listing memorandum has been prepared by the Company for use in connection with the admission of the notes to the Official List of the FCA and to trading on the Regulated Market of the London Stock Exchange. This listing memorandum does not constitute an offer to any person in the United States other than any QIB to whom an offer has been made directly by one of the Joint Bookrunners, Global Coordinators or its U.S. broker-dealer affiliate. Distribution of this listing memorandum to any person within the United States, other than any QIB and those persons, if any, retained to advise such QIB with respect thereto, is unauthorized and any disclosure without the prior written consent of the Company of any of its contents to any person within the United States, other than any QIB and those persons, if any, retained to advise such QIB, is prohibited.

Notwithstanding anything to the contrary contained herein, none of the trustee, any paying agent or any other agent under the indenture (as defined in "Description of the Notes") makes any representation with respect to the accuracy or completeness of the information contained in this listing memorandum, and shall have no liability whatsoever for its accuracy or completeness.

Prospective purchasers of the notes should consult their tax advisers as to the consequences under the tax laws of the country of which they are resident for tax purposes and the tax laws of Chile of acquiring, holding and disposing of the notes and receiving payments of principal, interest and/or other amounts under the notes.

SUITABILITY OF INVESTMENT

In making any investment decision, prospective investors must rely on their own examination of the Company, including the merits and risks involved. Prospective investors should not construe anything contained in this listing memorandum as legal, business or tax advice. Each prospective investor should consult its own advisors as needed to make its investment decision and to determine whether it is legally permitted to purchase the notes under applicable legal investment or similar laws or regulations and to determine the tax consequences relating to an investment in the notes.

Each potential investor in the notes must determine the suitability of that investment in light of its own circumstances. In particular, each potential investor should:

(a) have sufficient knowledge and experience to make a meaningful evaluation of the notes, the merits and risks of investing in the notes and the information contained in this listing memorandum or any applicable supplement;

(b) have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of its particular financial situation, an investment in the notes and the impact the notes will have on its overall investment portfolio;

(c) have sufficient financial resources and liquidity to bear all the risks of an investment in the notes, including where the currency for principal or interest payments is different from the potential investor's currency;

(d) understand thoroughly the terms of the notes and be familiar with the behavior of any relevant financial markets; and

(e) be able to evaluate (either alone or with the help of a financial adviser) possible scenarios for economic, interest rate and other factors that may affect its investment and its ability to bear the applicable risks.

LEGAL INVESTMENT CONSIDERATIONS

The investment activities of certain investors are subject to legal investment laws and regulations, or review or regulation by certain authorities. Each potential investor should consult its legal advisers to determine whether and to what extent (1) the notes are legal investments for it, (2) the notes can be used as collateral for various types of borrowing and (3) other restrictions apply to its purchase or pledge of any of the notes. Financial institutions should consult their legal advisors or the appropriate regulators to determine the appropriate treatment of the notes under any applicable risk-based capital or similar rules.

STABILIZATION

In connection with the issue of the notes, the initial purchasers may over allot notes or effect transactions with a view to supporting the price of the notes at a level higher than that which might otherwise prevail. However, there is no obligation on the initial purchasers to do this and stabilization may not necessarily occur. Any stabilization action or over-allotment must be conducted in accordance with all applicable laws and rules and if commenced, may be discontinued at any time.

PROHIBITION OF SALES TO EEA RETAIL INVESTORS

The notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("EEA"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of MiFID II; or (ii) a customer within the meaning of Directive (EU) 2016/97 (as amended, the "Insurance Distribution Directive"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II. Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the "UK PRIIPs Regulation") for offering or selling the notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

PROHIBITION OF SALES TO UK RETAIL INVESTORS

The notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the UK. For these purposes, a retail investor means a person who is one (or more of): (i) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 ("EUWA"); (ii) a customer within the meaning of the provisions of the Financial Services and Markets Act 2000 (as amended, "FSMA") and any rules or regulations made under the FSMA to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA (as amended, the "UK MiFIR"). Consequently, no key information document required by Regulation (EU) No 1286/2014 as it forms part of domestic law by virtue of the EUWA (the "UK PRIIPs Regulation") for offering or selling the notes or otherwise making them available to retail investors in the UK has been prepared and therefore offering or selling the notes or otherwise making them available to any retail investor in the UK may be unlawful under the UK PRIIPs Regulation.

NOTICE TO PROSPECTIVE INVESTORS IN THE UNITED STATES

THE NOTES HAVE NOT BEEN APPROVED OR DISTRIBUTED BY THE U.S. SECURITIES AND EXCHANGE COMMISSION, ANY STATE SECURITIES COMMISSION IN THE UNITED STATES OR ANY OTHER U.S. REGULATORY AUTHORITY, NOR HAVE ANY OF THE FOREGOING AUTHORITIES REVIEWED OR PASSED UPON THE ACCURACY OR ADEQUACY

OF THIS LISTING MEMORANDUM. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE IN THE UNITED STATES.

AVAILABLE INFORMATION

We are not subject to the information requirements of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"). To permit compliance with Rule 144A under the Securities Act in connection with resales of notes, we will be required under the indenture (as defined in "Description of the Notes"), upon the request of a holder of Rule 144A notes or Regulation S notes (during the restricted period, as defined in the legend included under "Transfer Restrictions"), to furnish to such holder and any prospective purchaser designated by such holder the information required to be delivered under Rule 144A(d)(4) under the Securities Act, unless we furnish information to the SEC in accordance with Rule 12g3-2(b) under the Exchange Act or pursuant to Section 13 or 15(d) of the Exchange Act. Any such request may be made to us in writing at our registered office located at 103 Mount Street, London W1K 2TJ, United Kingdom.

The indenture will further require that we furnish to the trustee (as defined herein) all notices and communications that are generally made available to holders of the notes.

We will make available to the holders of the notes, at the corporate trust office of the trustee at our cost, copies of the indenture and this listing memorandum, and copies in English of our annual audited consolidated financial statements and our interim unaudited condensed consolidated financial statements.

FORWARD-LOOKING STATEMENTS

Forward-looking statements involve known and unknown risks, uncertainties, assumptions and other factors that are beyond our control. Given these risks, uncertainties and assumptions, actual results could differ materially from any future results expressed or implied by these forward-looking statements, which speak only as at the date of this listing memorandum. Important factors that could cause actual results to differ from those in the forward-looking statements include, without limitation:

- general economic and financial conditions, which may affect our business, results of operations or financial condition;
- various political, economic, legal, regulatory, social and other risks and uncertainties across the jurisdictions in which we operate, including as a result of proposed constitutional reforms;
- changes to mining concessions or the imposition of new mining royalties in the jurisdictions in which we operate;
- our ability to comply with the extensive body of regulations governing the mining industry, as well as the need to manage relationships with local communities;
- the ongoing effects of the global COVID-19 pandemic;
- demand, supply and prices for copper and other long-term commodity price assumptions (as they materially affect the timing and feasibility of future projects and developments);
- trends in the copper mining industry and conditions of the international copper markets;
- the effect of currency exchange rates on commodity prices and operating costs;
- the availability and costs associated with mining inputs and labor;
- operating or technical difficulties in connection with mining or development activities;
- risks, hazards and/or events and conditions inherent to the mining industry, which may affect our operations or facilities;
- employee relations;
- climate change as well as the effects of extreme weather conditions;
- the outcome of any litigation, arbitration, regulatory and administrative proceedings to which we are and may be subject in the future; and
- actions and activities of governmental authorities, including changes to laws, regulations or taxation.

Except as required by applicable law, rule or regulation, we do not undertake any obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Additional factors which could cause actual results and developments to differ from those expressed or implied by the forward-looking statements are included in the section "Risk Factors" in this listing memorandum.

PRESENTATION OF FINANCIAL AND CERTAIN OTHER INFORMATION

Certain Defined Terms

In this listing memorandum, unless otherwise specified or the context otherwise requires, the terms "we," "our," "us," the "Group," the "Company" and "Antofagasta" refer to Antofagasta plc, together with its subsidiaries, or, if the context requires, Antofagasta plc, individually. References to the "Issuer" in this listing memorandum are references to Antofagasta plc. Certain terms used in this listing memorandum, including certain terms relating to our business, are defined in "Glossary of Certain Terms."

Financial Information

This listing memorandum includes:

- our annual audited consolidated financial statements presented in U.S. dollars as of and for the year ended December 31, 2019, which include the notes thereto (the "2019 Audited Financial Statements");
- our annual audited consolidated financial statements presented in U.S. dollars as of and for the year ended December 31, 2020, which include the notes thereto (the "2020 Audited Financial Statements"); and
- our annual audited consolidated financial statements presented in U.S. dollars as of and for the year ended December 31, 2021, which include the notes thereto (the "2021 Audited Financial Statements" and, together with the 2019 Audited Financial Statements and the 2020 Audited Financial Statements, the "Financial Statements").

The financial information presented and disclosed in this listing memorandum as of and for each of the years ended December 31, 2019, 2020 and 2021 has been derived from the 2019 Audited Financial Statements, 2020 Audited Financial Statements and the 2021 Audited Financial Statements, respectively.

The Financial Statements should be read in conjunction with the relevant reports of our independent auditors, included elsewhere in this listing memorandum, as such reports relate to the Financial Statements.

Our 2019 Audited Financial Statements, 2020 Audited Financial Statements and 2021 Audited Financial Statements have been prepared in accordance with IFRS.

The preparation of financial information in accordance with IFRS requires the use of certain critical accounting estimates. Please refer to "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Judgments and Key Sources of Estimation Uncertainty" and note 3 of the Financial Statements, included elsewhere in this listing memorandum. It also requires management to exercise its judgment in the process of applying our accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial information are disclosed in the notes to the financial information included elsewhere in this listing memorandum.

In making an investment decision, you must rely upon your own examination of Antofagasta and its subsidiaries, the terms of the offering and the financial information included herein. We urge you to consult your own advisors regarding the differences between IFRS and U.S. GAAP and how these differences might affect the financial information included in this listing memorandum.

The financial information included in this listing memorandum is not intended to comply with the applicable accounting requirements of the Securities Act and the related rules and regulations that would apply if the notes were to be registered in the United States.

Currency and Units of Measure

In this listing memorandum, references to "U.S.$," "$," "U.S. dollars" and "dollars" are to United States dollars and references to "cents" are to United States cents (U.S.$0.01). References to "pesos" or "Ch$" are to Chilean pesos. References to "British pounds," "GBP," "pounds sterling," "sterling" or "£" are to the currency of the United Kingdom of Great Britain and Northern Ireland.

As used in this listing memorandum, the term "billion" means one thousand million (1,000,000,000).

Rounding Adjustments

Certain figures included in this listing memorandum have been rounded for ease of presentation. Percentage figures included in this listing memorandum have not in all cases been calculated on the basis of such rounded figures but on the basis of such amounts prior to rounding. For this reason, certain percentage amounts in this listing memorandum may vary from those obtained by performing the same calculations using the figures in our Financial Statements included elsewhere in this listing memorandum. Certain other amounts that appear in this listing memorandum may not sum due to rounding.

Industry and Market Data

Market data and other statistical information used throughout this listing memorandum are generally based on independent industry publications, government publications, reports by market research firms or other published independent sources, including independent consultants. Some data are also based on our estimates, which are derived from our review of internal surveys, as well as independent sources. Although we believe these sources are reliable, we have not independently verified the information and cannot guarantee its accuracy or completeness.

In addition, in many cases, we have based certain statements contained in this listing memorandum regarding our industry and our position in the industry on certain assumptions concerning our customer and competitors. These assumptions are based on our experience in the industry and our own investigation of market conditions. We cannot assure you as to the accuracy of any such assumptions, and such assumptions may not be indicative of our position in our industry.

Certain information provided in this listing memorandum has been sourced from third parties. We confirm that such third-party information has been accurately reproduced and that, so far as we are aware and are able to ascertain from information published by such third parties, no facts have been omitted which would render the third-party information reproduced herein inaccurate or misleading. All information in this listing memorandum attributed to "Wood Mackenzie" is sourced from the "Wood Mackenzie Global Copper Outlook – December 2021" report, dated December 2021.

Alternative Performance Measures

In this listing memorandum, we have included references to certain non-IFRS measures and ratios, including EBITDA, Net Debt, cash costs, EBITDA Margin and Net Debt/EBITDA or leverage. These measures are included because they are considered to provide relevant and useful additional information to investors. You should exercise caution in comparing the non-IFRS measures as reported by us to non-IFRS measures of other companies. Non-IFRS measures have limitations as an analytical tool, and you should not consider them in isolation or as a substitute for analysis of our operating results as reported under IFRS.

EBITDA, Net Debt, cash costs, EBITDA Margin and other alternative performance measures as presented in this listing memorandum may not be comparable to other similarly titled measures of performance of other companies. The non-IFRS financial information included in this listing memorandum is not intended to comply with reporting requirements of the SEC and will not be subject to review by the SEC or any other authority in the United States.

EBITDA

EBITDA refers to Earnings Before Interest, Tax, Depreciation and Amortization. EBITDA is calculated by adding back depreciation, amortization, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group's subsidiaries, and the Group's proportional share of the EBITDA of its associates and joint ventures.

EBITDA is considered to provide a useful and comparable indication of the current operating earnings performance of the business, excluding the impact of the historical cost of property, plant and equipment or the particular financing structure adopted by the business.

For a reconciliation of EBITDA to operating profit for each of the years ended December 31, 2021, 2020 and 2019, see "Summary of Financial and Other Information."

Net Debt

Net Debt reflects the total of current and non-current borrowings less cash and cash equivalents and liquid investments. This is considered to provide a useful indication of the business's financial position, including its capacity to raise additional debt, and is widely accepted as one of the most common measures of a company's level of indebtedness.

Cash Costs

Cash costs is a non-IFRS alternative performance measure of the cost of operating production expressed in terms of cents per pound of payable copper produced. Cash cost per pound is calculated as U.S. dollars per pound of payable copper produced. Cash costs reflect the mining and processing costs required to produce our copper concentrate and cathodes, including related transportation costs. For Los Pelambres and Centinela, cash costs are stated net of by-product credits and include treatment and refining charges for concentrates. Net cash costs exclude depreciation, financial income and expenses, hedging gains and losses, exchange gains and losses, and corporation tax.

Cash costs is considered to be a useful and relevant measure as it is a standard industry measure applied by most major copper mining companies which reflects the direct costs involved in producing each pound of copper. It therefore allows a straightforward comparison of the unit production cost of different mines, and allows an assessment of the position of a mine on the industry cost curve. It also provides a simple indication of the profitability of a mine when compared against the price of copper (per lb).

EBITDA Margin

EBITDA Margin is calculated as EBITDA divided by Group revenue. This is considered to provide a useful indication of the level of profitability of the business, excluding the impact of the historical cost of property, plant and equipment or the particular financing structure adopted by the business, and allows comparisons between businesses of different sizes.

For a reconciliation of revenue to EBITDA Margin for each of the years ended December 31, 2021, 2020 and 2019, see "Summary of Financial and Other Information."

Net Debt/EBITDA or Leverage

Net Debt/EBITDA, or leverage, is calculated as Net Debt at the period-end date divided by EBITDA for the last twelve months. This is considered to provide a useful indication of the business's financial position, including its capacity to raise additional debt, is widely accepted as one of the most common measures of a company's level of indebtedness, and allows comparisons between businesses of different sizes.

OVERVIEW

This overview highlights selected information more fully described elsewhere in this listing memorandum. This overview does not contain all of the information that is important to you. You should read carefully this entire listing memorandum, including the Financial Statements including the notes and other financial data appearing elsewhere herein, and including the risks of investing in the notes discussed in "Risk Factors" below, before making a decision whether to invest in the notes.

Our Business

We are a leading Chile-based international copper mining group that also has significant production of gold and molybdenum as by-products. We are incorporated under the laws of England and Wales, have been listed on the London Stock Exchange since 1888, and are a constituent of the FTSE 100 index, as well as the ESG focused FTSE4Good and STOXX ESG Leaders indexes.

We engage primarily in the exploration, development and extraction of ores bearing copper and by-products, the processing of ore and the international sale of copper cathodes and copper concentrates. We operate four producing mines in Chile. We also engage in exploration activities in Chile and elsewhere in the Americas and own a transport division that provides rail and road cargo services in northern Chile, predominantly to mining customers, including some of our own operations.

The four mines we operate (Los Pelambres, Centinela, Antucoya, Zaldívar) are located in the Coquimbo and Antofagasta regions of Chile. As of December 31, 2021, these four operating mines had approximately 4,136.2 million tonnes of proven and probable ore reserves (including 100% of the proven and probable reserves at Zaldívar, of which we have a 50% ownership interest).

We believe the high quality of our core mining assets is one of our key strengths. Los Pelambres, a world-class copper mine, contains proven and probable ore reserves totaling 956.1 million tonnes as at December 31, 2021, and produced 324,700 tonnes of copper in 2021. Centinela contains proven and probable ore reserves totaling 1,983.6 million tonnes as at December 31, 2021, and produced 274,200 tonnes of copper in 2021. Antucoya contains proven and probable ore reserves totaling 745.5 million tonnes as at December 31, 2021, and produced 78,600 tonnes of copper in 2021. Zaldívar, which is a joint venture with Barrick Gold Corporation in which we hold a 50% interest, contains proven and probable ore reserves totaling 450.8 million tonnes as at December 31, 2021 (reflecting 100% of the proven and probable reserves at Zaldívar), and produced 44,000 tonnes of copper (on a 50% basis, reflecting our percentage of ownership) in 2021.

Our main commercial products are copper concentrates and copper cathodes. We also produce and sell molybdenum concentrate. For the year ended December 31, 2021, we derived 85.9% of our total revenue from copper and 11.9% of our total revenue from gold, molybdenum and silver by-product production.

In addition, we also hold significant transport assets in our Transport division, which is mainly focused on the transport of copper cathodes and concentrates from, and the transport of sulfuric acid to, mining operations in the Antofagasta region of Chile. Total transport volumes in 2021 were 6.7 million tonnes, an increase of 4.0% from 6.4 million tonnes in 2020. In total, in 2021 the Transport division operated approximately 700 km of railroad and 75 locomotives.

We strive for operating efficiency, creation of sustainable value, high profitability, and to be a preferred partner in the global mining industry. We are committed to our purpose of Developing Mining for a Better Future. Based on this approach, in 2019 we adopted a strategic framework designed to underpin our long-term success. We built this framework around five pillars: disciplined growth, development of our

people, the safety and sustainability of our operations, innovation, and competitiveness. We have also put in place a clear set of near- and medium-term goals for the organization based on this framework.

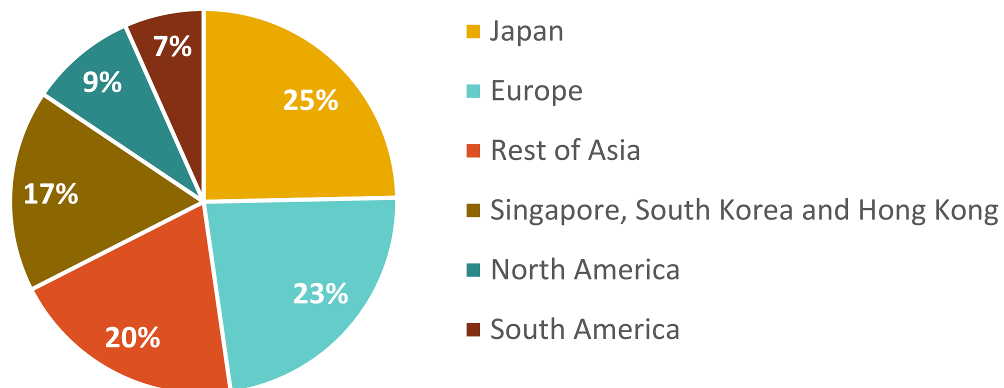
We are focused on improving efficiency through debottlenecking and incremental plant expansions at our existing mines, as these projects often have lower capital expenditure requirements and generate higher returns than greenfield projects. We currently have two main brownfield expansion projects in various stages of progress at our existing operations, including the opening of the Esperanza Sur pit at Centinela and an expansion of the Los Pelambres operation (the "Los Pelambres Expansion"). In particular, the Los Pelambres Expansion is expected to increase production by an average of 60,000 tonnes per year over 15 years, with the associated desalination plant supplying water for the expansion and acting as a back-up for the existing operation in dry conditions, such as those the region has been experiencing recently. The opening of the Esperanza Sur pit is expected to improve Centinela's flexibility to supply its concentrator, with the higher-grade material over the initial years of the project expected to increase production by some 10,000–15,000 tonnes of copper (on a 100% basis) per year. This greater flexibility is expected to allow Centinela to smooth and optimize its year-on-year production profile, which has been variable in the past.

We take a very disciplined and conservative approach to growth and have a long-term perspective, with exploration in Chile and internationally remaining a key part of the sustainable long-term growth of our copper business. In line with that approach, we have a long-term development project in Minnesota called Twin Metals.

The majority of our sales are to industrial customers across the globe who refine or further process the copper we produce—smelters in the case of copper concentrate production and copper fabricators in the case of cathode production. For the year ended December 31, 2021, 61% of our revenue was derived from customers located in Asia, with customers in Japan accounting for 25% of total revenue. We also retain a small exposure to the spot market, which allows us to manage our shipments and provides us with live market feedback.

The chart below sets forth our revenue by location of customer for the year ended December 31, 2021:

2021 Revenue by customer geography



For the year ended December 31, 2021, we produced 721,500 tonnes of copper; 252,200 ounces of gold; and 10,500 tonnes of molybdenum.

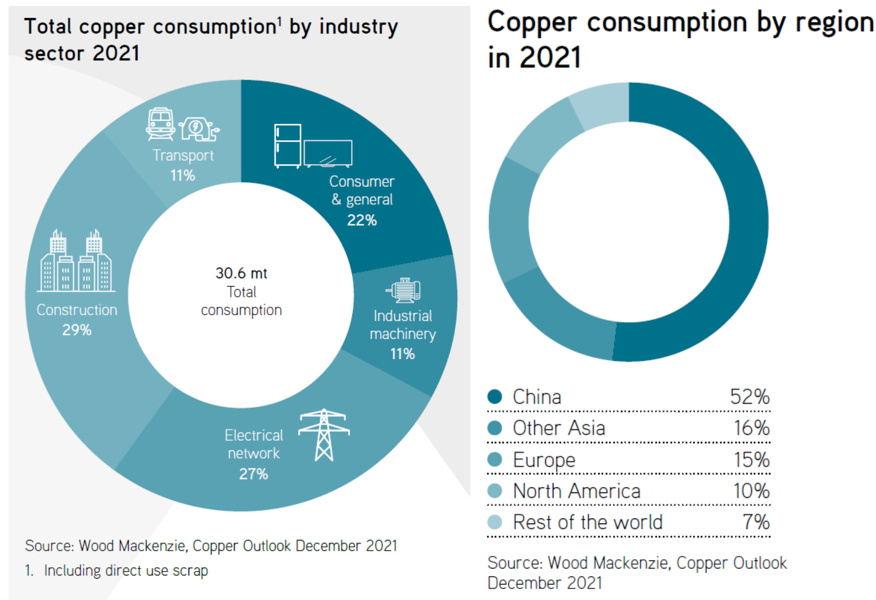
For the year ended December 31, 2021, our consolidated revenue was U.S.$7,470.1 million; and EBITDA was U.S.$4,836.2 million.

Copper Market Fundamentals

Copper is an internationally traded commodity, with prices in effect established on terminal markets including the LME and COMEX. Copper prices are affected by numerous factors, including international economic and political conditions, levels of supply and demand, the availability and costs of substitutes, inventory levels maintained by producers and others and actions of participants in the commodities markets.

Copper demand remained strong in 2021, particularly in Asia, which represented approximately two-thirds of global consumption in 2021 according to Wood Mackenzie. In particular, China accounted for almost half of the world's consumption in the same year.

The following charts show global copper consumption by region and market in 2021.



Due to strong copper demand growth in 2021 and the limited capacity of copper supply to respond quickly, the exchange stocks have dropped to their lowest level since 2008, ending the year at less than 0.6 weeks of consumption. This has consolidated the price at historically high levels and moved the copper forward curve into backwardation, where the uncertainty of having enough copper for prompt delivery leads to the cash price being higher than the forward price, reflecting exceptionally tight availability. This situation is expected to ease during the second half of 2022, when several major greenfield and brownfield projects are scheduled to come into production. However, we expect part, or all of the additional production will be offset by continued falling grades, political instability, COVID-19, water restrictions, communities' unrest, and logistical and supply constraints. As of April 20, 2022, the spot price for copper was $4.63 per pound.

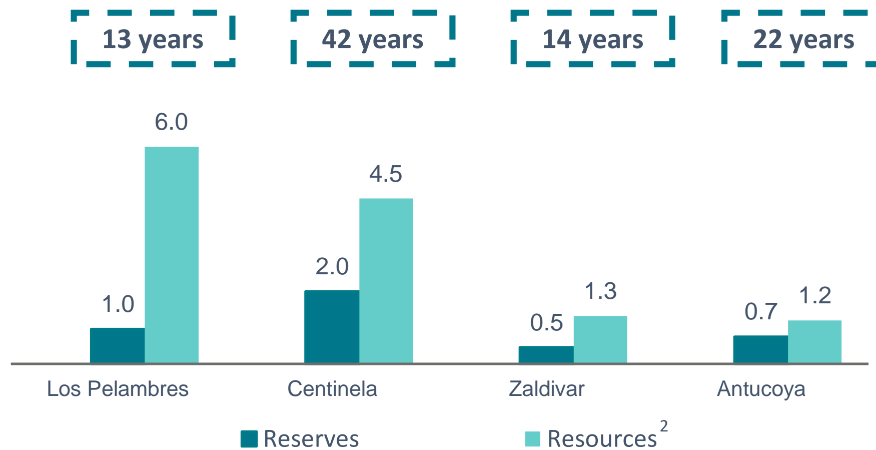
Our Strengths

We believe our competitive position as a leading mining company in Chile is supported by the following strengths:

Strong Core Mining Business with a Premium Copper Portfolio in an Established Mining Jurisdiction

Our mining assets are located in the Antofagasta and Coquimbo regions of Chile, an established mining jurisdiction. As of April 20, 2022, Chile's long-term foreign currency sovereign ratings are A1 from Moody's, A from S&P and A- from Fitch. In 2021, Chile was the largest producer of copper in the world and ranked first in reserves according to the U.S. Geological Survey, Mineral Commodity Summaries. Our mining operations have large resource bases; as of December 31, 2021, the four mines we operate had approximately 4,136.2 million tonnes of proven and probable ore reserves in total (including 100% of the proven and probable reserves at Zaldívar) with an average mine life of approximately 23 years. As at December 31, 2021, Los Pelambres contains 956.1 million tonnes in proven and probable ore reserves. Likewise, Centinela contains 1,983.6 million tonnes, Antucoya contains 745.5 million tonnes, and Zaldívar contains 450.8 million tonnes in proven and probable ore reserves (reflecting 100% of the proven and probable reserves at Zaldívar). The long life of these assets increases the likelihood of a mine being able to benefit from the peaks in the commodity price cycle while withstanding the troughs.

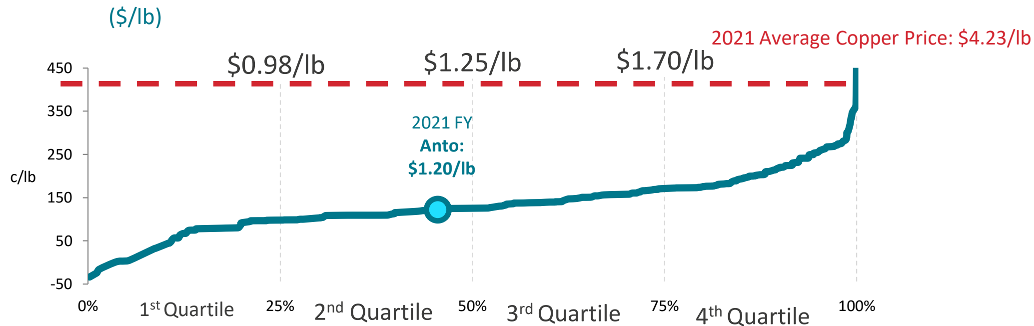
The chart below shows the remaining life of mine, reserves and resources of our operating mines as of December 31, 2021.



(1) Figures reported on a 100% basis, Mine Life considers reserves.

(2) Resources are reported inclusive of reserves 2020.

We have a competitive position in the cost curve, with a net cash cost of $1.20 per pound for the year ended December 31, 2021. According to Wood Mackenzie, our operations are in the second quartile of the copper cash cost curve, which we believe puts us in a good position to endure potential market downturns.



Source: Wood Mackenzie.

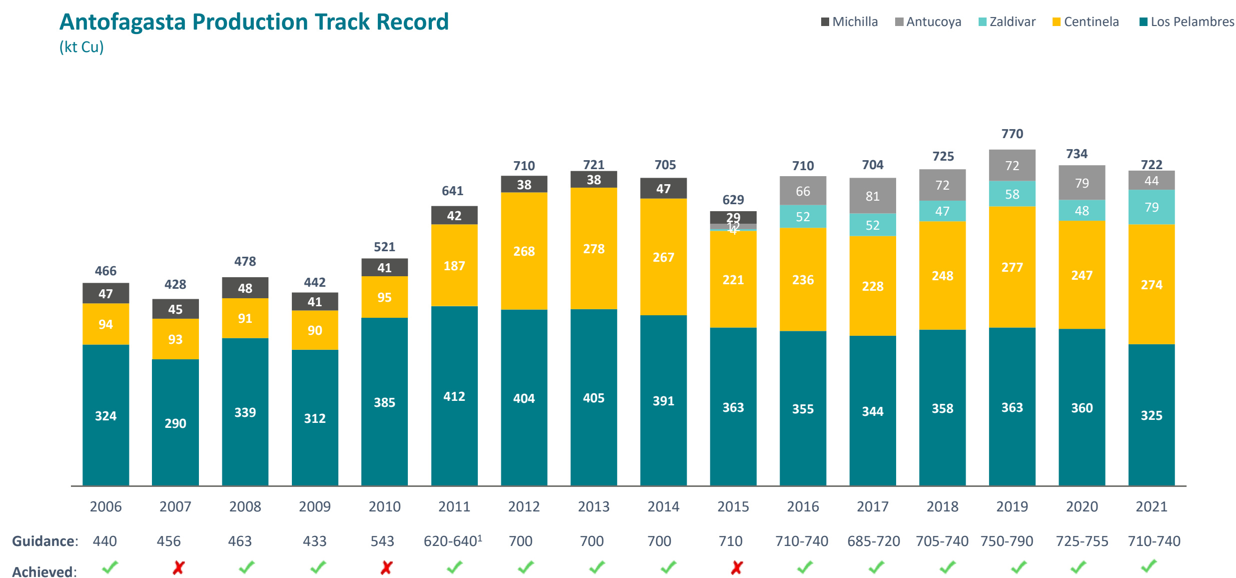
Safety First: A Robust and Proactive Safety Culture

The health and safety of our employees is our first priority. Our Safety and Health Strategy is based on four pillars: safety risk management, health risk management, standardized reporting and continuous improvement, and leadership. We strive to eliminate dangerous workplace conditions and behaviors with the goal of zero fatalities, zero occupational illnesses, and the development of a resilient culture and the automation of hazardous processes. We have undertaken intensive safety awareness campaigns with highly visible leadership from senior management, including monthly dedicated site visits by our chief executive officer or other key management personnel. Our leadership teams strive to share lessons learned across our operations and promote operational discipline in furtherance of our commitment to safety. We measure our overall safety performance with two main indicators: high-potential incidents and Lost Time Injury Frequency Rate ("LTIFR"). In 2021, we had 65 high-potential incidents, 24% fewer than in 2020. Our LTIFR rose by 56% to 1.34 per million hours worked, compared to 2020, mainly due to an increase in low-potential incidents. To emphasize and incentivize safety, we tie senior management and employee compensation to these safety metrics and safety performance.

Operational Discipline: Track Record of Delivering Sustainable Production

We are a leading copper producer with a demonstrated ability to successfully operate mines in Chile and consistently achieve production targets. Over the last decade, we have been able to sustain annual production levels despite significant volatility in metal prices and the ever-changing global political and economic environments. In the last 15 years, we have been able to increase our total copper production over 50%, going from 466,000 tonnes in 2006 to 721,500 tonnes in 2021, achieving our production guidance in almost every year over the same period. We believe that our long-dated experience in the industry as a best-in-class operator, supported by our cost-efficient and environmentally and socially responsible business model will allow us to benefit from the anticipated increase in copper demand in the medium and long term and continue capitalizing on the currently strong market fundamentals and our competitive position in the market.

The table below sets out our production track record for the periods indicated.



Cost Control Through Business Improvements

Our cost-control strategy, designed to ensure we continue to operate cost-efficiently, is to deploy capital expenditures on debottlenecking projects and incremental plant expansions at our existing mines, increasing throughput and improving overall efficiencies. Since 2014, we have utilized our Cost and Competitiveness Program ("CCP") in order to improve our competitiveness in the medium and long term, strengthening our operations and enabling future growth.

The main target of the CCP is to provide a methodology to preserve our competitive position within the industry and to counterbalance grade decline, which is a natural trend in all copper mines, inflation and input prices. Each year, we seek to realize savings through the CCP through initiatives related to centralizing goods and services procurement, increasing operating efficiency and asset reliability and restructuring our organizational framework. Through these initiatives, in the year ended December 31, 2021, we achieved savings of $131 million, compared with $197 million in 2020 and $132 million in 2019, which helped mitigate the increase in cash costs that we experienced during the year.

As we move forward, we will continue working on identifying and delivering the "next generation" of cost savings through initiatives such as teleworking, autonomous mine equipment and applying business intelligence to supply chain management.

Financial Discipline: Balance Sheet Management Facilitated by Disciplined Capital Allocation

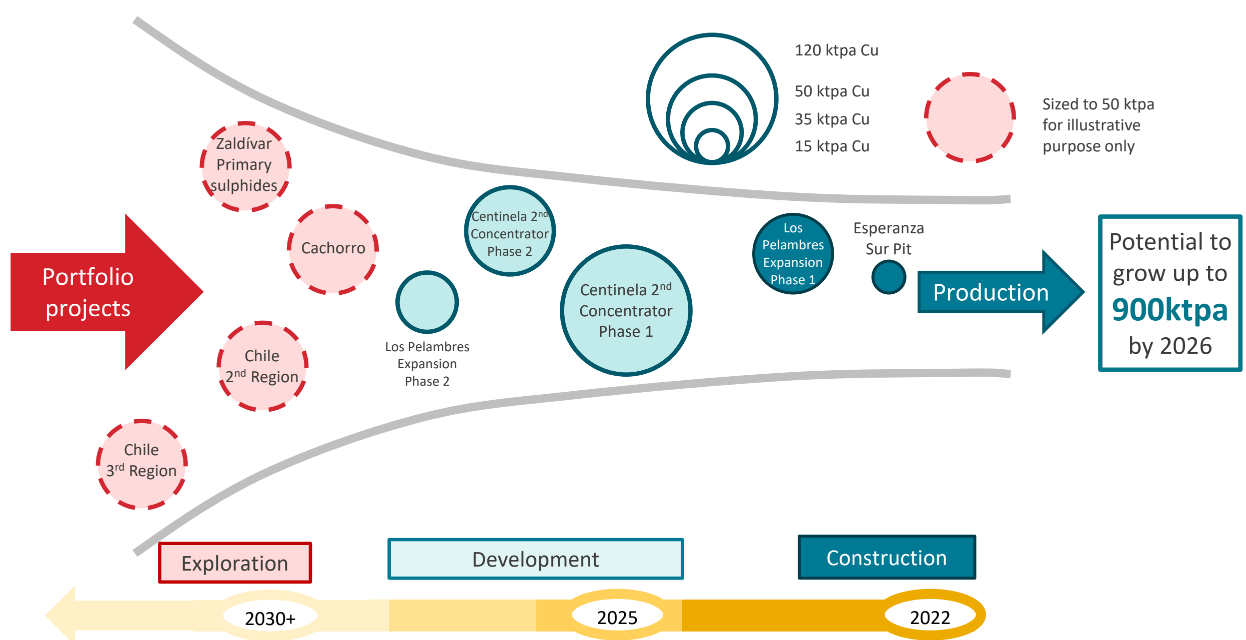
We have implemented a strong capital allocation model, which focuses on sustaining capital expenditure and investing in mine development in order to maintain our process plants' and mines' ability to deliver value. This model is fundamental in making all of our financial decisions. Further, according to our dividend policy, we pay a minimum dividend of 35% of underlying net earnings. Having a strong balance sheet as part of our key indicators, we allocate capital to growth projects that generate returns

consistent with our investment criteria, or alternatively we return excess capital in the form of a higher final dividend.

We have a proven track record of operational efficiency and project development execution—for example, three of our mines were developed by us. We have successfully executed several development and portfolio optimization projects in Chile, which have allowed us to improve the operational efficiency and copper production in our operations. Our focus on debottlenecking and incremental plant expansions at our existing mines to improve efficiency is key to our strategy, as these projects often have lower capital expenditure requirements and generate higher returns than greenfield projects.

We have a portfolio of organic growth projects with two brownfield expansion projects in various stages of progress at our existing operations, including the opening of the Esperanza Sur pit at Centinela and the Los Pelambres Expansion. We believe our disciplined approach to capital spending allows us better to weather downturns in the copper markets and positions us to succeed when markets recover.

The graphic below summarizes information relating to our two brownfield expansion projects and other projects under consideration.

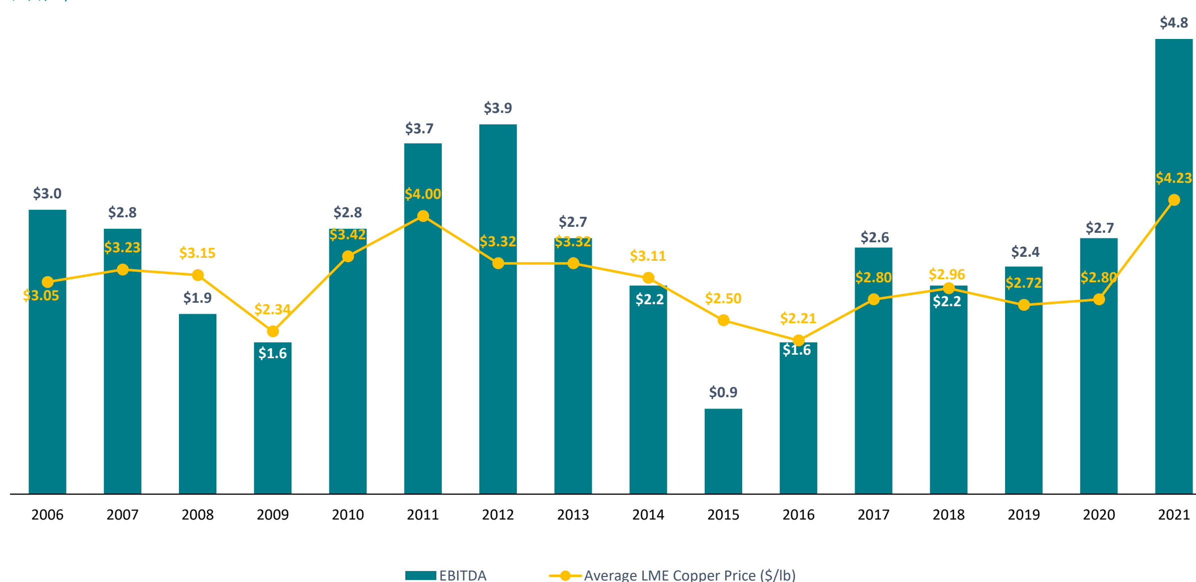


Historically, we have been able to generate cash flow well in excess of our capital expenditures and consequently we have been able to maintain very low levels of debt. During the fiscal year ended December 31, 2021, we generated $3,670 million in net cash from operating activities, and invested $1,776 million in capital expenditures while maintaining an end-of-period cash balance (including cash, cash equivalents and liquid investments) of $3,713 million, and net leverage consistently below 0.5x. We have been able to maintain a strong EBITDA Margin despite copper price volatility, and for the year ended December 31, 2021, our EBITDA Margin was 65%. Despite the capital-intensive nature of our business, we have been able to carry out our capital expenditure plans and increase our copper production while maintaining a low leverage profile and a large liquidity position.

Cash Flow Generation Through the Commodity Cycle

Our conservative financial policies promote a healthy balance sheet and underpin a business model that favors low leverage and enables strong cash flow generation, even amidst volatile market conditions.

The resilience of our balance sheet has been tested by the global financial crisis of 2008-2009, during the commodity price sell-off of 2015-2016, and most recently during the COVID-19 pandemic. We have historically maintained large cash balances and low levels of indebtedness. As a result, we have a long track record of profitability and consistent cash flow generation through the commodity cycles. Our cost-efficient operations coupled with our conservative financial profile have allowed us to successfully navigate prior volatile periods. We maintain strong banking relationships in the markets in which we operate and have maintained ready access to the bank loan market and the equity capital markets. In recent years, we have executed several medium-term financing deals, including asset-level financing. We believe that the combination of a competitive and flexible cost structure and a strong financial position with modest leverage is key to supporting our business for the long term.



(1) EBITDA figures for 2006 through 2016 have not been adjusted to reflect the adoption of new accounting standards. This may have an impact on the comparability of EBITDA for such periods with EBITDA for the fiscal years ended 2019, 2020 and 2021.

Commitment to Environmental, Social and Governance Excellence

We are fully committed to improving the sustainability of our operations; respect for the environment and active engagement with local communities are fundamental to our business. We maintain certifications from, and memberships in, key organizations championing ESG initiatives; additionally, we are currently included in the FTSE4Good, and STOXX ESG Leaders indexes. According to S&P Global we are currently ranked in the top 15% of the metals and mining industry in their Sustainability Yearbook for 2022. In addition, we are No. 6 in Sustainalytics ranking of ESG ratings in 2022.

We also are focused on reducing our carbon emissions; in 2017, our Mining division defined a series of emissions reduction projects and in 2018 went on to set a target of reducing its direct (Scope 1) and indirect (Scope 2) emissions by 300,000 tonnes of CO_2 by 2022, compared to the 2017 baseline. We met this target in 2020, two years early, with emissions down by 581,355 tonnes of CO_2 and in 2021, reduced our emissions by a further 43,569 tonnes of CO_2. In May 2021 we announced new emissions reduction targets: in the framework of our Climate Change Strategy, we aim to cut our Scope 1 and Scope 2 emissions by 30% by 2025, compared to 2020, equivalent to the avoidance of 730,000 tCO_2e. Moreover, we have been taking significant steps to decarbonize our electricity matrix; following the recent supply

contract renegotiations in all of our mines, we now expect that 100% of the energy consumption by our mining operations will be supplied under contracts for renewable energy by the end of 2022.

As part of our commitment to local communities, in 2019 we implemented a new Social Management Model at our four mining operations. It serves as a vehicle through which to apply common engagement principles, methodologies and practices across our operations, measure impacts and manage risks. Our engagement with local stakeholders is based on the principles of dialogue, collaboration, traceability, excellence and transparency. In the year ended December 31, 2021, we invested $47.8 million on social projects near our operations, a 6.22% increase from 2020.

As part of our commitment to mitigating and adapting to climate change, in 2021, sea water accounted for 45% of our Mining division's operational water withdrawals, and water reuse and recycling rates at our mining operations averaged 83% for the division. Such water reuse and recycling rates average is high compared to the average for Chile's copper mining industry, which reached 73% in 2020, according to the Chilean Copper Commission.

We are committed to demonstrating how our strategies, policies and targets are supported by concrete actions and how we measure the impact of these activities. As part of this process, during the year, we complemented our regular Annual and Sustainability Reports with reports on specific topics to provide an extra level of disclosure. In September 2021, we published our first progress report on the implementation of the recommendations of the Task Force on Climate-related Financial Disclosures ("TCFD"). This provided an overview of our TCFD-related work and climate change response. As a demonstration of our transparency, in 2021 Centinela and Zaldívar received the Copper Mark, an independent external assurance of the sites' compliance with strict, internationally recognized, sustainable production standards. Los Pelambres and Antucoya also began the voluntary accreditation processes.

Experienced Management with Deep Bench Strength

Our experienced management team is critical to maintaining our current operations, implementing development projects and achieving long-term growth without major disruption. Our Employee Performance Management System is designed to attract and retain key employees by creating suitable reward and remuneration structures and providing personal development opportunities. We have a talent management system to identify and develop internal candidates for key management positions, as well as identifying suitable external candidates where appropriate.

Our Strategy

We intend to maintain our position as one of the world's largest copper producers and increase our production. There are five key elements of our strategy:

Develop Our People

People are the core of our business. We want our employees to feel recognized and to have the maximum opportunities for personal and professional growth. We seek to generate a culture of diversity and inclusion in which our employees can achieve their full potential. We are committed to equality and believe that we can develop our business and make a significant contribution to Chile's development. We work to improve opportunities for individuals' internal promotion fostered through initiatives such as technical and managerial training programs. Our goal is to be the best employer in the mining industry. To achieve this, we understand the importance of creating an environment of trust and collaboration that looks to the long term.

In 2021, we rolled out our New Ways of Working project, comprising a permanent hybrid system of remote and in-person working adapted to employees' roles. Corporate employees are required to work

in-person 50% of the time, while jobs at the operations have been divided into three in-person models: 100% of the time (e.g., truck operators), 50% of the time, and at least one week a month (all subject to COVID-19 restrictions).

Safety and Sustainability as Cornerstone of Our Business Model

The safety and health of our people, employees and contractors is non-negotiable. We are committed to achieving zero fatalities at our operations and continuing to reduce the number and seriousness of accidents and occupational health issues. We view sustainability as a source of value creation that is an integral part of our decision-making processes. This includes taking into account all socio-environmental factors throughout the different stages of the development through to the closure of a mining operation. In line with this, we manage natural resources efficiently and are constantly seeking ways to reduce water consumption, utilize cleaner sources of energy and protect biodiversity, while always collaborating with local communities. We are sensitive to the threats posed by climate change and are always seeking to improve our practices accordingly. Our aim is to maximize the utilization of renewable energy sources and to reduce our greenhouse gas emissions.

The key elements of our sustainability framework include our Climate Change Strategy (including targets and metrics for water consumption and CO_2 emissions) in conjunction with adopting the principles of the Task Force on Climate-Related Financial Disclosures, tying management compensation plans to safety, people, environmental and social performance outcomes and compiling an annual, externally-audited sustainability report in accordance with Global Reporting Initiative Standards. Our sustainability efforts are well-documented in the industry: we were included in the 2020 SAM Sustainability Yearbook, we are a member of the International Council on Mining and Metals (an association of the world's largest mining companies that promotes sustainable mining, develops standards and encourages its members to adopt best practices, "ICMM"), we publicly disclose our Climate Change and Water Security initiatives through the Carbon Disclosure Project ("CDP") and Los Pelambres is a signatory to the United Nations Global Compact. These efforts have been rated by Morgan Stanley Capital International ("MSCI"), Sustainalytics and the CDP.

Enhance Competitiveness by Increasing Productivity with a Focus on Operating Excellence

Our key focus as regards competitiveness is to achieve productivity gains through cost control and streamlining our processes. Our operating model seeks to reduce the variability of our production plans and includes an operating excellence area, a discipline that focuses on productivity issues. Consistent improvements in productivity in our assets and operations have allowed us to maintain a competitive position in the market. Our CCP has also produced significant savings by focusing on five areas where we can increase productivity and reduce costs: streamlining goods and services procurement, improving operating efficiency and asset reliability, improving energy efficiency, increasing corporate and organizational effectiveness, and improving working capital, capital expenditure and services efficiency.

Disciplined Growth

We have a portfolio of growth projects that allows us to remain competitive and develop sustainable operations in the long term. We continue to review our options for increasing profitability and reducing the capital cost of projects, and are enhancing the capabilities of the project team to improve our project execution strategy, management and control. Our focus is on the production of copper and by-products in the Americas.

Innovation

We innovate as a means of improving social, environmental and economic conditions while, at the same time, delivering steady and predictable returns for all our stakeholders. Innovation is key to improving

productivity and efficiency and promoting growth. We are investing in innovation and developing opportunities, and encourage and reward employees and contractors who send us their ideas for improving our operations. During the year, we continued to implement our digital roadmap to facilitate and accelerate the adoption of information and analysis technologies, automation and robotics.

Recent Developments

Final Dividend

On May 13, 2022, the Company paid a final dividend for 2021 of 118.9 cents per ordinary share, which amounted to $1,172.1 million, to shareholders on the share register at the close of business on April 22, 2022.

Reko Diq project

In March 2022 the Company reached an agreement in principle with Barrick Gold and the Governments of Pakistan and Balochistan on a framework that provides for the reconstitution of the Reko Diq project, and a pathway for the Company to exit the project. If definitive agreements are executed and the conditions to closing are satisfied, a consortium comprising various Pakistani state-owned enterprises will acquire an interest in the project for consideration of approximately $900 million to jointly develop the project with Barrick, and Antofagasta would exit. If all the conditions are satisfied during 2022, we would expect to receive the proceeds in 2023.

Zaldívar Chloride Leach

In January 2022 we completed a chloride leach project at Zaldívar (the "Zaldívar Chloride Leach project"). The Zaldívar Chloride Leach project includes an upgrade of the Solvent Extraction (SX) plant, and the construction of new reagents facilities and additional washing ponds for controlling chlorine levels. It was completed in January 2022. The project will increase copper recoveries by approximately 10 percentage points, with further improvement possible depending on the type of ore being processed. This will increase copper production at Zaldívar by approximately 10,000-15,000 tonnes (on a 100% basis) per annum over the remaining life of the mine.

Q1 2022 Production Report

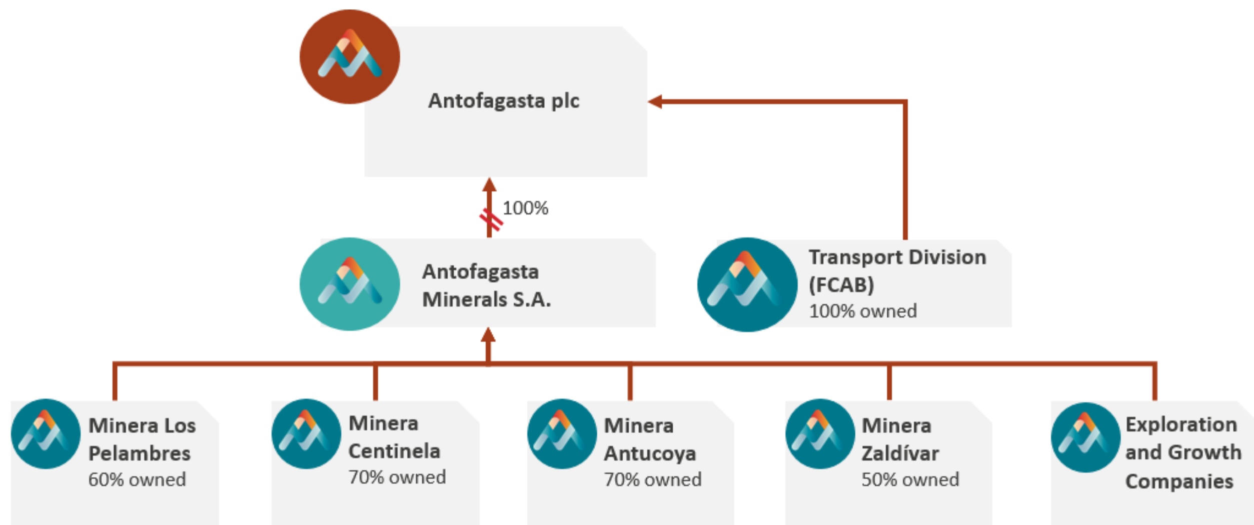
On April 21, 2022, we released our first quarter production for the quarter ended March, 31, 2022. Our copper production of 138,800 tonnes and net cash costs of $1.75/lb was in line with our plan for fiscal 2022. This production reflected the impact of the ongoing drought at Los Pelambres and the expected lower grades at Centinela Concentrates. With the completion of the Los Pelambres desalination plant planned for the second half of fiscal 2022 and assuming no additional precipitation until the anticipated rainy season, we expect our production levels and net cash costs to trend back towards more normalized levels through fiscal 2022.

Corporate Information

We are a premium listed public limited company incorporated under the laws of England and Wales with a market capitalization of $19.5 billion as of April 21, 2022. Our shares are listed on the premium listing segment of the Official List and to trading on the Main Market of the London Stock Exchange and our ordinary shares are a component of the FTSE 100, the share index of the 100 companies listed on the London Stock Exchange with the highest market capitalization.

The E. Abaroa Foundation is a controlling shareholder of the Company for the purposes of the UK Listing Rules and certain other shareholders of the Company are also treated as controlling shareholders.

The following chart summarizes our corporate structure as of the date of this listing memorandum, including our material subsidiaries and joint ventures and our percentage ownership in them. For clarity of presentation, the chart identifies only our main subsidiaries and joint ventures and eliminates intermediate holding companies.



THE OFFERING

The following is a brief summary of certain terms of the offering. For a more complete description of the terms of the offering, see "Description of the Notes" in this listing memorandum. Capitalized terms used but not defined herein have the meanings assigned to such terms therein and in the indenture. You should carefully consider the risk factors under the caption "Risk Factors" before purchasing any notes.

The Issuer	Antofagasta plc
Notes Offered	U.S.$500,000,000 aggregate principal amount of 5.625% senior unsecured notes due 2032 payable in U.S. dollars.
Issue Date	May 13, 2022.
Maturity Date	May 13, 2032.
Interest	The notes will bear interest at a fixed rate of 5.625% per annum, payable semi-annually in arrears on May 13 and November 13 of each year, commencing on November 13, 2022. Interest on the notes will be computed on the basis of a 360-day year of twelve 30-day months.
Ranking	The notes are direct, general, unsecured, unconditional and unsubordinated obligations of the Issuer and will rank without any preference among them and equally with all other unsecured and unsubordinated obligations of the Issuer (other than obligations preferred by statute or by operation of law).
Use of Proceeds	The net proceeds from the offering of the notes were used by the Issuer to repay indebtedness outstanding under the Issuer's $500 million senior loan due 2025 (the "Senior Loan"). See "*Use of Proceeds.*"
Indenture	The notes have been issued under an indenture, dated October 14, 2020, as amended and supplemented by a supplemental indenture, dated May 13, 2022, entered into in respect of the notes between the Issuer and The Bank of New York Mellon, as trustee, paying agent, transfer agent and registrar.
Optional Redemption	We may, at our option, at any time prior to February 13, 2032 (the "Par Call Date"), redeem any of the notes, in whole or in part, at a redemption price equal to the greater of (i) 100% of the principal amount of the notes to be redeemed or (ii) the sum of the present values of the remaining scheduled payments of principal and interest thereon as if redeemed on the Par Call Date (exclusive of any interest accrued and unpaid to the date of redemption) discounted to the date of redemption on a semi-annual basis at the applicable Treasury Rate plus 45 basis points, plus, in either case, accrued and unpaid interest, if any, to the date of redemption. At any time on or after the Par

Call Date, we may, at our option, redeem any of the notes, in whole or in part, at a redemption price equal to 100% of the principal amount of the notes to be redeemed plus accrued and unpaid interest, if any, to the redemption date. See "*Description of the Notes—Optional Redemption.*"

Tax Redemption... The notes are redeemable at a price equal to 100% of the outstanding principal amount thereof, together with any Additional Amounts and accrued and unpaid interest to the redemption date, if, as a result of any change in, or amendment to the laws of the Relevant Taxing Jurisdiction, the issuer has or will become obligated to pay Additional Amounts on the applicable notes. See "*Description of the Notes—Tax Redemption.*"

Covenants... The indenture contains covenants that, among other things:

- limit our ability to consolidate, amalgamate or merge with or into, or to sell, transfer, lease or convey all or substantially all our properties and assets to another person;

- limit our ability to (i) issue, assume or guarantee any indebtedness for borrowed money if such indebtedness is secured, or (ii) secure any outstanding indebtedness for borrowed money, in each case, by a Lien upon any Principal Property or upon any shares of stock of, or indebtedness for borrowed money of, any Material Subsidiary, now owned or hereafter acquired, without effectively providing that the notes shall be secured equally and ratably with such indebtedness, with certain exceptions;

- limit our ability to enter into sale-and-lease-back transactions, meaning any arrangement with any person (other than the Issuer or a Material Subsidiary), or to which any such person is a party, providing for the leasing to the Issuer or a Material Subsidiary for a period of more than three years of any Principal Property which has been or is to be sold or transferred by the Issuer or such Material Subsidiary to such person or to any person (other than the Issuer or a Material Subsidiary) to which funds have been or are to be advanced by such person on the security of the leased Principal Property; and require us to furnish to the holders of notes, upon request, certain periodic financial and other information.

	These covenants are subject to a number of important limitations and exceptions. See "*Description of the Notes—Covenants.*"
Payment of Additional Amounts..................	In the event that the withholdings or deduction of taxes, assessments, duties or governmental charges is required by law or regulation, the Issuer will, with limitations, pay to each holder such additional amounts as may be necessary in order that each net payment on such note after such deduction or withholding will not be less than the amount provided for in such note to be then due and payable. See "*Description of the Notes—Payment of Additional Amounts*."
Plan of Distribution; Form of Notes	The Issuer has offered and sold the notes in the United States only to "qualified institutional buyers" in reliance on Rule 144A under the Securities Act and outside the United States to non-U.S. persons in compliance with Regulation S under the Securities Act. The notes have been issued in definitive, fully registered form, without coupons and will be exchangeable, and transfers thereof will be registrable, at the office of the registrar for the notes. See "*Description of the Notes— Registration, Form and Delivery*."
Minimum Denominations	The notes are denominated and payable in U.S. dollars and have been issued in minimum denominations of U.S.$200,000 and multiples of U.S.$1,000 in excess thereof.
Transfer Restrictions; Trading	The notes have not been registered under the Securities Act or any state securities laws, and we are not required to and currently do not plan on making any such registration in the immediate future. As a result, the notes may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and applicable state securities laws. Prospective investors should be aware that investors may be required to bear the financial risks of this investment for an indefinite period of time. Following the initial offering of the notes, the notes may be resold to qualified institutional buyers pursuant to Rule 144A, non-U.S. persons in reliance on Regulation S and pursuant to Rule 144 under the Securities Act, as described under "Transfer Restrictions."
	Currently there is no market for the notes. Although application will be made to the London Stock Exchange for the notes to be admitted to trading on the Main Market of the London Stock Exchange, a trading market for the notes may not develop, or if a market for the notes were to

develop, the notes may trade at a discount from their initial offering price, depending upon many factors, including the number of holders of notes, prevailing interest rates, the market for similar securities, general economic conditions and our results of operations and financial condition. See "*Risk Factors—Risks Relating to the Notes—The Notes are subject to restrictions on transfer*" and "*—An active trading market for the notes may not develop*."

United States Federal Income Tax Consequences...	For a discussion of the United States tax treatment of the notes, see "*Taxation—United States Federal Income Tax Consequences*."
Clearance and Settlement.............................	The notes have been accepted for trading in book-entry form by DTC and its direct and indirect participants. For the Rule 144A notes, the ISIN number is US03718NAB29 and the CUSIP number is 03718N AB2. For the Regulation S notes, the ISIN number is USG0399BAA55 and the CUSIP number is G0399B AA5. For a description of certain factors relating to clearance and settlement, see "*Listing and General Information*."
Listing	Application has been made to the FCA for the notes to be admitted to the official list of the FCA and application will be made to the London Stock Exchange plc for such notes to be admitted to trading on the London Stock Exchange's regulated market. The Main Market is a regulated market for the purposes of UK MiFIR. Such approval relates only to the notes which are to be admitted to trading on the Main Market.
Governing Law	The notes and the indenture are governed by, and will be construed and interpreted in accordance with, the laws of the State of New York.
Trustee, Paying Agent, Transfer Agent and Registrar.......................	The Bank of New York Mellon.
Risk Factors	Prospective investors should carefully consider the information under "*Risk Factors*" in connection with the other information contained in this listing memorandum.

SUMMARY OF FINANCIAL AND OTHER INFORMATION

You should read the following summary financial data and other information in conjunction with our Financial Statements, which include the notes thereto, and the information set forth in the sections "Presentation of Financial and Certain Other Information" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this listing memorandum.

The financial information as of and for each of the years ended December 31, 2021, 2020 and 2019 has been derived from our Financial Statements.

The following table sets forth the consolidated income statement for each of the periods presented.

	Year Ended December 31,		
	2019	**2020**	**2021**
	(in millions of U.S. dollars)		
Consolidated Income Statement			
Group revenue	**4,964.5**	**5,129.3**	**7,470.1**
Total operating costs	(3,588.7)	(3,537.1)	(4,068.7)
Operating profit from subsidiaries	**1,375.8**	**1,592.2**	**3,401.4**
Net share of results from associates and joint ventures	24.4	5.1	59.7
Impairment of investment in associate	-	(80.8)	-
Total profit from operations, associates and joint ventures	**1,400.2**	**1,516.5**	**3,461.1**
Investment income	47.1	18.9	5.0
Interest expense	(111.1)	(77.1)	(63.4)
Other finance items	13.0	(45.2)	74.4
Net finance (expense)/income	**(51.0)**	**(103.4)**	**16.0**
Profit before tax	**1,349.2**	**1,413.1**	**3,477.1**
Income tax expense	(506.1)	(526.5)	(1,242.3)
Profit for the financial year from continuing operations	**843.1**	**886.6**	**2,234.8**
Profit for the financial year from discontinued operations	**–**	**7.3**	**–**
Profit for the year	**843.1**	**893.9**	**2,234.8**
Attributable to:			
Non-controlling interests	341.7	387.5	944.6
Profit for the year attributable to the owners of the parent	**501.4**	**506.4**	**1,290.2**

The following table sets forth our consolidated balance sheet data for each of the periods presented.

	As of December 31,		
	2019	**2020**	**2021**
Consolidated Balance Sheet Data	**(in millions of U.S. dollars)**		
Non-current assets			
Intangible assets	150.1	150.1	–
Property, plant and equipment	9,556.7	9,851.9	10,538.5
Other non-current assets	2.1	2.6	1.3
Inventories	208.0	278.1	270.4
Investment in associates and joint ventures	1,024.8	914.6	905.8
Trade and other receivables	48.2	55.9	51.2
Derivative financial instruments	1.7	0.3	–
Equity investments	5.1	11.1	8.7
Deferred tax assets	8.2	6.4	96.8
Total non-current assets	11,004.9	11,271.0	11,872.7
Current assets			
Inventories	586.4	592.7	532.8
Trade and other receivables	682.4	1,016.9	1,146.1
Current tax assets	140.2	49.8	13.7
Derivative financial instruments	3.1	1.1	–
Liquid investments	1,539.7	2,426.0	2,969.7
Cash and cash equivalents	653.7	1,246.8	743.4
Total current assets	3,605.5	5,333.3	5,405.7
Total assets	**14,610.4**	**16,604.3**	**17,278.4**
Current liabilities			
Short-term borrowings	(723.9)	(603.4)	(337.1)
Derivative financial instruments	(9.6)	(37.4)	–
Trade and other payables	(750.6)	(808.8)	(829.1)
Short-term decommissioning and restoration provisions	(22.0)	(22.2)	(33.8)
Current tax liabilities	(42.8)	(153.9)	(374.2)
Total current liabilities	(1,548.9)	(1,625.7)	(1,574.2)
Non-current liabilities			
Medium- and long-term borrowings	(2,032.9)	(3,151.4)	(2,835.5)
Derivative financial instruments	(2.5)	–	–
Trade and other payables	(8.2)	(11.0)	(16.8)
Liabilities in relation to joint venture	(1.8)	(1.1)	(0.6)
Post-employment benefit obligations	(118.7)	(123.2)	(107.5)
Decommissioning and restoration provisions	(391.2)	(498.0)	(302.3)
Deferred tax liabilities	(1,105.2)	(1,112.8)	(1,412.5)
Total non-current liabilities	(3,660.5)	(4,897.5)	(4,675.2)
Total liabilities	**(5,209.4)**	**(6,523.2)**	**(6,249.4)**
Net assets	**9,401.0**	**10,081.1**	**11,029.0**
Equity			
Share capital	89.8	89.8	89.8
Share premium	199.2	199.2	199.2
Other reserves	(18.1)	(30.6)	(10.4)
Retained earnings	7,112.8	7,492.2	8,071.6
Equity attributable to equity owners of the parent	7,383.7	7,750.6	8,350.2
Non-controlling interests	2,017.3	2,330.5	2,678.8
Total equity	**9,401.0**	**10,081.1**	**11,029.0**

The following table sets forth our summary cash flow statement for each of the periods presented.

	Year Ended December 31,		
	2019	**2020**	**2021**
	(in millions of U.S. dollars)		
Summary cash flow statement			
Cash flows from continuing operations	**2,570.7**	**2,431.1**	**4,507.7**
Interest paid	(76.3)	(52.7)	(60.7)
Income tax paid	(403.6)	(319.7)	(776.9)
Net cash from operating activities	**2,090.8**	**2,058.7**	**3,670.1**
Net cash used in investing activities	**(1,656.2)**	**(2,187.5)**	**(2,203.3)**
Net cash (used) in/from financing activities	**(809.6)**	**717.1**	**(1,949.9)**
Cash and cash equivalents at beginning of period	1,034.4	653.7	1,246.8
Net increase/(decrease) in cash and cash equivalents	**(375.0)**	**588.3**	**(483.1)**
Foreign exchange and fair value gains/(losses)	(5.7)	4.8	(20.3)
Cash and cash equivalents at end of period	**653.7**	**1,246.8**	**743.4**

The following table sets forth EBITDA for each of the periods presented.

	Year Ended December 31,		
	2019	**2020**	**2021**
	(in millions of U.S. dollars)		
EBITDA[(1)]	**2,438.9**	**2,739.2**	**4,836.2**

(1) EBITDA is a non-IFRS alternative performance measure that refers to Earnings Before Interest, Tax, Depreciation and Amortization, including 100% of the EBITDA from the Group's subsidiaries and the Group's proportionate share of the EBITDA of its associates and joint ventures. EBITDA is calculated by adding back depreciation, amortization, profit or loss on disposals and impairment charges to operating profit. EBITDA is considered to provide a useful and comparable indication of the current operating earnings performance of the business, excluding the impact of the historical cost of property, plant and equipment or the particular financing structure adopted by the business. See "Presentation of Financial and Certain Other Information" for further details.

The following table sets forth a reconciliation of EBITDA to operating profit for each period presented.

	Year Ended December 31,		
	2019	2020	2021
	(in millions of U.S. dollars)		
Operating profit	1,375.8	1,592.2	3,401.4
Depreciation and amortization	914.3	1,048.7	1,078.7
Loss on disposals of property, plant and equipment	12.7	6.3	9.2
Provision against the carrying value of assets[1]	–	–	177.6
EBITDA from subsidiaries	2,302.8	2,647.2	4,666.9
Proportional share of EBITDA from Zaldívar	112.6	95.5	172.8
Proportional share of EBITDA from other associates and joint ventures	23.5	(3.5)	(3.5)
EBITDA	**2,438.9**	**2,739.2**	**4,836.2**

(1) An impairment has been recognized as at December 31, 2021 in respect of the $177.6 million of intangible assets and property, plant and equipment relating to the Twin Metals project.

The following table sets forth a reconciliation of revenue to EBITDA Margin for each period presented.

	Year Ended December 31,		
	2019	2020	2021
	(in millions of U.S. dollars)		
Revenue[1]	4,964.5	5,129.3	7,470.1
EBITDA[2]	2,438.9	2,739.2	4,836.2
EBITDA Margin	**49%**	**53%**	**65%**

(1) Revenue is Group revenue and does not include the net share of results from associates and joint ventures.

(2) EBITDA includes the proportional share of EBITDA from associates and joint ventures, including Zaldívar.

The following table sets forth a breakdown of Net Debt/(cash) for each period presented.

	Year Ended December 31,		
	2019	2020	2021
	(in millions of U.S. dollars)		
Cash, cash equivalents and liquid investments	2,193.4	3,672.8	3,713.1
Total borrowings	2,756.8	3,754.8	3,172.6
Net Debt/(cash)	**563.4**	**82.0**	**(540.5)**

The following table sets forth our cash costs for the periods presented.

	Year Ended December 31,		
	2019	**2020**	**2021**
	(U.S. dollars per pound)		
Cash costs before by-product credits.	1.65	1.56	1.79
By-product credits	(0.43)	(0.42)	(0.59)
Net Cash Costs[1]	**1.22**	**1.14**	**1.20**

(1) Cash costs is a non-IFRS alternative performance measure of the cost of operating production expressed in terms of cents per pound of payable copper produced. See "Presentation of Financial and Certain Other Information." Cash cost per pound is calculated as U.S. dollars per pound of payable copper produced. Cash costs reflect the mining and processing costs required to produce our copper concentrate and cathodes, including related transportation costs. For Los Pelambres and Centinela, cash costs are stated net of by-product credits and include treatment and refining charges for concentrates. Net cash costs exclude depreciation, financial income and expenses, hedging gains and losses, exchange gains and losses, and corporation tax.

RISK FACTORS

An investment in the notes involves risks. The following describes what we believe to be the principal risks and uncertainties that could materially affect us, but these are not the only risk factors that we face. Risks may materialize individually, simultaneously or in combination and there may be additional risks unknown to us and other risks, currently believed to be immaterial, which could adversely affect our business, results of operations or financial condition. Unless otherwise specific, the risks apply in the context of the Group and are also applicable to the Company. The risk factors outlined below omit the management detail on how each is managed and mitigated. For information on how we manage these risks, please see "—Business—Risk Management" in this listing memorandum.

The principal risks and uncertainties should be considered in connection with any forward-looking statements in this listing memorandum and the cautionary statement on page vii of this listing memorandum. Prior to making a decision about investing, you should carefully read and consider, among other matters and the other information in this document, these principal risks and uncertainties.

Risks Relating to Our Business and Chile

Our growth and profitability depend on political stability and economic activity in Chile.

All our revenues are derived from our operations in Chile. As a result, our results of operations and overall financial condition depend greatly on access to Chilean markets for labor and certain materials and equipment and a social and political license to operate.

In October 2019, protests originally stemming from the increase of mass transit fares in Santiago spread throughout Chile, reflecting social demands related to pensions, healthcare and education. The continuing unrest in Chile and associated civil protests caused temporary and limited disruptions in our operations. The protests had tangible economic effects, as national economic indicators declined in the fourth quarter of 2019.

On October 25, 2020, Chile held a nationwide referendum which resulted in the approval of a plan to call a Constitutional Convention, which was elected in May 2021, to draft a new constitution. The Constitutional Convention will deliver a final draft of the new constitution to be submitted to a public referendum on September 4, 2022 for approval by a simple majority vote.

Additionally, Chile's general elections to elect the president of the country and congressional members were held on November 21, 2021. As a result, Mr. Gabriel Boric Font was elected as the new President of Chile.

There can be no assurance that future developments in or affecting the Chilean political situation or economy, including as a result of changes that result from the Constitutional Convention or as a result of economic or political instability in other emerging markets, will not result in material and adverse effects on our business, financial condition or results of operations. The Chilean government has exercised, and continues to exercise, substantial influence over many aspects of the private sector and has changed monetary, fiscal, tax and other policies to influence the Chilean economy. We have no control over, and cannot predict, how the constitutional referendum or government intervention and policies will affect the Chilean economy or, directly and indirectly, our results of operations and financial condition. Furthermore, we cannot assure you that measures impacting private investment, such as the nationalization or expropriation of certain assets or higher taxation, will not be implemented, and we cannot assure you that business-friendly and open-market economic policies that stimulate economic growth and stability will continue.

Issues regarding the granting of permits, or amendments to permits already granted, and changes to the legal environment or regulations, could adversely affect our operations and development projects.

Many of our mineral rights and interests are subject to government approvals, licenses and permits. Some approvals, licenses and permits, and extensions and renewals thereof, are subject to the discretion of applicable governments or governmental officials. No assurance can be given that we will be successful in obtaining or renewing any or all of such approvals, licenses and permits required to operate our businesses in the future and develop our projects in full force and effect or without modification or revocation, or that underlying laws pursuant to which these approvals, licenses and permits are obtained will not change. Any changes to laws and regulations governing mining concessions and access and use of water or energy could alter the rights that we hold and could adversely affect our business, results of operations or financial condition.

In September 2021, the United States Forest Service submitted an application to withdraw approximately 225,000 acres of land in the Superior National Forest from the scope of federal mineral leasing laws, subject to valid existing rights. In October 2021, the United States Bureau of Land Management rejected Twin Metals' Preference Right Lease Applications and Prospecting Permit Applications. In January 2022 the United States Department of the Interior cancelled Twin Metals' MNES-1352 and MNES-1353 federal mineral leases. An impairment has been recognized as at December 31, 2021 in respect of the $177.6 million of intangible assets and property, plant and equipment relating to the Twin Metals project.

Our exploration, mining and transport activities are subject to laws and regulations which change from time to time. Matters subject to regulation include, among others, conditions to obtain and maintain mining concessions, the duration and scope of mining concessions, concession fees, transportation, production, reclamation, closure procedures and remediation, export, taxation, royalties and labor standards. There can be no assurance that changes in existing laws and regulations, the adoption of additional laws and regulations, or the discovery of new facts resulting in increased liabilities or costs would not adversely affect our business, results of operations or financial condition.

New mining royalties could affect our business, results of operations and financial condition.

A proposed new mining royalty in the form of a revenue-based progressive marginal rate linked to copper prices was approved by the Chilean government's lower house of Congress in May 2021. Earlier this year a committee of the Chilean Senate published its proposal for the proposed royalty, which is now being debated by the Senate. With the establishment of a new government in March, it is expected that the proposed mining royalty bill will now progress through the legislative process and become law during 2022. The imposition of this new mining royalty, or of other royalties that may be proposed in the future, could materially adversely affect our business, financial condition and results of operations.

It is anticipated that the Senate's royalty proposal, if passed, would increase the effective tax rate above the rate the Group currently pays. All of our operating companies have tax invariability agreements; Los Pelambres and Zaldivar's agreements run until the end of 2023, Centinela's agreement runs until 2029 and Antucoya's agreement runs until 2030.

Global economic, political and regulatory developments may adversely affect our business, results of operations or financial condition.

Sales to customers outside Chile constitute almost all of our revenues, and we anticipate they will continue to do so for the foreseeable future. In particular, the price and demand for copper are heavily influenced by China, which accounted for 52% of total copper demand in 2021. As a result, the price and demand for copper can be easily affected by global economic, political and regulatory developments which

affect China. Governmental action related to tariffs or trade agreements or policies, as well as general disruptions in the financial markets globally, are difficult to predict and could adversely affect copper prices, demand for our products, our costs, our customers, our suppliers and the global economy, which in turn could have a material adverse effect on our business, results of operations or financial condition. For example, substantial changes to United States foreign trade policy, including greater restrictions on international trade or significant increases in tariffs on goods imported into the United States, including those from China, could have an adverse effect on the global demand for copper due to proposed trade barriers and negative market sentiment. Although our sales to date have not been significantly affected by these developments, a continued slowing in China's economic growth or changes in China-U.S. relations, or other general market disruptions or governmental action related to tariffs or trade agreements or policies, could impact demand for copper globally, which in turn could adversely affect our business, results of operations or financial condition.

Further, the military conflict in Ukraine and the corresponding implementation of economic sanctions, export controls and other restrictive measures by the United States, the UK, the European Union and other jurisdictions against Russia have caused global market volatility and, in particular, have impacted global energy, supply chain and financial markets. These laws and regulations are complex, frequently changing, and increasing in numbers, and they may impose additional prohibitions or compliance obligations on dealings in certain countries and territories, including sanctions imposed on Russia and certain Ukraine territories. Additionally, such geopolitical developments continue to be extremely fluid and continue to develop. As a result, the extent and duration of such geopolitical developments and the resulting market disruptions are impossible to predict, but may be substantial, and may include further or expanded economic sanctions, export controls and other restrictive measures, increased geopolitical tension, instability or uncertainty or changes in geopolitical relations or adverse effects on macroeconomic conditions, all of which in turn could adversely affect our business, results of operations or financial condition.

Our operations are subject to various political, economic, legal, regulatory, social and other risks and uncertainties that could adversely affect our business, results of operations or financial condition.

Our operations and activities are subject to a number of political, economic, legal, regulatory, social and other risks and uncertainties, including, among other things: the risks of civil unrest that may limit, interfere with or disrupt projects or our operations generally, or restrict the movement of funds or products; foreign exchange and repatriation restrictions; changing political conditions; changing fiscal regimes and uncertain regulatory environments; and international monetary and market securities fluctuations. If one or more of these risks were to materialize, it could adversely affect our business, results of operations or financial condition.

Our performance is highly dependent upon the price of copper and, to a lesser extent, the price of by-products, such as molybdenum, gold and silver.

We primarily sell copper in concentrate and copper cathode and also sell other by-products, such as gold, molybdenum and silver. The prices our customers pay for these products vary according to the market prices of copper and such by-products. Accordingly, our financial performance is highly dependent on the market price of copper and, to a lesser extent, the market prices of such by-products. These prices have historically been subject to wide and, at times, rapid fluctuations and are affected by numerous factors beyond our control, including international economic and political conditions, levels of supply and demand, the availability and costs of substitutes, inventory levels maintained by producers and others, actions of participants in the commodities markets and the effects of inventory carrying costs and currency exchange rates. Furthermore, we currently engage in only limited hedging activities in relation to the price of copper and, accordingly, are exposed to copper price movements.

China has been the main driver of copper consumption in recent years. As a result, global copper prices are affected by changes in demand from the Chinese economy. If economic conditions deteriorate in China or other emerging markets, as a result of COVID-19, trade disputes or otherwise, demand from customers in those markets could decline and the market price of copper could fall. A decline in copper prices would have an adverse impact on our revenues and financial results. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Commodity Price and Exchange Range Sensitivities." Any downward trend in copper prices could continue for an unpredictable period. If our average annual copper price per pound declines significantly for an extended period of time or there is a change in long-term copper price assumptions, we may, subject to other factors such as operating costs, be required to recognize asset impairments, or it could adversely affect our business, results of operations or financial condition.

Developments relating to the outbreak of COVID-19 may have an adverse effect on our business, results of operations or financial condition.

In December 2019, the outbreak of COVID-19 began in mainland China and has since spread through various countries, adversely affecting global and regional businesses, operations and financial conditions. In March 2020, the World Health Organization (WHO) declared the COVID-19 outbreak a pandemic. In response to the outbreak, governmental authorities in various jurisdictions imposed lockdowns and other restrictions to contain the virus, and various businesses suspended or reduced operations. The final impact on the global economy and financial markets is still uncertain, but is expected to continue to be significant.

In addition, business activities all over the world, including manufacturing activities that drive demand for copper and other metals, have been impacted in different degrees by the pandemic. The existence and continuance of the outbreak in the countries where the purchasers of our products are located has resulted, and could in the future result, in reduced demand. Due to the speed and uncertainty with which the COVID-19 situation developed and continues to develop, and that the duration of the situation still is not known, there continues to be uncertainty around its ultimate impact on our business; therefore, the ultimate effect on our financial and operating results cannot be reasonably estimated at this time, and we cannot rule out a material impact in the future. The emergence of new variants and the actions taken by governments to mitigate the effects of such variants could result in the imposition of further quarantines or closures and/or import and export restrictions which could further adversely affect our business, results of operations or financial condition.

To the extent COVID-19 adversely affects our business, results of operations or financial condition, it may also have the effect of heightening many of the other risks described in this "Risk Factors" section.

We are a holding company and depend on the results of operations of our subsidiaries.

We are a holding company with no independent operations or substantial assets other than the capital stock of our operating subsidiaries. Accordingly, we depend on the results of operations of our subsidiary companies and their ability to pay dividends to us. Each of our subsidiaries is a distinct legal entity and, under certain circumstances, legal, tax and contractual restrictions may limit their ability to pay dividends. Any adverse change in the financial condition or results of operations of our subsidiaries would affect our financial condition. Our subsidiaries will not be obligated to make funds available to us to make payments on the notes.

Our copper and by-products output is dependent upon production from four mining complexes.

We operate four mining complexes: Los Pelambres, Centinela, Antucoya and Zaldívar. For the year ended December 31, 2021, Los Pelambres produced an aggregate of 324,700 tonnes of copper, Centinela

produced 274,200 tonnes of copper, Antucoya produced 78,600 tonnes of copper and our attributable share of Zaldívar's copper production was 44,000 tonnes. If operations at any of these mining complexes were significantly reduced, interrupted or curtailed, it could adversely affect our business, results of operations or financial condition in different degrees. We cannot assure you that production interruptions will not occur or that any such incident would not materially adversely affect our production.

Our production, processing, product delivery and transport activities are dependent on our infrastructure being adequate and available.

Our mining, processing, development and exploration activities, as well as our Transport division operations, depend on adequate infrastructure. Our operations are currently in the central and northern regions of Chile. We require reliable and accessible roads, railways, ports, power sources and water supplies to access and conduct our operations, and the availability and cost of this infrastructure affects capital and operating costs and our ability to maintain expected levels of production and sales. Unusual weather or other natural phenomena, sabotage or other interference in the maintenance or provision of such infrastructure could affect the development of a project, reduce mining volumes, increase mining or exploration costs or delay the transportation of raw materials to the mines and outputs to our customers. Any such issues arising with respect to the infrastructure supporting or on our sites, or involved in our transport activities, could adversely affect our business, results of operations or financial condition.

Furthermore, any failure or unavailability of our operational infrastructure, including through equipment failure or disruption to our transportation arrangements, could adversely affect the production output from our mines or impact our exploration activities or the development of a mine or project.

Disruption, restrictions to the supply, or increased costs of key inputs or contractor services could adversely affect our production and growth opportunities.

Our business is dependent on a range of key inputs, such as electricity, water, fuel, sulfuric acid and mining equipment. The price of these inputs, which has a significant impact on our operating costs, is influenced by external market factors. During 2021, prices for a number of our key inputs increased significantly, including for fuel and lubricants, explosives, steel, and sulphuric acid. Fuel and lubricants represent approximately 7% of production costs and the oil price increased by approximately 40% in 2021. Steel is used in the grinding balls and mill liners, which account for approximately 12% of a concentrator plant's costs and 4% of our production costs. Steel prices increased significantly in 2021. Sulphuric acid is one of the main inputs for the SX-EW leaching process used to produce cathodes and in 2021 it accounted for approximately 4% of our production costs. During 2021, the acid price increased significantly, starting the year at about $75 per tonne in Chile and reaching around $255 per tonne by the end of the year.

Additionally, as of December 31, 2021, we relied on contractors for approximately 75% of our workforce. Absence of any of such resources, disruptions in the supply of any such key inputs or the continued provision of services by our contractors, or an increased cost of such key inputs or services, as well as significant delays in the supply of materials, could adversely affect our business, results of operations or financial condition.

Labor disruptions involving our employees or the employees of our independent contractors could affect our production levels and costs.

As of December 31, 2021, our workforce consisted of 26,991 individuals, including employees and contractors. Approximately 77% of those employed by us are covered by long-term agreements with one of the 16 labor unions with a presence at our mining operations. In addition, contractors or subcontractors form a significant part of our workforce at all operations making up approximately 75% of the total

workforce. Pursuant to Chilean regulations, labor negotiations with a contractor's workforce are the responsibility of the relevant contractors.

We may experience work slowdowns or disruptions in the future, whether of our own workforce or a contractor's workforce, and there can be no assurance that a work slowdown or work stoppage will not occur prior to or upon the expiration of the current long-term labor agreements. We are unable to assure you that future work slowdowns, stoppages or strikes will not occur, or if they do that such events will not have an adverse effect on us. Work slowdowns, stoppages or other labor-related developments affecting us could adversely affect our business, results of operations or financial condition. In particular, work slowdowns, stoppages and other labor-related events could increase our independent contracting costs.

Changes in demand for copper and other by-products output we produce could adversely affect our sales volume and revenues.

Our revenues depend on the volume of metals we sell, particularly copper, which in turn depends on the level of demand for this metal. Demand is mostly driven by: in the case of copper, its use in electronics applications, construction and transportation industries, industrial equipment, consumer products and as an electrical conduit; in the case of gold, its general perception as a store of value as well as its use by direct consumers, such as for jewelry and coins; in the case of molybdenum, its use in the production of stainless steel and special alloy steels; and in the case of silver, for industrial and electronic applications and for jewelry-making.

A fall in demand, resulting from economic slow-downs or recessions, substitution of our metals or other factors, could also decrease the volume of metals we sell and therefore materially and adversely impact our results of operations. In addition, we may not be able to adjust production volume in a timely or cost-efficient manner in response to changes in demand. Lower utilization of capacity during periods of weak demand may expose us to higher unit production costs since a significant portion of our cost structure is fixed in the short-term due to the capital intensity of mining operations. Furthermore, efforts to reduce costs during periods of weak demand could be limited by labor regulations or previous labor or government agreements, which could adversely impact our results of operations.

The mining industry is highly competitive.

We face competition from other mining companies around the world. Competition principally impacts sales volume and prices, other contractual terms and conditions, attracting and retaining qualified personnel and securing the services and supplies we need for our operations. We cannot assure you that competition will not adversely affect us in the future. For example, lower cost producers of the metals we mine could be better positioned to manage future volatility through commodity price cycles. In addition, mines have limited lives and, as a result, we may seek to replace and expand our reserves and resources by acquiring new properties. Significant competition exists to acquire mining concessions, land and related assets.

Potential changes to international trade regulations and agreements, as well as other political and economic arrangements, may benefit metal producers operating in countries other than Chile or may increase the prices we pay for the supplies we need and our export costs when we engage in international transactions. We cannot assure you that we will be able to compete on the basis of price or other factors with companies that in the future may benefit from favorable regulations, trading or other arrangements, or that we will be able to maintain the cost of the supplies we require and our export costs. Any failure to so compete could adversely affect our business, results of operations or financial condition.

Our business may be adversely affected by liquidity risk.

Factors affecting our production and ability to generate revenue, such as a decline in copper prices or the materialization of transitory risks that disrupt or significantly delay our operations, could have an adverse effect on our liquidity. Global credit markets have been severely constrained in the past and our ability to obtain funding may be reduced in the future. Any substantial future credit rating downgrade may adversely affect our ability to obtain funding and may further increase the cost of financing or require us to agree to more restrictive financing terms.

If our access to liquidity or funding were constrained, either due to banking and capital market conditions generally, or due to factors specific to our business or the financial wherewithal of our counterparties, including our joint venture partners, it could adversely affect our financial condition and our ability to proceed with our planned growth and development projects.

Our water supply could be adversely affected by environmental or geology changes, which could adversely affect our business, results of operations or financial condition.

Our business is dependent on the availability of water for the production of copper and our mining operations require the physical availability of significant quantities of water for mining and processing activities. Most of our operations are in areas where competition for water supplies is significant and the effects of climate change have had an increasing impact on our operations. Our operations at Los Pelambres and Zaldívar currently rely on the supply of continental water, and our operations at Los Pelambres are located in the central area of Chile, which has been affected by the drought affecting water availability in the area. In 2021 we produced 721,500 tonnes of copper, down from 733,900 tonnes in 2020, in part as a result of restrictions on water availability at Los Pelambres due to the drought. While we plan to expand the desalination plant at Los Pelambres to significantly reduce our use of continental water, any delays in obtaining the permit for the expansion or in the construction schedule could have an adverse effect on the operations of Los Pelambres if droughts continue to affect the region. At Centinela and Antucoya, untreated seawater is used and we rely on a seawater pumping system, and any interruption to that system could adversely affect these operations. Our access to water may also be affected by changes in geology or other natural factors that we cannot control.

In addition, we must secure legal rights to the water we need and obtain environmental permits to extract water. Continuous production at our mines is dependent on many factors, including the continuing physical availability of the water supplies and our ability to maintain our water rights, claims and environmental permits associated with water extraction. Changes to laws and regulations relating to legal rights to water, or if we were unable to obtain adequate water supplies, in either case, could adversely affect our business, results of operations or financial condition.

Climate change as well as existing and proposed legislation and regulations in response thereto may adversely affect certain of our operations.

The potential physical impacts of climate change, such as fluctuations in weather patterns, on our operations are highly uncertain, and would be particular to the geographic location of our facilities. For example, our operations in the northern part of the country have been affected by higher than expected rainfall, which is impacting the infrastructure in the region, while the drought in central Chile is affecting water availability at Los Pelambres. For further potential impacts of climate change, see "Our water supply could be adversely affected by environmental or geology changes, which could adversely affect our business, results of operations or financial condition," described above. These impacts could adversely affect our business, results of operations or financial condition.

New climate change laws or the development of more stringent environmental protection programs could impose constraints and additional costs on our operations requiring us to make significant investments in the future. We cannot assure you that proposed legislation and regulations will not adversely affect our business, results of operations or financial condition.

Our insurance may not fully cover all potential losses, liabilities and damage related to our business.

The business of mining and mineral exploration is generally subject to a number of risks and hazards, including: adverse environmental conditions; industrial accidents; contaminations; labor disputes; unusual or unexpected geological conditions; ground or slope failures; changes in the regulatory environment; and natural phenomena such as inclement weather conditions, floods and earthquakes. Such occurrences could result in damage to, or destruction of, mineral properties or production facilities, personal injury or death, environmental damage to our properties or the properties of others, delays in mining, monetary losses and possible legal liability.

Although we maintain physical damage and business interruption insurance, and also liability insurance that covers the Company, our contractors and directors and officers, such insurance coverage may not cover the full amount of property damage, liability or the consequences of such business interruptions, or insurance policy exclusions may apply to certain events. The occurrence of a significant adverse event, the effects of which are not partially or fully covered by insurance, could adversely affect our business, results of operations or financial condition.

Our compliance with environmental and health and safety laws may result in increased costs, including capital commitments, and non-compliance may subject us to significant penalties.

Chile has adopted environmental, health and safety regulations requiring industrial companies operating in Chile, including us, to undertake programs to reduce, control or eliminate various types of pollution and to protect natural resources, including water and air, among other requirements. Additionally, if the environmental authorities declares an area in which we operate to be polluted or potentially polluted, a prevention or decontamination plan could be required that may increase the costs of operating in the designated area.

An operating incident that damages the environment could affect both our relationship with local stakeholders and our reputation, undermining our social license to operate and grow. In a worst-case scenario, leakage from or failure of our tailings dams could occur, which could result in fatalities, damage to the environment, regulatory violations, reputational damage and the disruption of the quality of life of neighboring communities, as well as adversely affect our business, results of operations or financial condition.

Environmental, health and safety laws and regulations are complex, change frequently and have tended to become increasingly stringent over time. Changes to current environmental laws and regulations or additional environmental laws and regulations may in the future be proposed which could (i) prevent expansion of our operations into certain areas, (ii) require us to obtain additional permits and (iii) result in increased cost and potential delays. For example, while we plan on transitioning to a decarbonized electricity matrix over time, if a legal requirement were imposed to reduce our carbon emissions or our levels of energy consumption, accelerating our planned transition would require increased expenditures. In addition, community and environmental activist groups have protested the development of certain mines and mining projects in Chile and may increase standards for socially responsible and environmentally sustainable practices, and their efforts may lead to operational delays and the creation or revision of government regulations and policies with respect to the mining industry in Chile, litigation and increased costs.

We maintain environmental management systems designed to monitor and achieve compliance with applicable environmental laws and regulations. While we have budgeted for future capital and operating expenditures to maintain compliance with these laws and regulations, there is no assurance that current levels of expenditures and capital commitments will be sufficient to achieve future compliance or that proceedings or civil actions will not be brought against us, or that fines and other sanctions will not be imposed for non-compliance in the future. Any such developments could adversely affect our business, results of operations or financial condition. In addition, there can be no assurance that more stringent enforcement of, or changes in, existing laws and regulations, the adoption of additional laws and regulations, or the discovery of new facts resulting in increased liabilities would not adversely affect our business, results of operations or financial condition.

For further information on environmental laws and regulations, see "Regulation—Environmental Regulations."

Damage to or breakdown of a physical asset, including due to fire, explosion, natural catastrophe, sabotage, theft or terrorism may adversely affect our results of operations and generate other losses.

Damage to or breakdown or loss of a physical asset, including due to fire, explosion, natural catastrophe, sabotage, theft or terrorism, can result in financial losses and impact our business, results of operations or financial condition. Our operations and development projects are exposed to natural risks, such as earthquakes and extreme weather conditions. Other catastrophic risks faced by our business include failure of mine pit slopes, breaches of tailings dam walls and fire and explosion in mines or in buildings, plant and equipment. The occurrence of one or more of these events could potentially lead to multiple fatalities and injuries, long-term environmental damage, significant reputational damage, greater regulatory scrutiny and loss of or delays in obtaining licenses to operate.

Mining is an inherently dangerous activity and injuries, including occasional fatalities, are not uncommon.

Mining is an inherently dangerous activity and injuries, including occasional fatalities, are not uncommon. Injuries and fatalities could also occur in the ordinary course of our Transport division activities. In July 2021 a contract company worker at Los Pelambres suffered a fatal accident. Even with precautionary measures, such as the early identification of risks, investment in equipment, training and safety policy enforcement, there remain inherent safety risks associated with our business. Further, the occurrence of a poor safety record or serious accidents in the future could have a long-term impact on our employees' morale, our reputation and our production.

Our business requires substantial capital expenditures and is subject to financing risk.

Our projects under construction, including the Los Pelambres Expansion and the Esperanza Sur pit at Centinela, each requires substantial capital expenditure, as do our other growth projects currently under evaluation (see "Business—Projects under Construction" and "—Projects under Evaluation"). Projects may go over budget in terms of cost and time and may be subject to variation in scope as they progress. The exploration and exploitation of copper reserves, mining, the maintenance of machinery and equipment and compliance with applicable laws and regulations require substantial capital expenditures. We must continue to invest capital to maintain or to increase the amount of copper reserves that we exploit and the volume of copper products that we produce. We expect to finance our capital expenditures through operating cash flow and new borrowings from banks and capital markets. There can be no assurance that we will be able to maintain our production levels or generate sufficient operating cash flow or have access to sufficient investments, loans or other financing alternatives to finance our capital expenditure program at a level necessary to continue our exploration and exploitation activities at or above present levels.

If financing is insufficient at any time in the future, we may be unable to fund significant capital expenditures and acquisitions, take advantage of business opportunities or respond to competitive pressures, any of which could adversely impact our results of operations and financial condition.

Our business plans are based on estimates of the volume and grade of our ore deposits that could be incorrect.

Our ore deposits described in this listing memorandum constitute estimates based on standard evaluation methods generally used in the international mining industry and on assumptions as to production costs and market prices. These estimates are based on a number of assumptions which are inherently prone to variability. In respect of these estimates, no assurance can be given that the anticipated tonnages and grades will be achieved, that the indicated level of recovery will be realized or that mineral reserves, resources and mineralized potential can be mined or processed profitably.

The actual reserves and resources may not conform to geological, metallurgical or other expectations, and the volume and grade of ore recovered may be below the estimated levels. Our reserve and resource estimates are stated as at December 31, 2021 and such calculations are based on a number of assumptions, including the price of commodities, production costs, recovery rates, the availability and quality of geological and technical information, industry practice and subjective judgments made by management and our other competent persons with regard to the presence and grade of ore bodies and the ability to extract and process the ores economically. Future fluctuations in the variables underlying our estimates may result in material changes to our reserve and resource estimates. In addition, we may experience fluctuations in ore grade and recovery. In each case, such changes and fluctuations could adversely affect our business, results of operations or financial condition. Reserve and resource data are not indicative of future results of operations.

We may fail to acquire new mining properties and concessions.

Mines have finite lives and, as a result, one of the ways we seek to replace and expand our reserves is through the acquisition of new mining concessions and properties. There is a limited supply of desirable mining concessions and properties with potential mineralization available in Chile and other prospective areas in the Americas. Because we face competition for new mining concessions and properties from other mining companies, some of which may have greater financial resources than we do, and because the current owners of desirable properties may be unwilling to sell the property to us, we may be unable to acquire attractive new mining concessions or properties on terms that we consider acceptable or at all. We may also select inappropriate targets for acquisition. As a result, our future growth prospects may be adversely affected.

Any loss of key personnel or our inability to hire skilled personnel may adversely affect our business.

Our business depends in significant part upon the contributions of a number of our key senior management and personnel, in particular our senior management team and our highly skilled team of engineers and geologists. We may also encounter increasing competition from other mining companies in their efforts to hire experienced mining professionals. The loss of the services of one or more members of our senior management or other employees with critical skills could adversely affect our business, results of operations or financial condition. If we are not successful in attracting and retaining highly qualified individuals in key management positions and highly skilled engineers and geologists, our business may be adversely affected. It may be difficult for us to hire sufficiently skilled and qualified people or to obtain all the necessary expertise locally or at reasonable rates due to the shortage of appropriately qualified individuals. The changing technological and cultural environment in which we operate exacerbates the challenges we face to manage and maintain a high-quality labor force. If qualified people or the necessary

expertise cannot be obtained or cannot be obtained at satisfactory rates, this could result in delays to or higher costs in respect of our ongoing operations and the development of our projects.

We are subject to risks related to litigation and administrative proceedings that could adversely affect our business, results of operations or financial condition in the event of an unfavorable ruling.

The nature of our business exposes us to litigation relating to labor, health, environmental and safety matters, regulatory, tax and administrative proceedings, governmental investigations, tort claims and contract disputes. Currently, as in the past, we are subject to actual and potential proceedings, investigations or litigation. Litigation can be lengthy, expensive and disruptive to our operations, and results cannot be predicted with certainty. An adverse decision could include monetary damages or, in cases for which injunctive relief is sought, an injunction prohibiting us from operating one or more of our facilities. Although we establish provisions as we deem necessary, the amounts that we reserve could vary significantly from any amounts we are required to pay as a result of the inherent uncertainties in the estimation process. If we were to receive an unfavorable ruling on a matter, it could adversely affect our business, results of operations or financial condition.

Any interruption or destruction or loss of data in our information technology systems due to technical or operational malfunctions or cyberattacks could have a material adverse effect on our reputation, business, results of operations or financial condition.

We are subject to a variety of information technology and system risks as a part of our normal course of operations, including potential breakdown, interruption of communications, invasion, virus, cyberattack, cyber-fraud, security breach, and destruction or interruption of our information technology systems by third parties or our own personnel. A breach of our security measures or a loss of information could occur and result in a loss of material and confidential information, breach of privacy laws and a disruption to our business activities. In addition, information systems could be damaged or interrupted by natural disasters, force majeure events, telecommunications failures, power loss, acts of war or terrorism, computer viruses, malicious code, physical or electronic security breaches, intentional or inadvertent user misuse or error, or similar events or disruptions. Any of these or other events could cause interruptions or delays in our ability to operate our facilities and make payments to our suppliers, loss of critical or sensitive data or similar effects, which could adversely affect the protection of intellectual property, confidential and proprietary information, and on our business, results of operations or financial condition.

Our operations or projects could be affected by risks related to corruption or bribery, including operating disruptions or delays resulting from a refusal to make "facilitation payments."

Our Group is subject to and must comply with the anti-corruption and anti-bribery laws of the jurisdictions in which we operate. This includes laws implemented pursuant to the OECD Anti-Bribery Convention, such as the UK Bribery Act of 2010 and Chilean Law 20.393, which entered into force in Chile in December 2009. There has been a substantial increase in the global enforcement of these laws in recent years. We operate in jurisdictions that have experienced public and private sector corruption and where significant anti-corruption enforcement activities, prosecutions, and settlements have occurred. Our corporate policies and processes may not prevent or detect all potential breaches of law or other governance practices, including misinterpretation of or noncompliance with applicable laws and internal policies, recklessness, fraudulent behavior, dishonesty or other inappropriate acts committed by our affiliates, employees, agents or contractors. Any violation of anti-corruption or anti-bribery laws could result in significant criminal or civil fines and penalties, litigation, loss of operating licenses or permits and disbarment from public tenders and may damage our reputation, which could adversely affect our business, results of operations or financial condition.

Our future performance depends on the results of current and future innovation and exploration.

Our growth prospects, beyond our projects under construction (see "Business—Projects under Construction"), are dependent on increasing the reserves of our existing divisions and exploring for new deposits outside of our current operations. While we expect to maintain production levels through our expansion and development projects for the next few years, our expansion and development initiatives could experience delays or be adversely affected by higher costs. In addition, there may be some degree of execution risk associated with the expansion of operations into deeper mines or mines at higher altitudes.

We depend on our ability to replenish our reserves and resources for our long-term viability. Mining exploration is highly speculative in nature, involves many risks and is frequently unsuccessful. Moreover, once mineralization is discovered, it may take a number of years from the initial phases of drilling before production is possible, during which time the economic feasibility of production may change. Substantial expenditures are required to establish reserves and resources through drilling, to determine processes to extract the metals and, if required, to construct mining and processing facilities and obtain the rights on the land and resources required to develop the mining activities. We regularly undertake exploration activities to increase the reserves and resources at our existing mines. We cannot assure you that our exploration activities will result in the replacement or growth of current production with new reserves and resources. If we are not able to replenish reserves and resources, our production levels will decrease significantly and our results of operations would be materially and adversely affected.

Delay or failure to implement our expansion and development projects could have an adverse effect on our growth prospects.

Successful implementation of our expansion and development projects is subject to various risks, many of which are not within our control. These factors include the availability, terms, conditions and timing of the delivery of plants, equipment and other materials necessary for the construction and/or operation of the relevant facility, the availability of acceptable arrangements for transportation and construction, the performance of engineering and construction contractors, mining contractors, suppliers and consultants and adverse weather conditions affecting access to the development site or the development process and our access to adequate infrastructure generally. Future copper prices, operating costs through a mine's life cycle and fluctuations in ore grade and recovery could also adversely affect the development of our growth projects, such as the Los Pelambres Expansion and the Esperanza Sur pit. In addition, the lack of availability of plant, equipment and other materials or acceptable contractual terms for transportation or construction, or a slower than anticipated performance by any contractor or a period of adverse weather, could delay or prevent the successful completion of any of our development projects. Implementation of our development projects and prospects may also be compromised, or cease to be economical, in the event of a prolonged decline in the market price of copper, molybdenum, gold or silver. There can be no assurance as to when our expansion and development projects will be completed, if at all, whether the resulting operations will achieve the anticipated production volumes or whether the costs of developing these projects will be in line with those anticipated. Any failure by us to implement our expansion and development projects as planned may have a material adverse effect on our growth opportunities.

Our arrangements with minority shareholders and joint venture arrangements may not be successful.

Certain minority shareholders hold non-controlling interests in our main subsidiaries and joint ventures. See "Business—Corporate Information." We may own additional subsidiaries with minority shareholders or enter into further joint ventures in the future. We are subject to risks associated with our minority shareholders and joint venture partners, including that our partners may (i) have economic or business interests or goals that are inconsistent with or opposed to ours, (ii) exercise veto rights so as to block actions we believe to be in our or our subsidiary's or joint venture's best interests, (iii) take action contrary to our policies or objectives with respect to our investments, for instance by veto of proposals in

respect of the subsidiary or joint venture operations, or (iv) as a result of financial or other difficulties, be unable or unwilling to fulfill their obligations under the joint venture or other agreements. Any of the foregoing may adversely affect our business, results of operations or financial condition through the disruption of mining operations run by the subsidiary or joint venture or the delay or non-completion of the relevant development projects. In addition, the exit of these minority shareholders or the termination of these joint ventures, if not replaced on similar terms, could adversely affect our business, results of operations or financial condition.

Inflation may have a material adverse effect on results of operations.

In the past, Chile has experienced periods of high inflation. A return to high levels of inflation in Chile could produce uneven periods of economic growth, as well as recession and political instability. There can be no assurance that Chilean inflation will not revert to prior levels in the future. Historically, counter inflationary measures taken by the central bank of Chile have often included implementing tight monetary policy with high interest rates, which could limit the availability of credit and economic growth.

It is possible that in the future, high inflation in Chile may result in an increase in operational costs in pesos (without a concurrent devaluation of the local currency of operations against the dollar or an increase in the dollar price of copper, gold, molybdenum or silver). Maintaining operating costs in Chilean pesos could expose us to risks relating to peso devaluation and high domestic inflation. This could adversely affect our business, results of operations or financial condition. Significantly higher and sustained rates of inflation, with subsequent increases in operational costs, could result in the deferral or closure of projects and mines in the event that operating costs become prohibitive.

Changes in the relative value of the Chilean peso to the U.S. dollar may have an adverse effect on us.

A depreciation of the peso against the U.S. dollar could result in an increase in our operating margins and an appreciation of the peso could result in a decrease in our operating margins, in each case, when measured in U.S. dollars. See "Business—Commodity price and exchange rate sensitivities" for an estimated impact of the movement in copper, molybdenum and gold prices and in the U.S. dollar/Chilean peso exchange rate.

Any change in the monetary policy, the exchange rate regime or in the exchange rate itself, as a result of market conditions over which we have no control, could have a considerable impact, either positive or negative, on our business, results of operations or financial condition.

Damage from earthquakes or other natural disasters to our properties and operations could adversely affect our results.

Chile is located in a seismic area that exposes our operations to the risk of earthquakes. Chile has been adversely affected by powerful earthquakes in the past, including in 2010, 2014 and 2015, and as a result there are strict regulations governing construction in the country.

Although previous earthquakes did not have any substantial effect on our results, and while we have designed our mining operations to withstand exposure to seismic events, we can give no assurance that future seismic events will not adversely affect our business, results of operations or financial condition.

Failure to manage relationships with local communities, government and non-governmental organizations or recognize, respond and align to evolving stakeholder requirements and expectations could adversely affect our future growth potential.

The maintenance and fostering of strong community relationships is integral to the success of our operations. Failure to manage relationships with local communities, government and non-governmental

organizations may adversely affect our reputation, as well as our ability to bring projects into production, which could in turn adversely affect our business, results of operations or financial condition, potentially in a material manner.

Failure to recognize, respond and align to changing stakeholder expectations and requirements regarding issues such as environment, social and governance matters, particularly linked to climate change, tailings dams and carbon emissions, could affect our growth opportunities and our future revenues and cash flows. Stakeholder requirements and expectations continue to evolve, and different stakeholder groups can have opposing requirements and expectations of us. For example, an increasing number of financial stakeholders are adopting stricter investment criteria with regards to fossil fuels and carbon emissions. This is having a growing impact on industries that are major producers, and users, of fossil fuels and which are major emitters of CO_2 and other greenhouse gases. Failure to balance opposing stakeholder expectations adequately could lead to potential loss of investor confidence.

Risks Relating to the notes

Payments on the notes will be in effect junior to our secured indebtedness and structurally junior to the existing and future debt obligations of our subsidiaries.

The notes constitute our senior unsecured obligations and will rank equal in right of payment with all of our other existing and future senior unsecured indebtedness, other than obligations preferred by statute (such as tax, social security and labor claims). Although the holders of the notes will have a direct, but unsecured claim on our assets and property, payment on such notes will be subordinated in right of payment to any existing or future secured debt, to the extent of the assets securing such debt. Although the indenture that governs the notes contains restrictions on the incurrence of additional liens, these restrictions are subject to important qualifications and exceptions, and the liens that we may incur in compliance with these restrictions or liens that arise from governmental or creditor action, could be substantial. Moreover, these restrictions do not apply to certain of our subsidiaries, some of which are or may be significant subsidiaries. Payment by us in respect of the notes will also be structurally subordinated to the payment of secured and unsecured debt and other creditors of our subsidiaries. Under the terms of the indenture, there is no restriction on the ability of our subsidiaries to incur additional indebtedness. As of December 31, 2021, the Issuer had total indebtedness of U.S.$1,000.4 million. In addition, as of December 31, 2021, our subsidiaries had U.S.$2,172.2 million of total indebtedness, to which the notes will be structurally subordinated.

If we become insolvent or are liquidated, or we become subject to bankruptcy proceedings, or if payment under any secured debt is accelerated, the relevant lenders would be entitled to exercise the remedies available to a secured lender. Accordingly, any proceeds upon a realization of the collateral would be applied first to amounts due under the secured debt obligations before any proceeds would be available to make payments on the notes. After such application of the proceeds from collateral, it is possible that there would be no assets remaining from which claims of the holders of the notes could be satisfied.

Therefore, we may have insufficient assets after such payment obligations to satisfy the claims of the holders of the notes and holders of other unsecured debt including trade creditors that rank equal to holders of the notes.

The issuer is permitted to incur additional indebtedness.

The notes contain no restrictions on the amounts of additional unsecured indebtedness which may be incurred by us or our subsidiaries. Although the notes contain a restriction on our and our subsidiaries' ability to incur certain secured indebtedness, such restriction is subject to significant exemptions, as set forth in "Description of the Notes–Covenants–Limitations on Liens." As a result, we are permitted to issue or incur additional unsecured debt that ranks on an equal and ratable basis with the notes, as well as in

certain cases secured debt that ranks senior to the notes with respect to the collateral securing such debt. Our incurrence of additional debt may have the effect of reducing the amount of proceeds paid to holders of notes in the event of an insolvency, liquidation, reorganization, dissolution or other winding up of our company.

The notes are subject to transfer restrictions.

The notes have not been registered under the Securities Act or any state securities laws, and we are not required to and currently do not plan on making any such registration in the immediate future. As a result, the notes may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and applicable state securities laws. Prospective investors should be aware that investors may be required to bear the financial risks of this investment for an indefinite period of time. See "Transfer Restrictions" for a full explanation of such restrictions.

An active trading market for the notes may not develop.

Currently there is no market for the notes. We have made an application for listing the notes on the Official List and for admission to trading on the London Stock Exchange's Regulated Market. However, our listing and admission may not be approved or, if approved, may not be maintained. A trading market for the notes may not develop, or if a market for the notes were to develop, the notes may trade at a discount from their initial offering price, depending upon many factors, including the number of holders of notes, prevailing interest rates, the market for similar securities, general economic conditions and our results of operations and financial condition. The initial purchasers are not under any obligation to make a market with respect to the notes, and we cannot assure you that trading markets will develop or be maintained. Accordingly, we cannot assure you as to the development or liquidity of any trading market for the notes. If an active market for the notes does not develop or is interrupted, the market price and liquidity of the notes may be adversely affected. Further, the ability of the Initial Purchasers to make a market in the notes may be impacted by changes in regulatory requirements applicable to the marketing, holding and trading of, and issuing quotations with respect to, the notes.

Developments in the international capital markets may adversely affect the trading price of the notes.

The trading price of the notes may be adversely affected by declines in the international financial markets and world economic and political conditions, including terrorism and war. Although economic and political conditions are different in each country, investors' reaction to developments in one country can affect the securities markets and the securities of issuers in other countries, including Chile, the United States and European countries. We cannot assure you that such events will not have an adverse impact on the trading price of the notes.

You may have difficulty enforcing your rights against us and our directors and executive officers.

We are a company incorporated in the UK. Most of our directors and executive officers are non-residents of the United States. You may be unable to effect service of process within the U.S. on us, our directors and executive officers. In addition, as substantially all of our assets and the assets of our directors and executive officers are located outside the United States, you may be unable to enforce against us and our directors and executive officers judgments obtained in the U.S. courts, including judgments predicated upon civil liability provisions of the U.S. federal securities laws or state securities laws. There is also doubt as to the enforceability, in original actions in Chilean courts, of liabilities including those predicated solely on U.S. federal securities laws and as to the enforceability in Chilean courts of judgments of U.S. courts obtained in actions including those predicated upon the civil liability provisions of U.S. federal securities laws. No bilateral treaty is currently in effect between the United States and Chile that covers the reciprocal

enforcement of civil foreign judgments. In the past, Chilean courts have enforced judgments rendered in the United States by virtue of the legal principles of reciprocity and comity, consisting of the review in Chile of the United States judgment, in order to ascertain, among other matters, whether Chilean legal principles of due process and public policy (*orden público*) have been complied with, without reviewing the merits of the subject matter of the case.

We cannot assure you that the credit ratings for the notes will not be lowered, suspended or withdrawn by the rating agencies.

The credit ratings of the notes may change after issuance. Such ratings are limited in scope, and do not address all material risks relating to an investment in the notes, but rather reflect only the views of the rating agencies at the time the ratings are issued. An explanation of the significance of such ratings may be obtained from the rating agencies. We cannot assure you that such credit ratings will remain in effect for any given period of time or that such ratings will not be lowered, suspended or withdrawn entirely by the rating agencies if, in the judgment of such rating agencies, circumstances so warrant. Any lowering, suspension or withdrawal of such ratings may have an adverse effect on the market price and marketability of the notes.

USE OF PROCEEDS

The net proceeds from the issuance of the notes were approximately U.S.$488,785,500 (after deducting the initial purchasers' discount and the payment of estimated offering expenses). The net proceeds from the notes were used to repay indebtedness outstanding under our Senior Loan.

CAPITALIZATION

The following table sets forth the consolidated cash, cash equivalents and liquid investments, and consolidated capitalization of the Group as of December 31, 2021. The historical condensed consolidated financial information of the Group has been derived from our 2021 Audited Financial Statements included elsewhere in this listing memorandum. This table should be read in conjunction with "Presentation of Financial and Certain Other Information," "Use of Proceeds," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Description of the Notes," as well as our 2021 Audited Financial Statements included elsewhere in this listing memorandum.

	As of December 31, 2021
	Actual
	(in millions of U.S. dollars)
Cash, cash equivalents and liquid investments[1]	3,713.1
Debt:[2]	
Short-term borrowings	337.1
Medium- and long-term borrowings[3]	2,835.5
Total debt	3,172.6
Equity:	
Equity attributable to equity holders of the parent	8,350.2
Non-controlling interest	2,678.8
Total equity	11,029.0
Total capitalization[4]	**14,201.6**

(1) Cash and cash equivalents comprise cash on hand, deposits held on call with banks and highly liquid investments that are readily convertible into known amounts of cash, are subject to insignificant risk of changes in value and are held for the purpose of meeting short-term cash commitments rather than for investment or other purposes. Liquid investments represent highly liquid current asset investments such as term deposits and managed funds invested in high quality fixed income instruments. They do not meet the IAS 7 definition of cash and cash equivalents, normally because even if readily accessible, the underlying investments have an average maturity profile greater than 90 days from the date first entered into, or because they are held primarily for investment purposes rather than meeting short-term cash commitments.

(2) This comprises borrowings and leases detailed in Note 23 to the 2021 Audited Financial Statements. Proceeds of the offering of notes, together with cash on hand, are being used to repay indebtedness outstanding under the Issuer's Senior Loan. Following application of the proceeds of the offering of notes, together with cash on hand, the Issuer will have no Indebtedness outstanding under the Senior Loan.

(3) Excludes the notes.

(4) Consists of the sum of total equity *plus* total debt.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read along with, and is based on, financial information extracted and derived from our Financial Statements commencing on page F-1 of this listing memorandum.

You should read this discussion in conjunction with our Financial Statements, "Presentation of Financial and Certain Other Information" and the other financial information included elsewhere in this listing memorandum.

We make reference herein to certain non-IFRS financial information that is explained in "Presentation of Financial and Certain Other Information" and "Summary of Financial and Other Information."

The following discussion contains certain forward-looking statements that reflect the plans, estimates and beliefs of the Group. The actual results of the Group may differ materially from those discussed in these forward-looking statements. See "Forward-looking statements." Factors that could cause or contribute to these differences include, but are not limited to, those discussed below and elsewhere in this listing memorandum, including those set forth in the "Risk Factors" section of this listing memorandum.

Overview

We engage primarily in the exploration, development and extraction of ores bearing copper and by-products, the processing of ore and the international sale of copper cathodes and copper concentrates. We operate four producing mines in Chile and various international and local exploration properties. We also engage in exploration activities in Chile and the Americas and hold significant transport assets.

The four mines we operate (Los Pelambres, Centinela, Antucoya, Zaldívar) are located in the Coquimbo and Antofagasta regions of Chile. As of December 31, 2021, these four operating mines had approximately 4,136.2 million tonnes of proven and probable ore reserves.

We believe the high quality of our core mining assets is one of our key strengths. Los Pelambres, a world-class copper mine, contains proven and probable ore reserves totaling 956.1 million tonnes as at December 31, 2021, and produced 324,700 tonnes of copper in 2021. Centinela contains proven and probable ore reserves totaling 1,983.6 million tonnes as at December 31, 2021, and produced 274,200 tonnes of copper in 2021. Antucoya contains proven and probable ore reserves totaling 745.5 million tonnes as at December 31, 2021, and produced 78,600 tonnes of copper in 2021. Zaldívar, which is a joint venture with Barrick Gold Corporation in which we hold a 50% interest, contains proven and probable ore reserves totaling 450.8 million tonnes as at December 31, 2021 (reflecting 100% of the proven and probable reserves at Zaldívar), and produced 44,000 tonnes of copper (on a 50% basis, reflecting our percentage of ownership) in 2021.

Our main commercial products are copper concentrates and copper cathodes. We also produce and sell molybdenum concentrate. For the year ended December 31, 2021, we derived 85.9% of our total revenue from copper and 11.9% of our total revenue from gold, molybdenum and silver by-product production.

In addition, we also hold significant transport assets in our Transport division, which is mainly focused on the transport of copper cathodes from, and the transport of sulfuric acid to, mining operations in the Antofagasta region of Chile. Total transport volumes in 2021 were 6.7 million tonnes, an increase of

4.0% from 6.4 million tonnes in 2020. In total, in 2021 the Transport division operated approximately 700 km of railroad and 75 locomotives.

Factors Affecting Our Results of Operations

Commodity Prices and Pricing Mechanics

Our results are heavily dependent on commodity prices – principally copper and, to a lesser extent, gold and molybdenum. The prices of these commodities are strongly influenced by a variety of external factors, including, among other things, world economic growth, inventory balances, industry demand and supply and possible substitution. For the year ended December 31, 2021, sales of copper and molybdenum concentrate and copper cathodes represented 91% of our revenue and therefore revenues and earnings depend significantly on the LME and realized copper prices.

We generally sell our copper and molybdenum concentrate and copper cathode output at prevailing market prices, subject to final pricing adjustments which normally range from one to four months after delivery to the customer, and our revenue is therefore exposed to changes in market prices for copper and molybdenum both in respect of future sales and previous sales, which remain open as to final pricing. Realized copper prices are determined by comparing revenue (gross of treatment and refining charges ("TC/RCs") for concentrate sales) with sales volumes in the period. Realized copper prices differ from market prices mainly because, in line with industry practice, concentrate and cathode sales agreements generally provide for provisional pricing at the time of shipment with final pricing based on the average market price in future periods (normally around one month after delivery to the customer in the case of cathode sales and normally four months after delivery to the customer in the case of concentrate sales). Our mining costs are relatively fixed so the prices at which we can sell our output have a significant impact on our margins.

Copper prices on the LME averaged $4.23/lb in 2021, compared with $2.80/lb in 2020 and $2.72/lb in 2019.

Prices of Key Inputs

Our mining operations depend on a range of key inputs such as energy, water, labor, sulfuric acid and fuel. The management of these inputs has a significant impact on operating costs. The availability, cost and reliability of these inputs are central to our cost management strategy, which focuses on cost control and security of supply. Given the direct impact of fuel prices on the spot price of energy, shipping rates for supplies and products, and the cost of items such as tires and conveyors, an increase or decrease in fuel prices will impact our cash costs.

For more information on our key inputs, please see "Business Description—Key Inputs and Cost Base."

Climate Change

The effects of climate change have had an increasing impact on our operations. The increasing severity of sea swells leads to delays in the delivery of key supply materials and the export of our concentrates and cathodes. The drought in central Chile is affecting water availability at Los Pelambres, which in turn affects copper production, while higher than expected rainfall in the northern part of the country is impacting the infrastructure in the region. As the effects of climate change evolve, the impact on our operations may continue to grow. For more information, please see "Business Description—Risk Management."

Cost and Competitiveness Program

Since 2014, we have utilized our CCP to reduce our costs and increase efficiency in our operations. The main target of the CCP is to provide a methodology to preserve our competitive position within the industry and counterbalance grade decline, which is a natural occurrence for copper mines. For geological reasons, copper deposits frequently have higher grade material near the surface and therefore grade declines with depth. This means that unless action is taken, such as an expansion, copper production declines as a mine gets older. Also, as an open pit gets deeper, haulage distances and rock hardness increase, and this, combined with the declining grade, leads to higher unit costs.

Our ongoing efforts through the CCP focus on five areas to deliver sustainable cost reductions and productivity increases:

- Streamlining goods and services procurement – we strive to improve the efficiency and quality of purchase contracts while also reducing costs. Additionally, we have centralized procurement to create synergies for our operating companies. Examples of savings initiatives include renegotiation of maintenance contracts, negotiation with explosive service providers, bringing electric shovel maintenance in-house and optimization of fuel transport services.

- Operating efficiency and asset reliability – we achieve this by maximizing plant and equipment availability and minimizing variability through continuous improvement. This ensures the reliability and performance of assets through planned, proactive and predictive maintenance. Examples of savings initiatives include improving grinding media consumption and minimizing waste in blasting to reduce explosives consumption.

- Energy efficiency – we seek to optimize energy efficiency and lower energy contract prices through the CCP. For example, we continually seek to modify our peak energy consumption patterns to reduce power costs.

- Corporate and organizational effectiveness – we continually analyze for potential restructuring of the Group's organizational framework to increase efficiency and reduce costs. Examples of savings initiatives include strengthening of our key operating processes, using existing loading capacity to replace shovel rental with a maintenance and repair contract and optimizing our organizational structure.

- Working capital, capital expenditure and services efficiency – we seek to optimize inventory levels, capital expenditure and services costs.

Through these initiatives, in the year ended December 31, 2021, we achieved savings of $131 million, compared with $197 million in 2020 and $132 million in 2019, which helped mitigate the increase in cash costs that we experienced during the year.

COVID-19

The COVID-19 pandemic's many operational and economic headwinds continued in 2021, yet their expected effects on copper prices were countered by the tailwinds of high demand and constrained supply. In May 2021, copper reached an all-time-high of $4.77/lb, and closed the year at $4.40/lb.

The Group has continued to proactively manage the risks of COVID-19 on its operations and projects, allowing its operations to continue to operate without interruption throughout 2021. The Group incurred $60 million of operational expenses (including the 50% attributable share of Zaldívar's expenditure) during the year in respect of COVID-19 measures, including costs relating to testing, additional travel expenses for its employees travelling to and from the mine sites, hygiene supplies and

additional costs for third-party services. This compares with $40 million incurred during 2020. The Group has capitalized $32 million of additional project costs during 2021 linked to the impact of COVID-19, mainly relating to the additional costs of third-party contractors, testing, and increased travel for employees and project contractors travelling to the sites. This compares with $31 million capitalized during 2020.

During 2021, development of our growth projects at Los Pelambres and Centinela was impacted by COVID-19. Work at the concentrator site of the Los Pelambres Expansion project was temporarily suspended in May, while the construction of the desalination plant progressed according to plan. Work on the Esperanza Sur pit also progressed according to plan, despite the COVID-19 restrictions. All projects are proceeding with fully integrated COVID-19 health protocols in place. These are expected to continue during 2022, but as a managed health risk consistent with the high levels of vaccination achieved in Chile.

We expect to incur additional costs in connection with the Los Pelambres Expansion. The project schedule and cost remain under review. See "—Capital Expenditures".

Exchange Rate Fluctuations

Our results may be affected by exchange rate fluctuations between the U.S. dollar and the Chilean peso. Approximately 57% of our operating costs are in Chilean pesos while almost all of our revenues are in U.S. dollars. The exchange rate with the U.S. dollar is generally correlated to the copper price as copper exports generate some 50% of Chile's foreign exchange earnings, which provides a natural hedge for our operations. The Chilean peso/USD exchange rate averaged Ch$845/$1 during 2021, compared with Ch$792/$1 during 2020 and Ch$703/$1 during 2019.

Recent Developments

Final Dividend

On May 13, 2022, the Company paid a final dividend for 2021 of 118.9 cents per ordinary share, which amounts to $1,172.1 million to shareholders on the share register at the close of business on April 22, 2022.

Reko Diq project

In March 2022 the Company reached an agreement in principle with Barrick Gold and the Governments of Pakistan and Balochistan on a framework that provides for the reconstitution of the Reko Diq project, and a pathway for the Company to exit the project. If definitive agreements are executed and the conditions to closing are satisfied, a consortium comprising various Pakistani state-owned enterprises will acquire an interest in the project for consideration of approximately $900 million to jointly develop the project with Barrick, and Antofagasta would exit. If all the conditions are satisfied during 2022, we would expect to receive the proceeds in 2023.

Zaldívar Chloride Leach

In January 2022 we completed the Zaldívar Chloride Leach project. The Zaldívar Chloride Leach project includes an upgrade of the Solvent Extraction (SX) plant, and the construction of new reagents facilities and additional washing ponds for controlling chlorine levels. It was completed in January 2022. The project will increase copper recoveries by approximately 10 percentage points, with further improvement possible depending on the type of ore being processed. This will increase copper production at Zaldívar by approximately 10,000-15,000 tonnes (on a 100% basis) per annum over the remaining life of the mine.

Q1 2022 Production Report

On April 21, 2022, we released our first quarter production for the quarter ended March, 31, 2022. Our copper production of 138,800 tonnes and net cash costs of $1.75/lb was in line with our plan for fiscal 2022. This production reflected the impact of the ongoing drought at Los Pelambres and the expected lower grades at Centinela Concentrates. With the completion of the Los Pelambres desalination plant planned for the second half of fiscal 2022 and assuming no additional precipitation until the anticipated rainy season, we expect our production levels and net cash costs to trend back towards more normalized levels through fiscal 2022.

Results of Operations

The following table shows the principal components of our profit for each of the years ended December 31, 2019, 2020 and 2021:

	Year Ended December 31,		
	2019	**2020**	**2021**
	(in millions of U.S. dollars)		
Group revenue	**4,964.5**	**5,129.3**	**7,470.1**
Total operating costs	(3,588.7)	(3,537.1)	(4,068.7)
Operating profit from subsidiaries	**1,375.8**	**1,592.2**	**3,401.4**
Net share of results from associates and joint ventures	24.4	5.1	59.7
Impairment of investment in associate	-	(80.8)	-
Total profit from operations, associates and joint ventures	**1,400.2**	**1,516.5**	**3,461.1**
Net finance (expense)/income	(51.0)	(103.4)	16.0
Profit before tax	**1,349.2**	**1,413.1**	**3,477.1**
Income tax expense	(506.1)	(526.5)	(1,242.3)
Profit from continuing operations	**843.1**	**886.6**	**2,234.8**
Profit from discontinued operations	**–**	**7.3**	**–**
Profit for the year	**843.1**	**893.9**	**2,234.8**

Year Ended December 31, 2021 Compared with the Year Ended December 31, 2020

Revenue

The $2,340.8 million increase in revenue from $5,129.3 million in 2020 to $7,470.1 million in the year ended December 31, 2021 reflected the following factors:

Mining division

Revenue from the Mining division increased in the year ended December 31, 2021 by $2,320.2 million, or 47%, to $7,300.1 million, compared with $4,979.9 million in 2020. The increase reflected a $2,065.0 million improvement in copper sales and $255.2 million increase in by-product revenue.

Copper

Revenue from copper concentrate and copper cathode sales increased in the year ended December 31, 2021 by $2,065.0 million, or 47%, to $6,413.2 million, compared with $4,348.2 million in 2020. The increase reflected the impact of $2,095.9 million from higher realized prices and $30.4 million from lower treatment and refining charges, partly offset by $61.3 million from lower sales volumes.

The average realized price increased in the year ended December 31, 2021 by 47% to $4.37/lb in 2021 (2020 – $2.98/lb), resulting in a $2,095.9 million increase in revenue. The increase in the realized price reflected the higher LME average market price, which increased by 51% to $4.23/lb in 2021 (2020 –

$2.80/lb), and a positive provisional pricing adjustment of $352.7 million. The provisional pricing adjustment mainly reflected the increase in the year-end mark-to-market copper price to $4.42/lb at December 31, 2021, compared with $3.52/lb at December 31, 2020. In addition, there was a negative impact of $126.8 million in respect of realized losses from commodity hedging instruments which matured during the year (2020 – $3.4 million negative impact).

Copper sales volumes reflected within revenue decreased in the year ended December 31, 2021 by 1.3% from 690,200 tonnes in 2020 to 681,000 tonnes in 2021, decreasing revenue by $61.3 million. This decrease was due to lower copper sales volumes at Los Pelambres (41,500 tonnes decrease) mainly as a result of its decreased production volumes, partly offset by higher sales volumes at Centinela (28,400 tonnes increase) due to increased production volumes as a result of higher grades and increased throughput at Centinela Concentrates.

Treatment and refining charges (TC/RCs) for copper concentrate decreased in the year ended December 31, 2021 by $30.4 million to $152.0 million in 2021, compared with $182.4 million in 2020, reflecting lower average TC/RC rates as well as the decrease in the concentrate sales volumes at Los Pelambres.

Molybdenum, gold and other by-products

Revenue from by-product sales at Los Pelambres and Centinela relate mainly to molybdenum and gold and, to a lesser extent, silver. Revenue from by-products increased by $255.2 million or 40.4% to $886.9 million in 2021, compared with $631.7 million in 2020.

Revenue from gold sales in the year ended December 31, 2021 (net of treatment and refining charges) was $436.4 million (2020 – $357.7 million), an increase of $78.7 million which reflected an increase in volumes slightly offset by a lower realized price. Gold sales volumes increased in the year ended December 31, 2021 by 22.6% from 199,600 ounces in 2020 to 244,700 ounces in 2021, mainly due to higher throughput and grades at Centinela. The realized gold price was $1,787.6/oz in 2021 compared with $1,796.8/oz in 2020, reflecting the average market price for 2021 of $1,798.9/oz (2020 – $1,770.1/oz) and a negative provisional pricing adjustment of $10.7 million.

Revenue from molybdenum sales in the year ended December 31, 2021 (net of roasting charges) was $366.4 million (2020 – $209.5 million), an increase of $156.9 million. The increase was due to the higher realized price of $17.4/lb in 2021 (2020 – $8.8/lb), partially offset by decreased sales volumes of 10,400 tonnes (2020 – 12,500 tonnes).

Revenue from silver sales increased in the year ended December 31, 2021 by $19.6 million to $84.1 million (2020 – $64.5 million). The increase was due to a higher realized silver price of $24.9/oz (2020 – $21.3/oz) and higher sales volumes of 3.4 million ounces (2020 – 3.1 million ounces).

<u>Transport division</u>

Revenue from the Transport division (FCAB) increased in the year ended December 31, 2021 by $20.6 million or 13.8% to $170.0 million (2020 – $149.4 million), as a result of increased volumes and better prices in sales contracts and the impact of the stronger Chilean peso on sales denominated in the local currency.

Operating Costs

The $531.6 million increase in total operating costs from $3,537.1 million in 2020 to $4,068.7 million in the year ended December 31, 2021 reflected the following factors:

Mining division

Operating costs (excluding depreciation, amortization, loss on disposals and impairments) at the Mining division increased by $306.2 million to $2,696.9 million in 2021, an increase of 12.8%. Of this increase, $291.5 million was attributable to higher mine-site operating costs. This increase in mine-site costs reflected higher key input prices, the stronger Chilean peso and the cost impact of the expected lower ore grades and lower throughput due to water optimisation at Los Pelambres, partly offset by the cost savings from the Group's CCP and the lower sale volumes. On a unit cost basis, weighted average cash costs excluding by-product credits (which for accounting purposes are part of revenue) and treatment and refining charges for concentrates (which are also part of revenue for accounting purposes), increased from $1.43/lb in 2020 to $1.68/lb in 2021.

Closure provisions and other mining expenses decreased in the year ended December 31, 2021 by $14.6 million. Exploration and evaluation costs increased in the year ended December 31, 2021 by $18.1 million to $103.2 million (2020 – $85.1 million), reflecting increased exploration expenditure principally in Chile, the ongoing evaluation and review work at Twin Metals, and drilling in relation to the reserve and resource estimates at Centinela and Antucoya. Corporate costs increased by $11.2 million.

Transport division

Operating costs (excluding depreciation, amortization and loss on disposals) at the Transport division increased in the year ended December 31, 2021 by $14.9 million to $106.3 million (2020 – $91.4 million), mainly due to the effect of the stronger Chilean peso, higher diesel prices and inflation, and to a lesser degree nonrecurrent COVID-19 costs.

Depreciation, amortization and disposals

The depreciation and amortization charge increased in the year ended December 31, 2021 by $30.0 million from $1,048.7 million in 2020 to $1,078.7 million. This increase is mainly due to inventory variation impacts at Centinela and higher depreciation at Centinela and Los Pelambres, largely offset by lower amortization of IFRIC 20 stripping cost at Centinela. The loss on disposal of property, plant and equipment was $9.2 million, an increase of $2.9 million (2020 – $6.3 million).

Impairment of Twin Metals' assets

In September 2021 the United States Forest Service (USFS) submitted an application to withdraw approximately 225,000 acres of land in the Superior National Forest from the scope of federal mineral leasing laws, subject to valid existing rights. In October 2021, the United States Bureau of Land Management (BLM) rejected Twin Metals' Preference Right Lease Applications (PRLAs) and Prospecting Permit Applications (PPAs). In January 2022 the United States Department of the Interior cancelled Twin Metals' MNES-1352 and MNES-1353 federal mineral leases. The PRLAs and federal mineral leases form a significant proportion of the mineral resources contained within Twin Metals' current project plan.

The Group believes that Twin Metals has a valid legal right to the mining leases and a strong case to defend its legal rights. Although the Group intends to pursue validation of those rights, considering the time and uncertainty related to any legal action to challenge the government decisions, an impairment has been recognized as at December 31, 2021 in respect of the $177.6 million of intangible assets and property, plant and equipment relating to the Twin Metals project.

Operating profit from subsidiaries

As a result of the above factors, operating profit from subsidiaries increased by $1,809.2 million or 113.6% in 2021 to $3,401.4 million (2020 – $1,592.2 million).

Share of results from associates and joint ventures

Our share of results from associates and joint ventures was a profit of $59.7 million in 2021, compared to $5.1 million in 2020. Of this increase, $56.3 million was due to the higher profit from Zaldívar.

On March 31, 2020, we agreed to dispose of our 40% interest in the Hornitos coal-fired power station to ENGIE Energía Chile S.A. ("ENGIE"), the owner of the remaining 60% interest. This was part of the value accretive renegotiation of Centinela's power purchase agreement which as a result will be wholly supplied from lower cost renewable sources from 2022. In accordance with the terms of the agreement we disposed of our investment to ENGIE in December 2021 for a nominal consideration, and have not been entitled to receive any further dividend income from Hornitos from the date of the agreement. Accordingly, we no longer had any effective economic interest in Hornitos from March 31, 2020 onwards, and therefore recognized an impairment of $80.8 million in respect of its investment in associate balance during 2020, and no longer recognized any share of Hornitos' results. The post-tax impact of the impairment was $61.1 million, of which $40.2 million is attributable to the equity owners of the Company.

EBITDA

EBITDA increased in the year ended December 31, 2021 by $2,097.0 million or 76.6% to $4,836.2 million (2020 – $2,739.2 million). EBITDA includes the Group's proportional share of EBITDA from associates and joint ventures.

EBITDA from the Mining division increased by 78.0% from $2,678.2 million in 2020 to $4,768.0 million in the year ended December 31, 2021. This reflected the higher revenue and higher EBITDA from associates and joint ventures partly offset by higher mine-site costs and increased exploration and evaluation expenditure.

EBITDA at the Transport division increased by $7.2 million to $68.2 million in 2021 (2020 – $61.0 million), reflecting the higher revenue and slightly increased EBITDA from associates and joint ventures, partly offset by higher operating costs.

For the year ended December 31, 2021, our EBITDA Margin was 64.7% (2020 – 53%), reflecting our revenue and EBITDA for the period as analyzed above.

Net finance expense

Net finance expense decreased in the year ended December 31, 2021 by $119.4 million to $16.0 million, compared with $103.4 million in 2020.

	Year Ended December 31,	
	2020	**2021**
	(in millions of U.S. dollars)	
Investment income	18.9	5.0
Interest expense	(77.1)	(63.4)
Other finance items	(45.2)	74.4
Net finance expense	**(103.4)**	**16.0**

Investment income decreased from $18.9 million in 2020 to $5.0 million in 2021, mainly due to a decrease in average interest rates partially offset by higher average cash, cash equivalent and liquid investment balances.

Interest expense decreased from $77.1 million in 2020 to $63.4 million in 2021, reflecting the decrease in the average interest rates and also a reduction in the average relevant borrowing balances, partially offset by interest expenses related to the bond issue in October 2020.

Other finance items in the year ended December 31, 2021 were a net gain of $74.4 million, compared with a net loss of $45.2 million in 2020, a variance of $119.6 million. This was mainly due to the foreign exchange impact of the retranslation of Chilean peso denominated assets and liabilities, which resulted in a $49.9 million gain in 2021 compared with a $28.4 million loss in 2020. Also, there was a positive variance of $41.3 million related to the discounting of long-term provisions, with the increase in the relevant year-end interest rates resulting in a decrease in the net present value of the provisions and a corresponding credit recognized in other finance items.

Profit before tax

As a result of the factors set out above, profit before tax increased in the year ended December 31, 2021 by 146.1% to $3,477.1 million (2020 – $1,413.1 million).

Income tax expense

The tax charge for 2021 increased by $715.8 million to $1,242.3 million (2020 – $526.5 million) and the effective tax rate for the year was 35.7% (2020 – 37.3%).

	Year Ended December 31,			
	2020		2021	
	$m	%	$m	%
Profit before tax	**1,413.1**	**–**	**3,477.1**	**–**
Tax at the Chilean corporate tax rate of 27.0%	(381.5)	27.0	(938.8)	27.0
Impairment of investment in associate	(2.2)	0.2	–	–
Adjustment in respect of prior years	(1.6)	0.1	(12.1)	0.3
Items not deductible from first category tax	(9.8)	0.6	(31.6)	0.9
Mining tax (royalty)	(101.3)	7.2	(243.8)	7.0
Deduction of mining royalty as an allowable expense in determination of first category tax	28.1	(2.0)	67.8	(1.9)
Withholding taxes	(70.0)	5.0	(195.0)	5.6
Tax effect of share of results of associates and joint ventures	1.4	(0.1)	16.1	(0.5)
Impact of previously unrecognized tax losses on current tax	10.5	(0.7)	52.5	(1.5)
Impact of recognition of previously unrecognized tax losses on deferred tax	–	–	90.6	(2.6)
Provision against carrying value of assets			(48.0)	1.4
Net other items	(0.1)	–	–	–
Tax expense and effective tax rate for the year	**(526.5)**	**37.3**	**(1,242.3)**	**35.7**

The effective tax rate of 35.7% varied from the statutory rate principally due to the mining tax (royalty) (net impact of $176.0 million, or 5.1% including the deduction of the mining tax (royalty) as an allowable expense in the determination of first category tax), the withholding tax relating to the remittance of profits from Chile (impact of $195.0 million, or 5.6%), items not deductible for Chilean corporate tax purposes, principally the funding of expenses outside of Chile (impact of $31.6 million, or 0.9%), the relative tax impact of the provision against the carrying value of assets at Twin Metals (impact of $48.0 million, or 1.4%) and adjustments in respect of prior years (impact of $12.1 million, or 0.3%), partly offset by the impact of unrecognized tax losses (impact of $52.5 million, or 1.5%), the recognition of previously unrecognized tax losses (impact of $90.6 million, or 2.6%) and the impact of the recognition of the Group's

share of profit from associates and joint ventures, which are included in the Group's profit before tax net of their respective tax charges (impact of $16.1 million, or 0.5%).

Year Ended December 31, 2020 Compared with the Year Ended December 31, 2019

Revenue

The $164.8 million increase in revenue from $4,964.5 million in 2019 to $5,129.3 million in the year ended December 31, 2020 reflected the following factors:

Mining division

Revenue from the Mining division increased in the year ended December 31, 2020 by $175.9 million, or 3.7%, to $4,979.9 million, compared with $4,804.0 million in 2019. The increase reflected a $264.8 million improvement in copper sales partly offset by a $88.9 million decrease in by-product revenue.

Copper

Revenue from copper concentrate and copper cathode sales increased in the year ended December 31, 2020 by $264.8 million, or 6.5%, to $4,348.3 million, compared with $4,083.4 million in 2019. The increase reflected the impact of $348.4 million from higher realized prices and $69.7 million from lower treatment and refining charges, partly offset by $153.3 million from lower sales volumes.

Copper sales volumes reflected within revenue decreased in the year ended December 31, 2020 by 3.5% from 715,500 tonnes in 2019 to 690,200 tonnes in 2020, decreasing revenue by $153.3 million. This decrease was due to lower copper sales volumes at Centinela (40,100 tonnes decrease) mainly as a result of its decreased production volumes, partly offset by higher sales volumes at Los Pelambres (9,900 tonnes increase) and at Antucoya (4,900 tonnes increase).

The average realized price increased in the year ended December 31, 2020 by 8.3% to $2.98/lb in 2020 (2019 – $2.75/lb), resulting in a $348.4 million increase in revenue. The increase in the realized price reflected the higher LME average market price, which increased by 2.8% to $2.80/lb in 2020 (2019 – $2.72/lb), and a positive provisional pricing adjustment of $258.5 million. The provisional pricing adjustment mainly reflected the increase in the year-end mark-to-market copper price to $3.52/lb at December 31, 2020, compared with $2.81/lb at December 31, 2019.

Treatment and refining charges (TC/RCs) for copper concentrate decreased by $69.7 million to $182.4 million in 2020 from $252.1 million in 2019, reflecting the lower average TC/RC rates as well as the decrease in the concentrate sales volumes at Centinela. Treatment and refining charges are deducted from concentrate sales when reporting revenue and hence the decrease in these charges has had a positive impact on revenue.

Molybdenum, gold and other by-products

Revenue from by-product sales at Los Pelambres and Centinela relate mainly to molybdenum and gold and, to a lesser extent, silver. Revenue from by-products decreased by $88.9 million or 12.3% to $631.7 million in 2020, compared with $720.6 million in 2019.

Revenue from gold sales in the year ended December 31, 2020 (net of treatment and refining charges) was $357.7 million (2019 – $407.7 million), a decrease of $50.0 million which mainly reflected a decrease in volumes partially offset by a higher realized price. Gold sales volumes decreased by 30.9% from 288,800 ounces in 2019 to 199,600 ounces in 2020, mainly due to lower grades at Centinela. The

realized gold price was $1,796.8/oz in 2020 compared with $1,416.0/oz in 2019, reflecting the average market price for 2020 of $1,770.1/oz (2019 – $1,393,5/oz), plus a provisional pricing adjustment of $3.1 million.

Revenue from molybdenum sales in the year ended December 31, 2020 (net of roasting charges) was $209.5 million (2019 – $254.6 million), a decrease of $45.1 million. The decrease was due to the lower realized price of $8.8/lb (2019 – $10.8/lb), partially offset by increased sales volumes of 12,500 tonnes (2019 – 12,100 tonnes).

Revenue from silver sales increased in the year ended December 31, 2020 by $6.2 million to $64.5 million (2019 – $58.3 million). The increase was due to a higher realized silver price of $21.3/oz (2019 – $16.4/oz), partly offset by lower sales volumes of 3.1 million ounces (2019 – 3.6 million ounces).

Transport division

Revenue from the Transport division (FCAB) decreased in the year ended December 31, 2020 by $11.1 million or 6.9% to $149.4 million (2019 – $160.5 million), mainly due to the effect of the weaker Chilean peso, and lower sales volumes of freight transported and industrial water.

Operating Costs

The $51.6 million decrease in total operating costs from $3,588.7 million in 2019 to $3,537.1 million in the year ended December 31, 2020 reflected the following factors:

Mining division

Operating costs (excluding depreciation, loss on disposals and impairments) at the Mining division decreased by $165.3 million to $2,390.7 million in 2020, a reduction of 6.5%. Of this decrease, $156.8 million is attributable to lower mine-site operating costs. This decrease in mine-site costs reflected lower key input prices, the weaker Chilean peso, lower sale volumes and cost savings from the Group's CCP, partly offset by the cost impact of the expected lower ore grades at Centinela and the $33.1 million of mine-site costs incurred related to the COVID-19 pandemic. On a unit cost basis, weighted average cash costs excluding by-product credits (which are reported as part of revenue) and treatment and refining charges for concentrates (which are deducted from revenue), decreased from $1.49/lb in 2019 to $1.43/lb in 2020.

During the year ended December 31, 2020, the CCP achieved benefits of $197 million, of which $155 million reflected cost savings and $42 million reflected the value of productivity improvements. Of the $155 million of cost savings, $125 million related to Los Pelambres, Centinela and Antucoya, and therefore impacted the Group's operating costs, and $30 million related to Zaldívar (on a 100% basis) and therefore impacted the share of results from associates and joint ventures.

Other Mining division costs increased by $24.0 million in 2020. Exploration and evaluation costs decreased by $26.0 million to $85.1 million (2019 – $111.1 million), reflecting decreased exploration expenditure principally in respect of the Encierro and Cachorro projects and less drilling activity in relation to the reserve and resource estimates at Centinela and Antucoya. Corporate costs decreased by $6.3 million.

Transport division

Operating costs (excluding depreciation, amortization and loss on disposals) at the Transport division decreased by $14.3 million to $91.4 million in 2020 (2019 – $105.7 million), mainly due to the effect of the weaker Chilean peso and the lower diesel price, as well as the lower consumption of materials.

Depreciation, amortization and disposals

The depreciation and amortization charge increased by $134.4 million from $914.3 million in 2019 to $1,048.7 million in 2020. This increase is mainly due to higher amortization of capitalized stripping costs under IFRIC 20 Stripping Costs in the Production Phase of a Surface Mine, particularly at Centinela. The loss on disposal of property, plant and equipment was $6.3 million, a decrease of $6.4 million (2019 – $12.7 million).

Operating profit from subsidiaries

As a result of the above factors, operating profit from subsidiaries increased by $216.4 million or 15.7% in 2020 to $1,592.2 million (2019 – $1,375.8 million).

Share of results from associates and joint ventures

Our share of results from associates and joint ventures was a profit of $5.1 million in 2020, compared to $24.4 million in 2019. This was principally due to the impact of the agreement on March 31, 2020 to dispose of the Group's investment in Hornitos (as detailed above). In the 2019 full-year Hornitos had generated a net profit of $10.3 million, but in the first three months of 2020 prior to the disposal agreement Hornitos did not generate a net profit. In addition, there was a $3.9 million higher loss from Tethyan Copper Company and profits from Zaldívar were $3.3 million lower.

EBITDA

EBITDA increased by $300.3 million or 12.3% to $2,739.2 million (2019 – $2,438.9 million). EBITDA includes the Group's proportional share of EBITDA from associates and joint ventures.

EBITDA from the Mining division increased by 13.6% from $2,358.1 million in 2019 to $2,678.2 million this year. This reflected the higher revenue and lower mine-site costs, decreased exploration and evaluation expenditure and lower corporate costs, partly offset by higher other mining expenses and lower EBITDA from associates and joint ventures.

EBITDA at the Transport division decreased by $19.8 million to $61.0 million in 2020 (2019 – $80.8 million), reflecting the lower revenue and decreased EBITDA from associates and joint ventures, partly offset by the lower operating costs.

For the year ended December 31, 2020, our EBITDA margin was 53% (2019 – 49%), reflecting our revenue and EBITDA for the period as analyzed above.

Net finance expense

Net finance expense increased by $52.4 million to $103.4 million in 2020, compared with $51.0 million in 2019.

	Year Ended December 31,	
	2019	**2020**
	(in millions of U.S. dollars)	
Investment income	47.1	18.9
Interest expense	(111.1)	(77.1)
Other finance items	13.0	(45.2)
Net finance expense	**(51.0)**	**(103.4)**

Investment income decreased from $47.1 million in 2019 to $18.9 million in 2020, mainly due to the decrease in average interest rates partly offset by the higher average cash balance.

Interest expense decreased from $111.1 million in 2019 to $77.1 million in 2020, reflecting both a decrease in the average LIBOR rate and also a reduction in the average relevant debt balances.

Other finance items were a net loss of $45.2 million, compared with a net gain of $13.0 million in 2019, a variance of $58.2 million. This was mainly due to the foreign exchange impact, which was a $28.4 million loss in 2020 compared with a $35.8 million gain in 2019, due to the retranslation of Chilean peso denominated assets and liabilities.

Profit before tax

As a result of the factors set out above, profit before tax increased in the year ended December 31, 2020 by 4.7% to $1,413.1 million (2019 – $1,349.2 million).

Income tax expense

The tax charge for 2020 was $526.5 million (2019 – $506.1 million) and the effective tax rate was 37.3% (2019 – 37.5%).

	Year Ended December 31,			
	2019		2020	
	$m	%	$m	%
Profit before tax	**1,349.2**	**–**	**1,413.1**	**–**
Tax at the Chilean corporate tax rate of 27.0%	(364.3)	27.0	(381.5)	27.0
Impairment of investment in associate	–	–	(2.2)	0.2
Adjustment in respect of prior years	4.3	(0.3)	(1.6)	0.1
Items not deductible from first category tax	(11.9)	0.9	(9.8)	0.6
Mining tax (royalty)	(66.6)	4.9	(101.3)	7.2
Deduction of mining royalty as an allowable expense in determination of first category tax	19.1	(1.4)	28.1	(2.0)
Withholding taxes	(59.3)	4.4	(70.0)	5.0
Tax effect of share of results of associates and joint ventures	4.7	(0.3)	1.4	(0.1)
Impact of previously unrecognized tax losses on current tax	(33.0)	2.4	10.5	(0.7)
Impact of recognition of previously unrecognized tax losses on deferred tax	–	–	–	–
Provision against carrying value of assets				
Net other items	0.9	(0.1)	(0.1)	–
Tax expense and effective tax rate for the year	**(506.1)**	**37.5**	**(526.5)**	**37.3**

The effective tax rate for 2020 of 37.3% varied from the statutory rate principally due to the mining tax (royalty) (net impact of $73.2 million, or 4.9%, including the deduction of the mining tax (royalty) as an allowable expense in the determination of first category tax), withholding tax relating to the remittance of profits from Chile (impact of $70.0 million, or 4.7%), items not deductible for Chilean corporate tax purposes, principally the funding of expenses outside of Chile (impact of $9.8 million, or 0.7%), the relative tax impact of the impairment of the investment in associate (impact of $2.2 million, or 0.2%) and adjustments in respect of prior years (impact of $1.6 million, or 0.1%), partly offset by the reversal of previously unrecognized tax losses (impact of $10.5 million, or 0.7%) and the impact of the recognition of the Group's share of profit from associates and joint ventures, which are included in the Group's profit before tax net of their respective tax charges (impact of $1.4 million, or 0.1%).

Liquidity and Capital Resources

We are a holding company and as such, our ability to meet our obligations depends on the earnings and cash flows of our subsidiaries.

Our primary source of liquidity is the revenue generated by our Mining division. Our primary capital needs are for working capital and capital expenditures related to the development of our existing operations.

Cash Flows

The following table shows the generation and use of cash in 2019, 2020 and 2021.

	Year Ended December 31,		
	2019	**2020**	**2021**
	(in millions of U.S. dollars)		
Profit before tax	**1,349.2**	**1,413.1**	**3,477.1**
Depreciation, amortization and net loss on disposals	926.9	1,055	1,087.9
Provision for impairment	-	80.8	177.6
Net share of results from associates and joint ventures	(24.3)	(5.1)	(59.7)
Net finance expense	51.0	103.4	(16.0)
Movement in working capital and provisions	267.8	(216.1)	(159.2)
Cash flows from continuing operations	**2,570.7**	**2,431.1**	**4,507.7**
Interest paid	(76.3)	(52.7)	(60.7)
Income tax paid	(403.6)	(319.7)	(776.9)
Net cash from operating activities	**2,090.8**	**2,058.7**	**3,670.1**
Investing Activities			
Capital contributions and loans to associates and joint ventures	(1.8)	(7.2)	(33.5)
Dividends from associates	58.0	–	142.5
Purchases and disposals of intangible assets, property, plant and equipment	(1,076.9)	(1,306.6)	(1,776.0)
Net increase in liquid investments	(676.5)	(886.3)	(543.7)
Interest received	41.0	12.6	7.4
Net cash used in investing activities	**(1,656.2)**	**(2,187.5)**	**(2,203.3)**
Financing Activities			
Dividends paid to equity holders	(470.3)	(131.1)	(710.8)
Dividends paid to preference holders and non-controlling interests	(400.1)	(280.1)	(604.6)
Capital increase from non-controlling interest	–	210.0	–
New borrowings less repayment of borrowings and principal elements of leases	60.8	918.3	(634.5)
Net cash (used in)/ generated from financing activities	**(809.6)**	**717.1**	**(1,949.9)**
Net (decrease)/increase in cash and cash equivalents	**(375.0)**	**588.3**	**(483.1)**
Cash and cash equivalents at beginning of period	1,034.4	653.7	1,246.8
Foreign exchange and fair value (losses)/gain	(5.7)	4.8	(20.3)
Cash and cash equivalents at end of period	**653.7**	**1,246.8**	**743.4**

Cash flows from continuing operations were $4,507.7 million in 2021 compared with $2,431.1 million in 2020 and with $2,570.7 million in 2019.

This reflected EBITDA from subsidiaries for the year of $4,666.9 million (2020 – $2,647.2 million and 2019 – $2,302.8 million) adjusted for the negative impact of a net working capital increase of $140.2 million (2020 – working capital increase of $242.5 million and 2019 – working capital decrease of $291.9 million) and a non-cash decrease in provisions of $19.0 million (2020 – increase of $26.4 million and 2019 – decrease of $24.1 million).

The working capital increase in 2021 was mainly due to an increase in receivables, predominantly due to the higher sales volumes in December 2021 compared with December 2020 and the higher average mark-to-market price at December 31, 2021 of $4.42/lb (December 31, 2020 – $3.52/lb and December 31, 2019 – $2.81/lb).

Interest paid increased from $52.7 million in 2020 to $60.7 million in 2021, partly reflecting timing differences in interest payments. Interest paid decreased from $76.3 million in 2019 to $52.7 million in 2020, reflecting both a decrease in the average LIBOR rate and also a reduction in the average relevant debt balances.

The net cash outflow in respect of tax in 2021 was $776.9 million (2020 – $319.7 million and 2019 – $403.6 million). This amount differs from the current tax charge in the consolidated income statement (including exceptional items) of $1,035.5 million (2020 – $515.3 million and 2019 – $354.4 million) mainly because cash tax payments for corporate tax and the mining tax include the settlement of outstanding balances in respect of the previous year's tax charge of $30.9 million (2020 – $8.0 million and 2019 – $29.5 million), withholding tax payments of $222.9 million, payments on account for the current year based on the prior year's profit levels of $569.6 million, as well as the recovery of $46.5 million in 2021 relating to prior years.

Contributions and loans to associates and joint ventures of $33.5 million for the year ended December 31, 2021 (2020 – $7.2 million and 2019 – $1.8 million) relate to Hornitos and Tethyan.

Capital expenditure in 2021 was $1,777.5 million compared with $1,307.4 million in 2020 and $1,078.8 million in 2019. This included expenditure of $880.4 million at Los Pelambres (2020 – $782.6 million and 2019 – $493.8 million), $791.8 million at Centinela (2020 – $441.5 million and 2019 – $457.6 million), $49.6 million at Antucoya (2020 – $41.9 million and 2019 – $49.9 million), $24.4 million at the corporate centre (2020 – $8.3 million and 2019 – $15.8 million) and $31.3 million at the Transport division (2020 – $33.1 million and 2019 – $61.6 million). The increase at Centinela reflects work on the Esperanza Sur pit, including the completion of the pre-stripping, and increased mine development, and at Los Pelambres reflects expenditure on the Expansion project.

Interest received decreased from $12.6 million in 2020 to $7.4 million in 2021 (and from $41.0 million in 2019 to $12.6 million in 2020), mainly due to a decrease in average interest rates partially offset by higher average cash, cash equivalent and liquid investment balances.

Dividends paid to equity holders of the Company during the year ended December 31, 2021 were $710.8 million (2020 – $131.1 million and 2019 – $470.3 million) of which $478.1 million related to the payment of the final element of the previous year's dividend and $232.7 million to the interim dividend declared in respect of the current year. Dividends paid by subsidiaries to non-controlling shareholders for the year ended December 31, 2021 were $604.5 million (2020 – $280.0 million and 2019 – $400.0 million). Dividends received from associates and joint ventures for the year ended December 31, 2021 were $142.5 million for 2021 (2020 – zero and 2019 – $58.0 million).

A capital contribution of $210.0 million was received from Marubeni during 2020, the minority partner at Antucoya, in order to replace part of the subordinated debt financing with equity.

Borrowings

The following table shows our total borrowings as at December 31, 2019, 2020 and 2021:

	Year Ended December 31		
	2019	2020	2021
	(in millions of U.S. dollars)		
Los Pelambres			
Senior Loan	(469.4)	(1,288.1)	(1,188.3)
Leases	(115.0)	(91.4)	(54.8)
Centinela			
Senior Loan	(298.8)	(496.5)	(386.8)
Subordinated Debt	(205.9)	(203.0)	–
Short-term loan	(200.0)	–	–
Leases	(81.0)	(78.0)	(59.8)
Antucoya			
Senior Loan	(325.4)	(261.1)	(196.3)
Subordinated Debt	(391.9)	(191.5)	(184.5)
Short Term Loan	(75.0)	(75.0)	(35.0)
Leases	(27.7)	(19.9)	(23.4)
Corporate			
Senior loan	(499.2)	(496.6)	(497.3)
Bond	–	(495.6)	(496.1)
Leases	(19.3)	(18.6)	(20.4)
Transport Division			
Senior loan	(44.6)	(36.5)	(25.8)
Leases	(1.0)	(0.3)	(1.4)
Preference Shares	(2.6)	(2.7)	(2.7)
Total	**(2,756.8)**	**(3,754.8)**	**(3,172.6)**

Los Pelambres. The senior loan at Los Pelambres is a $1,750 million U.S. dollar denominated syndicated loan divided in three tranches. The first tranche had a remaining duration as at December 31, 2021 of 4 years and has an interest rate of US LIBOR six-month rate plus 1.05%. The second tranche had a remaining duration as at December, 31 2021 of 7 years and has an interest rate of US LIBOR six month rate plus 0.85%. The third tranche had a remaining duration as at December 31, 2021 of 6.5 years and has an interest rate of US LIBOR six-month rate plus 1.10%. As at 31 December 2021, $1,420 million of the loan facility had been drawn-down and $209 million had been repaid. Subsequent to December 31, 2021, in January 2022 there was a further $120 million draw-down of the loan, and in April 2022 the final draw-down of $210 million was made. The loans are subject to financial covenants which require that specified Net Debt to EBITDA and EBITDA to finance expense ratios are maintained.

Leases at Los Pelambres are denominated in US dollars with an average interest rate of US LIBOR six-month rate plus 1.74% and a remaining duration as at December 31, 2021 of 0.5 years.

Centinela. The senior loan at Centinela is US dollar denominated with a duration as at December 31, 2021 of 4 years and an interest rate of US LIBOR six-month rate plus 0.95%. The loan is subject to financial covenants which require that specified Net Debt to EBITDA and EBITDA to finance expense ratios are maintained.

Leases at Centinela are denominated in US dollars with an average interest rate of US LIBOR six-month rate plus 4.8% and a remaining duration as at December 31, 2021 of 5 years.

Antucoya. The senior loan at Antucoya represents a US dollar denominated syndicated loan. This loan had a remaining duration as at December 31, 2021 of 3 years and an interest rate of US LIBOR six-

month rate plus 1.3%. The loan was subject to financial covenants which require that specified Net Debt to EBITDA and EBITDA to finance expense ratios are maintained. Subsequent to the 2021 year-end, in March 2022 this loan was repaid, and a new $250 million loan was put in place at that time, with a duration of 5 years and an interest rate of Term SOFR six-month rate plus 0.25% plus 1.15%.

Subordinated debt at Antucoya is US dollar denominated, provided to Antucoya by Marubeni Corporation with a remaining duration as at December 31, 2021 of 3 years and an interest rate of US LIBOR six-month rate plus 3.65%. Subordinated debt provided by Group companies to Antucoya has been eliminated on consolidation. Subsequent to the 2021 year-end, in March 2022 the duration of this loan was extended to 5 years.

Subsequent to the 2021 year-end, in March 2022 the short-duration loan at Antucoya was repaid.

Leases at Antucoya are denominated in US dollars with an average interest rate of US LIBOR six-month rate plus 2.0% and a remaining duration as at December 31, 2021 of 2.5 years.

Corporate. The senior loan at Corporate (Antofagasta plc) is US dollar denominated with an interest rate of US LIBOR six-month rate plus 2.25% and a remaining duration as at December 31, 2021 of less than 4 years. The net proceeds from the offering were used to repay this borrowing.

In October 2020 Antofagasta plc issued a corporate bond for $500 million with a 10-year tenor with a yield of 2.415%.

Leases at Corporate and other items are denominated in Unidades de Fomento (inflation-linked Chilean pesos) and had a remaining duration as at December 31, 2021 of 5 years and are at fixed rates with an average interest rate of 5.2%.

Transport Division. Long-term loans at the Transport division are US dollar denominated, and had a remaining duration as at December 31, 2021 of 1.5 years and an interest rate of US LIBOR six-month rate plus 1.06%.

Leases at the Transport division are US dollar denominated with an average interest rate of US LIBOR six-month rate plus 3.2% and a remaining duration as at December 31, 2021 of 5 years.

Preference Shares. The preference shares are Sterling-denominated and issued by Antofagasta plc. There are 2 million shares of £1 each authorised, issued and fully paid. The preference shares are non-redeemable and are entitled to a fixed cumulative dividend of 5% per annum. On winding up, they are entitled to repayment and any arrears of dividend in priority to ordinary shareholders but are not entitled to participate further in any surplus. Each preference share carries 100 votes in any general meeting of the Company.

Net Debt

The table below shows our financial position as of December 31, 2019, 2020 and 2021.

	December 31,		
	2019	2020	2021
	(in millions of U.S. dollars)		
Cash, cash equivalents and liquid investments	2,193.4	3,672.8	3,713.1
Total borrowings	(2,756.8)	(3,754.8)	(3,172.6)
Net Debt/(cash) at the end of the period	**563.4**	**82.0**	**(540.5)**

At December 31, 2021 the Group had combined cash, cash equivalents and liquid investments of $3,713.1 million (December 31, 2020 – $3,672.8 million and December 31, 2019 – $2,193.4 million). Excluding the non-controlling interest share in each partly owned operation, the Group's attributable share of cash, cash equivalents and liquid investments was $3,299.9 million (December 31, 2020 – $3,046.9 million and December 31, 2019 – $1,849.7 million).

Total Group borrowings at December 31, 2021 were $3,172.6 million, a decrease of $582.2 million compared with December 31, 2020 (December 31, 2020 – $3,754.8 million and December 31, 2019 – $2,756.8 million). The decrease was mainly due to the $222.8 million subordinated debt repayment by Centinela and Antucoya to Marubeni, repayment of the senior loan by Los Pelambres of $209.3 million, repayment of the senior loan by Centinela of $111.1 million and the $141.0 million repayment of Antucoya's senior loan and short term loan, and a net decrease of lease liabilities of $27.2 million, partly offset by the $114.1 million refinancing of the senior loan at Los Pelambres and the $35.0 million increase of the short term loan at Antucoya.

Excluding the non-controlling interest share in each partly-owned operation, the Group's attributable share of the borrowings was $2,409.6 million (December 31, 2020 – $2,805.5 million and December 31, 2019 – $2,041.3 million).

This resulted in net cash at December 31, 2021 of $540.5 million (December 31, 2020 – Net Debt $82.0 million and December 31, 2019 – $563.4 million). Excluding the non-controlling interest share in each partly-owned operation, the Group had an attributable net cash position of $890.3 million (December 31, 2020 – net cash $241.4 million and December 31, 2019 – Net Debt $191.6 million).

Capital Expenditures

Capital expenditure increased by $470.1 million from $1,307.4 million in 2020 to $1,777.5 million in the year ended December 31, 2021, mainly due to expenditure on the Los Pelambres Expansion project, work on the Esperanza Sur pit at Centinela, including the completion of the pre-stripping, and increased mine development at Centinela.

The following table sets forth the breakdown of our capital expenditures by type for the periods below:

	For Years Ended December 31,		
	2019	2020	2021
	(in millions of U.S. dollars)		
Mine Development Capital Expenditure	347.0	357.0	503.0
Sustaining Capital Expenditure	392.0	342.0	336.0
Growth Capital Expenditure	279.0	571.0	883.0
Other Capital Expenditure	61.0	37.0	56.0

Where possible, debottlenecking and incremental plant expansions are used to increase throughput and improve overall efficiencies, as these projects often have lower capital expenditure requirements and generate higher returns than greenfield projects.

We continue to review our options for maximizing returns and reducing the capital cost of projects, and are enhancing the capabilities of the project team to improve our project execution strategy, management and control.

We expect to invest a similar amount of $1.9 billion in 2022 for capital expenditure in connection with, among others, the Los Pelambres Expansion, the potential expansion of the mine life of Los Pelambres and construction of a second concentrator at Centinela.

Our projects under construction include:

Los Pelambres Expansion. The project reached 73% overall completion by the end of March 2022. During the first quarter of 2022 we completed a detailed review of the project schedule and costs and revised our capital cost estimate for the project to $2.2 billion (up from $1.7 billion). The increase is primarily related to the impact of COVID-19 on costs and the construction schedule, as well as to general inflation, including increased input prices, wages, labour incentives and logistics costs, and other adjustments to implementation plans and an updated contingency provision.

Esperanza Sur Pit. The project consists of opening the Esperanza Sur pit at Centinela. Pre-stripping completed in 2021. The stripping is being carried out by a contractor and the cost is being capitalized.

For a detailed description of our projects under construction, please see "Business Description – Projects Under Construction."

Contractual Obligations

The following table analyzes the maturity of our contractual commitments in respect of our financial liabilities and derivative financial instruments as at December 31, 2021. The table is based on the undiscounted cash flows on the earliest date on which we can be required to pay. The table includes both interest and principal cash flows.

	Payments due by period ($m)				
Contractual Obligations	**Total**	**Less than 1 year**	**1-2 years**	**2-5 years**	**After 5 years**
Corporate Loans	(2,411.0)	(267.1)	(398.5)	(1,574.8)	(170.6)
Other Loans (including short-term loans)	(857.1)	(47.0)	(11.9)	(242.7)	(555.5)
Leases	(169.7)	(74.7)	(40.5)	(54.5)	–
Preference Shares[(1)]	(2.7)	–	–	–	(2.7)
Trade and other payables	(845.9)	(829.1)	(16.8)	–	–
Total	**(4,286.4)**	**(1,217.9)**	**(467.7)**	**(1,872)**	**(728.8)**

(1) The preference shares pay an annual dividend of £100,000 in perpetuity, and accordingly it is not possible to determine total amounts payable for periods without a fixed end date.

Off-Balance Sheet Commitments and Arrangements

As of December 31, 2021, we did not have any off-balance sheet arrangements.

Critical Accounting Judgments and Key Sources of Estimation Uncertainty

Determining many of the amounts included in the financial statements involves the use of judgment and/or estimation. These judgments and estimates are based on management's best knowledge of the relevant facts and circumstances having regard to prior experience, but actual results may differ from the amounts included in the financial statements. Information about such judgments and estimates is included in Note 3 to the Financial Statements.

Quantitative and Qualitative Disclosures About Market Risk

Our activities expose us to a variety of market risks, including commodity price risk, currency risk, interest rate risk and other price risk. We periodically use derivative financial instruments to reduce exposure to foreign exchange, interest rate and commodity price movements. We do not use such derivative instruments for trading purposes.

Commodity price and exchange rate sensitivities

The following sensitivities show the estimated approximate impact on EBITDA for 2021 of a 10% movement in the average copper, molybdenum and gold prices and a 10% movement in the average U.S. dollar/Chilean peso exchange rate.

The impact of the movement in the average commodity prices reflects the estimated impact on the relevant revenues during 2021, and the impact of the movement in the average exchange rate reflects the estimated impact on Chilean peso denominated operating costs during the year. These estimates do not reflect any impact in respect of provisional pricing or hedging instruments, any potential inter-relationship between commodity price and exchange rate movements, or any impact from the retranslation or changes in valuations of assets or liabilities held on the balance sheet at the year-end.

	Average market commodity price/average exchange rate for the year ended December 31, 2019	Impact of a 10% movement in the commodity price/exchange rate on EBITDA for the year ended December 31, 2019	Average market commodity price/average exchange rate for the year ended December 31, 2020	Impact of a 10% movement in the commodity price/exchange rate on EBITDA for the year ended December 31, 2020	Average market commodity price/average exchange rate for the year ended December 31, 2021	Impact of a 10% movement in the commodity price/exchange rate on EBITDA for the year ended December 31, 2021
Copper price	$2.72/lb	460	$2.80/lb	456	$4.23/lb	676
Molybdenum price	$11.4/lb	30	$8.7/lb	24	$15.9/lb	36
Gold price	$1,393/oz	40	$1,770/oz	35	$1,799/oz	44
U.S. dollar/Chilean peso exchange rate	703	125	792	123	760	154

Interest Rate Risk

The sensitivity analysis below shows the impact of a movement in interest rates in relation to the financial instruments held as at December 31, 2021. The impact on profit or loss reflects the impact on annual interest expense in respect of the floating rate borrowings held as at the reporting date, and the impact on annual interest income in respect of cash and cash equivalents held as at December 31, 2021. The impact on equity is as a result of changes in the fair value of derivative instruments which are effective designated cash flow hedges. The calculation assumes that all other variables, such as currency rates, remain constant.

As at December 31, 2021, we are exposed to interest rate risk through the following financial instruments:

Floating Rate Borrowings	U.S. dollars (millions)
Corporate Loans	(2,294.5)
Other Loans	(219.5)

Leases	(15.9)

If the interest rate increased by 1%, based on the financial instruments held as at the reporting date, profit attributable to the owners of the parent would have decreased by $6.4 million (2020 – decrease of $1.7 million). This does not include the effect on the income statement of changes in the fair value of the Group's liquid investments relating to the underlying investments in fixed income instruments.

See "Management's Discussion and Analysis of Financial Condition and Results of Operations – Borrowings".

Accounting standards issued but not yet effective

The following accounting standards, interpretations and amendments have been issued by the IASB, but are not yet effective.

New Standards	**Effective Date (Subject to UK endorsement)**
IFRS 17, Insurance Contracts	Annual periods beginning on or after January 1, 2023
Amendments to Existing Standards	**Effective Date (Subject to UK endorsement)**
Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendments to IAS 12)	Annual periods beginning on or after January 1, 2023.
Classification of Liabilities as Current or Non-Current (Amendments to IAS 1)	Annual periods beginning on or after January 1, 2023.
Disclosure of Accounting Policies – Amendments to IAS 1 and IFRS Practice Statement 2	Annual periods beginning on or after January 1, 2023.
Definition of Accounting Estimates – Amendments to IAS 8	Annual periods beginning on or after January 1, 2023.
Reference to the Conceptual Framework (Amendments to IFRS 3)	Annual periods beginning on or after January 1, 2022.
Property, Plant and Equipment – Proceeds before Intended Used (Amendments to IAS 16)	Annual periods beginning on or after January 1, 2022.
Onerous Contracts – Costs of Fulfilling a Contract (Amendments to IAS 37)	Annual periods beginning on or after January 1, 2022.
Annual Improvements to IFRS Standards 2018-2020 (amendments to IFRS 1, IFRS 9, IFRS 16 and IAS 41)	Annual periods beginning on or after January 1, 2022.

We continue to evaluate the impact of adopting these new standards and amendments. The item which is expected to have most relevance to the Group is the amendment to IAS 16 Property, Plant and Equipment – Proceeds before Intended Use. Currently, we deduct amounts received from the sale of products during the initial ramp-up of new projects, before commercial production is achieved, from the capital cost of the project. Under the amendment to IAS 16 such amounts will instead be recognized as revenue in the income statement, resulting in increased revenue and a higher initial capitalized amount. The amendment will be applicable in the year beginning on January 1, 2022. The amendment applies retrospectively only to relevant projects in progress at January 1, 2021 which were generating proceeds, and there were no such projects at January 1, 2021.

RESERVES AND RESOURCES

Introduction

The ore reserves and mineral resources estimates presented in this listing memorandum comply with the requirements of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 edition (the "JORC Code") which has been used by us as minimum standard for the preparation and disclosure of the information contained herein. This standard differs from the mineral reserve disclosure requirements of the SEC set forth in subpart 1300 of Regulation S-K under the Securities Act. Consequently, there is no assurance that the reserve and resource information contained in this listing memorandum would be the same as those estimated in accordance with the rules of the SEC.

Our operations and projects are subject to a comprehensive program of audits aimed at providing assurance in respect of ore reserves and mineral resources estimates. The audits are conducted by suitably qualified Competent Persons (as defined in the JORC Code) from within a particular operation, another operation of our Group or from independent consultants.

The totals in the table may include some small apparent differences due to rounding. For a description of risks relating to reserves and reserve estimates, see "Risk Factors—Risks Relating to Our Business."

Definitions and Categories of Ore Reserves and Mineral Resources

A '**Mineral Resource**' is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are subdivided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

An '**Inferred Mineral Resource**' is that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.

An '**Indicated Mineral Resource**' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.

A '**Measured Mineral Resource**' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

An '**Ore Reserve**' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental,

social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves.

A '**Probable Ore Reserve**' is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified.

A '**Proved Ore Reserve**' is the economically mineable part of a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified.

Estimates

Ore reserve estimates

The following is a chart containing our ore reserve estimates as of December 31, 2021.

	Tonnage	Copper	Molybdenum	Gold	Attributable tonnage
	(millions of tonnes)	(%)	(%)	(g/tonne)	(millions of tonnes)
Los Pelambres (see note (a))					
Proved	612.3	0.60	0.020	0.05	367.4
Probable	343.8	0.57	0.019	0.05	206.3
Total	956.1	0.59	0.020	0.05	573.7
Centinela (see note (b))					
Centinela Concentrates (sulfides)					
Proved	545.6	0.45	0.012	0.17	381.9
Probable	1,138.7	0.39	0.013	0.12	797.1
Subtotal	1,684.3	0.41	0.012	0.14	1,179.0
Centinela Cathodes (oxides)					
Proved	76.4	0.54	–	–	53.5
Probable	222.9	0.34	–	–	156.1
Subtotal	299.3	0.39	–	–	209.5
Centinela Total					
Proved	622.0	0.46	–	–	435.4
Probable	1,361.6	0.38	–	–	953.1
Total	1,983.6	0.40	–	–	1,388.5
Antucoya (see note (c))					
Proved	435.9	0.33	–	–	305.1
Probable	309.6	0.30	–	–	216.7
Total	745.5	0.32	–	–	521.9
Zaldívar (see note (l))					
Proved	366.6	0.45	–	–	183.3
Probable	84.3	0.34	–	–	42.1
Total Group Joint Venture	450.8	0.43	–	–	225.4
Total	**4,136.2**	**0.43**	**–**	**–**	**2,709.5**

Mineral resources estimates (including ore reserves)

The following is a chart containing our ore mineral resource estimates (including ore reserves) as of December 31, 2021.

	Tonnage	Copper	Molybdenum	Gold	Attributable tonnage
	(millions of tonnes)	(%)	(%)	(g/tonne)	(millions of tonnes)
Los Pelambres (see note (a))					
Measured	1,093.4	0.58	0.020	0.05	656.1
Indicated	2,135.0	0.52	0.016	0.05	1,281.0
Measured + Indicated	3,228.4	0.54	0.018	0.05	1,937.1
Inferred	2,729.0	0.46	0.016	0.06	1,637.4
Total	**5,957.4**	**0.50**	**0.017**	**0.06**	**3,574.5**

	Tonnage	Copper	Molybdenum	Gold	Attributable tonnage
	(millions of tonnes)	(%)	(%)	(g/tonne)	(millions of tonnes)
Centinela (see note (b))					
Centinela Concentrates (sulfides)					
Measured	956.3	0.48	0.013	0.19	669.4
Indicated	1,903.3	0.37	0.013	0.12	1,332.3
Measured + Indicated	2,859.7	0.41	0.013	0.14	2,001.8
Inferred	1,232.5	0.30	0.011	0.08	862.7
Subtotal	**4,092.1**	**0.38**	**0.013**	**0.12**	**2,864.5**
Centinela Cathodes (oxides)					
Measured	109.6	0.52	–	–	76.7
Indicated	316.2	0.32	–	–	221.3
Measured + Indicated	425.8	0.37	–	–	298.0
Inferred	16.1	0.33	–	–	11.3
Subtotal	**441.9**	**0.37**	**–**	**–**	**309.3**
Centinela Total					
Measured	1,065.9	0.49	–	–	746.2
Indicated	2,219.5	0.36	–	–	1,553.6
Measured + Indicated	3,285.4	0.40	–	–	2,299.8
Inferred	1,248.6	0.30	–	–	874.0
Total	**4,534.0**	**0.38**	**–**	**–**	**3,173.8**
Antucoya (see note (c))					
Measured	465.4	0.33	–	–	325.7
Indicated	388.9	0.30	–	–	272.2
Measured + Indicated	854.3	0.31	–	–	598.0
Inferred	337.4	0.26	–	–	236.2
Total	**1,191.6**	**0.30**	**–**	**–**	**834.1**
Polo Sur (see note (d))					
Oxides					
Measured	32.4	0.49	–	–	32.4
Indicated	69.5	0.40	–	–	69.5
Measured + Indicated	101.9	0.43	–	–	101.9
Inferred	6.6	0.41	–	–	6.6
Subtotal	**108.5**	**0.43**	**–**	**–**	**108.5**
Sulfides					
Measured	281.4	0.39	0.007	0.07	281.4
Indicated	654.9	0.34	0.006	0.05	654.9
Measured + Indicated	936.4	0.35	0.006	0.06	936.4
Inferred	612.1	0.27	0.005	0.04	612.1
Subtotal	**1,548.5**	**0.32**	**0.006**	**0.05**	**1,548.5**
Total	**1,657.0**	**0.33**	**–**	**–**	**1,657.0**
Penacho Blanco (see note (e))					
Oxides					
Measured	–	–	–	–	–
Indicated	–	–	–	–	–
Measured + Indicated	–	–	–	–	–
Inferred	18.3	0.29	–	–	9.3
Subtotal	**18.3**	**0.29**	**–**	**–**	**9.3**

	Tonnage	Copper	Molybdenum	Gold	Attributable tonnage
	(millions of tonnes)	(%)	(%)	(g/tonne)	(millions of tonnes)
Sulfides					
Measured	–	–	–	–	–
Indicated	–	–	–	–	–
Measured + Indicated	–	–	–	–	–
Inferred	321.9	0.38	0.002	0.05	164.2
Subtotal	**321.9**	**0.38**	**–**	**0.05**	**164.2**
Total	**340.2**	**0.37**	**–**	**–**	**173.5**
Mirador (see note (f))					
Oxides					
Measured	2.0	0.29	–	–	1.6
Indicated	22.6	0.27	–	–	17.6
Measured + Indicated	24.6	0.28	–	–	19.2
Inferred	9.7	0.27	–	–	7.6
Subtotal	**34.3**	**0.27**	**–**	**–**	**26.8**
Sulfides					
Measured	35.4	0.34	0.006	0.12	35.4
Indicated	19.9	0.28	0.008	0.07	19.9
Measured + Indicated	55.3	0.31	0.007	0.11	55.3
Inferred	4.0	0.25	0.008	0.06	4.0
Subtotal	**59.2**	**0.31**	**0.007**	**0.10**	**59.2**
Total	**93.5**	**0.30**	**–**	**–**	**86.0**
Los Volcanes (see note (g))					
Oxides					
Measured	–	–	–	–	–
Indicated	–	–	–	–	–
Measured + Indicated	–	–	–	–	–
Inferred	30.8	0.31	–	–	15.7
Subtotal	**30.8**	**0.31**	**–**	**–**	**15.7**
Sulfides					
Measured	–	–	–	–	–
Indicated	–	–	–	–	–
Measured + Indicated	–	–	–	–	–
Inferred	1,873.4	0.50	0.011	0.03	955.4
Subtotal	**1,873.4**	**0.50**	**0.011**	**0.03**	**955.4**
Total	**1,904.2**	**0.50**	**–**	**–**	**971.1**
Brujulina (see note (h))					
Oxides					
Measured	–	–	–	–	–
Indicated	–	–	–	–	–
Measured + Indicated	–	–	–	–	–
Inferred	87.2	0.49	–	–	44.5
Total	**87.2**	**0.49**	**–**	**–**	**44.5**

	Tonnage	Copper	Molybdenum	Gold	Attributable tonnage
	(millions of tonnes)	(%)	(%)	(g/tonne)	(millions of tonnes)
Sierra (see note (i))					
Oxides					
Measured	–	–	–	–	–
Indicated	–	–	–	–	–
Measured + Indicated	–	–	–	–	–
Inferred	52.0	0.69	–	–	52.0
Total	**52.0**	**0.69**	**–**	**–**	**52.0**
Cachorro (see note (j))					
Oxides					
Measured	–	–	–	–	–
Indicated	–	–	–	–	–
Measured + Indicated	–	–	–	–	–
Inferred	12.4	1.23	–	–	12.4
Subtotal	**12.4**	**1.23**	**–**	**–**	**12.4**
Sulfides					
Measured	–	–	–	–	–
Indicated	–	–	–	–	–
Measured + Indicated	–	–	–	–	–
Inferred	129.2	1.21	–	–	129.2
Subtotal	**129.2**	**1.21**	–	–	**129.2**
Total	**141.6**	**1.21**	**–**	**–**	**141.6**

	Tonnage	Copper	Nickel	TPM	Attributable tonnage
	(millions of tonnes)	(%)	(%)	(g/tonne Au+Pt+Pd)	(millions of tonnes)
Twin Metals (see note (k))					
Maturi					
Measured	291.4	0.63	0.20	0.57	224.6
Indicated	818.3	0.57	0.18	0.57	771.6
Measured + Indicated	1,109.7	0.59	0.19	0.57	996.1
Inferred	534.1	0.50	0.16	0.57	483.2
Subtotal	**1,643.8**	**0.56**	**0.18**	**0.57**	**1,479.3**
Birch Lake					
Measured	–	–	–	–	–
Indicated	90.4	0.52	0.16	0.87	63.3
Measured + Indicated	90.4	0.52	0.16	0.87	63.3
Inferred	217.0	0.46	0.15	0.64	151.9
Subtotal	**307.4**	**0.48**	**0.15**	**0.70**	**215.2**
Spruce Road					
Measured	–	–	–	–	–
Indicated	–	–	–	–	–
Measured + Indicated	–	–	–	–	–
Inferred	435.5	0.43	0.16	–	304.8
Subtotal	**435.5**	**0.43**	**0.16**	**–**	**304.8**

	Tonnage	Copper	Nickel	TPM	Attributable tonnage
	(millions of tonnes)	(%)	(%)	(g/tonne Au+Pt+Pd)	(millions of tonnes)
Maturi South West					
Measured	–	–	–	–	–
Indicated	93.1	0.48	0.17	0.31	65.2
Measured + Indicated	93.1	0.48	0.17	0.31	65.2
Inferred	29.3	0.43	0.15	0.26	20.5
Subtotal	**122.4**	**0.47**	**0.17**	**0.30**	**85.7**
Twin Metals Total					
Measured	291.4	0.63	0.20	0.57	224.6
Indicated	1,001.8	0.56	0.18	0.57	900.0
Measured + Indicated	1,293.2	0.57	0.18	0.57	1,124.6
Inferred	1,215.9	0.47	0.16	0.37	960.4
Total	**2,509.1**	**0.52**	**0.17**	**0.47**	**2,085.0**

	Tonnage	Copper	Molybdenum	Gold	Attributable tonnage
	(millions of tonnes)	(%)	(%)	(g/tonne)	(millions of tonnes)
Group Subsidiaries					
Measured + Indicated	9,779.5	0.46	–	–	7,072.2
Inferred	8,688.4	0.44	–	–	5,720.9
Total	**18,467.9**	**0.45**	**–**	**–**	**12,793.2**
Zaldívar					
(see note (l))					
Oxides & Secondary Sulfides					
Measured	660.5	0.40	–	–	330.2
Indicated	168.7	0.30	–	–	84.4
Measured + Indicated	829.2	0.38	–	–	414.6
Inferred	23.0	0.30	–	–	11.5
Subtotal	**852.2**	**0.38**	**–**	**–**	**426.1**
Primary Sulfides					
Measured	119.5	0.41	–	–	59.8
Indicated	309.8	0.40	–	–	154.9
Measured + Indicated	429.3	0.40	–	–	214.7
Inferred	28.3	0.37	–	–	14.1
Subtotal	**457.6**	**0.40**	**–**	**–**	**228.8**
Zaldívar Total					
Measured	780.0	0.40	–	–	390.0
Indicated	478.5	0.36	–	–	239.3
Measured + Indicated	1,258.5	0.39	–	–	629.3
Inferred	51.3	0.34	–	–	25.7
Total	**1,309.9**	**0.38**	**–**	**–**	**654.9**
Total Group					
Measured + Indicated	11,038.1	0.45	–	–	7,701.5
Inferred	8,739.7	0.43	–	–	5,746.6
Total Mineral Resources	**19,777.8**	**0.44**	**–**	**–**	**13,448.1**

Notes to Ore Reserves and Mineral Resources

The ore reserves mentioned above were determined considering specific cut-off grades for each mine and using a long-term copper price of $3.10/lb (unchanged from 2020), $11.00/lb molybdenum ($9.50/lb in 2020) and $1,500/oz gold (unchanged from 2020), unless otherwise noted. These same values have been used for copper equivalent (CuEq) estimates, where appropriate.

In order to ensure that the stated resources represent mineralization that has "reasonable prospects for eventual economic extraction" (JORC Code) the resources are enclosed within pit shells that were optimized based on measured, indicated and inferred resources and considering a copper price of $3.60/lb (unchanged from 2020). Mineralization estimated outside these pit shells is not included in the resource figures.

Our policy on auditing of resource and reserve estimates is that prior to first publication, an independent external audit is done. External audits are also done on resources and reserves for any material changes (incorporation of a significant amount of drillhole information, for instance) or every three to five years, whichever comes first. All the resource models that support the reserve estimates and reserves have been audited as per Group policy, with an audit carried out during 2021 on the Cachorro resource model. All resource and reserve estimates have been found to comply with the JORC Code (2012).

A) Los Pelambres

We own 60% of Los Pelambres. The cut-off grade applied to the determination of mineral resources is 0.35% copper, while the cut-off grade applied for mineral reserves is variable over 0.35% copper. Ore reserves have decreased 54 million tonnes due principally to depletion in the period and reflects the remaining capacity of the existing tailing dams, limiting the amount of mineral resource that can be converted into ore reserves. Mineral resources decreased overall by a net 89 million tonnes, including depletion. Due to the new drilling – 34 drillholes for a total of 9,042 m – to improve the quality of resources, measured and indicated resources increased by 12 million tonnes while inferred resources decreased by 25 million tonnes.

B) Centinela (concentrates and cathodes)

We own 70% of Centinela, which consists of Centinela Concentrates (Esperanza and Esperanza Sur and Encuentro Sulphide, mostly sulfide porphyry deposits) and Centinela Cathodes (Tesoro Central and Tesoro Sur, oxide deposits, including the oxide portion of the Mirador, Encuentro and Llano deposits). The cut-off grade applied to the determination of ore reserves for Centinela Concentrates is 0.15% equivalent copper, with 0.15% copper used as a cut-off grade for mineral resources. The cut-off grades used at Centinela Cathodes are 0.20% copper for ore reserves and 0.15% copper for mineral resources.

The Centinela Cathodes ore reserves have decreased by a net 25 million tonnes, due mainly to depletion and to higher processing costs. Centinela Cathodes ore reserves are made up of 185 million tonnes at 0.47% copper of heap leach ore and 114 million tonnes at 0.26% copper of ROM ore. Centinela Cathodes mineral resources decreased by a net 34 million tonnes, due mainly to depletion and higher processing costs.

Centinela Concentrates ore reserves have decreased by a net 54 million tonnes, including depletion of 25 million tonnes and the remaining due to higher ore rehandling from stockpiles.

C) Antucoya

We own 70% of Antucoya. The ore reserve cut-off grade is 0.16% copper, while the cut-off grade for mineral resources is 0.15% copper. For 2021 the mineral resource model has been updated with 44

drillholes for a total of 11,000 metres. Ore reserves have increased by a net 35 million tonnes, including a depletion of 33 million tonnes and 10 million tonnes less due to revised economic parameters, offset by an increase in resources converted to reserves of 78 million tonnes. Mineral resources have decreased by a net 44 million tonnes, due mostly to depletion.

D) Polo Sur

We own 100% of Polo Sur. The cut-off grade applied to the determination of mineral resources for both oxides and sulphides is 0.20% copper. The 2021 resource model has not been updated.

E) Penacho Blanco

We own 51% of Penacho Blanco. The cut-off grade applied to the determination of mineral resources for both oxides and sulphides is 0.20% copper. For 2021 the resource model has not been updated.

F) Mirador

We own 100% of Mirador. A portion of Mirador Oxides is subject to an agreement between the Group and Centinela, whereby Centinela purchased the rights to mine the oxide ore reserves within an identified area. The mineral resources for Mirador Oxides subject to the agreement with Centinela are included in the Centinela Cathodes section. The resources not subject to the agreement are reported in this section. The cut-off grade applied to the determination of mineral resources for oxides is 0.15% copper and for sulphides is 0.20% copper. Mineral resources have increased by a net 1.2 million tonnes due to lower mining and processing costs.

G) Los Volcanes

We own 51% of Los Volcanes. The cut-off grade applied to the determination of ore reserves and mineral resources is 0.20% copper. For 2021 the mineral resource model has not been updated.

H) Brujulina

We own 51% of Brujulina. The cut-off grade applied to the determination of mineral resources is 0.30% copper. For 2021 the mineral resource model has not been updated.

I) Sierra

We own 100% of Sierra. The cut-off grade applied to the determination of mineral resources is 0.30% copper. For 2021 the mineral resource model has not been updated.

J) Cachorro

We own 100% of Cachorro. It is a maiden mineral resource report, supported by 105,042 metres of drilling from 176 drillholes. The cutoff grade applied to the determination of mineral resources for both oxides and sulphides is 0.50% copper. This project corresponds to the Group’s last discovery generated by the greenfield exploration programme based upon exploratory methods in gravel covered areas.

K) Twin Metals Minnesota LLC

We own 100% of Twin Metals Minnesota LLC (“Twin Metals”).

Twin Metals has a 70% interest in the Birch Lake Joint Venture (“BLJV”), which holds the Birch Lake, Spruce Road and Maturi Southwest deposits, as well as a portion of the main Maturi deposit. With

these interests taken into consideration, Twin Metals owns 83.1% of the resource. For 2021 the mineral resource model has not been updated.

The cut-off grade applied to the determination of mineral resources is 0.3% copper, which when combined with credits from nickel, platinum, palladium and gold, is deemed appropriate for an underground operation. In the resource table 'TPM' (Total Precious Metals) refers to the sum of platinum, palladium and gold values in grammes per tonne. The TPM value of 0.57 g/tonne for the Maturi resource estimate is made up of 0.15 g/tonne platinum, 0.34 g/tonne palladium and 0.08 g/tonne gold. The TPM value of 0.30 g/tonne for the Maturi Southwest resource estimate is made up of 0.08 g/tonne platinum, 0.17 g/tonne palladium and 0.05 g/tonne gold. The TPM value of 0.70 g/tonne for the Birch Lake resource estimate is made up of 0.19 g/tonne platinum, 0.41 g/tonne palladium and 0.10 g/tonne gold. The Spruce Road resource estimate does not include TPM values as they were not assayed.

Twin Metals is currently evaluating its legal options in light of the federal lease cancellation and rejection of its preference right lease applications (PRLAs) and prospecting permit applications (PPAs).

The PRLAs and federal mineral leases form a significant proportion of the mineral resources contained within Twin Metals' current project plan. If Twin Metals is unsuccessful reverting the decisions on the federal leases 1352 and 1353 and the PRLAs through litigation, it will not have entitlement to the mineral resources associated with those mineral licenses.

L) Zaldívar

We own 50% of Zaldívar. Heap leaching (HL) and dump leaching (DL) materials are defined based on total copper cut-off grades (COG). The cut-off grade applied to the determination of ore reserves for Heap Leach ore is 0.30% copper, while the cut-off grade for dump leach material is 0.21% copper. For resources the COG is 0.21% for HL and 0.10% for DL, throughout the LOM period. The COG applied to the primary mineral resources is 0.30%. For the 2021 statement report, the resources model was updated through the addition of geological and grade information obtained from 18,191m new drillholes. The mineral resources increased by 41 million tonnes because of the combined effects of depletion and new information added. Ore reserves have decreased by a net 17 million tonnes, due mainly to depletion and the remaining decrease is due to higher mining and processing costs.

In the southern part of the deposit (Phase 13), the final pit impacts a portion of Minera Escondida mine property and some infrastructure owned by third parties (road, railway, powerline, and pipeline). Mining of this pit phase is subject to agreements or easements to access these areas and relocate this infrastructure.

M) Antomin 2 and Antomin Investors

We have an approximately 51% interest in two indirect subsidiaries, Antomin 2 Limited ("Antomin 2") and Antomin Investors Limited ("Antomin Investors"), which own several copper exploration properties in Chile's Antofagasta Region and Coquimbo Region. These include, among others, Penacho Blanco, Los Volcanes and Brujulina. The remaining approximately 49% of Antomin 2 and Antomin Investors is owned by Mineralinvest Establishment, a company controlled by E. Abaroa Foundation, in which members of the Luksic family are interested.

INDUSTRY

Certain information provided in this listing memorandum has been sourced from third parties. We confirm that such third-party information has been accurately reproduced and that, so far as we are aware and are able to ascertain from information published by such third parties, no facts have been omitted which would render the third-party information reproduced herein inaccurate or misleading. All information in this listing memorandum attributed to "Wood Mackenzie" is sourced from the "Wood Mackenzie Global Copper Outlook – December 2021" report, dated December, 2021.

Markets

Copper

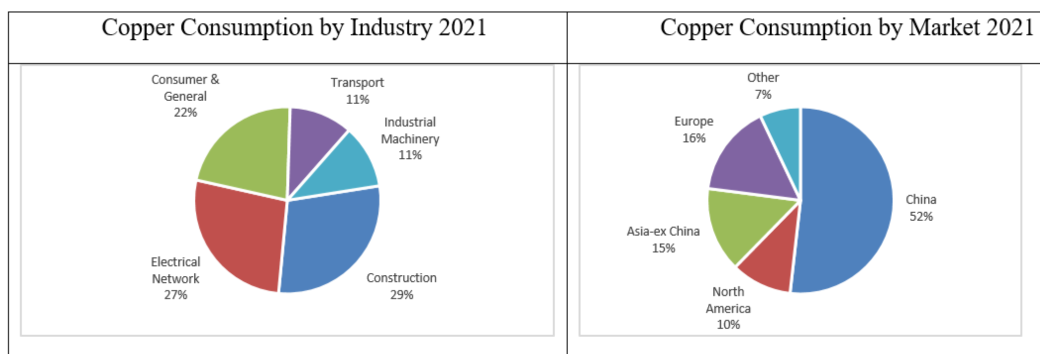
Copper is the world's third most used metal and is a key component in a wide range of sectors, including electrical network, construction, industrial machinery, transport and consumer products. Copper applications are diverse and are present in daily life products ranging from mobile telephones to air conditioning, heating and electrical wiring for residential use. Copper has unique properties for its diverse uses: it is corrosion resistant, extremely malleable and it is the non-precious metal with the best electric conductivity.

Demand

According to Wood Mackenzie, global copper demand is mainly driven by the construction and the electrical network sectors, accounting for over half of total copper demand in 2021 (56%), followed by the consumer and general sector (22%), transport (11%) and industrial machinery sector (11%). Global copper consumption in 2021 totaled 30.6 million tonnes.

Geographically, China remains the largest consumer of copper, representing 51% of total copper demand, followed by Europe and the United States.

2021 Global Copper Consumption by Market and Country



Source: Wood Mackenzie

Wood Mackenzie expects global demand growth over the coming years to be largely driven by the rate of urbanization, decarbonization in the energy space, electromobility and a greater use of technological products. These dominant trends are impacting demand growth at different rates in different countries.

The increase in urbanization and industrialization is affecting numerous countries across the globe, which has led to an increase in the demand for wiring, plumbing, heating and cooling products for

residential and commercial uses, as well as telecommunications, transport and power services. Copper is a key component in the production of these products.

According to Wood Mackenzie, the rise of renewable sources of energy positively impacts the demand for copper as solar and wind technologies need four to six times as much copper as conventional energy technologies. Greater spending on electrical and technological goods is expected in the coming years and will lead to higher electricity consumption and an upgraded distribution system as well as higher quality copper telecommunications cables in residential and business properties. There has been an increase in electric vehicles in recent years, mainly in China, the United States and European countries. This trend positively impacts the copper industry as electric vehicles contain, on average, four times the amount of copper as conventional vehicles.

The near- to medium-term outlook for the copper market will continue to be overshadowed by the COVID-19 pandemic. The most significant impact on the market is likely to be ongoing supply chain disruption, as has been the case over the past couple of years. Given copper's key role within the energy transition, and a realization that in the medium to long term there is a growing supply gap and limited supply elasticity, the market is expected to move into deficit in the next few years.

In the shorter term, the emergence of new COVID-19 variants could derail continued strong global growth in GDP, which is expected to exceed 4% during 2022. This will feed through to demand which, together with a modest supply response, will keep the metal market finely balanced in 2022. As new supply from projects currently under construction comes to the market, this will push the metal market into a surplus in 2023

Supply

Chile is the leading country in terms of copper supply, followed by Peru, China, the Democratic Republic of the Congo and the United States. While copper production is relatively concentrated in South America, smelters and refiners are often located closer to the end-consumer, and China stands as an important player in this segment.

Supply growth has been limited in 2021 with few mines brought into production during the year and a limited pipeline of new projects in the coming years. Additionally, it is estimated by Wood Mackenzie that the general industry decline in copper grade will result in approximately 200-300,000 tonnes less of copper produced annually from existing mining operations.

Most of the new copper production in the world is in the form of concentrates and these volumes have been largely absorbed by new smelter capacity in China. Further increases in smelter capacity, in a period when the growth in concentrate production is expected by Wood Mackenzie to be limited, will keep the copper concentrate market in deficit and TC/RCs low, although it is subject to the impact of COVID-19.

Global copper refined capability is expected by Wood Mackenzie to reach 24.5Mt in 2022, a 4.3% increase compared with 2021.

Supply and demand fundamentals – pricing environment

The outbreak of COVID-19 continues to has impacted global GDP growth and disruptions caused in supply chains will continue to put a strain on global GDP growth. However as economies opened up and economic activity resumed after effective vaccination strategies, copper prices have risen by more than 50% in 2021 compared to 2020.

In 2021, the average LME copper price was U.S.$4.23/lb (U.S.$9,525 per tonne).

Gold

Demand for gold falls into five main categories: jewelry, bar and coin, ETF demand, Central Bank purchases and other industrial applications like dentistry and electronics.

According to the World Gold Council, gold jewelry represents the largest source of demand, and accounts for approximately 55% of total demand. In terms of geographic breakdown, India and China account for more than 50% of global demand. The Asian and Middle Eastern markets are dominated by demand for purer, high cartage gold.

In terms of supply, gold originates from two main sources: global mine output and recycled supply. The gold supply chain is global, and gold is mined on all continents and refined into bars and coins in a variety of countries. China was the largest global producer in 2021 and accounted for approximately 12% of total global production, followed by Australia (~11%), Russia (~10%), United States (~6%), Canada (~6%) and Ghana (~4%), according to the U.S. Geological survey.

The gold price is strongly correlated with inflation levels in the long run, although short term prices can be influenced by political and financial turmoil.

The gold price during 2021 fell by approximately 3.5%, peaking in January at U.S.$1,952/oz. Gold investment demand was mixed over the course of 2021 with the opposing forces of high inflation and rising yields competing for investors' attention. Demand for gold in consumer-driven jewelry and technology sectors recovered over the course of 2021 in line with economic growth and sentiment versus 2020. Gold averaged U.S.$1,798/oz in 2021 compared with U.S.$1,772/oz in 2020 and closed 2021 at U.S.$1,828/oz. Gold prices have increased year-to-date due to uncertainty around the Russian invasion of Ukraine and its potential impact on the global economy which saw a flight to safety. A combination of increased investor and central bank demand amid economic and geopolitical uncertainty, as well as resilient Asian retail demand, have caused the gold price to hit highs in the past months, reaching a year-high of U.S.$2,040/oz on March 8, 2022.

Molybdenum

Molybdenum is a metallic element mainly used as an alloying element in steels, cast irons and superalloys to increase hardenability, strength and resistance to wear and corrosion.

The molybdenum price performed strongly over the course of 2021, averaging U.S.$15.9/lb compared to the 2020 average of U.S.$8.7/lb. It strengthened over the course of 2021 to average U.S.$19.1/lb and U.S.$18.9/lb in Q3 and Q4 2021 respectively due to an increase in demand from the oil and gas sector. As oil prices are a reasonable proxy to estimate molybdenum price, the molybdenum price has remained strong in the first quarter of 2022.

Molybdenum production comes mainly as a by-product of copper mining operations as well as primary mines, principally in the United States and China.

REGULATION

The following is a summary of the principal laws, rules and regulations applicable to mining activities in Chile.

Mining Regulations

Our exploration and mining activities are subject to Chilean laws and regulations which are generally applicable to all Chilean companies in the mining sector. The legal framework which regulates the mining concessions is contained in Chile's Constitution, the Constitutional Law Governing Mining Concessions (Law 18,097 of January 21, 1982) and the Mining Code (Law 18,248 of October 14, 1983) and Mining Code Regulation. Under Chilean mining law, the State of Chile is the owner of all mineral and fossil substances, regardless of who owns the surface land in which such substances are located. Private persons and companies may obtain mining concessions for exploration and exploitation. These concessions are granted by judicial resolutions in accordance with the Mining Code and are protected by property rights.

Mining concessions are transferable, mortgageable and irrevocable and regulated by the same civil law that regulates real estate rights generally. Generally, the owner of a mining concession may occupy as much of the surface land as is necessary for mining activities upon the creation of a mining easement or upon other authorization given by the land owner, such as a lease agreement or a license. Mining easements can be obtained by way of direct negotiation with the surface land owner or, if the latter opposes, by way of a summary procedure before the relevant court. Regardless of how the mining easement is obtained, the party granting the easement is entitled to compensation should the mining activities and works caused by the owner of the mining concession cause damage. Exploitation concessions have an indefinite duration. Exploration concessions are granted for two years and may be extended for a maximum of two additional years subject to waiving at least half of the area originally allocated. Prior to the expiration of the first or the second two-year period, exploration concessions can be converted to exploitation concessions. If they are not so converted, the exploration concession terminates.

Owners of mining concessions must pay an annual fee equivalent to approximately U.S. $1.3 per hectare in the case of exploration concessions and approximately U.S.$6.5 per hectare in the case of exploitation concessions. The latter fees, within certain limits, may be credited to income taxes originated through the exploitation of the concession. Payments of the annual fees must be made in March of each year. Failure to make the annual fee payments may result in the loss of title to the concession through its auction.

On October 25, 2020, Chile held a nationwide referendum which resulted in the approval of a plan to call a Constitutional Convention, which was elected in May 2021, to draft a new constitution. The Constitutional Convention will deliver a final draft of the new constitution to be submitted to a public referendum on September 4, 2022 for approval by a simple majority vote. Separately, a proposed new mining royalty in the form of a revenue-based progressive marginal rate linked to copper prices was approved by the Chilean government's lower house of Congress in 2021 and, earlier this year, a version of the bill was published for debate by the Chilean Senate. There can be no assurance that the new constitution, or laws or regulations enacted under the new constitution, or the adoption of a new mining royalty, will not result in material changes to the principal laws, rules and regulations applicable to mining activities in Chile. See "Risk Factors—Our growth and profitability depend on political stability and economic activity in Chile" and "—New mining royalties could affect our business, results of operations and financial condition."

Environmental Regulations

Our operations are subject to national, regional and local regulations as well as international treaties subscribed by the Government of Chile and enacted as Chilean domestic law regarding the protection of the environment, natural resources and the effect of the environment on human health and safety, including laws and regulations concerning water, air and noise pollution, the handling, disposal and transportation of hazardous waste and occupational health and safety.

The General Environmental Law (Law No. 19,300), enacted in March 1994 and modified by Law No. 20,417, enacted in 2010, establishes the general environmental legal framework in Chile, including the establishment of a range of environmental management mechanisms known as SEIA, the Emission Standards and the Environmental Quality Standards, among others. Chilean environmental laws and regulations, and the enforcement thereof, have become increasingly stringent since 2010. Such amendments include, among other significant modifications, the creation of a new institutional framework comprised by: (i) the Ministry of the Environment (*Ministerio del Medio Ambiente*); (ii) the Council of Ministers for Sustainability (*Consejo de Ministros para la Sustentabilidad*); (iii) the Environmental Assessment Service (*Servicio de Evaluación Ambiental*) ("SEA"); (iv) the Bureau of the Environment (*Superintendencia del Medio Ambiente*) ("SMA"); and (v) the Environmental Courts, regulated in Law No. 20,600 (*Tribunales Ambientales*), each of which are in charge of designing, evaluating and enforcing laws and regulations relating to projects and activities that could have an environmental impact. These institutions are fully operational. Recent legal and regulatory changes are likely to impose additional restrictions or costs and also increased fines due to non-compliance with such laws and regulations, relating to environmental litigation and protection of the environment, particularly those related to flora and fauna, wildlife protected areas, water quality standards, mine closure, air emissions, and soil pollution. Since the Bureau of the Environment became fully operational on December 28, 2012, infringement of environmental regulations may result in fines of up to approximately U.S.$8.7 million, the closure of facilities and the revocation of environmental approvals. As described in more detail below, we incur, and may be required in the future to incur, substantial capital and operating costs related to environmental compliance. However, many of these costs are inextricably intertwined with the operation of our business as a whole.

The General Environmental Law, as complemented by additional regulations, enables the Government of Chile to: (i) bring administrative and judicial proceedings against companies that violate environmental laws, seeking compensations or reparation of the environmental damages; (ii) close non-complying facilities; (iii) revoke required operating licenses; (iv) require that companies to submit their projects for environmental evaluation as required by applicable law; (v) impose sanctions and fines when companies act negligently, recklessly or deliberately in connection with environmental matters; and (vi) enforce compliance of non-complying commitments. The General Environmental Law also grants citizens the right to bring civil actions against companies that are not in compliance with environmental laws and regulations when such companies have caused "environmental damage," as defined in such law.

The General Environmental Law and its regulations contain certain rules on Environmental Impact Assessments ("EIA") and provide that we must evaluate the environmental impact of any future project or activity listed in article 10 of Law 19,300 by means of an environmental impact declaration or an environmental impact study depending on the significance of the environmental impacts associated. We have conducted these environmental impact declarations and studies pursuant to the General Environmental Law.

Chile has adopted environmental regulations requiring companies operating in Chile to undertake programs to reduce, control and/or eliminate certain environmental impacts.

To protect and improve environmental air quality in the country, the Ministry of the Environment has the authority to declare certain areas to be "latent zones" (*zonas latentes*) or "saturated zones" (*zonas saturadas*). Upon such a declaration, these zones will be subject to increased regulation.

Chile enacted in 2011 Law No. 20,551 on Closure of Mining Sites and Facilities, compelling mining companies to prepare and present for authorization of SERNAGEOMIN, a "closure plan," containing diverse technical measures and actions that should be implemented at the time of closing facilities and sites in order to prevent, minimize and control risks to the life and integrity of people, and mitigate the operational effects on the comprised environmental components, assuring their physical and chemical stability. This law includes health, safety and environmental requirements along with mandatory provisions that require financial guarantees. According to this law, all mining companies in Chile are required to submit an assessment of the closure expenses of all its mines to SERNAGEOMIN. These plans must be updated every five years and must consider the requirements set forth in the environmental authorization issued for the respective facility, if any. SERNAGEOMIN has approved the closure plans that we have prepared for each of our mines.

Future legislative or regulatory developments, private causes of action or the discovery of new facts relating to environmental matters may impose new restrictions or result in additional costs that may have a material adverse effect on our business, financial condition, results of operations or prospects. See "Risk Factors—Risks Related to Our Business—Future compliance with a changing and complex regulatory scheme may require changes in our business."

Transport Regulations

Railway activity is a government function delegated or entrusted to individuals through concession decrees issued by the Chilean president, through which they are empowered or authorized to build and operate railways, with the rights and obligations established by law, and those determined by the concession decree. The state maintains the right to supervise and control the railways, primarily to oversee the correct operation and safety of rail transport, through the Department of Land Transportation of the Undersecretary of Transportation. The legal regime of public service railways is essentially contained in the General Railways Law of 1931 (Decree No. 1,157/1931) and in DFL 1/1993, organic law of the State Railways Company (*Empresa de Ferrocarriles del Estado*) ("EFE"), when it comes to EFE networks concessions. Existing private railways, such as our Transport division (which mainly operates its own network essentially dedicated to cargo), are primarily governed by the General Railways Law of 1931.

BUSINESS

Overview

We are a leading Chile-based international copper mining group that also has significant production of gold and molybdenum as by-products. We are incorporated under the laws of England and Wales, have been listed on the London Stock Exchange since 1888, and are a constituent of the FTSE 100 index, as well as the ESG focused FTSE4Good and STOXX ESG Leaders indexes.

We engage primarily in the exploration, development and extraction of ores bearing copper and by-products, the processing of ore and the international sale of copper cathodes and copper concentrates. We operate four producing mines in Chile. We also engage in exploration activities in Chile and elsewhere in the Americas and own a transport division that provides rail and road cargo services in northern Chile, predominantly to mining customers, including some of our own operations.

The four mines we operate (Los Pelambres, Centinela, Antucoya, Zaldívar) are located in the Coquimbo and Antofagasta regions of Chile. As of December 31, 2021, these four operating mines had approximately 4,136.2 million tonnes of proven and probable ore reserves (including 100% of the proven and probable reserves at Zaldívar).

We believe the high quality of our core mining assets is one of our key strengths. Los Pelambres, a world-class copper mine, contains proven and probable ore reserves totaling 956.1 million tonnes as at December 31, 2021, and produced 324,700 tonnes of copper in 2021. Centinela contains proven and probable ore reserves totaling 1,983.6 million tonnes as at December 31, 2021, and produced 274,200 tonnes of copper in 2021. Antucoya contains proven and probable ore reserves totaling 745.5 million tonnes as at December 31, 2021, and produced 78,600 tonnes of copper in 2021. Zaldívar, which is a joint venture with Barrick Gold Corporation in which we hold a 50% interest, contains proven and probable ore reserves totaling 450.8 million tonnes as at December 31, 2021 (reflecting 100% of the proven and probable reserves at Zaldívar), and produced 44,000 tonnes of copper (on a 50% basis, reflecting our percentage of ownership) in 2021.

Our main commercial products are copper concentrates and copper cathodes. We also produce and sell molybdenum concentrate. For the year ended December 31, 2021, we derived 85.9% of our total revenue from copper and 11.9% of our total revenue from gold, molybdenum and silver by-product production.

In addition, we also hold significant transport assets in our Transport division, which is mainly focused on the transport of copper cathodes and concentrates from, and the transport of sulfuric acid to, mining operations in the Antofagasta region of Chile. Total transport volumes in 2021 were 6.7 million tonnes, an increase of 4.0% from 6.4 million tonnes in 2020. In total, in 2021 the Transport division operated approximately 700 km of railroad and 75 locomotives.

We strive for operating efficiency, creation of sustainable value, high profitability, and to be a preferred partner in the global mining industry. We are committed to our purpose of Developing Mining for a Better Future. Based on this approach, in 2019 we adopted a strategic framework designed to underpin our long-term success. We built this framework around five pillars: disciplined growth, development of our people, the safety and sustainability of our operations, innovation, and competitiveness. We have also put in place a clear set of near- and medium-term goals for the organization based on this framework.

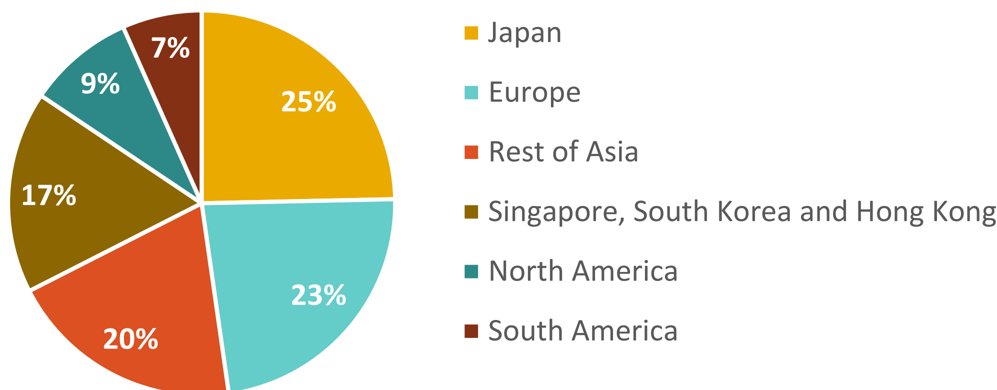
We are focused on improving efficiency through debottlenecking and incremental plant expansions at our existing mines, as these projects often have lower capital expenditure requirements and generate higher returns than greenfield projects. We currently have two main brownfield expansion projects in various stages of progress at our existing operations, including the opening of the Esperanza Sur pit at

Centinela and an expansion of the Los Pelambres operation (the "Los Pelambres Expansion"). In particular, the Los Pelambres Expansion is expected to increase production by an average of 60,000 tonnes per year over 15 years, with the associated desalination plant supplying water for the expansion and acting as a back-up for the existing operation in dry conditions, such as those the region has been experiencing recently. The opening of the Esperanza Sur pit is expected to improve Centinela's flexibility to supply its concentrator, with the higher-grade material over the initial years of the project expected to increase production by some 10,000–15,000 tonnes of copper (on a 100% basis) per year. This greater flexibility is expected to allow Centinela to smooth and optimize its year-on-year production profile, which has been variable in the past.

We take a very disciplined and conservative approach to growth and have a long-term perspective, with exploration in Chile and internationally remaining a key part of the sustainable long-term growth of our copper business. In line with that approach, we have a long-term development project in Minnesota called Twin Metals.

The majority of our sales are to industrial customers across the globe who refine or further process the copper we produce—smelters in the case of copper concentrate production and copper fabricators in the case of cathode production. For the year ended December 31, 2021, 61% of our revenue was derived from customers located in Asia, with customers in Japan accounting for 25% of total revenue. We also retain a small exposure to the spot market, which allows us to manage our shipments and provides us with live market feedback.

The chart below sets forth our revenue by location of customer for the year ended December 31, 2021:



For the year ended December 31, 2021, we produced 721,500 tonnes of copper; 252,200 ounces of gold; and 10,500 tonnes of molybdenum.

For the year ended December 31, 2021, our consolidated revenue was U.S.$7,470.1 million; and EBITDA was U.S.$4,836.2 million.

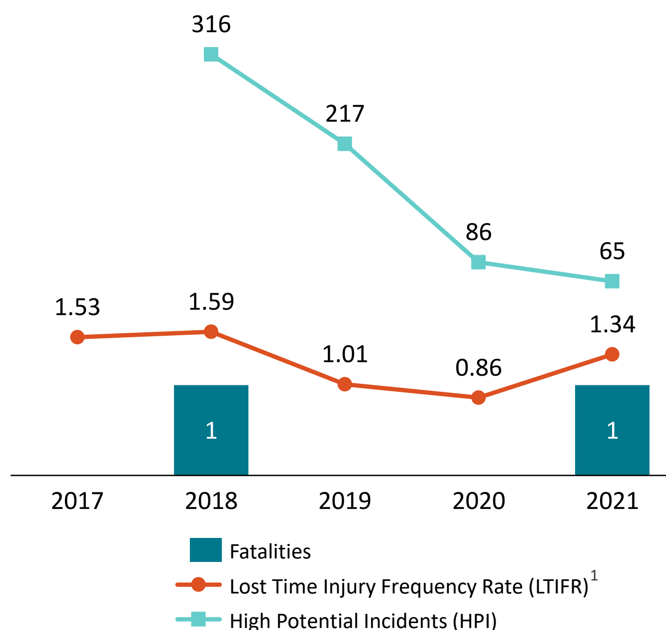
Key Production and Performance Metrics

The table below sets out our key production performance metrics, including the amount of total copper, gold and molybdenum ore produced by our operating mines and the volume of materials handled by our Transport division, for each of the years ended December 31, 2019, 2020 and 2021.

	Year Ended December 31,		
	2019	**2020**	**2021**
Copper Cathode (thousands of tonnes)	211.1	220.8	211.4
Copper Concentrate (thousands of tonnes)	558.9	513.1	510.1
Gold (thousands of oz)	282.3	204.1	252.2
Molybdenum (thousands of tonnes)	11.6	12.6	10.5
Transport Volume (thousands of tonnes)	6.5	6.4	6.7
LTIFR (Number of accidents with lost time during the year per million hours worked)	1.0	0.9	1.3
Fatalities	0	0	1

The following chart shows certain key safety performance metrics, including the number of fatalities at our operations, the number of high potential incidents and our Lost Time Injury Frequency Rate (the number of injuries resulting in time lost from work during the period, per million hours worked, "LTIFR").

Number of Fatalities and Lost Time Injury Frequency Rate (LTIFR)



1LTIFR: the number of lost time injuries per 1 million hours worked

The following table presents our revenue, profit and EBITDA for the years ended December 31, 2019, 2020 and 2021.

Revenue and EBITDA

	Year Ended December 31,		
	2019	**2020**	**2021**
	(in millions of U.S. dollars)		
Revenue	4,964.5	5,129.3	7,470.1
Profit for the year	843.1	893.9	2,234.8
EBITDA(1)	2,438.9	2,739.2	4,836.2

(1) EBITDA is a non-IFRS alternative performance measure that refers to Earnings Before Interest, Tax, Depreciation and Amortization, including 100% of the EBITDA from the Group's subsidiaries and the Group's proportionate share of the EBITDA of its associates and joint ventures. EBITDA is calculated by adding back depreciation, amortization, profit or loss on disposals and impairment charges to operating profit. EBITDA is considered to provide a useful and comparable indication of the current operating earnings performance of the business, excluding the impact of the historical cost of property, plant

and equipment or the particular financing structure adopted by the business. See "Presentation of Financial and Certain Other Information" for a reconciliation of EBITDA to operating profit.

We have a track record of profitability underpinned by our low cash costs of production. The table below shows our net cash costs after by-product credits for the years ended December 31, 2019, 2020 and 2021.

	Year Ended December 31,		
	2019	**2020**	**2021**
	(U.S. dollars per pound)		
Cash costs before by-product credits.	1.65	1.56	1.79
By-product credits.............................	(0.43)	(0.42)	(0.59)
Net Cash Costs[(1)]..............................	**1.22**	**1.14**	**1.20**

(1) Cash costs is a non-IFRS alternative performance measure of the cost of operating production expressed in terms of cents per pound of payable copper produced. See "Presentation of Financial and Certain Other Information." Cash cost per pound is calculated as U.S. dollars per pound of payable copper produced. Cash costs reflect the mining and processing costs required to produce our copper concentrate and cathodes, including related transportation costs. For Los Pelambres and Centinela, cash costs are stated net of by-product credits and include treatment and refining charges for concentrates. Net cash costs exclude depreciation, financial income and expenses, hedging gains and losses, exchange gains and losses, and corporation tax.

The table below sets forth our revenues by product (excluding treatment and refining charges) for the years ended December 31, 2019, 2020 and 2021.

Revenue by Product

	Year Ended December 31,		
	2019	**2020**	**2021**
	(in millions of U.S. dollars)		
Provision of shipping services[(1)].........................	-	95.4	113.4
Copper	4,083.4	4,252.8	6,299.8
Gold	407.7	357.7	436.4
Molybdenum........................	254.6	209.5	366.4
Silver...................................	58.3	64.5	84.1
Total....................................	**4,804.0**	**4,979.9**	**7,300.1**

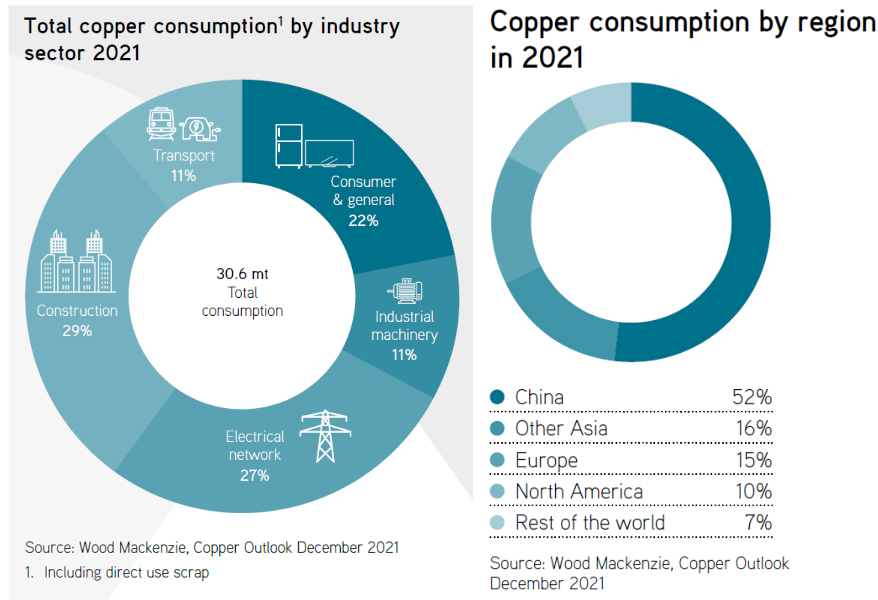
(1) These prior year figures have been re-presented to separately analyze revenue from the sale of products and from the provision of shipping services.

Copper Market Fundamentals

Copper is an internationally traded commodity, with prices in effect established on terminal markets including the LME and COMEX. Copper prices are affected by numerous factors, including international economic and political conditions, levels of supply and demand, the availability and costs of substitutes, inventory levels maintained by producers and others and actions of participants in the commodities markets.

Copper demand remained strong in 2021, particularly in Asia, which represented approximately two-thirds of global consumption in 2021 according to Wood Mackenzie. In particular, China accounted for almost half of the world's consumption in the same year.

The following charts show global copper consumption by region and market in 2021.



Due to strong copper demand growth in 2021 and the limited capacity of copper supply to respond quickly, the exchange stocks have dropped to their lowest level since 2008, ending the year at less than 0.6 weeks of consumption. This has consolidated the price at historically high levels and moved the copper forward curve into backwardation, where the uncertainty of having enough copper for prompt delivery leads to the cash price being higher than the forward price, reflecting exceptionally tight availability. This situation is expected to ease during the second half of 2022, when several major greenfield and brownfield projects are scheduled to come into production. However, we expect part, or all of the additional production will be offset by continued falling grades, political instability, COVID-19, water restrictions, communities' unrest, and logistical and supply constraints. As of April 20, 2022, the spot price for copper was $4.63 per pound.

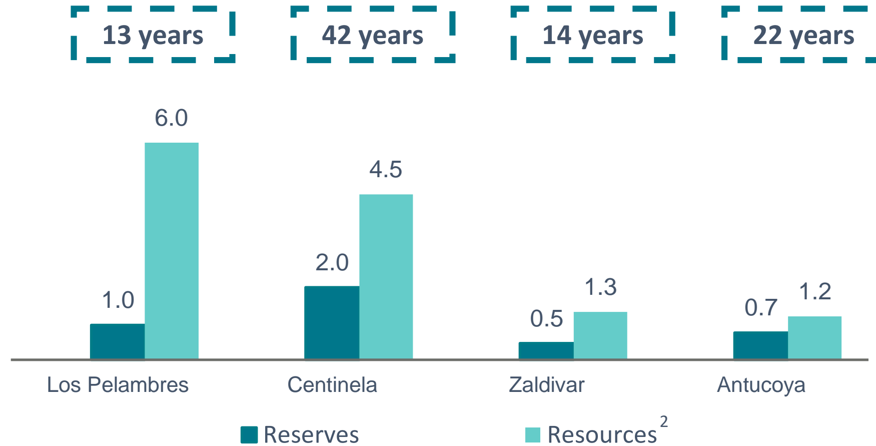
Our Strengths

We believe our competitive position as a leading mining company in Chile is supported by the following strengths:

Strong Core Mining Business with a Premium Copper Portfolio in an Established Mining Jurisdiction

Our mining assets are located in the Antofagasta and Coquimbo regions of Chile, an established mining jurisdiction. As of April 20, 2022, Chile's long-term foreign currency sovereign ratings are A1 from Moody's, A from S&P and A- from Fitch. In 2021, Chile was the largest producer of copper in the world and ranked first in reserves according to the U.S. Geological Survey, Mineral Commodity Summaries. Our mining operations have large resource bases; as of December 31, 2021, the four mines we operate had approximately 4,136.2 million tonnes of proven and probable ore reserves in total (including 100% of the proven and probable reserves at Zaldívar) with an average mine life of approximately 23 years. As at December 31, 2021, Los Pelambres contains 956.1 million tonnes in proven and probable ore reserves. Likewise, Centinela contains 1,983.6 million tonnes, Antucoya contains 745.5 million tonnes, and Zaldívar contains 450.8 million tonnes in proven and probable ore reserves (reflecting 100% of the proven and probable reserves at Zaldívar). The long life of these assets increases the likelihood of a mine being able to benefit from the peaks in the commodity price cycle while withstanding the troughs.

The chart below shows the remaining life of mine, reserves and resources of our operating mines as of December 31, 2021.



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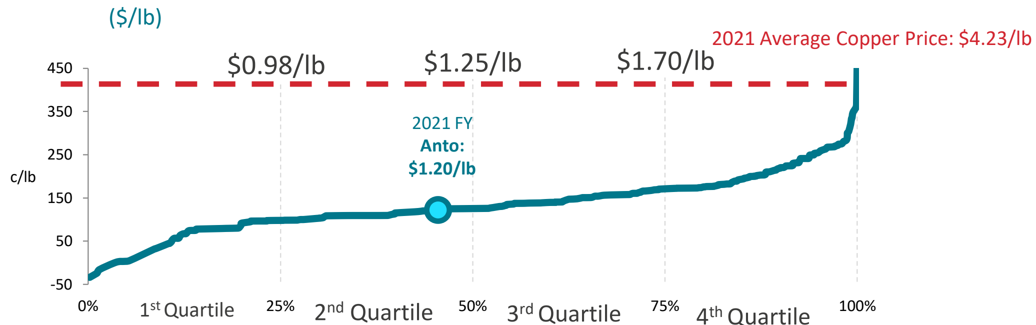
(1) Figures reported on a 100% basis, Mine Life considers reserves.

(2) Resources are reported inclusive of reserves 2020.

We have a competitive position in the cost curve, with a net cash cost of $1.20 per pound for the year ended December 31, 2021. According to Wood Mackenzie, our operations are in the second quartile of the copper cash cost curve, which we believe puts us in a good position to endure potential market downturns.



Source: Wood Mackenzie.

Safety First: A Robust and Proactive Safety Culture

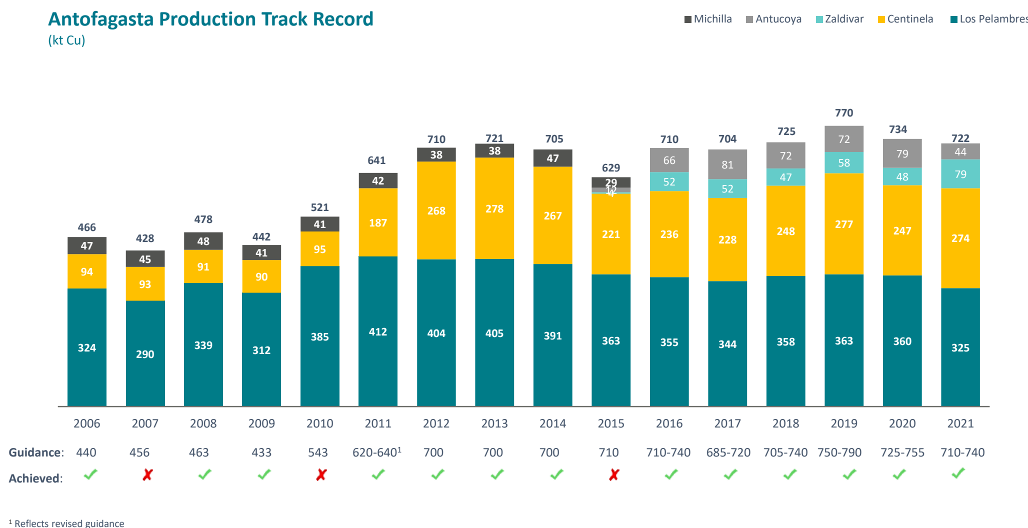
The health and safety of our employees is our first priority. Our Safety and Health Strategy is based on four pillars: safety risk management, health risk management, standardized reporting and continuous improvement, and leadership. We strive to eliminate dangerous workplace conditions and behaviors with

the goal of zero fatalities, zero occupational illnesses, and the development of a resilient culture and the automation of hazardous processes. We have undertaken intensive safety awareness campaigns with highly visible leadership from senior management, including monthly dedicated site visits by our chief executive officer or other key management personnel. Our leadership teams strive to share lessons learned across our operations and promote operational discipline in furtherance of our commitment to safety. We measure our overall safety performance with two main indicators: high-potential incidents and Lost Time Injury Frequency Rate (“LTIFR”). In 2021, we had 65 high-potential incidents, 24% fewer than in 2020. Our LTIFR rose by 56% to 1.34 per million hours worked, compared to 2020, mainly due to an increase in low-potential incidents. To emphasize and incentivize safety, we tie senior management and employee compensation to these safety metrics and safety performance.

Operational Discipline: Track Record of Delivering Sustainable Production

We are a leading copper producer with a demonstrated ability to successfully operate mines in Chile and consistently achieve production targets. Over the last decade, we have been able to sustain annual production levels despite significant volatility in metal prices and the ever-changing global political and economic environments. In the last 15 years, we have been able to increase our total copper production over 50%, going from 466,000 tonnes in 2006 to 721,500 tonnes in 2021, achieving our production guidance in almost every year over the same period. We believe that our long-dated experience in the industry as a best-in-class operator, supported by our cost-efficient and environmentally and socially responsible business model will allow us to benefit from the anticipated increase in copper demand in the medium and long term and continue capitalizing on the currently strong market fundamentals and our competitive position in the market.

The table below sets out our production track record for the periods indicated.



Cost Control Through Business Improvements

Our cost-control strategy, designed to ensure we continue to operate cost-efficiently, is to deploy capital expenditures on debottlenecking projects and incremental plant expansions at our existing mines, increasing throughput and improving overall efficiencies. Since 2014, we have utilized our CCP in order to improve our competitiveness in the medium and long term, strengthening our operations and enabling future growth.

The main target of the CCP is to provide a methodology to preserve our competitive position within the industry and to counterbalance grade decline, which is a natural trend in all copper mines, inflation and input prices. Each year, we seek to realize savings through the CCP through initiatives related to centralizing goods and services procurement, increasing operating efficiency and asset reliability and restructuring our organizational framework. Through these initiatives, in the year ended December 31, 2021, we achieved savings of $131 million, compared with $197 million in 2020 and $132 million in 2019, which helped mitigate the increase in cash costs that we experienced during the year.

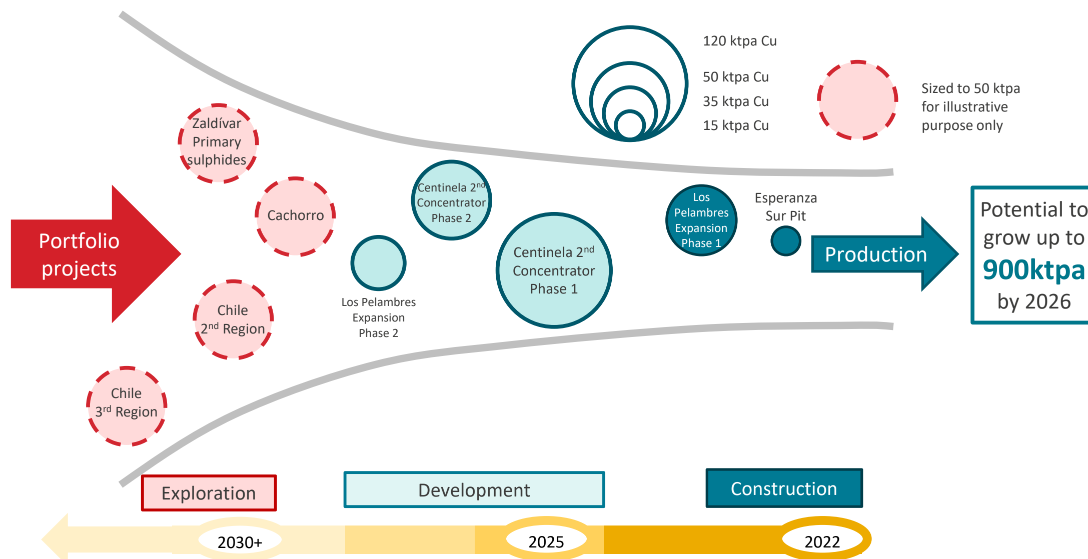
As we move forward, we will continue working on identifying and delivering the "next generation" of cost savings through initiatives such as teleworking, autonomous mine equipment and applying business intelligence to supply chain management.

Financial Discipline: Balance Sheet Management Facilitated by Disciplined Capital Allocation

We have implemented a strong capital allocation model, which focuses on sustaining capital expenditure and investing in mine development in order to maintain our process plants' and mines' ability to deliver value. This model is fundamental in making all of our financial decisions. Further, according to our dividend policy, we pay a minimum dividend of 35% of underlying net earnings. Having a strong balance sheet as part of our key indicators, we allocate capital to growth projects that generate returns consistent with our investment criteria, or alternatively we return excess capital in the form of a higher final dividend.

We have a proven track record of operational efficiency and project development execution—for example, three of our mines were developed by us. We have successfully executed several development and portfolio optimization projects in Chile, which have allowed us to improve the operational efficiency and copper production in our operations. Our focus on debottlenecking and incremental plant expansions at our existing mines to improve efficiency is key to our strategy, as these projects often have lower capital expenditure requirements and generate higher returns than greenfield projects.

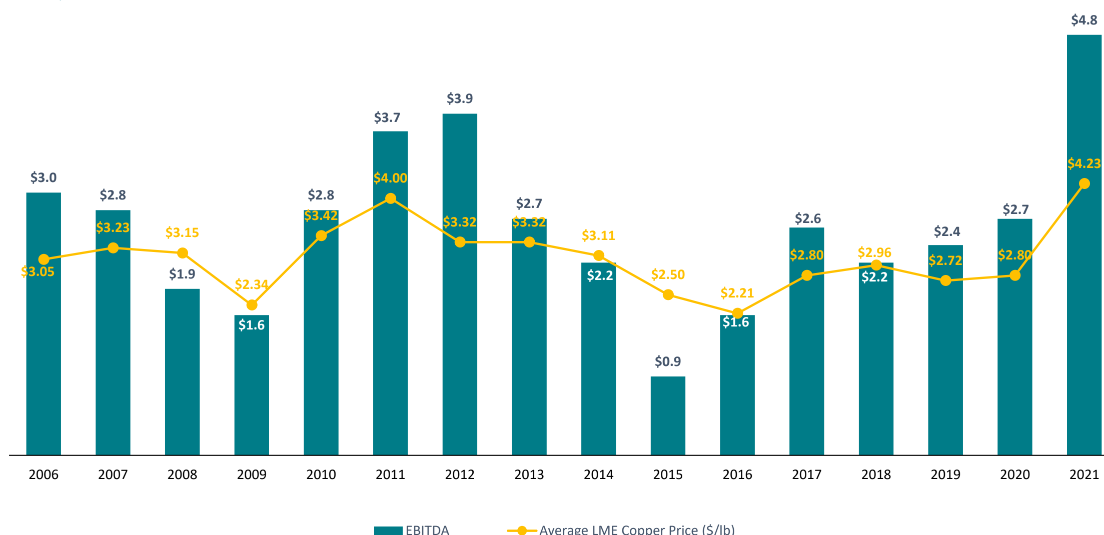
We have a portfolio of organic growth projects with two brownfield expansion projects in various stages of progress at our existing operations, including the opening of the Esperanza Sur pit at Centinela and the Los Pelambres Expansion. We believe our disciplined approach to capital spending allows us better to weather downturns in the copper markets and positions us to succeed when markets recover. The graphic below summarizes information relating to our two brownfield expansion projects and other projects under consideration.



Historically, we have been able to generate cash flow well in excess of our capital expenditures and consequently we have been able to maintain very low levels of debt. During the fiscal year ended December 31, 2021, we generated $3,670 million in net cash from operating activities, and invested $1,776 million in capital expenditures while maintaining an end-of-period cash balance (including cash, cash equivalents and liquid investments) of $3,713 million, and net leverage consistently below 0.5x. We have been able to maintain a strong EBITDA Margin despite copper price volatility, and for the year ended December 31, 2021, our EBITDA Margin was 65%. Despite the capital-intensive nature of our business, we have been able to carry out our capital expenditure plans and increase our copper production while maintaining a low leverage profile and a large liquidity position.

Cash Flow Generation Through the Commodity Cycle

Our conservative financial policies promote a healthy balance sheet and underpin a business model that favors low leverage and enables strong cash flow generation, even amidst volatile market conditions. The resilience of our balance sheet has been tested by the global financial crisis of 2008-2009, during the commodity price sell-off of 2015-2016, and most recently during the COVID-19 pandemic. We have historically maintained large cash balances and low levels of indebtedness. As a result, we have a long track record of profitability and consistent cash flow generation through the commodity cycles. Our cost-efficient operations coupled with our conservative financial profile have allowed us to successfully navigate prior volatile periods. We maintain strong banking relationships in the markets in which we operate and have maintained ready access to the bank loan market and the equity capital markets. In recent years, we have executed several medium-term financing deals, including asset-level financing. We believe that the combination of a competitive and flexible cost structure and a strong financial position with modest leverage is key to supporting our business for the long term.



[(1)] EBITDA figures for 2006 through 2016 have not been adjusted to reflect the adoption of new accounting standards. This may have an impact on the comparability of EBITDA for such periods with EBITDA for the fiscal years ended 2019, 2020 and 2021.

Commitment to Environmental, Social and Governance Excellence

We are fully committed to improving the sustainability of our operations; respect for the environment and active engagement with local communities are fundamental to our business. We maintain certifications from, and memberships in, key organizations championing ESG initiatives; additionally, we are currently included in the FTSE4Good, and STOXX ESG Leaders indexes. According to S&P Global

we are currently ranked in the top 15% of the metals and mining industry in their Sustainability Yearbook for 2022. In addition, we are No. 6 in Sustainalytics ranking of ESG ratings in 2022.

We also are focused on reducing our carbon emissions; in 2017, our Mining division defined a series of emissions reduction projects and in 2018 went on to set a target of reducing its direct (Scope 1) and indirect (Scope 2) emissions by 300,000 tonnes of CO_2 by 2022, compared to the 2017 baseline. We met this target in 2020, two years early, with emissions down by 581,355 tonnes of CO_2 and in 2021, reduced our emissions by a further 43,569 tonnes of CO_2. In May 2021 we announced new emissions reduction targets: in the framework of our Climate Change Strategy, we aim to cut our Scope 1 and Scope 2 emissions by 30% by 2025, compared to 2020, equivalent to the avoidance of 730,000 tCO_2e. Moreover, we have been taking significant steps to decarbonize our electricity matrix; following the recent supply contract renegotiations in all of our mines, we now expect that 100% of the energy consumption by our mining operations will be supplied under contracts for renewable energy by the end of 2022.

As part of our commitment to local communities, in 2019 we implemented a new Social Management Model at our four mining operations. It serves as a vehicle through which to apply common engagement principles, methodologies and practices across our operations, measure impacts and manage risks. Our engagement with local stakeholders is based on the principles of dialogue, collaboration, traceability, excellence and transparency. In the year ended December 31, 2021, we invested $47.8 million on social projects near our operations, a 6.22% increase from 2020.

As part of our commitment to mitigating and adapting to climate change, in 2021, sea water accounted for 45% of our Mining division's operational water withdrawals, and water reuse and recycling rates at our mining operations averaged 83% for the division. Such water reuse and recycling rates average is high compared to the average for Chile's copper mining industry, which reached 73% in 2020, according to the Chilean Copper Commission.

We are committed to demonstrating how our strategies, policies and targets are supported by concrete actions and how we measure the impact of these activities. As part of this process, during the year, we complemented our regular Annual and Sustainability Reports with reports on specific topics to provide an extra level of disclosure. In September 2021, we published our first progress report on the implementation of the recommendations of the Task Force on Climate-related Financial Disclosures ("TCFD"). This provided an overview of our TCFD-related work and climate change response. As a demonstration of our transparency, in 2021 Centinela and Zaldívar received the Copper Mark, an independent external assurance of the sites' compliance with strict, internationally recognized, sustainable production standards. Los Pelambres and Antucoya also began the voluntary accreditation processes.

Experienced Management with Deep Bench Strength

Our experienced management team is critical to maintaining our current operations, implementing development projects and achieving long-term growth without major disruption. Our Employee Performance Management System is designed to attract and retain key employees by creating suitable reward and remuneration structures and providing personal development opportunities. We have a talent management system to identify and develop internal candidates for key management positions, as well as identifying suitable external candidates where appropriate.

Our Strategy

We intend to maintain our position as one of the world's largest copper producers and increase our production. There are five key elements of our strategy:

Develop Our People

People are the core of our business. We want our employees to feel recognized and to have the maximum opportunities for personal and professional growth. We seek to generate a culture of diversity and inclusion in which our employees can achieve their full potential. We are committed to equality and believe that we can develop our business and make a significant contribution to Chile's development. We work to improve opportunities for individuals' internal promotion fostered through initiatives such as technical and managerial training programs. Our goal is to be the best employer in the mining industry. To achieve this, we understand the importance of creating an environment of trust and collaboration that looks to the long term.

In 2021, we rolled out our New Ways of Working project, comprising a permanent hybrid system of remote and in-person working adapted to employees' roles. Corporate employees are required to work in-person 50% of the time, while jobs at the operations have been divided into three in-person models: 100% of the time (e.g., truck operators), 50% of the time, and at least one week a month (all subject to COVID-19 restrictions).

Safety and Sustainability as Cornerstone of Our Business Model

The safety and health of our people, employees and contractors is non-negotiable. We are committed to achieving zero fatalities at our operations and continuing to reduce the number and seriousness of accidents and occupational health issues. We view sustainability as a source of value creation that is an integral part of our decision-making processes. This includes taking into account all socio-environmental factors throughout the different stages of the development through to the closure of a mining operation. In line with this, we manage natural resources efficiently and are constantly seeking ways to reduce water consumption, utilize cleaner sources of energy and protect biodiversity, while always collaborating with local communities. We are sensitive to the threats posed by climate change and are always seeking to improve our practices accordingly. Our aim is to maximize the utilization of renewable energy sources and to reduce our greenhouse gas emissions.

The key elements of our sustainability framework include our Climate Change Strategy (including targets and metrics for water consumption and CO_2 emissions) in conjunction with adopting the principles of the Task Force on Climate-Related Financial Disclosures, tying management compensation plans to safety, people, environmental and social performance outcomes and compiling an annual, externally-audited sustainability report in accordance with Global Reporting Initiative Standards. Our sustainability efforts are well-documented in the industry: we were included in the 2020 SAM Sustainability Yearbook, we are a member of the International Council on Mining and Metals (an association of the world's largest mining companies that promotes sustainable mining, develops standards and encourages its members to adopt best practices, "ICMM"), we publicly disclose our Climate Change and Water Security initiatives through the Carbon Disclosure Project ("CDP") and Los Pelambres is a signatory to the United Nations Global Compact. These efforts have been rated by MSCI, Sustainalytics and the CDP.

Enhance Competitiveness by Increasing Productivity with a Focus on Operating Excellence

Our key focus as regards competitiveness is to achieve productivity gains through cost control and streamlining our processes. Our operating model seeks to reduce the variability of our production plans and includes an operating excellence area, a discipline that focuses on productivity issues. Consistent improvements in productivity in our assets and operations have allowed us to maintain a competitive

position in the market. Our CCP has also produced significant savings by focusing on five areas where we can increase productivity and reduce costs: streamlining goods and services procurement, improving operating efficiency and asset reliability, improving energy efficiency, increasing corporate and organizational effectiveness, and improving working capital, capital expenditure and services efficiency.

Disciplined Growth

We have a portfolio of growth projects that allows us to remain competitive and develop sustainable operations in the long term. We continue to review our options for increasing profitability and reducing the capital cost of projects, and are enhancing the capabilities of the project team to improve our project execution strategy, management and control. Our focus is on the production of copper and by-products in the Americas.

Innovation

We innovate as a means of improving social, environmental and economic conditions while, at the same time, delivering steady and predictable returns for all our stakeholders. Innovation is key to improving productivity and efficiency and promoting growth. We are investing in innovation and developing opportunities, and encourage and reward employees and contractors who send us their ideas for improving our operations. During the year, we continued to implement our digital roadmap to facilitate and accelerate the adoption of information and analysis technologies, automation and robotics.

Recent Developments

Final Dividend

On May 13, 2022, the Company paid a final dividend for 2021 of 118.9 cents per ordinary share, which amounts to $1,172.1 million to shareholders on the share register at the close of business on April 22, 2022.

Reko Diq project

In March 2022 the Company reached an agreement in principle with Barrick Gold and the Governments of Pakistan and Balochistan on a framework that provides for the reconstitution of the Reko Diq project, and a pathway for the Company to exit the project. If definitive agreements are executed and the conditions to closing are satisfied, a consortium comprising various Pakistani state-owned enterprises will acquire an interest in the project for consideration of approximately $900 million to jointly develop the project with Barrick, and Antofagasta would exit. If all the conditions are satisfied during 2022, we would expect to receive the proceeds in 2023.

Zaldívar Chloride Leach

In January 2022 we completed the Zaldívar Chloride Leach project. The Zaldívar Chloride Leach project includes an upgrade of the Solvent Extraction (SX) plant, and the construction of new reagents facilities and additional washing ponds for controlling chlorine levels. It was completed in January 2022. The project will increase copper recoveries by approximately 10 percentage points, with further improvement possible depending on the type of ore being processed. This will increase copper production at Zaldívar by approximately 10,000-15,000 tonnes (on a 100% basis) per annum over the remaining life of the mine.

Q1 2022 Production Report

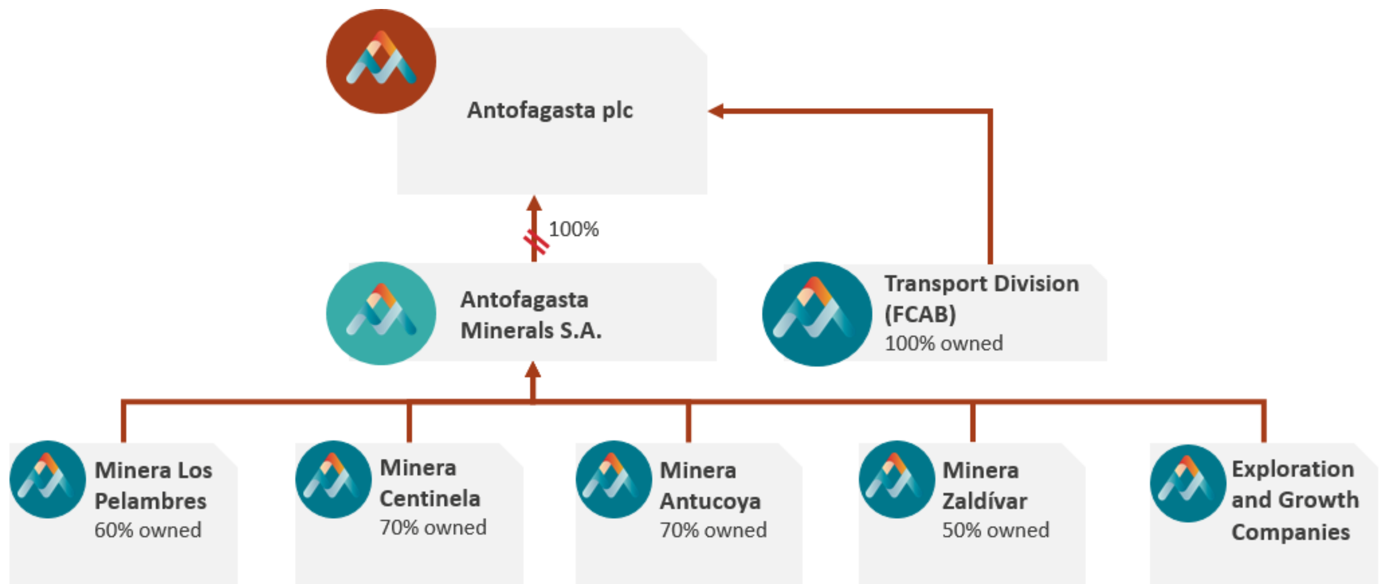
On April 21, 2022, we released our first quarter production for the quarter ended March, 31, 2022. Our copper production of 138,800 tonnes and net cash costs of $1.75/lb was in line with our plan for fiscal 2022. This production reflected the impact of the ongoing drought at Los Pelambres and the expected lower grades at Centinela Concentrates. With the completion of the Los Pelambres desalination plant planned for the second half of fiscal 2022 and assuming no additional precipitation until the anticipated rainy season, we expect our production levels and net cash costs to trend back towards more normalized levels through fiscal 2022.

Corporate Information

We are a premium listed public limited company incorporated under the laws of England and Wales with a market capitalization of $19.5 billion as of April 21, 2022. Our shares are listed on the London Stock Exchange and our ordinary shares are a component of the FTSE 100, the share index of the 100 companies listed on the London Stock Exchange with the highest market capitalization.

The E. Abaroa Foundation is a controlling shareholder of the Company for the purposes of the UK Listing Rules and certain other shareholders of the Company are also treated as controlling shareholders.

The following chart summarizes our corporate structure as of the date of this listing memorandum, including our material subsidiaries and joint ventures and our percentage ownership in them. For clarity of presentation, the chart identifies only our main subsidiaries and joint ventures and eliminates intermediate holding companies.



Company/Mine	Our Percentage Interest	Description
Minera Los Pelambres SCM	60%	The Los Pelambres mine is in the Coquimbo region of Chile. It produces copper concentrate (containing gold and silver) and molybdenum concentrate. The remaining 40% is owned by a consortium of leading Japanese mining and metals companies, including Nippon Mining & Metals, Mitsubishi Materials, Marubeni and Mitsubishi Corp.
Minera Centinela SCM	70%	The Centinela mine is in the Antofagasta region of Chile and produces copper concentrate (containing gold and silver) and molybdenum concentrate as well as copper cathodes. The remaining 30% is owned by Marubeni Corporation, a leading Japanese trading company.
Minera Antucoya SCM	70%	The Antucoya mine in the Antofagasta region of Chile began production in late 2015 and produces copper cathodes. The remaining 30% is owned by Marubeni Corporation.
Compañía Minera Zaldívar SpA	50%	The Group's holding in the Zaldívar mine in the Antofagasta region of Chile was acquired from Barrick Gold Corporation in December 2015. Barrick holds the remaining 50% and Antofagasta is the operator. Zaldívar produces copper cathodes
Ferrocarril Antofagasta a Bolívia (Permanent Establishment)	100%	Provides rail and truck services to the mining industry in the Antofagasta region, including to our own mining operations.

History

Antofagasta traces its founding to the formation of the Antofagasta (Chili) and Bolivia Railway Company Limited, incorporated and listed in London in 1888. This company raised money on the London Stock Exchange to acquire, build and operate a railway from Antofagasta, a port on the Pacific Coast of Northern Chile, to La Paz, the capital of Bolivia. Following the acquisition of control by the Luksic family in 1979 Antofagasta diversified into mining and other sectors.

Below is a timeline with the key events in our history:

1888	Antofagasta (Chili) and Bolivia Railway Company Limited incorporated in London
1979	Luksic family acquired controlling interest
1996	Financial and industrial interests exchanged for 39.25% interest in Quiñenco
1997	Start construction of large-scale mining and processing facilities at Los Pelambres
1999	Start of low-cost copper production at Los Pelambres
2003	Demerger of 33.6% interest in Quiñenco
	Acquisition of Aguas de Antofagasta
2006	Acquisition of Equatorial Mining to consolidate control of the Centinela Mining District
2008	Sale of 30% interest in Esperanza and El Tesoro to Marubeni
2009	Esperanza project finance $1.05 billion
	Los Pelambres Expansion financing of $750 million
2010	Los Pelambres Expansion to 175,000 tpd
	Joint venture agreement signed with Duluth Metals in relation to Twin Metals Project in Minnesota
2011	Start of production of Esperanza
2012	Sale of 30% of Antucoya to Marubeni
2013	Antucoya secures $650 million project financing
2014	Esperanza and El Tesoro combine as Minera Centinela
	Acquisition of Duluth Metals' interest in the Twin Metals Project in Minnesota
	Mining Division launches the CCP to improve its competitiveness in the medium and long term, strengthening operations and enabling future growth.
2015	Sale of Aguas de Antofagasta
	Acquisition of 50% of Zaldívar

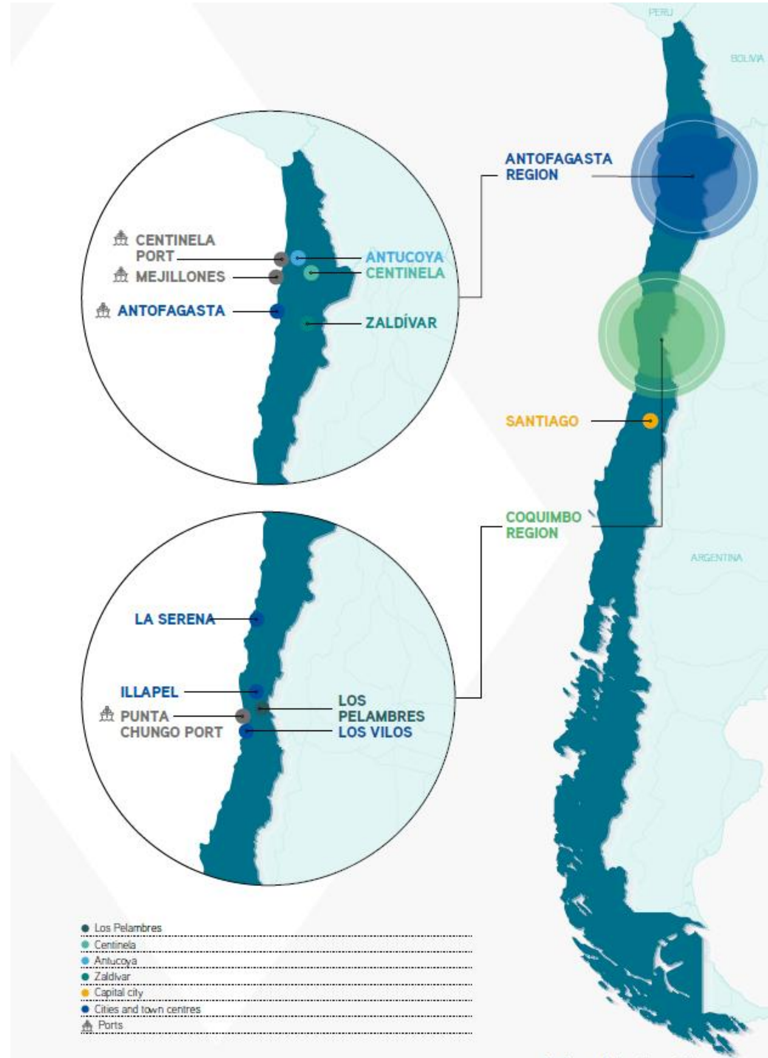
2016	Commercial production achieved at Antucoya
2018	Encuentro Oxides project reached full capacity
	Los Pelambres Expansion approved to produce 60,000 tonnes per year of additional copper approved
2019	Start of construction of the Los Pelambres Expansion and desalination plant
	Zaldívar Chloride Leach and Esperanza Sur pit projects approved
2020	Zaldívar became the first of our operations to use 100% renewables
2021	Updated emissions reduction target for 2025 and a carbon neutral target for 2050 were set
2022	Antucoya and Centinela switched to 100% renewably-generated electricity

Description of Operations

Our activities are organized into two business divisions: the Mining division and the Transport division.

The following map shows the location of our current mining operations and development projects.

Location of Mining Operations and Development Projects



Our mining assets and Chilean development projects are located in the Coquimbo and Antofagasta regions of Chile, respectively. Our current mining operations and development projects are all located in Chile. Our exploration prospects are located in the Americas. Chile possesses unparalleled mining resources and, as an established mining country, has the benefit of local mining expertise and an attractive legal and regulatory framework for mining companies and foreign investment more generally. For further information on the legal and regulatory framework for mining companies in Chile, see "—Regulation."

The following map shows the location of our Transport division customers.

Mining Division Production Information

The four mines we operate produce copper and by-products, including gold and molybdenum as set out below for the years ended December 31, 2019, 2020 and 2021.

Production[(1)] of Ore
Year Ended December 31,

	2019	2020	2021	2019	2020	2021	2019	2020	2021
	Copper			Gold			Molybdenum		
	(Thousands of Tonnes)			(Thousands of Ounces)			(Thousands of Tonnes)		
Los Pelambres	363.4	359.6	324.7	59.7	60.4	53.2	11.2	10.9	9.2
Centinela	276.6	246.8	274.2	222.6	143.7	199.0	0.4	1.7	1.3
Antucoya	71.9	79.3	78.6	–	–	–	–	–	–
Zaldívar	58.1	48.2	44	–	–	–	–	–	–
Total	770.0	733.9	721.5	282.3	210.1	252.2	11.6	12.6	10.5

(1) Represents 100% of production at Los Pelambres, Centinela and Antucoya and 50% of production at Zaldívar.

Los Pelambres

Los Pelambres is our flagship operation. It is a sulfide deposit in Chile's Coquimbo region, 240 km north of Santiago and produces copper concentrate (containing gold and silver) and molybdenum concentrate through a milling and flotation process.

We own 60% of the mine. The remaining 40% is owned by a joint venture formed by a consortium of leading Japanese mining and metals companies, including Nippon Mining & Metals, Mitsubishi and Marubeni.

As of December 31, 2021, a total of 7,374 persons were employed at Los Pelambres, 1,017 of whom were permanent employees and 6,357 of whom were contracted personnel. For the year ended

December 31, 2021, Los Pelambres produced 45% of our total attributable copper and generated 48% of our revenue.

Los Pelambres began production in 2000 and we currently have an EIA until 2035. We are in the process of transitioning our operations to use mainly seawater beginning in 2025.

Production and Cash Costs

Copper production at Los Pelambres decreased 9.7% from 359,000 tonnes in 2020 to 324,700 tonnes in 2021, mainly due to the lower throughput due to water optimisation and expected lower copper grade.

Molybdenum production decreased 15.6% from 10,900 tonnes in 2020 to 9,200 tonnes in 2021, as a result of the lower throughput, grades and recoveries.

Gold production decreased 11.8% from 60,300 tonnes in 2020 to 53,200 tonnes in 2021.

Cash costs before by-product credits for 2021 were $1.59/lb, 25.2%, or 32c/lb, higher than in 2020, reflecting the lower production due to water restrictions, the stronger Chilean peso and higher input prices. Net cash costs for the full year were $0.89/lb, or 9.9% lower than in 2020 due to higher by-product prices as Los Pelambres benefits from the sale of gold, molybdenum and silver.

The table below sets forth Los Pelambres' production and net cash costs for the periods indicated.

Los Pelambres Production and Net Cash Costs

	Year Ended December 31,		
Mine Production[1]	**2019**	**2020**	**2021**
Copper (thousands of tonnes)	363.4	359.6	324.7
Molybdenum (thousands of tonnes)	11.2	10.9	9.2
Gold (thousands of ounces)	59.7	60.4	53.2
Net Cash Costs (cents per pound of copper)[2]	0.91	0.81	0.89

(1) Represents 100% of production.

(2) Cash costs is a non-IFRS alternative performance measure of the cost of operating production expressed in terms of cents per pound of payable copper produced. See "Presentation of Financial and Certain Other Information." Cash cost per pound is calculated as U.S. dollars per pound of payable copper produced. Cash costs reflect the mining and processing costs required to produce our copper concentrate and cathodes, including related transportation costs. For Los Pelambres, cash costs are stated net of by-product credits and include tolling charges for concentrates. Net cash costs exclude depreciation, financial income and expenses, hedging gains and losses, exchange gains and losses, and corporation tax.

Capital expenditure at Los Pelambres for the year ended December 31, 2021 was $880.0 million, including $219.0 million on mine development and $575.0 million on growth projects.

As at the end of March 2022 the Los Pelambres Expansion project was 73% complete (design, procurement and construction).

Centinela

Centinela is located in Chile's Antofagasta region, 1,350 km north of Santiago, an important mining region with sulfide and oxide deposits. The mine is comprised of open-pit sulfide and oxide deposits from

which it produces copper concentrate (containing gold and silver) and molybdenum concentrate through a milling and flotation process and copper cathode using a solvent-extraction electrowinning process ("SX-EW").

We own 70% of the mine. The remaining 30% is owned by Marubeni Corporation.

As of December 31, 2021, a total of 7,831 persons were employed at Centinela, 2,341 of whom were permanent employees and 5,490 of whom were contracted personnel. For the year ended December 31, 2021, Centinela produced 38% of our total attributable copper and generated 40% of our revenue.

Centinela went into production in 2001 and we expect its mine life is approximately 42 years under the current mine plan.

Production and Cash Costs

In 2021, copper production at Centinela was 274,200 tonnes, 11.1% higher than in 2020 due to higher grades and increased throughput at Centinela Concentrates, which operated consistently at, or above, design capacity for the full year.

Gold production was 199,000 ounces, 38.5% higher than in 2020, due to higher throughput and grades.

Cash costs before by-product credits for 2021 were $1.87/lb, 2c/lb higher than in 2020 as the impact of higher copper production was offset by the stronger Chilean peso and higher input costs.

Net cash costs for 2021 were $1.13/lb, 11.0% lower than in 2020.

The table below shows Centinela's production and net cash costs for the periods indicated.

Centinela Production and Net Cash Costs

	Year Ended December 31,		
Mine Production[1]	**2019**	**2020**	**2021**
Copper (thousands of tonnes)	276.6	246.8	274.2
Gold (thousands of ounces)	222.6	143.7	199.0
Net Cash Costs (cents per pound of copper) [2]	1.26	1.27	1.13

(1) Represents 100% of production.

(2) Cash costs is a non-IFRS alternative performance measure of the cost of operating production expressed in terms of cents per pound of payable copper produced. See "Presentation of Financial and Certain Other Information." Cash cost per pound is calculated as U.S. dollars per pound of payable copper produced. Cash costs reflect the mining and processing costs required to produce our copper concentrate and cathodes, including related transportation costs. For Centinela, cash costs are stated net of by-product credits and include tolling charges for concentrates. Net cash costs exclude depreciation, financial income and expenses, hedging gains and losses, exchange gains and losses, and corporation tax.

Capital expenditure at Centinela for the year ended December 31, 2021 was $792 million, including $394 million on mine development and $308 million on development capital expenditure, which includes the Esperanza Sur pit project and new autonomous trucks.

Zaldívar

Zaldívar is an open-pit, heap-leach copper mine located at nearly 10,000 feet above sea level in northern Chile approximately 1,400 km north of Santiago and 175 km southeast of the city of Antofagasta. Zaldívar produces copper cathodes using the solvent extraction and SX-EW process.

We acquired a 50% interest in Zaldívar in December 2015 from Barrick Gold Corporation and became the operator of the mine.

As of December 31, 2021, a total of 2,911 persons were employed at Zaldívar, 914 of whom were permanent employees and 1,997 of whom were contracted personnel. In 2021, Zaldívar produced 6% of our total attributable copper.

Production and Cash Costs

In 2021 our attributable copper production at Zaldívar was 44,000 tonnes, 8.7% lower than in 2020 mainly due to lower than planned recoveries and expected lower grades, partially offset by higher throughput.

Cash costs for 2019 were $2.39/lb, compared with $1.80/lb in 2020, mainly due to lower grades, higher maintenance costs and the stronger Chilean peso.

The table below shows Zaldívar's production output and cash costs for the periods indicated.

Zaldívar Production and Cash Costs

	Year Ended December 31,		
Mine Production[(1)]	**2019**	**2020**	**2021**
Copper (thousands of tonnes)	58.1	48.2	44
Cash Costs (cents per pound of copper)[(2)]	1.75	1.80	2.39

(1) Represents our 50% attributable share of production.

(2) Cash costs is a non-IFRS alternative performance measure of the cost of operating production expressed in terms of cents per pound of payable copper produced. See "Presentation of Financial and Certain Other Information." Cash cost per pound is calculated as U.S. dollars per pound of payable copper produced. Cash costs reflect the mining and processing costs required to produce our copper concentrate and cathodes, including related transportation costs.

Capital expenditure at Zaldívar for the year ended December 31, 2021 was $87 million, of which $49 million was development capital expenditure, mainly on the Chloride Leach project.

The environmental permit for Zaldívar expires in 2025 and an EIA has been submitted to extend it to 2031. Zaldívar's final pit phase, which represents approximately 18% of current ore reserves, impacts a portion of Minera Escondida's mine property, as well as infrastructure owned by third parties (road, railway, powerline and pipelines). Mining of the final pit phase is subject to agreements or easements to access these areas and relocate this infrastructure.

Antucoya

Antucoya is located in northern Chile and is approximately 1,400 km north of Santiago and 125 km northeast of the city of Antofagasta. Antucoya mines and leaches oxide ore to produce copper cathodes using the solvent extraction and SX-EW process. The mine commenced production in 2016.

We own 70% of the mine. The remaining 30% is owned by Marubeni Corporation.

As of December 31, 2021, a total of 2,159 persons were employed at Antucoya, 833 of whom were permanent employees and 1,326 of whom were contracted personnel. In 2021, Antucoya produced 11% of our total attributable copper.

Production and Cash Costs

In 2021, copper production at Antucoya was 78,600 tonnes, 0.9% lower than last year due to higher throughput, offset by expected lower grades and resulting lower recoveries.

Cash costs for 2021 were $2.04/lb, 12.1% higher than in 2020 due to a stronger Chilean peso, and higher input costs and maintenance expenditure.

The table below shows Antucoya's production output and cash costs for the periods indicated.

	Year Ended December 31,		
Mine Production[1]	**2019**	**2020**	**2021**
Copper (thousands of tonnes)	71.9	79.3	78.6
Cash Costs (cents per pound of copper)[2] ..	2.17	1.82	2.04

(1) Represents 100% of production

(2) Cash costs is a non-IFRS alternative performance measure of the cost of operating production expressed in terms of cents per pound of payable copper produced. See "Presentation of Financial and Certain Other Information." Cash cost per pound is calculated as U.S. dollars per pound of payable copper produced. Cash costs reflect the mining and processing costs required to produce our copper concentrate and cathodes, including related transportation costs.

Capital expenditure at Antucoya for the year ended December 31, 2021 was $50 million, including $28 million on sustaining capital expenditure.

Transport Division

Our Transport division focuses on the transport by rail and road of copper cathode and concentrates from, and the transport of sulfuric acid to, the Antofagasta region and some of its main customers are some of the largest mining operations in northern Chile.

Total transport volumes in 2021 were 6.7 million tonnes, an increase of 4.0% from 6.4 million tonnes in 2020, as a new transport contract started. The division's EBITDA was $68 million, 11.8% higher than in 2020, reflecting the higher revenue from increased volumes and better contracted sales prices.

In 2021, the Transport division operated approximately 700 km of railroad, with the main railway connecting Ollagüe (next to the border between Chile and Bolivia) with the city and port of Antofagasta. The main railway is linked to several other railways that connect the network with other cities and ports, including Mejillones and in the north of Argentina.

During 2021, the Transport division operated 75 locomotives of which 19 were purchased in recent years replacing older less fuel-efficient equipment and increasing the fleet's haulage capacity and efficiency. The Transport division also operates a fleet of more than 74 trucks and ancillary tanks and equipment to support its railway operations.

The Transport division is focused on the development of local communities, including by providing access to quality jobs and through various cultural and social engagement programs. For example, this includes a plan in consultation with local communities, to convert land in the center of the city of Antofagasta from industrial to urban use.

Reserves

We have a strong tradition of mining and a long-term approach to investment in our operating assets and portfolio of development projects and advanced exploration prospects.

The following is a chart containing our ore reserve estimates as of December 31, 2021.

	Tonnage	Copper	Molybdenum	Gold	Attributable tonnage
	(millions of tonnes)	(%)	(%)	(g/tonne)	(millions of tonnes)
Los Pelambres					
Proved	612.3	0.60	0.020	0.05	367.4
Probable	343.8	0.57	0.019	0.05	206.3
Total	956.1	0.59	0.020	0.05	573.7
Centinela					
Centinela Concentrates (sulfides)					
Proved	545.6	0.45	0.012	0.17	381.9
Probable	1,138.7	0.39	0.013	0.12	902.2
Subtotal	1,684.3	0.41	0.012	0.14	1,179.0
Centinela Cathodes (oxides)					
Proved	76.4	0.54	–	–	53.5
Probable	222.9	0.34	–	–	156.1
Subtotal	299.3	0.39	–	–	209.5
Centinela Total					
Proved	622.0	0.46	–	–	435.4
Probable	1,361.6	0.38	–	–	953.1
Total	1,983.6	0.40	–	–	1,388.5
Antucoya					
Proved	435.9	0.33	–	–	305.1
Probable	309.6	0.30	–	–	216.7
Total	745.5	0.32	–	–	521.9
Zaldívar					
Proved	366.6	0.45	–	–	183.3
Probable	84.3	0.34	–	–	42.1
Total Group Joint Venture	450.8	0.43	–	–	225.4
Total	**4,136.2**	**0.43**	**–**	**–**	**2,709.5**

Growth

Exploration in Chile and internationally remains a key objective to the sustainable long-term growth of our copper business. We have an active program of early and intermediate-stage projects managed from our exploration offices in Santiago, Chile, Toronto, Canada and Lima, Peru and take a very disciplined and conservative approach to growth with a long-term view. In line with that approach, we currently have a long-term development/growth project in Twin Metals in Minnesota, which has an estimated mine life of 30 years according to Wood Mackenzie.

Projects Under Construction

Our approach to considered growth means that we focus on everything from controlling capital costs and optimizing production at our existing operations to the development of new mining operations. We achieve this through careful project management and constant monitoring of the efficiency of our mines, plants and transport infrastructure.

Los Pelambres Expansion (Phase 1)

To maximize the potential of Los Pelambres, we have undertaken a multi-year expansion project with the goal of increasing throughput and improving overall efficiencies. This expansion project is divided into two phases.

Phase 1 of the expansion is designed to increase the current throughput capacity of Los Pelambres from 175,000 tonnes of ore per day to an average of 190,000 tonnes of ore per day and to provide desalinated water to the operation. During 2020, the decision was made to change the scope of the project and double the planned capacity of the desalination plant that is part of Phase 1 from 400 litres per second to 800 litres per second. Enabling works for this expansion are being carried out at the same time as the Phase 1 works but are limited in extent by what is allowed under the permits that have already been issued.

Annual copper production is expected to be increased by an average of 60,000 tonnes per year over 15 years, starting at approximately 40,000 tonnes per year for the first four to five years and 70,000 tonnes for the rest of the period as the hardness of the ore increases and the benefit of higher milling capacity is fully realized.

The project reached 73% overall completion by the end of March 2022. During the first quarter of 2022 we completed a detailed review of the project schedule and costs and revised our capital cost estimate for the project to $2.2 billion (up from $1.7 billion). The increase is primarily related to the impact of COVID-19 on costs and the construction schedule, as well as to general inflation, including increased input prices, wages, labour incentives and logistics costs, and other adjustments to implementation plans and an updated contingency provision.

Esperanza Sur pit

The Esperanza Sur pit at Centinela is 4 km south of the Esperanza pit and is close to Centinela's concentrator plant. The deposit contains 1.4 billion tonnes of reserves with a grade of 0.4% copper, 0.13 g/t of gold and 0.012% of molybdenum.

Pre-stripping was completed in 2021. The stripping is being carried out by a contractor and the cost is being capitalized. Once completed, autonomous trucks operated by Centinela will be used to mine the deposit.

Opening the Esperanza Sur pit will improve Centinela's flexibility in how it supplies ore to its concentrator. Over the initial years, the higher-grade material from the pit will increase production by some 10,000-15,000 tonnes of copper (on a 100% basis) per year, compared to the amount that would be produced if material was solely supplied by the Esperanza pit. This greater flexibility will allow Centinela to smooth and optimise its year-on-year production profile, which has in the past been variable.

Projects Under Evaluation

Los Pelambres Expansion (Phase 2)

Following the decision in 2020 to increase the size of the desalination plant, Phase 2 of the expansion requires two separate EIA applications:

Desalination plant expansion. This project is to protect Los Pelambres from the future impact of climate change and the deteriorating availability of water in the region, and to free up continental water for use by local communities. The additional works required, beyond those being completed as part of Phase 1, include the expansion of the desalination plant and the construction of a new water pipeline from the El Mauro tailings storage facility to the concentrator plant. This project requires a new EIA application, which

was submitted in the first half of 2021. The EIA also includes two sustaining capital infrastructure projects; the replacement of the concentrate pipeline, which is approaching the end of its useful life, and the construction of certain long-term infrastructure at the El Mauro tailings storage facility. The EIA is expected to be approved in 2023, with the project completed in 2025 when desalinated and recirculated water will account for at least 90% of Los Pelambres' operational water use.

Mine life extension. The current mine life of Los Pelambres is 13 years and is limited by the capacity of the El Mauro tailings storage facility. The scope of the second EIA will include increasing the capacity of the tailings storage facility, extending the pit's pushback plan and expanding the existing waste dumps. This will extend the mine's life by a minimum of 15 years, with a significant portion of Los Pelambres' six billion tonne mineral resources converting to new mine reserves. The EIA will also include the option to increase throughput to 205,000 tonnes of ore per day by adding a new ball mill and repowering the conveyor that runs from the primary crusher in the pit to the concentrator plant. This option would increase copper production by 35,000 tonnes per year. Key studies on tailings and waste storage capacity have been completed, and the environmental and social studies are now being prepared for submission to the authorities during 2022.

Capital expenditure to extend the mine life was estimated in a pre-feasibility study in 2014 at approximately $500 million, with most of the expenditure on mining equipment and increasing the capacity of the concentrator plant and the El Mauro tailings facility.

Centinela Second Concentrator

At Centinela, we are currently evaluating the construction of a second concentrator and tailings deposit some 7 km from the existing concentrator, to take place in two phases. Phase 1 would have an ore throughput capacity of approximately 90,000 tonnes per day, producing copper, and gold and molybdenum as by-products, with an annual production of approximately 180,000 tonnes of copper equivalent. Once Phase 1 is operating successfully, a further expansion is possible and would involve increasing the capacity of the concentrator to 150,000 tonnes of ore per day, with annual production increasing to 250,000 tonnes of copper equivalent, maximizing the potential of Centinela's large resource base.

Ore for the second concentrator would be sourced initially from the Esperanza Sur deposit and later from Encuentro Sulfides. The latter lies under the Encuentro Oxides reserves, which are expected to be depleted by 2026.

The EIA for both phases of the project was approved in 2016 and the initial feasibility study for Phase 1 was completed during 2020, with further detailed and supplier engineering progressing during 2021 ahead of an expected decision by the Board by the end of 2022. The capital cost estimated in the 2015 pre-feasibility study for Phase 1 was $2.7 billion, which included capitalized stripping, mining equipment, a concentrator plant, a new tailings storage facility, a water pipeline and other infrastructure, plus the owner's and other costs.

Twin Metals Minnesota

Twin Metals is a wholly owned copper, nickel and platinum group metals ("PGM") underground mining project, which holds copper, nickel, cobalt- PGM deposits in north-eastern Minnesota, U.S.. The project envisages mining and processing 18,000 tonnes of ore per day for 25 years and producing three separate concentrates – copper, nickel/cobalt and PGM.

Twin Metals has been progressing its Mine Plan of Operations ("MPO") and Scoping Environmental Assessment Worksheet Data Submittal, submitted in December 2019 to the U.S. Bureau of Land Management ("BLM") and Minnesota Department of Natural Resources ("DNR"), respectively. However, over the past year, while the Twin Metals project was advancing its environmental review,

several actions were taken by the federal government that have changed the potential scenarios for the project.

In 2021, the U.S. Forest Service ("USFS") and BLM initiated an up to two-year study regarding the potential withdrawal of lands within the Superior National Forest ("SNF"), which could ultimately lead to an effective ban on mining for 20 years. This action alone would not have impacted Twin Metals' valid existing rights in the area or the project.

BLM also rejected advancing Twin Metals' preference right lease applications ("PRLAs") and prospecting permit applications ("PPAs"), using the potential withdrawal as a rationale. Twin Metals is appealing that decision but made minor changes to its project configuration to address this decision.

In early 2022, BLM took an additional action through a legal opinion issued by the Office of the Solicitor ("M-Opinion"). This action arbitrarily cancelled Twin Metals' federal leases 1352 and 1353, citing concerns with the reinstatement and renewal process. Twin Metals considers the lease cancellation to be contrary to the terms of the leases and in violation of its existing valid rights.

These actions, taken collectively, create risk to Twin Metals' ability to continue the project as configured in the MPO. Considering the time and uncertainty related to any legal action to challenge the government decisions, an impairment has been recognized as at December 31, 2021 in respect of the intangible assets and property, plant and equipment relating to the Twin Metals project. Twin Metals is currently evaluating its options to protect its mineral rights and to respond to these legal challenges.

Key Inputs and Cost Base

Our mining operations depend on many inputs, from energy and water to labor and fuel, the most important of which are reviewed below. Contractor services, maintenance and spare parts account for 48% of the Mining division's total production costs, and energy and labour are the largest direct costs, accounting for 13% and 14% respectively. As concentrate producers, Los Pelambres and Centinela require reagents and grinding media. As cathode producers using the SX-EW process, Centinela, Antucoya and Zaldívar require sulphuric acid. The availability, cost and reliability of these inputs are central to our cost management strategy, which focuses on cost control and security of supply.

Energy – Energy is a strategic resource for our Group and supply is maintained through a strategy that considers four factors: safety, cost, efficiency and source. For this reason, in addition to reducing the cost of our electricity, we are working on improving our energy consumption efficiency and reducing our emissions.

To achieve this, we have strengthened our Energy Management System, based on international standard ISO 50.001, in line with the new Energy Efficiency Law in Chile published at the beginning of 2021. We are currently preparing our Energy Policy, with objectives and goals that will guide our actions in the short, medium and long term.

We have created specific management structures to manage our energy usage and through exhaustive analysis of gaps and opportunities have identified a set of energy efficiency initiatives that we will implement from 2022.

Our operations are on the country's main grid, the National Electrical System (SEN) and each of our operations sources power under medium- and long-term contracts called Power Purchase Agreements ("PPAs").

In recent years, renewable technologies have significantly reduced in cost and many renewable power plants are being built in Chile, mainly in the north. The cost of renewable power is significantly lower than power from conventional sources.

Zaldívar started operating on 100% renewable power in July 2020 and Centinela and Antucoya did the same from early 2022.

Los Pelambres increased its use of renewable power in 2021, and during 2022 should start to use power only from renewable sources. As a result, all our mining operations are expected to use energy solely from renewable sources by the end of 2022.

This transition to solely using renewable power, with its lower costs and lower emissions, is important for both the Company's carbon footprint and its costs. Energy accounted for 13% of our production costs in 2021.

Water – Water is a strategic resource and we are committed to: (i) increasing our water efficiency by improving recirculation, recovery and reuse rates, and progressively reducing our consumption of continental water, (ii) managing our water usage in an environmentally responsible and sustainable way, in agreement with the communities where we operate, and (iii) applying strong and transparent water governance practices and reporting our performance, risks, opportunities and outcomes both internally and externally.

At Los Pelambres and Zaldívar we use water from continental sources. At Centinela we mainly use raw sea water and at Antucoya we only use raw sea water.

In 2021, sea water accounted for 45% of our Mining division's operational water withdrawal and our efficiency metric (reuse and recycling, as defined by the ICMM) at each operation ranges from 77% to 90%, depending on the operation's characteristics. In the second half of 2022, Los Pelambres expects to complete the construction of a 400 litre per second desalination plant, which, subject to permitting, will double to 800 litres per second by 2025. This will ensure the operation's security of supply and will mean that the operation will no longer need to withdraw water from the Choapa River and its wells in the upper part of the Choapa Valley. From 2025, sea water and reused and recycled water will account for more than 90% of the Mining division's total operational water use.

Centinela is a pioneer in efficient water management, becoming the world's first large-scale mining operation to use raw sea water and thickened tailings, which allow more water to be recycled than conventional thickening technology. Centinela currently obtains 14% of its water withdrawal from nearby wells. However, by the end of 2022 the capacity of its sea water pumping system will have been increased and water extraction from these wells will cease.

Antucoya uses only raw sea water, as will Centinela's second concentrator if its construction is approved by the Board.

Zaldívar's obtains continental water from wells in the Atacama Salt Flat. Its current water extraction permits expire in 2025 and an application to extend them to 2031 is part of the EIA application to extend the mine's life.

In reporting our water metrics, we apply the ICMM's "Water Reporting – Good Practice Guide (2nd Edition)". In addition, we also report our water risk exposure in accordance with the requirements of the Water Security Programme of the Carbon Disclosure Project (CDP), and to the relevant local authorities and other national bodies.

Labor – Accessing a diverse and talented workforce is key to our success. Union labor agreements are in place at all of our mining operations and generally last for a period of three years. See "Employees and Contractors" for more information.

Service contracts and key supplies – Negotiations for key commercial contracts, such as mining equipment, fuels, lubricants, critical spares, tyres, reagents, grinding balls, explosives and mine maintenance, are managed centrally to generate synergies and economies of scale. This achieves significant savings and allows us to implement new controls that improve competitiveness and productivity from our contractor companies. We have linked our supply prices to the respective underlying commodity, to minimize the impact on our margins.

We have a challenging optimisation programme at the corporate and operations levels to improve the administration, control and risk management of our service contracts. The procurement team has a standardized way of working and considerable technical knowledge and has developed effective approaches to managing the purchase of goods and services. Depending on the strategic position of the supplier, these range from pure price competition with e-auctions to long-term Group-wide agreements with mechanisms and incentives that provide benefits for both parties. In 2021, we started strategic review meetings with our key suppliers in order to address operational challenges while simultaneously taking a long-term view.

With the global disruption of the supply chain caused by COVID-19, we implemented contingency plans to maintain the quality and timely delivery of spare parts and materials, ensuring operational continuity and cost containment.

Following the introduction of a purchasing assistant robot in 2020, to help with some stages of the purchase process and integrate new technologies, approximately 88% of the Group's material stock purchases were done through this automated process.

On average we have around 2,184 suppliers of goods and services, of which 96% are based in Chile.

Fuel and lubricants – Fuel and lubricants represent approximately 7% of production costs and are used mainly by mine haulage trucks. Improving fuel efficiency remains a priority, with the amount of fuel consumed per tonne of material mined being a key measure. Variations in the oil price affect not only the price of fuel but also the spot price of energy, shipping rates for supplies and products, and the cost of items such as tyres and conveyor belts, which contain oil-based products. The oil price increased by approximately 40% during 2021.

Sulfuric acid – Sulphuric acid is one of the main inputs for the SX-EW leaching process used to produce cathodes and in 2021 it accounted for approximately 4% of the Group's production costs. Together Centinela, Antucoya and Zaldívar use approximately 1.5 million tonnes of sulphuric acid per year, mainly contracted under one-year agreements to secure supply.

During 2021, the acid price increased significantly, starting the year at about $75 per tonne in Chile and reaching around $255 per tonne by the end of the year. This was an increase of over three times, to a level not seen since 2008.

This price rise followed the revival of global industrial and agricultural activity during the year, the delayed recovery of some sectors, such as the refining of fossil fuels, which is an important producer of sulphur, and significant increases in maritime freight costs.

The high price of acid will have a significant impact at our SX-EW operations, where it accounts for about 23% of production costs.

During 2022 the spot price of acid is expected to remain relatively high, but trending downwards during the year.

Exchange rate – The Chilean peso/U.S. dollar exchange rate generally has a strong correlation with the copper price as copper exports generate over 50% of Chile's foreign exchange earnings, so if the copper price strengthens so does the Chilean peso, and vice versa. This provides a natural hedge for the Company as approximately half of our operating costs are in Chilean pesos. However, during 2021 although the copper price strengthened, the Chilean peso weakened closing the year at Ch$845/$1 as the impact of local political events and the liquidity injection as part of the response to the pandemic outweighed the strength of the copper price.

Marketing

Relationships

Most copper and molybdenum sales are made under annual contracts or longer-term framework agreements, so our sales are based primarily on long-term customer relationships and commitments. The marketing team works to builds long-term relationships with the smelters and fabricators who purchase our products. Without these relationships, we would have to sell a greater proportion of our cathodes and concentrate on the spot market, with greater uncertainty about pricing and volume.

Pricing

Our sales contracts typically establish the annual volumes to be supplied and the main terms for the sale of each payable metal, with the pricing of copper in line with LME prices. In the case of concentrate, a deduction is made from LME prices to reflect the treatment and refining costs necessary to process the concentrate into refined copper. These costs are typically determined annually and generally align with terms negotiated across the concentrate market.

A significant proportion of our copper cathode sales are made under annual contracts, priced at LME prices. In copper cathode transactions, a premium (or in some cases a discount) on the LME price is negotiated to reflect differences in quality, logistics and financing compared with the metal exchanges' standard copper contract specifications. Similarly, our molybdenum contracts are made under long-term framework agreements, with pricing usually based on average prices posted by Platts.

Across the industry, neither copper producers nor consumers tend to make annual commitments for 100% of their respective production or needs. Producers normally retain a portion to be sold on the spot market throughout the year. The prices realized by Antofagasta during a specific period will differ from the average market price for that period. This is because, in line with industry practice, sales agreements generally provide for provisional pricing at the time of shipment, with final pricing based on the average market price for the month in which settlement takes place.

For copper concentrate, the final price remains open until settlement occurs, on average four months from the shipment date. Settlement for the gold and silver content in copper concentrate sales typically occurs approximately one month following shipment. Copper cathode sales usually remain open for an average of one month following shipment. Settlement for copper in concentrate sales is later than for copper cathode sales because further refinement of copper in concentrate is needed before sale. Molybdenum sales generally remain open for two or three months following shipment.

Customers

Most of our copper and molybdenum sales are made under annual contracts or longer-term framework agreements, with sales volumes agreed for the coming year. Gold and silver are contained in

the copper concentrates and are therefore part of copper concentrates sales. Most sales are to industrial customers who further process the copper into more value-added products – smelters, in the case of copper concentrate production, and copper fabricators and trading companies in the case of cathode production. We build long-term relationships with these key smelters and fabricators, while ensuring customer diversification. We also maintain relationships with trading companies that participate in shorter-term sales agreements, or in the spot market. About 70% of our mining sales are under contracts of a year or longer and metals sales pricing is generally based on prevailing market prices.

The table below sets forth our revenue by location of customer for the period specified:

Revenue by Location of Customer[(1)]

	Year Ended December 31,		
	2019	**2020**	**2021**
	(in millions of U.S. dollars)		
Europe			
- UK	152.3	123.3	54.4
- Switzerland	612.4	593.5	1,303.7
- Spain	158.0	29.3	67.6
- Germany	102.7	116.4	121.5
- Rest of Europe	85.0	92.3	177.4
Latin America			
- Chile	213.8	224.4	282.0
- Rest of Latin America	95.3	182.0	214.7
North America			
- United States	88.9	216.5	666.5
Asia			
- Japan	1,561.5	1,631.1	1,842.3
- China	517.2	531.4	1,236.9
- Singapore	692.1	667.5	726.1
- South Korea	371.2	353.4	322.6
- Hong Kong	171.0	235.7	217.1
- Rest of Asia[(2)]	143.1	132.5	237.3
Total	4,964.5	5,129.3	7,470.1

(1) Figures include both revenue from the sale of products and the associated income from the provision of shipping services.

(2) Figures exclude Hong Kong.

Some of our major customers are also equity holders in our mining operations. For the year ended December 31, 2021, our mining revenue included $1,015.1 million related to one large customer that individually accounted for more than 10% of the Group's revenue (year ended December 31, 2020 – one large customer representing $763.4 million).

Environmental Matters

We believe that the health and safety of our employees, respect for the environment, and active engagement with local communities are fundamental to our business. As a result, we are continually examining ways of implementing best practices in these fields through new programs.

Environmental Management

Our environmental management is guided by our Environmental Management Model, which seeks to ensure that our operations, environmental activities and projects strictly comply with environmental requirements and that we have no incidents with an impact on the environment. Our Environmental

Management Model focuses on four areas: leadership, incident reporting, operating risk management and regulatory risk management.

Environmental performance is reported monthly to the Executive Committee.

In 2021, we strengthened the Model's regulatory risk management pillar. The measures taken include the development of a new platform to monitor the different processes through which the Superintendency of the Environment ("SMA") monitors our compliance with regulations, and an alert system to ensure that our operations are fully informed about any new regulatory requirements that may affect them.

The Internal Audit area performed environmental audits on all our operations in 2021, reporting no significant negative finding.

We are also focused on improving the sustainability of our operations by adhering to our Sustainability Policy. For example, over the last three years the Group's mining operations have negotiated new power purchase agreements so that from 2022 all of their power will come from renewable sources.

A focal point of the Sustainability Policy is reducing our carbon emissions. Dust ("PM10") is the main emission from our mines, which proactively manage air quality through measures to suppress emissions that include the regular watering of roads and ore stockpiles. We monitor dust emissions closely with community participation. In addition, we recently replaced older locomotive equipment in our Transport division upgrading the fleet's fuel efficiency and so reducing its emissions.

In 2017, our Mining division defined a series of emissions reduction projects and in 2018 went on to set a target of reducing its direct (Scope 1) and indirect (Scope 2) emissions by 300,000 tonnes of CO_2 by 2022, compared to the 2017 baseline. We met this target in 2020, two years early, with emissions down by 581,355 tonnes of CO_2 and in 2021, reduced our emissions by a further 43,569 tonnes of CO_2. In May 2021 we announced new emissions reduction targets: in the framework of our Climate Change Strategy, we aim to cut our Scope 1 and Scope 2 emissions by 30% by 2025, compared to 2020, equivalent to the avoidance of 730,000 tCO_2e. Moreover, we have been taking significant steps to decarbonize our electricity matrix; following the recent supply contract renegotiations in all of our mines, we now expect that 100% of the energy consumption by our mining operations will be supplied under contracts for renewable energy by the end of 2022.

Environmental Compliance

In Chile, large-scale projects are subject to strict environmental and social impact assessments by the Environmental Evaluation Service ("SEA") in order to obtain a Resolution of Environmental Approval ("RCA"). These RCAs include legally binding commitments on matters related to project development, the prevention and mitigation of the project's impact on the environment and any necessary compensation measures. Compliance with commitments is verified by the SMA.

We have a total of 72 RCAs, entailing over 10,000 commitments on matters that include regulations associated with a project's construction, operation and closure as well as measures related to water use, air quality and biodiversity. In 2021, we obtained three new RCAs: (1) in June, the Transport division obtained the RCA for its plan to rehabilitate land in the city of Antofagasta, used historically to stockpile products such as copper and lead concentrate. This plan is part of a broader redevelopment plan for the site, (2) in July, the SEA approved the Declaration of Environmental Impact (DIA) for the exploitation of Polo Sur, an oxides ore body in the Centinela Mining District, and (3) in November, Centinela also obtained DIA approval for its Alternative Disposal of Tailings In-Pit project. In April, Los Pelambres submitted the Environmental Impact Assessment ("EIA") for Phase 2 of the Los Pelambres Expansion project. This covers mainly the expansion of the operation's desalination plant from 400 l/s to 800 l/s. Zaldívar is

currently seeking EIA approval for its mine life extension project. The evaluation process has advanced through its different stages and is currently awaiting completion of an indigenous consultation process with the nearby Peine community.

Occupational Safety and Health Strategy

Our Mining Safety and Health Strategy is based on four pillars: (1) safety risk management and health risk management: workers at all levels are able to identify hazards and controls, so that all jobs are carried out safely, (2) Leadership: all employees and contractors are health and safety leaders and we demonstrate our commitment through each individual's responsible behaviour, (3) Contractor management: our contractors are an integral part of our safety team and culture, and we work together to improve, and (4) reporting, research and learning from our accidents: we share good practices and learn from our mistakes. The Strategy strives to achieve four main goals of zero fatalities, zero occupational illnesses, the development of a resilient culture and the automation of hazardous processes.

Safety is our top priority. Regrettably, after almost three years, there was a fatal accident at Los Pelambres in 2021. This served to further reinforce our commitment to having outstanding risk management systems. A senior team, with representatives from Antucoya, Centinela, Zaldívar and our corporate offices, conducted a thorough investigation into the event and the opportunities for improvement have been shared with all our operating sites to prevent other similar tragic incidents in the future. This fatality occurred after a prolonged period of uninterrupted improvements in our key safety indicators and provoked a deep reflection process at each of our sites, led by senior management. We stressed that safety is paramount and reinforced the importance of adequate task planning, correct identification of risks and controls, supervision of all critical and high-risk tasks and the need for employees and contractors to feel secure enough to raise safety concerns.

In 2021, the Group recorded 65 high-potential incidents (HPIs), 24% less than the previous year, with improvements by both our Mining and Transport divisions. We began using HPIs as a key safety indicator in 2020, after tightening our classification of such incidents, as they allow us to learn through investigations about what failed and why, and to implement effective corrective actions to prevent the repetition of such events. HPI targets are included as a key performance indicator (KPI) in Performance Agreements to promote and reinforce a preventive and resilient safety culture.

The Group's Lost Time Injury Frequency Rate ("LTIFR") rose by 56% to 1.34 per million hours worked, compared to 2020, mainly due to an increase in low-potential incidents during simple, routine train operations and maintenance tasks in our Transport division, which is exposed to a higher level of manual tasks than our mining operations. The transport business' LTIFR of 4.60 compares with an average of 8.46 for railway operations in Chile. The Mining division's LTIFR also slipped in 2021 as a result of increased construction activities at our growth projects, which typically register a higher number of low severity incidents.

As a consequence of the COVID-19 pandemic, fully flexible working arrangements were implemented simultaneously across the Group in 2020 to meet health protocols and safety requirements. The implementation of these arrangements demonstrated that remote and flexible working arrangements were feasible for the Group. They also reflected increased productivity, stronger engagement, commitment with the Group's Diversity and Inclusion Strategy, talent attraction and better work-life balance. In 2021, we rolled out our New Ways of Working project, comprising a permanent hybrid system of remote and in-person working adapted to employees' roles. Corporate employees are required to work in-person 50% of the time, while jobs at the operations have been divided into three in-person models: 100% of the time (eg. truck operators), 50% of the time, and at least one week a month (all subject to COVID-19 restrictions). The control of COVID-19 infection at our operations continued to be a priority during 2021, especially in the first half of the year, when the second wave of infections peaked in Chile. We focused on encouraging

vaccination and adherence to preventive controls among all our employees and contractors. In coordination with the authorities, we offered vaccinations at our mine sites. By the end of the 2021, at least 97% of our employees, contractors and subcontractors were double vaccinated, a higher rate than the national average, and we were registering the take-up of booster shots. Only vaccinated personnel are allowed to work in-person, others must work remotely. In 2021, we continued our intensive testing, tracing and isolation programme for people in the workplace who have COVID-19 symptoms. During 2021, we traced and monitored 6,093 suspected cases of COVID-19, of which 3,811 were confirmed. We are sad to report that five of our contractors, who began showing symptoms on their rest days, died of COVID-19 during the year. We are also addressing the mental stress related risks arising from the prolonged pandemic.

As part of our efforts to improve our safety performance, we increased visible leadership, strengthened our management of train operators and reinforced the use of the Job Safety Analysis and the Yo Digo No (I Say No) tools in the second half of the year. We will start investigating low-potential lost time injury events in 2022 and are addressing psychosocial factors raised by the prolonged pandemic that have affected concentration and our safety performance. Critical controls and verification tools are regularly strengthened through the verification programme and regular audits of critical controls for potentially high-risk activities We registered four permanent occupational illnesses during 2021. A new digital safety and health tool was designed to monitor the effective implementation of our critical controls for our high-risk activities. The tool, based in our ARMSWORD risk management software, uses QR codes to allow all operators, supervisors and risk owners to verify the correct use of critical controls for all high-risk activities.

Social and Community Programs

We seek to build sustainable long-term relations with the communities near our operations and to contribute to their economic and social development. As part of our commitment to local communities, in 2019 we implemented a new Social Management Model at our four mining operations. This model serves as a vehicle through which we apply common engagement principles, methodologies and practices across our operations, measure impacts and manage risks. Our engagement with local stakeholders is based on the principles of dialogue, collaboration, traceability, excellence and transparency. In the engagement process, we distinguish three spheres of action: institutional, or how we relate to national, regional and local authorities; territorial, or relations with communities in our areas of influence; and operational, or how our operations impact relations with stakeholders and how they perceive the Company.

In the year ended December 31, 2021, we invested $47.8 million on social projects near our operations, a 6.2% increase from $45 million in 2020. We use a bottom-up approach to ensure that local communities participate in the selection of our social investment projects through our Somos Choapa (We are Choapa) and Diálogos para el Desarrollo (Dialogues for Development) engagement mechanisms in the Choapa Province and the Antofagasta Region, respectively. In the second half of the year, we began reactivating suspended projects as the country's comprehensive vaccination campaign took effect and COVID-19 cases lessened. Highlights include:

- *Community infrastructure*: Los Pelambres moved ahead with previously approved projects to improve communal spaces and build social cohesion through our Recreo and Promueve programmes, implemented in alliance with Ciudad Emergente and Mi Parque Foundation, respectively.

- *Dental treatment*: With the support of Centinela, more than 40 Sierra Gorda residents benefited from dental care provided in December by volunteers from the University of Antofagasta's dental school.

- *Pharmacy*: Antucoya is funding the installation of a pharmacy in María Elena that will be supplied by the National Health Service Procurement Centre (CENABAST), allowing locals

to get quality medicines at a low cost. The pharmacy will also serve as a distribution centre for other towns in the region and, in alliance with the Teledoc online health service, will provide telemedicine to locals.

As in 2020, we strengthened our two Somos Choapa water management programmes, APRoxima and Confluye, to address the impact of the Choapa Province's acute drought on water for human consumption and irrigation. Extra measures include an emergency service for repairs on rural drinking water services in the Salamanca municipal district and intensifying Confluye's work on relining irrigation canals to prevent water losses.

Our Transport division completed the community consultation about the future use of Estación Valdivia, a disused railway station in the city of Antofagasta, built in 1916. Also, an important milestone was achieved in the first half of 2021 with the approval of the project's Environmental Impact Assessment.

Restoration, including a linear park and new public spaces, is expected to start in 2023. The initiative builds on the agreement with the Antofagasta Fire Service to transform another of its iconic buildings, the former English School, into a community fire station that will include a museum. The projects are part of a broader plan to gradually vacate the division's 48 hectares of railway yards in the city for later urban development.

Risk Management

Mining is, by its nature, a long-term business and as part of the key risks update and evaluation process we identify emerging risks, which could impact our sustainability in the long run, even if there is limited information available at the time of the evaluation. Overseeing these risks protects our business, people and reputation.

We maintain a risk register through a robust assessment of the potential key risks that could affect the organization's performance. This is used to ensure that key risks are identified in a comprehensive and systematic way. The key risks, together with related mitigation techniques, are periodically presented to our Audit and Risk Committee and are in line with the organization's strategic priorities of People, Safety and Sustainability, Competitiveness, Growth and Innovation. In addition, all five of these strategic pillars are supported by our corporate governance structures.

For each of the categories of risks identified as of the end of 2021, we have preventive and mitigation measures in place:

Talent Management and Labor Relations. Our Employee Performance Management System is designed to attract and retain key employees by creating suitable reward and remuneration structures and providing personal development opportunities. We have a talent management system to identify and develop internal candidates for key management positions, as well as identifying suitable external candidates where appropriate. Implementation of our diversity and inclusion strategy progressed during 2021, increasing the proportion of women in our workforce to 17.2%, achieving our target set in 2018. We seek to identify and address labour issues that may arise throughout the period covered by the labour agreements and to anticipate any potential issues in good time. Employees of our contractor companies are an important part of our workforce and under Chilean law fulfill the same duties and are subject to the same responsibilities as our own employees. We treat contractors as strategic associates and build long-term, mutually beneficial relationships with them.

Safety and Health. We seek continuous improvement of our safety and health risk management procedures, with particular focus on the early identification of risks and the prevention of fatalities and incorporating technology and innovation to reduce workers' exposure to safety and health risks. Our goal of zero serious accidents and fatalities and minimizing the number of accidents, which requires all

contractors to comply with our Occupational Safety and Health Plan, is monitored through monthly reports and is supported by regular training and awareness campaigns for employees, contractors, employees' families and local communities, particularly with regard to road safety. We require all staff in defined safety-critical roles to satisfy at least the minimum qualifications, to have the necessary experience for their role and to complete any required training prior to commencing their work activities. Regrettably, after almost three years, there was a fatal accident at Los Pelambres in 2021. This served to further reinforce our commitment to having outstanding risk management systems. A new digital safety and health tool was designed to monitor the effective implementation of our critical controls for our high-risk activities. The tool, based in our ARMSWORD risk management software, uses QR codes to allow all operators, supervisors and risk owners to verify the correct use of critical controls for all high-risk activities. In 2021, COVID-19 threatened the health of all employees, contractors and local communities. We focused on implementing controls to prevent and mitigate the impact of the virus, prioritising the health of our employees and contractors while minimizing the impact on operational continuity. We are also addressing the mental stress related risks arising from the prolonged pandemic.

Environmental Management. We have a comprehensive approach to incident prevention. Relevant risks are assessed, monitored and controlled in order to achieve our goal of zero incidents with significant environmental impact. We work to raise awareness among employees and contractors, providing training to promote operating excellence. The potential environmental impact of a project is a key consideration when assessing its viability, and we encourage the integration of innovative technology in the project design to mitigate such impacts. We prioritize the efficient use of natural renewable resources by using sea water, favoring the use of renewable power sources, achieving higher rates of reuse and recovery of water through the use of thickened tailings technology and reducing greenhouse gas emissions. We recognize that environmental sustainability is key to our ability to generate social value and we perform regular risk assessments in order to identify potential impacts and develop preventive and mitigating strategies. Each site maintains updated environmental emergency preparedness and detailed closure plans with appropriate financial provisions to ensure physical and chemical stability once operations have ceased. We have strengthened the regulatory risk pillar of the environmental management model, incorporating monthly updates of environmental regulations. Also, a regular monitoring of the Environmental Authority inspection processes was included to assure compliance with our environmental commitments and action plans.

Climate Change. We recognise that climate change is a threat to human life and the planet as we know it today. We seek constantly to identify risks associated with climate change and to implement actions to adapt and mitigate to their potential impact. For each risk evaluated as "High" or "Extreme" we produce specific action plans and strategies. Our Climate Change Strategy seeks to strengthen our capacity to adapt to and mitigate climate change. This enables us to take early action to manage the resulting risks and opportunities in such a way as to mitigate the effects of climate change and adapt to new scenarios. Having achieved our first emissions reduction target two years early, we announced two new targets in May 2021. In the shorter term, we aim to reduce our Scope 1 and 2 emissions by 30% by 2025 compared to 2020, equivalent to a reduction of 730,000 tonnes of CO_2e. In addition, we are committed to achieving carbon neutrality by 2050, or sooner if technology permits, in line with Chile's national commitment. During 2021 precipitation levels at Los Pelambres were lower than expected so throughput had to be reduced to optimise water usage in the concentrator plant until the expected rains in the winter in 2022 and the completion of the desalination plant.

Community Relations. We contribute to the development of communities in the areas in which we operate, starting with their assessment of the existing situation and their specific needs, while looking to develop long-term, sustainable relations and evaluating the impact of our contributions. We work to communicate clearly and transparently with local communities. For example, in 2021, we launched our digital connectivity programme "En Red - Digital Community" to enable communities in our areas of influence to integrate into the world of digitalisation; we reinforced community programmes related to

water for human consumption and irrigation to mitigate the impact that the drought has had in the Province of Choapa; and during the COVID-19 pandemic we have worked with local and regional government to support local communities, including establishing a community support fund that provided financial support, sanitary protection and testing equipment.

Political, Legal and Regulatory. Monitoring changes to Chile's constitution, mining tax legislation and environmental regulations while supporting the Consejo Minero (Chilean mining association) in its representations and responses on behalf of the industry. The nature of the changes will be significantly clearer by the end of 2022 and we will evaluate the impact they may have on our activities and seek to mitigate any negative impacts.

Corruption. During 2021, a new offence was included in the Chilean anti-bribery and employment protection laws. This related to the nonobservance of isolation or other preventive measures issued by the health authority in the event of an epidemic or pandemic. Our crime prevention model was updated accordingly and the related risk re-evaluated. The crime prevention model was recertified during 2021. Whistleblowing investigations were centralised, guaranteeing independence and standardizing the process.

Operations. COVID-related issues during the year impacted the timing of some deliveries and shipments, the availability of project labour and the scheduling of planned maintenance. Due to the Company's flexibility and resilience the overall impact on operations and projects was minor. After 12 years of drought at Los Pelambres this climate change risk has impacted operations reducing production in 2021 and in 2022. This impact will be mitigated on completion of the desalination plant in the second half of 2022.

Tailings Storage. We manage our TSFs using data, modelling, and construction and operating methods validated and recorded by qualified technical teams and reviewed by independent international experts, whose recommendations we implement in order to strengthen the control environment. Risk management includes timely risk identification, control definition and verification. Controls are based on the consequences of the potential failure of the tailings facilities. The Global Industry Standard on Tailings Management ("GISTM") was published in 2020 and we have committed to adopting this standard at all our operations. We launched a new tailings policy during the year, based on the GISTM, reinforcing our commitment to the safety and health of our workforce, communities and the environment. In accordance with this new standard, we have updated our risk assessment methods with a focus on more detailed risk identification, failure modes and controls in order to avoid catastrophic failures. Our tailings policy ensures the stability of our TSFs throughout their lifecycles, managing any potential or actual impact on the environment with sound governance and open communication with stakeholders.

Strategic Resources. In order to maintain our security of supply, contingency plans are in place to address any short-term disruptions to strategic resources. We negotiate early with suppliers of key inputs to ensure continuity. Certain key supplies are purchased from several sources to mitigate potential disruption arising from exposure to a single supplier. To achieve cost competitiveness, we endeavour to buy the highest possible proportion of our key inputs, such as fuel and tyres, on as variable a price basis as possible and to link costs to underlying commodity indices where this option exists. We maintain a rigorous, risk-based supplier management framework to ensure that we engage solely with reputable product and service providers and keep in place the necessary controls to ensure the traceability of all supplies (including avoiding any conduct related to modern slavery). We are committed to incorporating sustainable technological and innovative solutions, such as using sea water and renewable power when economically viable, to mitigate exposure to potentially scarce resources. During 2021, the pandemic and prolonged sea swells impacted the supply of some key inputs, but this impact has been prevented or mitigated through constant monitoring, contingency planning and actions taken to improve the supply capability.

Cyber security. Our information security management model is designed with defensive structural controls to prevent and mitigate the effects of computer risks. It employs a set of rules and procedures, including a Disaster Recovery Plan, to restore critical IT functions in the event of an attack. Our systems are regularly audited to identify any potential threats to the operations and additional systems have been put in place to protect our assets and data. In 2021, preventive controls and constant communication with users were reinforced to prevent cyber attacks.

Liquidity. We maintain a strong and flexible balance sheet, consistently returning capital to shareholders while leaving sufficient funds to progress our short-, medium- and long-term growth plans while maintaining our financial flexibility to take advantage of opportunities as they may arise. We have a risk-averse investment strategy, managing our liquidity by maintaining adequate cash reserves and financing facilities through the periodic review of forecast and actual cash flows. We choose to hold surplus cash in demand or term deposits or highly liquid investments.

Commodity Prices and Exchange Rates. We monitor the commodity markets closely to determine the effect of price fluctuations on earnings, capital expenditure and cash flows. Very occasionally, when we feel it is appropriate, we use derivative instruments to manage our exposure to commodity price and exchange rate fluctuations. We run our business plans through various commodity price scenarios and develop contingency plans as required. Hedge positions taken out in 2020 were closed in 2021 and no new positions were entered into.

Growth of mineral resource base and opportunities. We conduct rigorous assessment processes to evaluate and determine the risks associated with all potential business acquisitions and strategic exploration alliances, including conducting stress-test scenarios for sensitivity analysis. Each assessment includes country risk analysis (including corruption) and analysis of our ability to operate in a new jurisdiction. During 2021, our exploration activities continued to be focused mostly on the Americas and our risk exposure level remained at the same level as in 2020. The Company has discovered a significant greenfield manto type deposit in the coastal belt of the Antofagasta Region. The initial inferred resource of the Cachorro deposit is 142 million tonnes, with a copper grade of 1.2%, and represents just part of the potential resource. Two of Twin Metals' mining leases were cancelled in January 2022. Twin Metals believes it has a valid right to the leases and a strong case to defend its legal rights.

Project Execution. We have a project management system to apply the best practices at each phase of a project's development. The project management system provides a common language and standards to support the decision-making process by balancing risk with the benefit of growth. In addition, all geometallurgical models are reviewed by independent experts. Our growth projects' risks are being proactively managed and frequently evaluated by the project team according to a specific project risk management procedure to minimize the impact on costs and timing arising from COVID-related restrictions.

Innovation and Digitization. We seek value-capturing innovations that realize cost savings and/or improve the efficiency, reliability and safety of our processes while supporting our corporate strategic pillars. We maintain partnerships with academic institutions and companies specializing in technology and engineering, including peers where there is no competitive barrier to doing so, in order to maximize the potential for improvements in our processes and systems. We also dedicate resources to testing and, if successful, advancing innovations which have a potential positive impact on our business and growth options. During 2021, various automation projects such as the autonomous drills at Los Pelambres and Centinela's autonomous trucks and Integrated Remote Operations Centre were progressed. Also, advanced data analytics were used at our sites, focusing mainly on increasing throughput, ore recovery and predictive maintenance. Additionally, our Data Governance Programme and Data Platform were deployed across the organization, generating benefits in data access, consistency and quality, thus accelerating our Advanced Analytics capabilities.

Employees and Contractors

As of December 31, 2021, our workforce consisted of 26,991 individuals, including employees and contractors. This represented a 16.3% increase compared with 23,200 individuals as of December 31, 2020. This change was mainly due to project construction activities at Los Pelambres, Centinela and Zaldivar. More than 99% are in Chile and more than 50% come from communities in the Antofagasta and Coquimbo Regions, where all of the Group's operating companies are located. Approximately 26% of the workforce are Group employees and 74% are employees of contractor or subcontractor companies.

There are 16 workers unions involved in our operations: 11 in the Mining division and five in the Transport division, which together represent 77% of our direct employees. We recognise employees' rights to union membership and collective bargaining, and in Chile freedom of association is protected by law. Chilean legislation also prohibits forced and child labour, limits working hours and includes 15 days' annual paid leave and a minimum wage. In 2021, three-year labour agreements were successfully negotiated with two of the unions at Los Pelambres and one at Centinela, in a climate of mutual respect.

Legal Proceedings

We are subject from time to time to legal proceedings, claims, complaints and investigations arising out of the ordinary course of business. We cannot predict the outcome of individual legal actions or claims or complaints or investigations. As a result, we may become subject to liabilities that could affect our business, financial position and reputation. Litigation is inherently unpredictable and large judgments may at times occur. We may incur, in the future, judgments or enter into settlements of claims that could lead to material cash outflows. We consider that no material loss is expected to result from the legal proceedings, claims, complaints and investigations that we are currently subject to. Provision is made for all liabilities that are expected to materialize through legal claims against us.

Reko Diq project

In July 2019, the World Bank Group's International Centre for Settlement of Investment Disputes ("ICSID") awarded $5.84 billion in damages (compensation and accumulated interest as at the date of the award) to Tethyan Copper Company Pty Limited ("Tethyan"), a joint venture held equally by the Company and Barrick Gold Corporation, in relation to an arbitration claim filed against the Islamic Republic of Pakistan ("Pakistan") following the unlawful denial of a mining lease for the Reko Diq project in Pakistan in 2011. As at December 31, 2021, the outstanding award amount, including interest, was approximately $6.45 billion.

In March 2022 the Company reached an agreement in principle with Barrick Gold and the Governments of Pakistan and Balochistan on a framework that provides for the reconstitution of the Reko Diq project, and a pathway for the Company to exit the project. If definitive agreements are executed and the conditions to closing are satisfied, a consortium comprising various Pakistani state-owned enterprises will acquire an interest in the project for consideration of approximately $900 million to jointly develop the project with Barrick, and Antofagasta would exit. If all the conditions are satisfied during 2022, we would expect to receive the proceeds in 2023.

Monturaqui-Negrillar-Tilopozo aquifer

The Company has been informed that the Consejo de Defensa del Estado (CDE), an independent governmental agency responsible for the defence of the interests of the State of Chile, has filed a claim against Minera Escondida, the lithium producer Albermarle and Zaldívar, alleging that their extraction of water from the Monturaqui-Negrillar-Tilopozo aquifer over the years has impacted the underground water level. The Company is currently reviewing the claim.

MANAGEMENT

Our Board is responsible for the leadership and strategic direction of our business and oversight of our performance. Our Board is currently comprised of 10 directors. Our directors seek re-election annually at the annual general meeting of shareholders in accordance with the UK Corporate Governance Code. All of our directors were re-elected, or in the case of Eugenia Parot, elected, at the annual meeting of shareholders held on May 12, 2021.

Our Board of Directors

Name	Age	Position
Jean-Paul Luksic	57	Non-Executive Chairman
Tony Jensen	60	Senior Independent Non-Executive Director
Ramón Jara	69	Non-Executive Director
Juan Claro	71	Non-Executive Director
Andrónico Luksic C.	68	Non-Executive Director
Vivianne Blanlot	67	Independent Non-Executive Director
Jorge Bande	69	Independent Non-Executive Director
Francisca Castro	59	Independent Non-Executive Director
Michael Anglin	66	Independent Non-Executive Director
Eugenia Parot	62	Independent Non-Executive Director

Jean-Paul Luksic. Mr. Luksic has over 30 years' experience with the Company. Prior to his appointment as Executive Chairman in 2004, he was Chief Executive Officer of our Mining division, in which capacity he oversaw the development of the Los Pelambres and El Tesoro mines. He became our Non-Executive Chairman in September 2014. He is a member of the board of the Consejo Minero, the industry body representing the largest mining companies operating in Chile, and is a Non-Executive Director of Quiñenco S.A. and other listed companies in the Quiñenco group, including Banco de Chile and Sociedad Matriz SAAM S.A. He is also a member of the board of Centro de Estudios Públicos, a Chilean not-for-profit academic foundation. He holds a B.Sc. degree in Management and Science from the London School of Economics and Political Science.

Tony Jensen. Mr. Jensen was appointed an independent Non-Executive Director in 2020. He is a mining engineer with over 35 years of mining experience in the United States and Chile in operational, financial, business development and management roles. Most recently, he served as President and Chief Executive Officer of Royal Gold, Inc. Prior to joining Royal Gold, Inc. in 2003, he held various senior operating positions in the United States and Chile, including, Mine General Manager of the Cortez joint venture in Nevada, and in treasury, business development and a wide range of other operating roles with Placer Dome in the United States and Chile. He previously was a director of Royal Gold Inc. and Golden Star Resources Limited. He is currently a director of Black Hills Corporation and of the University Advisory Board for the South Dakota School of Mines and Technology.

Ramón Jara. Mr. Jara was appointed a Non-Executive Director in 2003. He is a lawyer with wide-ranging legal and commercial experience in Chile. He is Chairman of the Fundación Minera Los Pelambres and a director of the Fundación Andrónico Luksic A., charitable foundations in Chile. He previously was a partner at Jara del Favero from 1976 until 2004. He also served as a director of Empresa Nacional del Petróleo.

Juan Claro. Mr. Claro was appointed a Non-Executive Director in 2005. He has extensive industrial experience in Chile, and has played an active role in the representation of Chilean industrial interests within the country and internationally. He is a former Chairman of the Sociedad de Fomento Fabril, the Confederación de la Producción y del Comercio and the Consejo Binacional de Negocios Chile-China.

He is currently Chairman of Embotelladora Andina S.A. and Energía Coyanco S.A., and is a director of several other companies in Chile, including Empresas Melon and Agrosuper. He is also a member of the board of Centro de Estudios Públicos, a Chilean non-profit academic foundation, and is a country adviser for Goldman Sachs.

Andrónico Luksic. Mr. Luksic was appointed a Non-Executive Director in 2013. He has extensive experience across a range of business sectors throughout Chile, Latin America and Europe. He is currently the Chairman of Quiñenco S.A. and of Compañía Cervecerías Unidas S.A. and is the Vice-Chairman of Banco de Chile and Compañía Sudamericana de Vapores S.A., all of which are listed companies in the Quiñenco group. He is also a director of Nexans S.A., a company listed on NYSE Euronext Paris. He is also a member of the International Business Leaders Advisory Council of the Mayor of Shanghai, the International Advisory Council of the Brookings Institution, the International Advisory Board of Barrick Gold Corporation, the Advisory Board of the Panama Canal and the Chairman's International Advisory Council of the Council of the Americas.

Vivianne Blanlot. Ms. Blanlot was appointed an independent Non-Executive Director in 2014. She is an economist with extensive experience across the energy, mining, water and environmental sectors and has worked in the public and private sector in Chile. She served as Executive Director of the Comisión Nacional de Medio Ambiente from 1995 to 1997, Undersecretary of Energy from 2000 to 2003 and Minister of Defense from 2006 to 2007, among other positions. She is a Director of Colbún S.A., an energy company, and of Empresas CMPC, a packaging company, both of them listed on the Santiago stock exchange. She previously was a member of the Consejo Para La Transparencia, the Chilean body responsible for enforcing transparency in the public sector. She holds an Economics degree from the Pontificia Universidad Católica de Chile and a Master's degree in Applied Economics from American University.

Jorge Bande. Mr. Bande was appointed an independent Non-Executive Director in 2014. He has more than 40 years' experience in the mining industry, as well as considerable experience in the energy and water sectors. He co-founded the Centre for Copper and Mining Studies ("CESCO"), an independent not-for-profit think tank focused on mining policy issues, where he was its first Executive Director from 1984 to 1988. He was Vice President of Development at Codelco from 1990 to 1994 and then became the Chief Executive Officer of AMP Chile, a subsidiary of AMP, one of Australia's largest institutional investors. He was also a director of Codelco from 2006 to 2013. Mr. Bande previously advised the World Bank as a Consultant between 2012 and 2013 and was a member of the Global Agenda Council for Responsible Minerals Resource Management at the World Economic Forum from 2009 to 2013. He was a director for Edelnor S.A., Electroandina S.A. (now E-CL S.A.) and Bupa Chile S.A and a member of the Experts Committee for Copper Prices for the Chilean Ministry of Finance. He is a professor of the International Post-Graduate program in Mineral Economics and member of the advisory council of the School of Economics and Business at the University of Chile. He is currently a director of CESCO and NextMinerals S.A.. He has a Master's degree in economics from American University.

Francisca Castro. Mrs. Francisca Castro was appointed an independent Non-Executive Director in 2016. She is a commercial engineer with more than 25 years' experience in industry, including mining, energy, finance and public-private infrastructure projects in the United States and Chile. She was Executive Vice-President of Strategic Business at Codelco, General Coordinator of Concessions at the Chilean Ministry of Public Works and has held various roles within the Chilean Finance Ministry and the World Bank. She is currently a member of the Chilean Pension Funds Risk Classification Committee, a member of the independent Technical Panel of Chilean Public Works Concessions, a director at SalfaCorp SA and a director of the Fraunhofer Chile Research Foundation.

Michael Anglin. Mr. Anglin was appointed an independent Non-Executive Director in 2019. He is a mining engineer with over 30 years' experience in base metals, including the development, construction and operation of large-scale mining operations in the Americas. He spent 22 years with BHP Billiton

Limited, most recently serving as Vice President of Operations and Chief Operating Officer of the Base Metals group based in Santiago, Chile. He previously was a director of EmberClear Corp. He is currently the Chairman of SSR Mining Inc. He graduated with a Bachelor of Science degree with honors in Mining Engineering from the Royal School of Mines, Imperial College, London, and attained a Master of Science degree from Imperial College, London.

Eugenia Parot. Mrs. Parot was appointed an independent Non-Executive Director in 2021. She is a civil biochemical engineer with over 35 years' experience working for leading engineering and consulting companies providing services to some of the largest mining projects in Latin America in the areas of environment, sustainability and mine waste management. Previously she held various senior positions, including Vice President of Latin America, Regional President for South America and Managing Director for Chile, Golder Associates, director on Golder's holding company board, member of the Audit and Finance and Investments Committees and member of the boards of Golder South America, Chile, Peru and Argentina.

Corporate Governance

Structure of the Board of Directors

Our Board consists of 10 directors, comprising the Non-Executive Chairman, Jean-Paul Luksic, and nine Non-Executive Directors. Six of these nine Non-Executive Directors are considered to be independent – Tony Jensen, Vivianne Blanlot, Jorge Bande, Francisca Castro, Michael Anglin and Eugenia Parot. We believe that a board comprising exclusively Non-Executive Directors is valuable both in terms of providing a range of outside perspectives and in encouraging robust debate with, and challenge of, the Company's executive management, and is also in line with common Chilean practice.

We are satisfied that the balance of the Board in terms of technical skills, educational and professional experience, nationalities, personalities, cultures and perspectives limits the ability of an individual or small group of individuals to dominate the Board's decision-making process.

All new directors that are appointed to the Board receive a thorough induction. This typically includes briefings on our operations and projects, meetings with the Chairman, other Directors and senior executives, briefings on the legal, regulatory and other duties and requirements of the director of a UK-listed company, as well as visits to our key operations.

We provide our Directors with the necessary resources to develop and update their knowledge and capabilities. In particular, the Directors are regularly updated on our business, the competitive and regulatory environment in which we operate, and other changes affecting us as a whole.

Our Board and its committees receive from management an analysis of the matters for consideration in advance of each meeting. They also receive regular reports on key metrics in respect of operational, financial, environmental and social performance, as well as key developments in our exploration and business development activities, information on the commodity markets, our talent management activities and analysis of our financial investments.

All Directors have access to management and to such information as they need to discharge their duties and responsibilities fully and effectively. Directors are also entitled to seek independent professional advice concerning the affairs of the Company at our expense.

We have appropriate insurance in place to cover the Directors against legal action against them.

Appointments to the Board of Directors

The Board's succession plan is reviewed formally once a year and addresses Board size, committee structure and composition, skills on the Board, Board and committee members' tenure, independence of Directors, diversity (including gender), Board roles, Board policies and succession plans for all Board and committee positions. Succession plans include contingency plans in the event of an unexpected departure, medium-term plans for orderly replacement of current Board members and long-term plans linking strategy with the skills needed on the Board in the future.

In making nominations to the Board, the Nomination and Governance Committee considers the skills, experience and knowledge of the existing Directors and identifies the potential candidates who would most benefit the Board. The Nomination and Governance Committee assesses the candidates based on the following criteria: independence; experience in executive roles; mining, power, transport and water experience; corporate governance knowledge; financial and legal acumen; executive compensation knowledge; experience in Chile and Latin America; project construction experience; sustainability, government relations and communications skills; and whether they have sufficient time to devote to the role.

When making new appointments of Directors to the Board, the Nomination and Governance Committee has appointed independent external search consultancies, who do not have any connection to the Company, to assist with searches for Board candidates. During 2019 to 2021, the Nomination and Governance Committee appointed Spencer Stuart to assist with the search for new independent Non-Executive Directors. Spencer Stuart was briefed on the skills and experience of the existing Directors and was asked to identify potential candidates who would best meet a number of criteria, including relevant experience, skills, personality type, contribution to Board diversity and whether they had sufficient time to devote to the role. Members of the Nomination and Governance Committee interviewed short-listed candidates and collectively selected Michael Anglin and Tony Jensen to be recommended to the Board for appointment.

Additionally, the Board believes in the benefits of diversity and that more diverse companies attract the best talent and achieve stronger overall performance. The Board considers a broad definition of diversity when setting policies and appointing Directors, including gender, disability, nationality, educational and professional experience, personality type, culture and perspective. Gender diversity is an important part of our diversity objectives and the Board recognizes and supports the important work performed by the Hampton-Alexander Review in setting a 33% target for women on FTSE 350 boards and on executive committees and their direct reports. Three of the six Board appointees since 2014 have been women and the Board actively seeks to increase female representation beyond the current level, while ensuring that appointments continue to be made on merit.

The Nomination and Governance Committee periodically reviews the composition of the Board and its Committees, conducting a succession planning exercise to determine appropriate strategies to fill potential vacancies while preserving an adequate balance of skills, knowledge, experience and independence. The succession plan considers Board size, Committee structure and composition, skills on the Board, Board and Committee members' tenure, independence of Directors, diversity (including gender), Board roles, Board policies, and succession plans for all Board and Committee positions. Succession plans include contingency plans in the event of an unexpected departure, medium-term plans for orderly replacement of current Board members and long-term plans linking strategy with the skills needed on the Board in the future.

Committees

The Board has five standing committees: the Nomination and Governance Committee, the Audit and Risk Committee, the Remuneration and Talent Management Committee, the Sustainability and Stakeholder Management Committee and the Projects Committee.

Nomination and Governance Committee

The members of the Nomination and Governance Committee are Jean-Paul Luksic (Chair), Vivianne Blanlot and Tony Jensen. All the Committee members, except for Jean-Paul Luksic, are considered by our Board to be independent.

The purpose of the Nomination and Governance Committee is to support the Board in ensuring that we have effective governance structures in place and that the Board and its Committees are appropriately staffed and operate effectively.

The Committee is responsible for monitoring trends, initiatives and proposals in relation to corporate governance, overseeing and facilitating annual reviews of the Chairman and the Board, including externally facilitated reviews. The Committee also leads the process of identifying suitable candidates to fill vacancies, nominating such candidates for approval by the Board, ensuring that appointments are made on merit and against objective criteria and overseeing CEO succession plans.

The Chair of the Committee reports to the Board following each Committee meeting, allowing the Board to understand, and if necessary discuss, matters considered in detail by the Nomination and Governance Committee. The Committee meets as necessary and at least twice a year.

The Committee held five meetings during 2021.

Audit and Risk Committee

The members of the Audit and Risk Committee are Tony Jensen (Chair), Jorge Bande and Francisca Castro. All the Committee members are considered by our Board to be independent. This Committee assists our Board in meeting its responsibilities relating to financial reporting and control over risk management. The Committee is responsible for overseeing our relationship with the external auditor and monitoring the effectiveness of our internal audit and risk management functions.

The Committee meets as necessary and at least two times a year. The external auditors are in attendance for the bulk of the meetings. There is a rolling agenda that covers regular matters such as the review of the year-end financial statements and half-yearly financial report, planning for the year-end reporting and external audit processes, monitoring our tax strategy and processes, reviewing the Internal Audit work plan and reports from the risk management function, as well as providing time for *ad hoc* matters requiring the Committee's consideration.

The Committee monitors the integrity of our financial reporting. This includes responsibility for reviewing the year-end and half-year financial reports, monitoring the overall financial reporting process, overseeing the external audit process and managing the relationship with our external auditor. The Committee also reviews and monitors the independence and objectivity of the Internal Audit function, including consideration of its resources, planned work and findings. The Committee assists the Board with its responsibilities in respect of risk management, including reviews of the Group's risk appetite and monitoring of key risks, and also monitors the Group's compliance processes and any significant compliance issues.

The Chair of the Committee reports to the Board following each Committee meeting, allowing the Board to understand and, if necessary, discuss matters considered in detail by the Committee.

The Committee held five meetings during 2021.

Remuneration and Talent Management Committee

The members of the Remuneration and Talent Management Committee are Francisca Castro (Chair), Michael Anglin, Vivianne Blanlot and Tony Jensen. All the Committee members are considered by our Board to be independent.

The purpose of the Remuneration and Talent Management Committee is to ensure that our remuneration arrangements support our strategic objectives and enable the recruitment, motivation, reward and retention of talent. The Committee may rely on outside advice on certain matters under its consideration.

The Committee is responsible for preparing and reviewing the appropriateness and relevance of the Company's Remuneration Policy. The Committee also reviews and approves the remuneration of the Chairman and reviews and approves the remuneration of our Chief Executive Officer, determining the performance-related elements of his compensation.

The Committee also is responsible for monitoring the level and structure of remuneration of the Executive Committee, reviewing and approving performance-related compensation and reviewing succession planning for the Executive Committee. The Committee also reviews workforce remuneration and related policies, including the diversity and inclusion policy, and the alignment of incentives and rewards with our culture. The Committee reviews any major changes in compensation policies applied across our companies that have a significant long-term impact on labor costs, and reviews compensation and talent management strategies.

The Committee actively participates in our talent management strategy, including the review, consideration and implementation of succession plans for members of the Executive Committee (excluding the Chief Executive Officer).

The Chair of the Committee reports to the Board following each Committee meeting, allowing the Board to understand and, if necessary, discuss matters considered in detail by the Committee. The Committee meets as necessary and at least twice a year. No Director is involved in setting his or her own remuneration.

The Committee held five meetings during 2021.

Sustainability and Stakeholder Management Committee

The members of the Sustainability and Stakeholder Management Committee are Vivianne Blanlot (Chair), Jorge Bande, Juan Claro, Ramón Jara, Michael Anglin, Eugenia Parot and Tony Jensen.

The Sustainability and Stakeholder Management Committee supports the Board in the stewardship of our environmental, social responsibility and safety and health programs and makes recommendations to the Board to ensure that the considerations that are important for our stakeholders are taken into account in the Board's deliberations. The Committee reviews the framework of safety and health, environmental, human rights and social policies, monitors our performance in setting and meeting environmental, social and safety and occupational health commitments and provides guidance on the views and interests of stakeholders in relation to potential projects and other business matters. When necessary, the Committee escalates matters of concern to the Board.

The Chair of the Committee reports to the Board following each Committee meeting, allowing the Board to understand and, if necessary, discuss matters considered in detail by the Committee. The Committee meets as necessary and at least twice a year.

The Committee held five meetings during 2021.

Projects Committee

The members of the Projects Committee are Michael Anglin (Chair), Jorge Bande, Ramón Jara and Eugenia Parot.

The Projects Committee reviews all aspects of projects to be submitted for Board approval, highlighting key matters throughout the project development lifecycle for the Board's consideration and making recommendations to management to ensure that all projects submitted to the Board are aligned with our strategy and risk appetite.

The Committee adds an important level of governance and control to the evaluation of our projects and plays a key role in providing the Board with additional overview of the projects portfolio. This includes overview of the establishment of project development guidelines, which draw from best practice, industry experience and lessons learned from other projects.

The Chair of the Committee reports to the Board following each Committee meeting, allowing the Board to understand and, if necessary, discuss matters considered in detail by the Committee. The Committee meets as necessary and at least twice a year.

The Committee held six meetings during 2021.

Senior Management

Name	Position
Iván Arriagada	Chief Executive Officer
Mauricio Ortiz	Chief Financial Officer
Mauricio Larraín	Vice President of Northern Operations
Alejandro Vásquez	Vice President of Los Pelambres Operations
Georgeanne Barceló	Vice President of Human Resources
Gonzalo Sánchez	Vice President of Sales
Francisco Walther	Vice President of Projects
René Aguilar	Vice President of Corporate Affairs and Sustainability
Patricio Enei	Vice President of Legal
Andrónico Luksic L.	Vice President of Development
Alan Muchnik	Vice President of Strategy and Innovation
Katharina Jenny	General Manager – FCAB (Transport division)

Iván Arriagada. Mr. Arriagada joined as Chief Executive Officer of Antofagasta Minerals in February of 2015 and was appointed CEO of Antofagasta plc in April 2016. Before joining the Company, Mr. Arriagada was the Chief Financial Officer at Codelco. Prior to that, he held various positions at BHP Billiton, including President of Pampa Norte, Vice President of Operations and Chief Financial Officer for the Base Metals division. He also worked for almost 20 years at Shell, in Chile, the UK, Argentina and the United States. He holds a Master's degree in Science from the London School of Economics and an MBA from the Universidad Adolfo Ibáñez in Chile. He also has attended several executive education programs at Wharton, INSEAD and the MIT Sloan School of Management.

Mauricio Ortiz. Mr. Ortiz became our Chief Financial Officer in 2020. He previously served as Vice President of Finance of Antofagasta Minerals in 2019. Prior to this position, Mr. Ortiz worked at

FCAB (our Transport Division), where he served as General Manager for four years. He was previously a Business Development Manager at Antofagasta plc, a Finance Manager at Codelco – Chuquicamata, Business Development Principal at Rio Tinto plc, London and held various operating project roles at BHP Billiton. Mr. Ortiz holds an electrical engineering degree and a Master of Science (Electrical Engineering) from Universidad de Concepción in Chile and a Master of Science (Metals and Energy Finance) from Imperial College London.

Mauricio Larraín. Mr. Larraín joined us in 2017 and was appointed Vice-President of Northern Operations in 2022. He is a civil mining engineer and Master of Science (Mineral Economics) with over 25 years' experience in mining. Previously, he held various positions as General Manager of Los Pelambres, General Manager at Codelco's El Teniente Division, Operations Manager at El Teniente, Mine Planning Corporate Manager of Codelco and various positions at Codelco and Los Pelambres.

Alejandro Vásquez. Mr. Vásquez joined us in 2022 and was appointed Vice-President of Los Pelambres Operations in 2022. He is a civil mining engineer with over 30 years' experience in mining. Previously, he held various positions as Vice President, South America of Teck, President of Pampa Norte (BHP's Spence and Cerro Colorado operations), General Manager of the Yandi iron ore operation in Australia and Vice President of Operations for Minera Escondida.

Georgeanne Barceló. Mrs. Barceló joined us in 2021 and was appointed Vice-President of Human Resources in 2022. Previously, she held various positions as Labour Relations Manager of Antofagasta Minerals, Corporate Director of People at Bupa Chile and Human Resources Vice President at Komatsu Latin America. Mrs. Barceló is a human resources specialist with a degree in Law and Masters in Strategic Management of Human Resources, with more than 20 years' experience in international and national companies across a range of sectors, including insurance and industry.

Gonzalo Sánchez. Mr. Sánchez joined us as Deputy Commercial Director in 1996 and has been Vice President of Sales since 2004. He has 25 years of experience in marketing and hedging of metals. He holds a Civil Engineering degree in Structural Engineering and a Postgraduate Diploma in Business Management from the Universidad de Chile.

Francisco Walther. Mr. Walther joined as Vice President of Projects in 2007. He has served as New Project Development Manager, Sierra Gorda District Manager, where he was in charge of the pre-feasibility of the Centinela Mine Development project. From 2015 to December 2017, he also was Corporate Project Manager. Before joining us, Mr. Walther worked as director of Reko Diq and of Codelco's Chuquicamata underground project. Previously, Mr. Walther was head of engineering for Codelco's Mansa Mina (now Ministro Hales) project.

René Aguilar. Mr. Aguilar joined as Vice President of Corporate Affairs and Sustainability in 2017. Before joining us, Mr. Aguilar worked at Anglo American in London as Group Head of Safety. Previously, Mr. Aguilar held the position of Vice President of Corporate Affairs and Sustainability at Codelco and Health and Safety Director at the International Council on Mining and Metals in London.

Patricio Enei. Mr. Enei joined Antofagasta Minerals as Vice-President of Legal in 2014. Before joining us, Mr. Enei was General Counsel of Codelco from 2011 to 2014 and Corporate Affairs Manager of Minera Escondida from 2010 to 2011. He worked as a Senior Lawyer at BHP Billiton in Chile, as Chief Legal Counsel at Minera Doña Inés de Collahuasi, at the Instituto de Normalización Previsional and in private practice. He holds a law degree from the University of Concepción and a combined MBA from the Universidad de Chile and the University of Tulane in the U.S.

Andrónico Luksic L. Mr. Luksic joined us in 2006 and has held various positions, including corporate manager of Antofagasta Minerals and director of the Toronto office. Previously, he held various positions at Banco de Chile.

Alan Muchnik. Mr. Muchnik joined us in 2016 and was appointed Vice President of Strategy and Innovation in 2021. Previously he held various positions as Group Innovation and Energy Manager, and Growth Assets, Energy and Innovation Portfolio Manager of Antofagasta Minerals and several positions in strategy, planning, studies and business development over 10 years at BHP (Chile and the USA). He is a civil engineer, with a Master's degree in engineering and an MBA.

Katharina Jenny. Mrs. Jenny joined us in 2016 and was appointed General Manager – FCAB (Transport division) in 2019. Previously she held various positions as Safety and Health Manager at Antofagasta Minerals, Productivity and Costs Manager, and Safety Manager at Codelco and various roles at BHP, including mine planning, safety and health and environment. She is a mining engineer and holds an MBA, with over 15 years' experience in mining.

Compensation of the Members of the Board of Directors and Senior Management

We only make remuneration payments to Directors and the CEO, or payments for loss of office, if the payment is in line with our Directors' and CEO Remuneration Policy most recently approved by our shareholders.

The CEO receives a base salary and benefits in line with market conditions in Chile, taking into consideration international factors, as appropriate. He participates in the Annual Bonus Plan and the long-term incentive plan ("LTIP"), which are designed to align remuneration with our overall performance and promote outcomes that are for our long-term benefit. Market conditions and remuneration structures available in Chile are a central consideration when setting the CEO's remuneration. While the Remuneration and Talent Management Committee carefully considers some of the features of variable remuneration that have evolved for UK-listed companies in recent years, we continue to maintain the structure we have applied for many years, which includes the grant of a combination of restricted and performance "phantom share" awards under the LTIP and the delivery of both the LTIP and annual bonus in cash.

PRINCIPAL SHAREHOLDERS

The table below sets forth certain information regarding the ownership of our capital structure by our largest shareholders as of December 31, 2021.

Shareholder	% Ownership of Ordinary Shares	% Ownership of Preferred Shares	% Total Share Capital Ownership
Metalinvest Establishment	50.72%	94.12%	58.04%
Kupferberg Establishment.....	9.94%	–	8.27%
Aureberg Establishment........	4.26%	–	3.54%
Total......................................	64.92%	94.12%	69.85%

Metalinvest Establishment and Kupferberg Establishment are both controlled by the E. Abaroa Foundation, in which members of the Luksic family are interested. Metalinvest Establishment is our immediate parent company and the E. Abaroa Foundation is the ultimate parent company. Aureberg Establishment is controlled by the Severe Studere Foundation, which in turn is controlled by Jean-Paul Luksic, the Chairman of the Board.

The table below sets forth certain information regarding the ownership of our capital structure by members of the Board and officers as of December 31, 2021.

Shareholder	Number of Ordinary Shares
Jean-Paul Luksic[(1)]	41,963,110
Ramón Jara[(2)]	5,260

(1) Jean-Paul Luksic's interest relates to shares held by Aureberg Establishment, an entity that he ultimately controls.
(2) Ramón Jara's interest relates to shares held by a close family member.

RELATED PARTY TRANSACTIONS

In the ordinary course of business we enter into various transactions with related parties.

Certain related party transactions outside the ordinary course of business must be subject to independent assessment and approval. Any such related party transaction between us and a controlling shareholder or its associates is reviewed, and if appropriate, approved by a committee of Directors independent from the controlling shareholder. Any other proposed related party transaction over $25 million, whether or not in the ordinary course of business, is also tabled for Board approval. Any Director with a potential conflict or connection with the related party will not take part in the decision on that transaction.

When a proposed related party transaction is brought to the Board's attention, we seek to ensure that the best possible terms are achieved for a proposed transaction and, where appropriate or necessary, that they are verified by industry benchmarking reports or independent third-party valuation or assessment.

Transactions between the Company and its subsidiaries, on the one hand, and on the other hand entities connected with the controlling shareholder or its associates, are summarized below. For a summary all related party transactions, please see Note 34 to the 2021 Audited Financial Statements.

- Our immediate parent company is Metalinvest Establishment, which is controlled by the E. Abaroa Foundation, in which members of the Luksic family are interested. Our subsidiaries, in the ordinary course of business, enter into various transactions with companies which are controlled by (or are associates of) entities in which members of the Luksic family are also interested, including Banco de Chile S.A., ENEX S.A., Compañía de Inversiones Adriático S.A, BanChile Administradora General de Fondos SA. and Hapag Lloyd. These transactions were all on normal commercial terms, which are summarized below:
  - *Banco de Chile*. In the year ended December 31, 2021, we earned interest income of zero (2020 – $1.7 million) during the year on deposits with Banco de Chile SA. Deposit balances at the end of the year were zero (2020 – zero).
  - *ENEX S.A*. In the year ended December 31, 2021, we made purchases of fuel from ENEX S.A. of $263.9 million (2020 – $212.6 million). The balance due to ENEX SA at the end of the year was $20.4 million (2020 – zero).
  - *Compañía de Inversiones Adriático SA*. In the year ended December 31, 2021, we leased office space on normal commercial terms from Compañía de Inversiones Adriático SA at a cost of $0.8 million (2020 –$0.7 million).
  - *BanChile Administradora General de Fondos SA*. In the year ended December 31, 2021, we earned interest income of $0.1 million (2020 – $0.3 million) on investments with BanChile Administradora General de Fondos SA. Investment balances at the end of the year were $2.2 million (2020 – zero).
  - *Hapag Lloyd*. In the year ended December 31, 2021, we purchased shipping services from Hapag Lloyd of $8.9 million (2020 – $7.0 million). The balance due to Hapag Lloyd at the end of the year was $0.4 million (2020 – zero).
- We hold a 51% interest in Antomin 2 and Antomin Investors Limited ("Antomin Investors"), which own a number of copper exploration properties. We originally acquired our 51% interest in these properties for a nominal consideration from Mineralinvest Establishment, a company owned by the E. Abaroa Foundation (in which members of the Luksic family are interested),

which continues to hold the remaining 49% of Antomin 2 and Antomin Investors. We are responsible for any exploration costs relating to the properties held by these entities.

During the year ended December 31, 2021, the Group incurred $0.1 million (year ended December 31, 2020 – $0.1 million) of exploration expense at these properties.

- We hold a 50% interest in Tethyan Copper Company Limited, which is a joint venture with Barrick Gold Corporation over Tethyan's mineral interests in Pakistan. During 2021, the Group contributed $9.5 million (2020 – $7.2 million) to Tethyan.

- We hold a 50% interest in Zaldívar, which is a joint venture with Barrick Gold Corporation. Antofagasta is the operator of Zaldívar. The balance due from Zaldívar to Group companies as at December 31, 2022 was $2.5 million (2020 – $0.5 million). During 2021, Zaldívar declared dividends of $77.5 million to the Group (2020 – $65.0 million).

- On March 31, 2020 the Group agreed to dispose of its 40% interest in Hornitos coal-fired power station to ENGIE Energía Chile S.A. ("ENGIE"), the owner of the remaining 60% interest. Under the terms of this agreement, the Group agreed to make a final capital contribution to Hornitos of $24 million, the payment of which took place during 2021. During 2020 the Group paid $128.2 million to Inversiones Hornitos in relation to the energy supply contract at Centinela. During 2020 and 2021, the Group has not received dividends from Inversiones Hornitos SA.

DESCRIPTION OF THE NOTES

The notes have been issued pursuant to a supplemental indenture, dated May 13, 2022 (the "supplemental indenture"), to the base indenture dated as of October 14, 2020, between the Issuer and The Bank of New York Mellon, as trustee, paying agent, transfer agent and registrar (the base indenture, together with the supplemental indenture, the "indenture").

The following description of certain provisions of the notes and of the indenture is subject to and is qualified by reference to the provisions of the notes and the indenture, copies of which will be available to holders of the notes for inspection at the office of the trustee at 240 Greenwich Street, New York, NY 10286. Unless the context otherwise requires, references to "notes" include the notes offered hereby and any Additional Notes (as defined below).

General

The notes have been issued by the Issuer, and the Issuer will be liable therefor and obligated to perform all covenants and agreements to be performed by the Issuer pursuant to the notes and the indenture, including the obligations to pay principal, interest and Additional Amounts (as defined below under "Payment of Additional Amounts"), if any. The trustee under the indenture is The Bank of New York Mellon (the "trustee," which term shall include any successor trustee under the indenture).

The indenture provides for the issuance by the Issuer from time to time of notes in one or more series up to an aggregate principal amount of notes as from time to time may be authorized by the Issuer. Notes that have the same date of maturity and interest payment dates, are payable in the same currency, bear interest at the same rate and have terms that are otherwise identical, are referred to herein as a "series."

The aggregate principal amount of the notes is U.S.$500,000,000. Interest on the notes accrues at the rate of 5.625% per annum and is payable semi-annually in arrears on May 13 and November 13 of each year, or, if any such date is not a Business Day (as defined below), on the next succeeding Business Day (each such date, an "Interest Payment Date"), commencing on November 13, 2022. Payments will be made to the person or persons (each, a "holder") in whose name such notes are registered in the Security Register (as defined below) at the close of business on the 5th calendar day immediately preceding an Interest Payment Date (whether or not a Business Day) (each a "Record Date"). Interest on the notes will be calculated on the basis of a 360-day year of twelve 30-day months. For the purposes hereof, the term "Business Day" means a day on which banks in London, United Kingdom and The City of New York are not authorized or required by law or executive order to be closed.

Moneys paid by the Issuer to the trustee or any paying agent for the payment of principal of (and premium, if any) or interest on any of the notes and remaining unclaimed at the end of two years after the date on which such principal (and premium, if any) or interest shall have become due and payable (whether at maturity, upon call for redemption or otherwise) shall, together with interest made available for payment thereof, be repaid to the Issuer, whereupon all liability of the trustee or such paying agent with respect to such moneys shall cease.

The notes will mature on May 13, 2032. The notes will not be redeemable prior to maturity except as described under "—Optional Redemption."

Ranking

The notes constitute direct, general, unsecured, unconditional and unsubordinated obligations of the Issuer. The notes will rank without any preference among them and equally with all other unsecured and unsubordinated obligations of the Issuer. It is understood and agreed that this provision will not be construed so as to require the Issuer to make payments under the notes ratably with payments being made under any other obligations. The indenture contains no restriction on the amount of additional indebtedness which may be incurred by the Issuer or its subsidiaries; however, as set forth under "—Limitation on Liens" below, the indenture contains certain restrictions on the ability of the Issuer and its subsidiaries to incur secured indebtedness.

Registration, Form and Delivery

The trustee will initially act as paying agent, transfer agent and registrar for the notes. The notes have been issued in definitive, fully registered form, without coupons, in denominations of U.S.$200,000 principal amount and multiples of U.S.$1,000 in excess thereof. The notes will be exchangeable, and transfers thereof will be registrable, at the office of the registrar for the notes. No charge will be made to holders of the notes in connection with any exchange or registration of transfer, but the Issuer may require payment of a sum sufficient to cover any tax or other governmental charge payable in that connection.

The trustee will maintain at its office located at 240 Greenwich Street, New York, NY 10286, a security register (the "Security Register") with respect to the notes. The name and address of the registered holder of each note and the amount of each note will be recorded in the Security Register, and the trustee and the Issuer may treat the person in whose name the note is registered as the owner of such note for all purposes. For so long as the notes are represented by one or more Global Notes (as defined under "—Global Notes" below), the registered holder of a Global Note, in accordance with the terms of the indenture, may be treated at all times and for all purposes by the Issuer and the trustee as the sole owner with respect to such notes, with respect to all payments on the notes and for all other purposes under the terms of the notes and the indenture.

The notes have been offered and sold in connection with the initial offering thereof solely to "qualified institutional buyers," as that term is defined in Rule 144A under the Securities Act, pursuant to Rule 144A, and in offshore transactions to persons other than "U.S. persons," as defined in Regulation S under the Securities Act, in reliance on Regulation S. Following the initial offering of the notes, the notes may be resold to qualified institutional buyers pursuant to Rule 144A, to non-U.S. persons in reliance on Regulation S and pursuant to Rule 144 under the Securities Act, as described under "Transfer Restrictions."

Covenants

The Issuer has agreed to restrictions on its activities for the benefit of holders of the notes. The following restrictions will apply to the notes:

Consolidation, Merger, Conveyance, Sale or Lease

The Issuer will not (a) consolidate, amalgamate or merge with or into any other person, and will not permit any other person to consolidate, amalgamate or merge with or into the Issuer; or (b) sell, transfer, lease or convey all or substantially all of the properties and assets of the Issuer and its subsidiaries, taken as a whole, to any other person, unless:

1. the person formed by such consolidation, amalgamation or merger (if other than the Issuer) or the person that acquires by purchase, transfer or conveyance, or that leases, all or substantially all of the properties and assets of the Issuer and its subsidiaries, taken as a whole (in each case, the "Surviving Person"), (A) is an entity organized and existing under the laws of England and Wales, the United States of America, or any State thereof or the District of Columbia, any member state of the European Union, Luxembourg, Switzerland, the Republic of Chile, or any other member country of the OECD (or, if the Surviving Person is an entity organized and existing under the laws of any other jurisdiction, the Issuer delivers to the trustee an opinion of counsel to the effect that the rights of the holders of the notes would not be adversely affected as a result of the application of the law of the jurisdiction of organization of the Surviving Person, insofar as such law affects the ability of the Surviving Person to obligate itself to pay and perform the obligations and undertakings of the Issuer under the indenture and the notes or the ability of the holders to enforce such obligations and undertakings); and (B) expressly assumes, by supplemental indenture, the due and punctual payment of the principal of and interest and Additional Amounts, if any, on all outstanding notes and the performance of every covenant in the indenture and the notes on the part of the Issuer to be performed or observed;

2. immediately after giving effect to such transaction, no Event of Default (as defined below), and no event that, after notice or lapse of time or both, would become an Event of Default, shall have occurred and be continuing; and

3. the Issuer has delivered to the trustee an officers' certificate and an opinion of counsel, each stating that all conditions precedent provided in the indenture relating to such consolidation, amalgamation, merger, sale, transfer, conveyance or lease, and such supplemental indenture, have been complied with.

Limitation on Liens

Neither the Issuer nor any Material Subsidiary (as defined below) will (a) issue, assume or guarantee any indebtedness for borrowed money if such indebtedness is secured, or (b) secure any outstanding indebtedness for borrowed money, in each case, by a Lien (as defined below) upon any Principal Property (as defined below) or upon any shares of stock of, or indebtedness for borrowed money of, any Material Subsidiary, now owned or hereafter acquired, without effectively providing that the notes shall be secured equally and ratably with such indebtedness, except that the foregoing restrictions shall not apply to:

(i) (A) Liens on any Principal Property acquired, constructed or improved after the Issue Date to secure or provide for the payment of the purchase price or cost of construction or improvements (including costs such as increased costs due to escalation, interest during construction and similar costs) thereof incurred after the Issue Date, (B) existing Liens on property acquired and (C) Liens on the assets or equity interests of any Subsidiary acquiring such Principal Property, *provided* such Liens shall not apply to any property theretofore owned by the Issuer or any Material Subsidiary other than theretofore unimproved real property,

(ii) Liens on any Principal Property or shares of stock or indebtedness acquired from a corporation amalgamated, consolidated or merged with or into the Issuer or a Material Subsidiary,

(iii) Liens to secure indebtedness of the Issuer or a Material Subsidiary to the Issuer or another Subsidiary,

(iv) the sale or other transfer of any interest in property of the character commonly referred to as a "production or streaming payment,"

(v) Liens on any property existing at the time of the acquisition of such property by the Issuer or any of its Material Subsidiaries which lien was not (or is not) created in connection with such acquisition,

(vi) (A) Liens on the property of a person that becomes a Subsidiary of the Issuer after the date hereof; *provided* that such Liens (x) existed at the time such person becomes a Subsidiary of the Issuer and were not created in anticipation thereof, and (y) are not extended to any property of the Issuer or of any of its Subsidiaries, other than the property or assets of such Subsidiary, and (B) Liens on the proceeds of indebtedness incurred to finance an acquisition, investment or refinancing pursuant to customary escrow or similar arrangements to the extent such proceeds (x) secure such indebtedness or are otherwise restricted in favor of the holders of such indebtedness and (y) will be required to repay such indebtedness if such acquisition, investment or refinancing is not consummated,

(vii) Liens in existence on the Issue Date,

(viii) Liens on deposits to secure, or any lien otherwise securing, the performance of bids, statutory obligations, surety bonds, appeal bonds, performance bonds and other obligations of a like nature incurred in the ordinary course of business,

(ix) any Lien securing Project Finance Indebtedness; *provided* that such Lien applies only to (A) property or assets of the relevant Subsidiary or Subsidiaries, as the case may be, that are acquired, constructed, developed, improved, operated or expanded (whether such property or assets are acquired at the time of such financing or at any point previously or thereafter) and/or any property or assets (including existing property) of the relevant Subsidiary or Subsidiaries, as the case may be, related to such property or assets (including any concessions, contracts, easements, licenses or permits), (B) any inventories, receivables or other products or proceeds of, or any revenue or profit from, or compensation in respect of any of the property or assets described in sub-clause (A) above or sub-clause (C) below, including any deposit, securities or other account containing any of the foregoing, or (C) any shares or other ownership interest in, or any indebtedness of, any Person, substantially all of the property and assets of which consist, directly or indirectly, of any of the property or assets described in sub-clause (A) or (B) above, and

(x) any extension, renewal or replacement (or successive extensions, renewals or replacements), in whole or in part, of any lien referred to in the foregoing clauses (i), (ii), (iii) or (v), (vi), (vii) and (ix), inclusive of any indebtedness secured thereby,

provided that the principal amount of indebtedness so secured thereby shall not exceed the principal amount of indebtedness so secured at the time of such extension, renewal or replacement and that such extension, renewal or replacement Lien shall be limited to all or part of the property which secured the Lien extended, renewed or replaced (plus improvements on or additions to such property).

Notwithstanding the foregoing, the Issuer and one or more Material Subsidiaries may (a) issue, assume or guarantee indebtedness for borrowed money secured by Liens; or (b) secure any existing indebtedness for borrowed money with Liens, in each case, without effectively providing that the notes shall be secured equally and ratably with such indebtedness, so long as the aggregate principal amount of such indebtedness, when taken together with the (i) aggregate outstanding principal amount of all other indebtedness for borrowed money of the Issuer and its Material Subsidiaries that would otherwise be subject to the foregoing restrictions (not including indebtedness permitted to be secured under clauses (i) through (x) above); and (ii) the aggregate Attributable Value of the sale-and-lease-back transactions described under "—Limitation on Sale-and-Lease-Back Transactions" below (other than sale-and-lease-back transactions the proceeds of which have been applied as provided in clause (b) under "—Limitation on Sale-and-Lease-Back Transactions" below), does not at the time of issuance, assumption or guarantee thereof, or the granting of a Lien to secure such indebtedness, exceed the greater of (A) 20% of Consolidated Net Tangible Assets and (B) $2,000,000,000.

Limitation on Sale-and-Lease-Back Transactions

Neither the Issuer nor any Material Subsidiary will enter into any arrangement with any person (other than the Issuer or a Material Subsidiary), or to which any such person is a party, providing for the leasing to the Issuer or a Material Subsidiary for a period of more than three years of any Principal Property which has been or is to be sold or transferred by the Issuer or such Material Subsidiary to such person or to any person (other than the Issuer or a Material Subsidiary) to which funds have been or are to be advanced by such person on the security of the leased Principal Property unless either (a) the Issuer or such Material Subsidiary would be entitled, pursuant to the provisions described under "—Limitation on Liens" above, to incur indebtedness for borrowed money, secured by a lien on the Principal Property to be leased, in a principal amount equal to or exceeding the Attributable Value of such sale-and-lease-back transaction without equally and ratably securing the notes; or (b) the Issuer or such Material Subsidiary, during or immediately after the expiration of the 360 days after the effective date of such transaction (whether made by the Issuer or a Material Subsidiary), applies to either (i) the voluntary retirement of indebtedness of the Issuer or a Material Subsidiary (including the notes) maturing by its terms more than one year after the original creation thereof, if such sale or transfer is for cash, an amount equal to 100% of the net proceeds of such transaction, or, if such sale or transfer is not for cash, an amount equal to the fair market value of the consideration for such transaction, less, in each case, an amount equal to the sum of (A) the principal amount of notes delivered, within 360 days after the effective date of such arrangement, to the trustee for retirement and cancellation and (B) the principal amount of other indebtedness for borrowed money voluntarily retired by the Issuer within such 360-day period, in each case excluding retirements of notes and other indebtedness for borrowed money as a result of conversions or pursuant to mandatory sinking fund or mandatory prepayment provisions or by payment at maturity or (ii) the acquisition, purchase, construction,

development, extension or improvement of any property or assets of the Issuer or any Subsidiary used or to be used by or for the benefit of the Issuer or any Subsidiary.

Periodic Reports

The Issuer will furnish to the noteholders, upon the request of such noteholder to the trustee, and to prospective purchasers of notes, any information required to be delivered pursuant to Rule 144A(d)(4) under the Securities Act so long as the notes are not freely transferable under the Securities Act.

For so long as any notes are listed on the Official List of the Financial Conduct Authority and admitted for trading on the Main Market of the London Stock Exchange, the Issuer shall deliver to the trustee, or post on its website, copies of any annual reports, periodic results announcements, information, documents and other reports that the Issuer is, or would be, required to file with the Financial Conduct Authority or the London Stock Exchange pursuant to the Admission and Disclosure Standards of the London Stock Exchange.

Events of Default

An Event of Default with respect to the notes is defined in the indenture as being any of the following (each an "Event of Default"):

(i) default for 30 days in payment of any interest on the notes;

(ii) default in payment of principal of the notes;

(iii) default in the performance, or breach, of any covenant or warranty or obligation of the Issuer in the indenture and continuance of such default or breach for a period of 90 days after written notice is given to the Issuer by the trustee or to the Issuer and the trustee by the holders of at least 25% in aggregate principal amount of the notes;

(iv) default under any indebtedness for money borrowed by the Issuer or any Material Subsidiary (other than Project Finance Indebtedness), whether such indebtedness now exists or shall hereafter be created, in an aggregate principal amount exceeding U.S.$100 million (or its equivalent in any other currency or currencies) which default:

a. shall constitute the failure to pay any portion of the principal of such indebtedness when due and payable, whether at maturity, upon redemption or acceleration or otherwise, or

b. shall have resulted in such indebtedness becoming or being declared due and payable prior to the date on which it would otherwise become due and payable,

in either case, if such default shall continue for more than 30 Business Days and within such 30 Business Days the time for payment of such amount has not been expressly extended (*provided* that if such default shall be remedied or cured by the Issuer or a

Material Subsidiary or waived by the holders of such indebtedness, then the event of default with respect to the notes shall be deemed likewise to have been remedied, cured or waived);

(v) a decree or order by a court having jurisdiction shall have been entered adjudging the Issuer or any of its Material Subsidiaries as bankrupt or insolvent, or approving as properly filed a petition seeking reorganization by the Issuer or any of its Material Subsidiaries and such decree or order shall have continued undischarged or unstayed for a period of 180 days; or a decree or order by a court having jurisdiction shall have been entered for the liquidation or dissolution of the Issuer or any of its Material Subsidiaries, and such decree or order shall have continued undischarged or unstayed for a period of 180 days; *provided*, *however*, that any Material Subsidiary may be liquidated or dissolved, if pursuant to such liquidation or dissolution, all or substantially all of its assets are transferred back to the Issuer or any other Material Subsidiary of the Issuer; or

(vi) the Issuer or any of its Material Subsidiaries shall institute a proceeding to be adjudicated as a voluntary bankrupt, or shall consent to the filing of a bankruptcy proceeding against it, or shall file a petition or answer or consent seeking reorganization, or shall consent to the filing of any such petition, or shall consent to the appointment of a receiver or liquidator or trustee or assignee in bankruptcy or insolvency of it or its property.

The trustee shall not be charged with knowledge of any Event of Default with respect to the notes unless the Issuer or any holder of notes delivers a written notice of any event which is in fact a default or Event of Default to a Responsible Officer of the trustee, and such notice references the notes and the indenture. "Responsible Officer" is defined in the indenture as any officer in the corporate trust office of the trustee or any other officers of the trustee customarily performing functions similar to those performed by any such officer and, with respect to a particular corporate trust matter, any other officer to whom such matter is referred because of his knowledge of and familiarity with the particular subject, and who has direct responsibility for the administration of the indenture.

The indenture provides that (a) if an Event of Default (other than an Event of Default described in clause (v) or (vi) above) shall have occurred and be continuing with respect to the notes, either the trustee or the holders of not less than 25% of the aggregate principal amount of the notes then outstanding may declare the principal of all such outstanding notes and the interest accrued thereon, if any, to be due and payable immediately and (b) if an Event of Default described in clause (v) or (vi) above shall have occurred, the principal of all such outstanding notes and the interest accrued thereon, if any, shall become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of such notes. The indenture provides that the notes owned by the Issuer or any of its affiliates shall be deemed not to be outstanding for certain purposes, including declaring the acceleration of the maturity of the notes. Upon the satisfaction by the Issuer of certain conditions, including (i) the payment of all fees and expenses of the trustee, (ii) the Issuer's deposit with the trustee of a sum sufficient to pay all outstanding amounts then due on the applicable notes (other than principal due by virtue of the acceleration) together with interest on such amounts through the date of the deposit and (iii) all Events of Default (other than non-payment of principal that became due by virtue of the acceleration upon the event of default) having been cured or waived, the declaration described in clause (a) of this paragraph

may be annulled by the holders of more than 50% of the aggregate principal amount of the notes then outstanding. Past defaults, other than non-payment of principal, interest and compliance with certain covenants, may be waived by the holders of more than 50% of the aggregate principal amount of the notes outstanding.

The trustee must give to the holders of the notes notice of all uncured defaults known to it with respect to the notes within 90 days after a Responsible Officer of the trustee has received written notification of such a default (unless such default shall have been cured); *provided*, *however*, that, except in the case of default in the payment of principal, interest or Additional Amounts, the trustee shall be protected in withholding such notice if and so long as a committee of directors or Responsible Officers of the trustee determine in good faith that the withholding of such notice is in the interest of the holders of the notes.

No holder of notes may institute any proceeding, judicial or otherwise, under the indenture unless (i) such holder shall have given the trustee written notice of a continuing Event of Default with respect to the notes, (ii) the holders of not less than 25% of the aggregate principal amount of the notes then outstanding shall have made written request to the trustee to institute proceedings in respect of the Event of Default, (iii) such holder or holders shall have offered the trustee such reasonable indemnity as the trustee may require, (iv) the trustee shall have failed to institute an action for 60 days thereafter and (v) no inconsistent direction shall have been given to the trustee during such 60-day period by the holders of more than 50% of the aggregate principal amount of the notes of such series. Such limitations, however, do not apply to any suit instituted by a holder of a note for enforcement of payment of the principal or interest on the notes on or after the respective stated maturity expressed in such notes.

The indenture provides that, subject to the duty of the trustee during default to act with the required standard of care, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request or direction of any holders of the notes, unless such holders shall have offered to the trustee reasonable indemnity.

The Issuer will be required to furnish to the trustee annually a statement as to the performance by the Issuer of certain of its obligations under the indenture and as to any default in such performance.

Payment of Additional Amounts

All payments of principal and stated interest under the notes by or on behalf of the Issuer will be made without deduction or withholding for or on account of any present or future taxes, assessments, duties or governmental charges of whatever nature imposed or levied by or on behalf of the United Kingdom or the jurisdiction in which the Issuer is organized or resident for tax purposes or from or through which payments are made or, in each case, any political subdivision or territory or possession thereof or therein (each, a "Relevant Taxing Jurisdiction") unless the withholding or deduction of such taxes, assessments, duties or governmental charges is required by law or regulation or by the official interpretation thereof. In that event, the Issuer will pay to each holder of a note such additional amounts ("Additional Amounts") as may be necessary in order that each net payment on such note after such deduction or withholding will not be less than

the amount provided for in such note to be then due and payable; *provided*, *however*, that the foregoing obligation to pay Additional Amounts will not apply to:

(i) any tax, assessment, duty or other governmental charge that would not have been so deducted or withheld but for (A) the existence of any present or former connection between the holder or the beneficial owner of the note (or between a fiduciary, settlor, beneficiary, member or shareholder of, or possessor of a power over, such holder or beneficial owner, if such holder or beneficial owner is an estate, trust, partnership or corporation) and the Relevant Taxing Jurisdiction imposing such tax, assessment, duty or other governmental charge (including, without limitation, such holder or beneficial owner (or such fiduciary, settlor, beneficiary, member, shareholder or possessor) being or having been a citizen or resident thereof or being or having been engaged in a trade or business or present therein or having, or having had, a permanent establishment therein) other than the mere receipt of payments in respect of a note or the holding or ownership of a note or a beneficial interest therein; or (B) the presentation of a note (where presentation is required) for payment on a date more than 30 days after the date on which such payment became due and payable or the date on which payment thereof is duly provided for, whichever occurs later, except to the extent that the holder or beneficial owner thereof would have been entitled to Additional Amounts had the note been presented for payment on the last day of such 30-day period;

(ii) any estate, inheritance, gift, sales, transfer, personal property, capital gains, excise or similar tax, assessment, duty or other governmental charge;

(iii) any tax, assessment, duty or other governmental charge that is not payable by way of withholding from payments of (or in respect of) principal of, or any interest on, the notes;

(iv) any tax, assessment, duty or other governmental charge to the extent that it would not have been imposed but for the failure to comply with certification, information or other reporting requirements concerning the nationality, residence or identity of the holder or beneficial owner of the note, if compliance is required by statute or by regulation of the Relevant Taxing Jurisdiction as a precondition to relief or exemption from all or part of such tax, assessment, duty or other governmental charge, or to a reduction in the applicable tax rate, and at least 30 days' written notice prior to the first payment date with respect to which such certification, information, or other reporting requirements is required to the effect that a holder or beneficial owner will be required to provide such information and identification has been sent to the holder or beneficial owner, as applicable, unless, in each case, the Holder or beneficial owner is not legally eligible to do so as a result of a change in, or amendment to, the laws (or any regulations or rulings promulgated thereunder, including a holding by a court of competent jurisdiction) of the Relevant Taxing Jurisdiction, or any change in the official application, administration or interpretation of such laws, regulations or rulings in such Relevant Taxing Jurisdiction;

(v) any Additional Amounts with respect to deduction or withholding imposed or required pursuant to Sections 1471 through 1474 of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code, or any

fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Code (or any law implementing such an intergovernmental agreement), or

(vi) any combination of items (i), (ii), (iii), (iv) and (v) above.

Nor shall Additional Amounts be paid with respect to any payment of the principal of or any interest on any note to any holder or beneficial owner that is a fiduciary or partnership or other than the sole beneficial owner of such note to the extent such payment would be required by the laws of the Relevant Taxing Jurisdiction to be included in the income for tax purposes of a beneficiary or settlor with respect to such fiduciary or a member of such partnership or a beneficial owner who would not have been entitled to such Additional Amounts had it been a holder of such note.

Redemption

The Issuer will not be permitted to redeem the notes before their stated maturity, except as set forth below. The Issuer is not, however, prohibited from acquiring notes by means other than a redemption, whether pursuant to a tender offer, open market purchase or otherwise, so long as the acquisition does not otherwise violate the terms of the applicable indenture. The notes will not be entitled to the benefit of any sinking fund, meaning that the Issuer will not deposit money on a regular basis into any separate account to repay the notes. In addition, you will not be entitled to require the Issuer to repurchase your notes from you before the stated maturity.

Notes called for redemption become due on the date fixed for redemption. Notices of redemption will be delivered at least 10 but not more than 60 days before such redemption date to each holder of notes to be redeemed. The notice of redemption for the notes will state the amount to be redeemed and the redemption price. On and after the redemption date, interest will cease to accrue on any notes that are redeemed, unless the Issuer defaults in the payment of the redemption price. If less than all the notes are redeemed at any time, the trustee will select notes by lot or on a pro rata basis or by any other method that the trustee deems fair and appropriate (or, if the notes are outstanding in global form, notes will be selected in accordance with the depositary's applicable procedures as in effect from time to time).

At the option of the Issuer, a notice of redemption may be conditioned on the satisfaction of one or more conditions. If so conditioned, such a notice of redemption shall state that, in the Issuer's discretion, the redemption date may be delayed until such time as any or all of such conditions shall be satisfied (or waived by the Issuer in its discretion), or such redemption may not occur and such notice may be rescinded in the event that any or all of such conditions have not been satisfied (or waived by the Issuer in its discretion) by the redemption date, or the redemption date so delayed.

Optional Redemption

Prior to February 13, 2032 (three months prior to their maturity date) (the "Par Call Date"), the Issuer may redeem the notes at its option, in whole or in part, at any time and from time to

time, at a redemption price (expressed as a percentage of principal amount and rounded to three decimal places) equal to the greater of:

1)

a) the sum of the present values of the remaining scheduled payments of principal and interest thereon discounted to the redemption date (assuming the notes were redeemed on the Par Call Date) on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 45 basis points less

b) interest accrued to the date of redemption, and

2) 100% of the principal amount of the notes to be redeemed,

plus, in either case, accrued and unpaid interest thereon to the redemption date.

On or after the Par Call Date, the Issuer may redeem the notes, in whole or in part, at any time and from time to time, at a redemption price equal to 100% of the principal amount of the notes being redeemed plus accrued and unpaid interest thereon to the redemption date.

"*Treasury Rate*" means, with respect to any redemption date, the yield determined by the Issuer in accordance with the following two paragraphs.

The Treasury Rate shall be determined by the Issuer after 4:15 p.m., New York City time (or after such time as yields on U.S. government securities are posted daily by the Board of Governors of the Federal Reserve System), on the third business day preceding the redemption date based upon the yield or yields for the most recent day that appear after such time on such day in the most recent statistical release published by the Board of Governors of the Federal Reserve System designated as "Selected Interest Rates (Daily) - H.15" (or any successor designation or publication) ("H.15") under the caption "U.S. government securities–Treasury constant maturities–Nominal" (or any successor caption or heading). In determining the Treasury Rate, the Issuer shall select, as applicable: (1) the yield for the Treasury constant maturity on H.15 exactly equal to the period from the redemption date to the Par Call Date (the "Remaining Life"); or (2) if there is no such Treasury constant maturity on H.15 exactly equal to the Remaining Life, the two yields – one yield corresponding to the Treasury constant maturity on H.15 immediately shorter than and one yield corresponding to the Treasury constant maturity on H.15 immediately longer than the Remaining Life – and shall interpolate to the Par Call Date on a straight-line basis (using the actual number of days) using such yields and rounding the result to three decimal places; or (3) if there is no such Treasury constant maturity on H.15 shorter than or longer than the Remaining Life, the yield for the single Treasury constant maturity on H.15 closest to the Remaining Life. For purposes of this paragraph, the applicable Treasury constant maturity or maturities on H.15 shall be deemed to have a maturity date equal to the relevant number of months or years, as applicable, of such Treasury constant maturity from the redemption date.

If on the third business day preceding the redemption date H.15 or any successor designation or publication is no longer published, the Issuer shall calculate the Treasury Rate

based on the rate per annum equal to the semi-annual equivalent yield to maturity at 11:00 a.m., New York City time, on the second business day preceding such redemption date of the United States Treasury security maturing on, or with a maturity that is closest to, the Par Call Date, as applicable. If there is no United States Treasury security maturing on the Par Call Date but there are two or more United States Treasury securities with a maturity date equally distant from the Par Call Date, one with a maturity date preceding the Par Call Date and one with a maturity date following the Par Call Date, the Issuer shall select the United States Treasury security with a maturity date preceding the Par Call Date. If there are two or more United States Treasury securities maturing on the Par Call Date or two or more United States Treasury securities meeting the criteria of the preceding sentence, the Issuer shall select from among these two or more United States Treasury securities the United States Treasury security that is trading closest to par based upon the average of the bid and asked prices for such United States Treasury securities at 11:00 a.m., New York City time. In determining the Treasury Rate in accordance with the terms of this paragraph, the semi-annual yield to maturity of the applicable United States Treasury security shall be based upon the average of the bid and asked prices (expressed as a percentage of principal amount) at 11:00 a.m., New York City time, of such United States Treasury security, and rounded to three decimal places.

For the avoidance of doubt, the trustee shall have no responsibility for calculating the redemption price or any component thereof.

Tax Redemption

The notes may be redeemed at the election of the Issuer, in whole, but not in part, by the giving of notice as provided in "—Notices" below (which notice shall be irrevocable), at a price equal to the outstanding principal amount thereof, together with any Additional Amounts and accrued and unpaid interest to the redemption date, if, as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated thereunder, including a holding by a court of competent jurisdiction) of the Relevant Taxing Jurisdiction, or any change in the official application, administration or interpretation of such laws, regulations or rulings in such Relevant Taxing Jurisdiction, the Issuer has or will become obligated on the next Interest Payment Date to pay Additional Amounts on the notes, and if such change or amendment is announced and becomes effective on or after the earlier of the date of this listing memorandum and the agreement to purchase the notes (or, in the case of a jurisdiction that became a Relevant Taxing Jurisdiction at a later date, such later date), and such obligation cannot be avoided by the Issuer taking reasonable measures that are available to it (for this purpose, reasonable measures shall not include any change in the Issuer's or any successor's jurisdiction of incorporation or organization or location of its principal executive or registered office); *provided*, *however*, that the notice of redemption for tax reasons will not be given earlier than 90 days prior to the earliest date on which the Issuer or any successor would be obligated to pay any such Additional Amounts if a payment in respect of the notes were then due. Prior to the giving of any such notice of redemption, the Issuer must deliver to the trustee (A) an officers' certificate stating that the Issuer is entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to the right of the Issuer so to redeem have occurred and (B) an opinion of independent counsel of recognized standing with respect to tax matters of the Relevant Taxing Jurisdiction to the effect that the Issuer has, or would, become obligated to pay such Additional Amounts as a result of such change in tax law.

Notices

For so long as the notes are outstanding in global form, notices to be given to holders will be given to the depositary, in accordance with its applicable procedures as in effect from time to time. If notes are issued in individual definitive form, notice to holders of the notes will be delivered to the addresses of such holders as they appear in the security register.

Replacement of Notes

In case of mutilated, destroyed, lost or stolen notes, application for replacement thereof may be made to the trustee or the Issuer. Any such note shall be replaced by the trustee in compliance with such procedures, and on such terms as to evidence and indemnification, as the trustee or the Issuer may require and subject to any applicable law or regulation. All such costs as may be incurred in connection with the replacement of any notes shall be borne by the applicant. Mutilated notes must be surrendered before new ones will be issued.

Modification of the Indenture

The Issuer and the trustee may, without the consent of the holders of notes, amend, waive or supplement the indenture or the notes for certain specified purposes, including among other things:

(i) to evidence the Issuer's succession by another person, and the assumption by such person of the Issuer's obligations;

(ii) to add to the Issuer's covenants or surrender any of its rights or powers for the benefit of all or any series of notes;

(iii) to cure any ambiguity, defect or inconsistency in the indenture or in any note;

(iv) to provide for the issuance of any new series of notes, and/or add to the rights of any holders of any series of notes;

(v) to provide for the appointment of a successor trustee;

(vi) to provide for the issuance of Additional Notes;

(vii) to add any additional Events of Default for the benefit of any or all series of notes;

(viii) to add guarantees with respect to the Issuer's obligations under any series of notes and provide for the terms of the release of such guarantees;

(ix) to secure any notes and provide for the terms of the release of such security;

(x) to provide for a co-issuer with respect to any series of notes;

(xi) to comply with the rules and regulations of DTC or any other clearing system and the rules and regulations of any securities exchange or automated quotation system on which any notes may be listed or traded;

(xii) to provide for the issuance of notes in bearer form; and

(xiii) to make any other change to the indenture as shall not adversely affect the interests of the holders of the notes in any material respect, as determined in good faith by the Issuer.

No amendment to the indenture or the notes made solely to conform the indenture or the notes to this Description of Notes shall be deemed to adversely affect the interests of the holders of the notes.

In addition, with certain exceptions, the indenture and the notes may be modified by the Issuer and the trustee with the consent of the holders of more than 50% in aggregate principal amount of the notes of the series affected thereby then outstanding, but no such modification may be made without the consent of the holder of each outstanding note affected by any modification that would:

(i) change the maturity of any principal of, or any premium on, or any installment of interest on, any note, or reduce the principal amount thereof or the rate of interest or any premium (or Additional Amounts, if any) payable thereon, or change the method of computing the amount of principal thereof or interest or premium (or Additional Amounts, if any) payable thereon on any date, or change any place of payment where, or the coin or currency in which, the principal or interest (including Additional Amounts) on any note are payable, or impair the right of holders to institute suit for the enforcement of any such payment on or after the date when due;

(ii) reduce the percentage in aggregate principal amount of outstanding notes of the applicable series, where the consent of holders is required for any such modification or for any waiver of compliance with certain provisions of the indenture or certain defaults thereunder and their consequences provided for in the indenture; or

(iii) modify provisions relating to waiver of certain defaults, waiver of certain covenants and the provisions summarized in this paragraph, including provisions governing the amendment of the indenture, except to increase any such percentage or to provide that certain other provisions of the indenture cannot be modified or waived without the consent of the holder of each outstanding note affected by the modification.

The indenture provides that the notes owned by the Issuer or any of its affiliates shall be deemed not to be outstanding for, among other purposes, consent to any such modification.

Defeasance and Covenant Defeasance

The Issuer, at its option, at any time upon the satisfaction of certain conditions described below, may elect to be discharged from its obligations with respect to the notes. In general, upon a defeasance, the Issuer shall be deemed to have paid and discharged the entire indebtedness represented by the notes and to have satisfied all of its obligations under the notes, except for:

(i) the rights of holders of notes to receive, solely from the trust fund established for such purposes, payments in respect of the principal of, and interest, and Additional Amounts, if any, on the notes when such payments are due;

(ii) certain provisions relating to ownership, registration and transfer of the notes;

(iii) the covenant relating to the maintenance of an office or agency in The City of New York; and

(iv) certain provisions relating to the rights, powers, trusts, duties and immunities of the trustee.

In addition, the Issuer, at its option, at any time, upon the satisfaction of certain conditions described below, may discharge its obligation to comply with the covenants specified above under "—Consolidation, Merger, Conveyance, Sale or Lease," "—Limitation on Liens" and "—Limitation on Sale-and-Lease-Back Transactions." In order to cause a defeasance or covenant defeasance with respect to the notes, the Issuer will be required to (i) deposit funds or obligations issued by the United States in an amount sufficient to provide for the timely payment of principal, interest and all other amounts due under the notes with the trustee, and (ii) satisfy certain other conditions, including delivery to the trustee of an opinion of independent tax counsel of recognized standing to the effect that beneficial owners of notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of such deposit and defeasance and will be subject to U.S. federal income tax on the same amount and in the same manner and at the same times as would have been the case if such deposit and defeasance had not occurred. Such opinion of counsel in the case of defeasance must refer to and be based upon a ruling of the Internal Revenue Service addressed to the Issuer or a change in applicable U.S. federal income tax law occurring after the date of the indenture.

Listing

Although we expect to obtain and maintain a listing for the notes on the London Stock Exchange before the first interest payment date, we cannot assure you that our application will be approved or that the notes will be so listed, and, if listed, that the notes will remain listed for their entire term. If the Issuer is unable to obtain or maintain such a listing, the Issuer may obtain and maintain listing for the notes on another exchange in its sole discretion.

Governing Law; Submission to Jurisdiction; Sovereign Immunity

The indenture provides that it and the notes will be governed by, and will be construed and interpreted in accordance with, the law of the State of New York. The indenture provides that the Issuer will maintain at all times during the life of the notes an office or agent in the Borough of Manhattan, The City of New York, upon whom process may be served in any action arising out of or based on the notes that may be instituted in the Supreme Court of the State of New York or the United States District Court for the Southern District of New York, in either case in the Borough of Manhattan, The City of New York, by any holder of a note, and the Issuer will expressly accept the jurisdiction of any such court.

To the extent that the Issuer may be entitled, in any jurisdiction in which judicial proceedings may at any time be commenced with respect to the notes, to claim for itself or its revenues or assets any immunity from suit, jurisdiction, attachment in aid or execution of a judgment or prior to a judgment, execution of a judgment or any other legal process with respect to its obligations under the notes, and to the extent that in any such jurisdiction there may be

attributed to the Issuer such an immunity (whether or not claimed), the Issuer will irrevocably agree not to claim and will irrevocably waive such immunity to the maximum extent permitted by law.

Further Issues of Notes

Without the consent of the holders, the Issuer may create and issue additional notes with terms and conditions that are the same (or the same except as to scheduled interest payments prior to the time of issue of the additional notes) as the terms and conditions of the notes ("Additional Notes"). The Issuer may consolidate the additional notes to form a single series with the notes; *provided*, *however*, that, unless such additional notes are issued under a separate CUSIP or ISIN number, such additional notes must be part of the same "issue" as the applicable outstanding series of notes for U.S. federal income tax purposes and issued pursuant to a "qualified reopening" of the applicable outstanding series of notes for U.S. federal income tax purposes or otherwise treated as fungible with such notes for U.S. federal income tax purposes.

Global Notes

The notes have been offered and sold to qualified institutional buyers in reliance on Rule 144A ("Rule 144A Notes"). Notes have also been offered and sold in offshore transactions in reliance on Regulation S ("Regulation S Notes"). Notes have been issued at the closing of the offering only against payment in immediately available funds.

Rule 144A Notes initially will be represented by one or more notes in registered, global form without interest coupons (collectively, the "Rule 144A Global Notes"). Regulation S Notes initially will be represented by one or more notes in registered, global form without interest coupons (collectively, the "Regulation S Global Notes" and, together with the Rule 144A Global Notes, the "Global Notes"). The Global Notes have been deposited upon issuance with the trustee as custodian for DTC, in The City of New York, and registered in the name of DTC or its nominee, in each case for credit to an account of a direct or indirect participant in DTC as described below. Through and including the 40th day after the later of the commencement of the offering and the closing of the offering (such period through and including such 40th day, the "Restricted Period"), beneficial interests in the Regulation S Global Notes may be held only through Euroclear Bank, S.A./N.V. as operator of the Euroclear System ("Euroclear") and Clearstream Banking, S.A. ("Clearstream") (as indirect participants in DTC), unless transferred to a person that takes delivery through a Rule 144A Global Note in accordance with the certification requirements described below. Beneficial interests in the Rule 144A Global Notes may not be exchanged for beneficial interests in the Regulation S Global Notes at any time except in the limited circumstances described below. Please read "—Exchanges Between Regulation S Notes and Rule 144A Notes."

Except as set forth below, the Global Notes may be transferred, in whole and not in part, only to another nominee of DTC or to a successor of DTC or its nominee. Beneficial interests in the Global Notes may be exchanged for notes in certificated form under certain circumstances. Please read "—Exchange of Global Notes for Certificated Notes."

Rule 144A Notes (including beneficial interests in the Rule 144A Global Notes) will be subject to certain restrictions on transfer and will bear a restrictive legend as described under "Transfer Restrictions." In addition, transfers of beneficial interests in the Global Notes will be subject to the applicable rules and procedures of DTC and its direct or indirect participants

(including, if applicable, those of Euroclear and Clearstream), which may change from time to time.

Depository Procedures

The following description of the operations and procedures of DTC, Euroclear and Clearstream are provided solely as a matter of convenience. These operations and procedures are solely within the control of the respective settlement systems and are subject to changes by them. The Issuer takes no responsibility for these operations and procedures and urges investors to contact the system or their participants directly to discuss these matters.

DTC has advised the Issuer that DTC is a limited-purpose trust company created to hold securities for its participating organizations (collectively, the "Participants") and to facilitate the clearance and settlement of transactions in those securities between Participants through electronic book-entry changes in accounts of its Participants. The Participants include securities brokers and dealers (including the initial purchasers), banks, trust companies, clearing corporations and certain other organizations. Access to DTC's system is also available to other entities such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Participant, either directly or indirectly (collectively, the "Indirect Participants"). Persons who are not Participants may beneficially own securities held by or on behalf of DTC only through the Participants or the Indirect Participants. The ownership interests in, and transfers of ownership interests in, each security held by or on behalf of DTC are recorded on the records of the Participants and Indirect Participants.

DTC has also advised the Issuer that, pursuant to procedures established by it:

(1) upon deposit of the Global Notes, DTC will credit the accounts of Participants designated by the initial purchasers with portions of the principal amount of the Global Notes; and

(2) ownership of these interests in the Global Notes will be shown on, and the transfer of ownership thereof will be effected only through, records maintained by DTC (with respect to the Participants) or by the Participants and the Indirect Participants (with respect to other owners of beneficial interest in the Global Notes).

Investors in the Rule 144A Global Notes who are Participants in DTC's system may hold their interests therein directly through DTC. Investors in the Rule 144A Global Notes who are not Participants may hold their interests therein indirectly through organizations (including Euroclear and Clearstream) which are Participants in such system. Investors in the Regulation S Global Notes may hold their interests therein through Euroclear, Clearstream or DTC, if they are participants in such systems, or indirectly through organizations that are participants in such systems. All interests in a Global Note, including those held through Euroclear or Clearstream, may be subject to the procedures and requirements of DTC. Those interests held through Euroclear or Clearstream may also be subject to the procedures and requirements of such systems.

The laws of some jurisdictions may require that certain Persons take physical delivery in definitive form of securities that they own. Consequently, the ability to transfer beneficial interests in a Global Note to such Persons will be limited to that extent. Because DTC can act only on

behalf of Participants, which in turn act on behalf of Indirect Participants, the ability of a Person having beneficial interests in a Global Note to pledge such interests to Persons that do not participate in the DTC system, or otherwise take actions in respect of such interests, may be affected by the lack of a physical certificate evidencing such interests.

Except as described below, owners of interests in the Global Notes will not have Notes registered in their names, will not receive physical delivery of notes in certificated form and will not be considered the registered owners or "holders" thereof under the indenture for any purpose.

Payments in respect of the principal of, and interest and premium, if any, on a Global Note registered in the name of DTC or its nominee will be payable to DTC in its capacity as the registered holder under the indenture. Under the terms of the indenture, the Issuer and the trustee will treat the Persons in whose names the notes, including the Global Notes, are registered as the owners thereof for the purpose of receiving payments and for all other purposes. Consequently, neither the Issuer, the trustee nor any agent of the Issuer or the trustee has or will have any responsibility or liability for:

(1) any aspect of DTC's records or any Participant's or Indirect Participant's records relating to or payments made on account of beneficial ownership interest in the Global Notes or for maintaining, supervising or reviewing any of DTC's records or any Participant's or Indirect Participant's records relating to the beneficial ownership interests in the Global Notes; or

(2) any other matter relating to the actions and practices of DTC or any of its Participants or Indirect Participants.

DTC has advised the Issuer that its current practice, at the due date of any payment in respect of securities such as the notes (including principal and interest), is to credit the accounts of the relevant Participants with the payment on the payment date unless DTC has reason to believe it will not receive payment on such payment date. Each relevant Participant is credited with an amount proportionate to its beneficial ownership of an interest in the principal amount of the relevant security as shown on the records of DTC. Payments by the Participants and the Indirect Participants to the beneficial owners of the notes will be governed by standing instructions and customary practices and will be the responsibility of the Participants or the Indirect Participants and will not be the responsibility of DTC, the trustee or the Issuer. Neither the Issuer nor the trustee nor any of their respective agents will be liable for any delay by DTC or any of its Participants in identifying the beneficial owners of the notes, and the Issuer and the trustee may conclusively rely on and will be protected in relying on instructions from DTC or its nominee for all purposes.

Subject to the transfer restrictions set forth under "Transfer Restrictions," transfers between Participants in DTC will be effected in accordance with DTC's procedures, and will be settled in same-day funds, and transfers between participants in Euroclear and Clearstream will be effected in accordance with their respective rules and operating procedures.

Subject to compliance with the transfer restrictions applicable to the notes described herein, cross-market transfers between the Participants in DTC, on the one hand, and Euroclear or Clearstream participants, on the other hand, will be effected through DTC in accordance with DTC's rules on behalf of Euroclear or Clearstream, as the case may be, by its respective depositary; however, such cross-market transactions will require delivery of instructions to Euroclear or Clearstream, as the case may be, by the counterparty in such system in accordance with the rules and procedures and within the established deadlines (Brussels time) of such system. Euroclear or Clearstream, as the case may be, will, if the transaction meets its settlement requirements, deliver instructions to its respective depositary to take action to effect final settlement on its behalf by delivering or receiving interests in the relevant Global Note in DTC, and making or receiving payment in accordance with normal procedures for same-day funds settlement applicable to DTC. Euroclear participants and Clearstream participants may not deliver instructions directly to the depositories for Euroclear or Clearstream.

DTC has advised the Issuer that it will take any action permitted to be taken by a holder only at the direction of one or more Participants to whose account DTC has credited the interests in the Global Notes and only in respect of such portion of the aggregate principal amount of the notes as to which such Participant or Participants has or have given such direction. However, if there is an Event of Default under the notes, DTC reserves the right to exchange the Global Notes for legended notes in certificated form, and to distribute such notes to its Participants.

Although DTC, Euroclear and Clearstream have agreed to the foregoing procedures to facilitate transfers of interests in the Rule 144A Global Notes and the Regulation S Global Notes among participants in DTC, Euroclear and Clearstream, they are under no obligation to perform or to continue to perform such procedures, and may discontinue such procedures at any time. Neither the Issuer nor the trustee nor any of their respective agents will have any responsibility for the performance by DTC, Euroclear or Clearstream or their respective participants or indirect participants of their respective obligations under the rules and procedures governing their operations.

Exchange of Global Notes for Certificated Notes

A Global Note is exchangeable for definitive Notes in registered certificated form ("Certificated Notes") if:

(1) DTC (a) notifies the Issuer that it is unwilling or unable to continue as depositary for the Global Notes or (b) has ceased to be a clearing agency registered under the Exchange Act, and in each case the Issuer fails to appoint a successor depositary;

(2) the Issuer, in its sole discretion, notifies the trustee in writing that it elects to cause the issuance of Certificated Notes (DTC has advised the Issuer that, in such event, under its current practices, DTC would notify its Participants of the Issuer's request, but will only withdraw beneficial interests from a Global Note at the request of each DTC Participant); or

(3) there will have occurred and be continuing an Event of Default with respect to the notes.

In addition, beneficial interests in a Global Note may be exchanged for Certificated Notes upon prior written notice given to the trustee by or on behalf of DTC in accordance with the indenture. In all cases, Certificated Notes delivered in exchange for any Global Note or beneficial interests in Global Notes will be registered in the names, and issued in any approved denominations, requested by or on behalf of the depositary (in accordance with its customary procedures) and will bear the applicable restrictive legend referred to in "Transfer Restrictions," unless that legend is not required by applicable law.

Exchange of Certificated Notes for Global Notes

Certificated Notes may not be exchanged for beneficial interests in any Global Note unless the transferor first delivers to the trustee a written certificate (in the form provided in the indenture) to the effect that such transfer will comply with the appropriate transfer restrictions applicable to such Notes. Please read "Transfer Restrictions."

Exchanges Between Regulation S Notes and Rule 144A Notes

Prior to the expiration of the Restricted Period, beneficial interests in the Regulation S Global Note may be exchanged for beneficial interests in the Rule 144A Global Note only if the transferor first delivers to the trustee a written certificate (in the form provided in the indenture) to the effect that:

(1) the transfer of notes is being made in accordance with Rule 144A; and

(2) the notes are being transferred to a Person:

(a) whom the transferor reasonably believes to be a qualified institutional buyer within the meaning of Rule 144A purchasing for its own account or the account of a qualified institutional buyer in a transaction meeting the requirements of Rule 144A; and

(b) in accordance with all applicable securities laws of the states of the United States.

Beneficial interests in a Rule 144A Global Note may be transferred to a Person who takes delivery in the form of an interest in the Regulation S Global Note, whether before or after the expiration of the Restricted Period, only if the transferor first delivers to the trustee a written certificate (in the form provided in the indenture) to the effect that such transfer is being made in accordance with Rule 903 or 904 of Regulation S or Rule 144 (if available). If such transfer occurs prior to the expiration of the Restricted Period, the interest transferred will be held immediately thereafter through Euroclear or Clearstream.

Transfers involving exchanges of beneficial interests between the Regulation S Global Notes and the Rule 144A Global Notes will be effected in DTC by means of an instruction originated by the trustee through the DTC Deposit/Withdraw at Custodian system. Accordingly, in connection with any such transfer, appropriate adjustments will be made to reflect a decrease in the principal amount of the Regulation S Global Note and a corresponding increase in the principal amount of the Rule 144A Global Note or vice versa, as applicable. Any beneficial interest in one

of the Global Notes that is transferred to a Person who takes delivery in the form of an interest in the other Global Note will, upon transfer, cease to be an interest in such Global Note and will become an interest in the other Global Note and, accordingly, will thereafter be subject to all transfer restrictions and other procedures applicable to beneficial interest in such other Global Note for so long as it remains such an interest. The policies and practices of DTC may prohibit transfers of beneficial interests in the Regulation S Global Note prior to the expiration of the Restricted Period.

Same-Day Settlement and Payment

The Issuer will make payments in respect of the notes represented by the Global Notes (including principal, premium, if any, and interest, if any) by wire transfer of immediately available funds to the accounts specified by the Global Note holder. The Issuer will make all payments of principal, interest and premium, if any, with respect to Certificated Notes by wire transfer of immediately available funds to the accounts specified by the holders thereof or, if no such account is specified, by mailing a check to each such Holder's registered address. The notes represented by the Global Notes are expected to trade in DTC's Same-Day Funds Settlement System, and any permitted secondary market trading activity in such notes will, therefore, be required by DTC to be settled in immediately available funds. The Issuer expects that secondary trading in any Certificated Notes will also be settled in immediately available funds.

Because of time zone differences, the securities account of a Euroclear or Clearstream participant purchasing an interest in a Global Note from a Participant in DTC will be credited, and any such crediting will be reported to the relevant Euroclear or Clearstream participant, during the securities settlement processing day (which must be a business day for Euroclear and Clearstream) immediately following the settlement date of DTC. DTC has advised the Issuer that cash received in Euroclear or Clearstream as a result of sales of interests in a Global Note by or through a Euroclear or Clearstream participant to a Participant in DTC will be received with value on the settlement date of DTC but will be available in the relevant Euroclear or Clearstream cash account only as of the business day for Euroclear or Clearstream following DTC's settlement date.

Certain Defined Terms

Set forth below is a summary of certain of the defined terms used in the indenture. Reference is made to the indenture for the full definition of all such terms.

"*Attributable Value*" means, in respect of any sale-leaseback transaction, the lesser of (a) the sale price of the principal property involved in such transaction multiplied by a fraction the numerator of which is the remaining portion of the base term of the lease included in such sale-leaseback transaction and the denominator of which is the base term of such lease and (b) the present value (discounted at the rate of interest implicit in such transaction) of the total obligations of the lessee for rental payments during the remaining term of the lease involved in such transaction (including any period for which the lease has been extended).

"*Consolidated Net Tangible Assets*" is defined as the total of all assets (including reevaluations thereof as a result of commercial appraisals, price level restatement or otherwise) appearing on the consolidated balance sheet of the Issuer and its Subsidiaries as of the then most recent semi-annual consolidated balance sheet of the Issuer, but excluding goodwill, trade names,

trademarks, patents, unamortized debt discount and all other similar intangible assets (which term shall not be construed to include such reevaluations), less the aggregate of the current liabilities of the Issuer and its Subsidiaries appearing on such balance sheet as determined in accordance with IFRS.

"*IFRS*" means the International Financial Reporting Standards as adopted by the European Union and applicable to the Issuer pursuant to applicable law.

"*Issue Date*" means the date the notes are issued under the indenture.

"*Lien*" means any lien, mortgage, pledge, security interest or other charge or encumbrance of any kind, including the lien or retained security title of a conditional vendor or other title retention agreements, any assignment or conditional assignment and any easement, right of way or other encumbrance on title to real property.

"*Material Subsidiary*" means each of Antofagasta Minerals S.A., Minera Los Pelambres S.C.M., Minera Centinela S.C.M., Minera Antucoya S.C.M. and any other Subsidiary of the Issuer that owns assets that represent in excess of 20% of the Issuer's consolidated total assets as of the end of the most recent semi-annual period of the Issuer.

"*Project Finance Indebtedness*" means indebtedness incurred by one or more Subsidiaries of the Issuer to finance or refinance all or any portion of the costs of the acquisition, construction, development, improvement, operation or expansion of any project (including costs such as escalation, interest during construction and financing and refinancing costs) and in respect of which the recourse of the holders of any such indebtedness for the payment, repayment and prepayment of such indebtedness is limited to (a) the liens on the property and assets described in clause (ix) under "—Limitation on Liens," (b) guarantees or other credit support provided during the period prior to successful completion of the relevant completion tests applicable to such project and/or (c) if such indebtedness is incurred by one or more Subsidiaries of the Issuer, such Subsidiary or Subsidiaries.

"*Principal Property*" means any mineral property located within Chile that is owned by the Issuer or any Material Subsidiary, except any such property which the board of directors of the Issuer by resolution declares is not of material importance to the total business conducted by the Issuer and its Subsidiaries, taken as a whole.

"*Subsidiary*" of a person means a corporation, limited liability company or other entity more than 50% of the outstanding Voting Stock of which is owned, directly or indirectly, by such person or by one or more Subsidiaries of such person.

"*Voting Stock*" with respect to any person, means Equity Interests the holders of which are ordinarily, in the absence of contingencies, entitled to vote for the election of directors (or persons performing similar functions) of such person, even if the right so to vote has been suspended by the happening of a contingency.

TRANSFER RESTRICTIONS

Regulation S Notes

Each purchaser of the notes pursuant to Regulation S, and each subsequent purchaser of such notes in resales prior to the expiration of the distribution compliance period by accepting delivery of this listing memorandum and the notes, will be deemed to have represented, agreed and acknowledged that:

(a) it is, or at the time notes are purchased will be, the beneficial owner of such notes and:

(i) it is located outside the United States (within the meaning of Regulation S); and

(ii) it is not an affiliate of the Company or a person acting on behalf of such an affiliate;

(b) it understands that such notes have not been and will not be registered under the Securities Act and that, prior to the expiration of the distribution compliance period (as defined in Regulation S), it will not offer, sell, pledge or otherwise transfer such notes except:

(i) in an offshore transaction in accordance with Rule 903 or Rule 904 of Regulation S; or

(ii) to the Company; or

(iii) in accordance with Rule 144A to a person that it and any person acting on its behalf reasonably believe is a QIB purchasing for its own account or the account of a QIB,

in each case in accordance with any applicable securities laws of any State of the United States;

(c) it understands that the Regulation S notes and any Regulation S individual note will bear a legend to the following effect, unless the Company determines otherwise in accordance with applicable law:

"THIS NOTE (OR ITS PREDECESSOR) WAS ORIGINALLY ISSUED IN A TRANSACTION EXEMPT FROM REGISTRATION UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND MAY NOT BE TRANSFERRED IN THE UNITED STATES OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, ANY U.S. PERSON EXCEPT PURSUANT TO AN AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND ALL APPLICABLE STATE SECURITIES LAWS. TERMS USED ABOVE HAVE THE MEANINGS GIVEN TO THEM IN REGULATION S UNDER THE SECURITIES ACT."

(d) it understands that the Company, the Registrar, the initial purchasers and their affiliates, and others will rely upon the truth and accuracy of the foregoing acknowledgements, representations and agreements.

Notes represented by an interest in the Rule 144A Global Notes may also be transferred to a person who wishes to hold such notes in the form of an interest in the Regulation S Global Notes, but only upon receipt by the Registrar of a written certification from the transferor to the effect that such transfer is being made in accordance with Regulation S or Rule 144 (if available) under the Securities Act.

Any interest in a note represented by the relevant Regulation S Global Note that is transferred to a person who takes delivery in the form of an interest in a note represented by the relevant Rule 144A Global Note will, upon transfer, cease to be an interest in a note represented by the relevant Regulation S Global

Note and become an interest in a note represented by the relevant Rule 144A Global Note and, accordingly, will thereafter be subject to all transfer restrictions and other procedures applicable to notes represented by the relevant Rule 144A Global Note.

Rule 144A Notes

Each purchaser of the notes in reliance on Rule 144A, by accepting delivery of this listing memorandum, will be deemed to have represented, agreed and acknowledged as follows (terms used in the following paragraphs that are defined in Rule 144A have the respective meanings given to them in Rule 144A):

(a) the purchaser is (a) a QIB, (b) acquiring the notes for its own account or for the account of one or more QIBs, (c) not formed for the purpose of investing in the notes or the Company and (d) is aware, and each beneficial owner of such notes has been advised, that the sale of the notes to it is being made in reliance on Rule 144A;

(b) the purchaser understands that (1) the notes have not been and will not be registered under the Securities Act and may not be offered, sold, pledged or otherwise transferred except (a) in accordance with Rule 144A to a person that it, and any person acting on its behalf, reasonably believes is a QIB purchasing for its own account or for the account of one or more QIBs, (b) in an offshore transaction in accordance with Rule 903 or Rule 904 of Regulation S under the Securities Act, (c) pursuant to an exemption from registration under the Securities Act provided by Rule 144 thereunder (if available), (d) pursuant to an effective registration statement under the Securities Act or (e) to the Company or any of its respective affiliates, in each case in accordance with any applicable securities laws of any State of the United States and (2) it will, and each subsequent Noteholder represented is required to, notify any purchaser of the notes from it of the resale restrictions applicable to the Rule 144A Notes;

(c) the purchaser understands that the Rule 144A Global Notes and any Rule 144A individual note will bear a legend to the following effect, unless the Company determines otherwise in accordance with applicable law:

"THE NOTES REPRESENTED HEREBY HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "**SECURITIES ACT**") OR THE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES. THE HOLDER HEREOF, BY PURCHASING THE NOTES REPRESENTED HEREBY, AGREES FOR THE BENEFIT OF THE ISSUER THAT THE NOTES REPRESENTED HEREBY MAY BE REOFFERED, RESOLD, PLEDGED OR OTHERWISE TRANSFERRED ONLY IN COMPLIANCE WITH THE SECURITIES ACT AND OTHER APPLICABLE LAWS AND ONLY (1) PURSUANT TO RULE 144A UNDER THE SECURITIES ACT TO A PERSON THAT THE HOLDER REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A PURCHASING FOR ITS OWN ACCOUNT OR TO A PERSON PURCHASING FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER WHOM THE HOLDER HAS INFORMED, IN EACH CASE, THAT THE REOFFER, RESALE, PLEDGE OR OTHER TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A, (2) IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH RULE 903 OR RULE 904 OF REGULATION S UNDER THE SECURITIES ACT, (3) PURSUANT TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT (IF AVAILABLE) OR (4) TO THE ISSUER, OR ITS AFFILIATES."

(d) if it is acquiring any notes for the account of one or more QIBs the purchaser represents that it has sole investment discretion with respect to each such account and that it has full power to make the foregoing acknowledgements, representations and agreements on behalf of each such account; and

(e) the purchaser understands that the Company, the Registrar, the initial purchasers and their affiliates, and others will rely upon the truth and accuracy of the foregoing acknowledgements, representations and agreements.

Upon the transfer, exchange or replacement of the Rule 144A Global Note or the Rule 144A individual note, or upon the specific request for removal of the legend, the Company will deliver only the Rule 144A Global Note or one or more Rule 144A Notes that bear such legend or will refuse to remove such legend, unless there is delivered to the Company and the Registrar such satisfactory evidence (which may include a legal opinion) as may reasonably be required by the Company that neither the legend nor the restrictions on transfer set forth therein are required to ensure compliance with the provisions of the Securities Act.

Any interest in the relevant Rule 144A Global Note that is transferred to a person who takes delivery in the form of an interest in the relevant Regulation S Global Note will, upon transfer, cease to be an interest in the relevant Rule 144A Global Note and become an interest in the relevant Regulation S Global Note and, accordingly, will thereafter be subject to all transfer restrictions and other procedures applicable to an interest in the relevant Regulation S Global Note Certificate.

Prospective purchasers that are QIBs are hereby notified that sellers of the Rule 144A Notes may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A.

TAXATION

United Kingdom Taxation

The following is a general summary of the material UK withholding tax consequences at the date hereof in relation to the payment of principal, interest, discount and premium, if any, in respect of the notes issued by the Issuer and also contains a general summary of the material UK tax consequences of the ownership and disposition of the notes. This summary is based on existing UK tax law and our understanding of the practice of Her Majesty's Revenue and Customs ("HMRC") as of the date of this listing memorandum. Legislative, administrative or judicial changes may modify the tax consequences described in this summary, possibly with retroactive effect. Furthermore, we can provide no assurance that the tax consequences contained in this summary will not be challenged by HMRC or will be sustained by a UK court if they were to be challenged. Except where the context otherwise requires, the comments relate only to the position of persons who are absolute beneficial owners of the notes and who do not deal with the position of certain classes of holders such as dealers. This section assumes that there will be no substitution of the Issuer and does not consider the tax consequences of any such substitution. The following summary is not exhaustive and does not constitute tax advice. Any prospective purchaser of the notes who are in doubt as to their own tax position should consult their own professional adviser.

Please consult your own tax advisor on the consequences of owning these notes in your particular circumstances under the laws of the UK and any other relevant taxing jurisdiction.

1. Payment of interest on the notes

(A) Payments of interest on the notes may be made without withholding or deduction for or on account of UK income tax while the notes continue to be "listed on a recognised stock exchange" as defined in section 1005 of the Income Tax Act 2007 (and the main market of the London Stock Exchange is a "recognised stock exchange").

(B) Interest on the notes may also be paid without withholding or deduction on account of UK tax where interest on the notes is paid to a person the Issuer reasonably believes (and any person by or through whom interest on the notes is paid reasonably believes) is the beneficial owner of the interest, and is within the charge to UK corporation tax as regards the payment of interest at the time the payment is made, provided that HMRC has not given a direction that it has reasonable grounds to believe that it is likely that the beneficial owner is not within the charge to UK corporation tax in respect of the payment of interest at the time the payment is made.

(C) In all cases not falling within paragraphs (A) or (B) above or any other domestic UK exemption, subject to relief under an applicable double taxation treaty, payments of interest on the notes that arise in the UK for UK tax purposes will be paid under deduction of UK income tax at the basic rate (currently 20%).

(D) Payments on the notes that, although not expressed to be interest, fall to be treated as interest arising in the UK for UK tax purposes will also be subject to the withholding tax rules described above. A premium payable on a redemption of a note may fall to be treated as interest for UK tax purposes. When the notes are issued at a discount or redeemable at a premium, UK withholding tax will not apply to the payment of that discount or premium so long as it does not constitute interest for UK tax purposes (other than discount treated as interest solely by virtue of Section 381 Income Tax (Trading and Other Income) Act 2005).

(E) Payments, or parts thereof, constituting income in respect of the notes having a UK source may be chargeable to UK tax by direct assessment even if paid without withholding or deduction. However, income in respect of the notes with a UK source received by a holder of the notes without deduction or

withholding on account of UK tax will not generally be liable to UK tax by direct assessment unless that holder (i) is resident in the UK for UK tax purposes, or (ii) carries on a trade, profession or vocation in the UK through a UK branch, agency or permanent establishment in connection with which the income is received or to which the notes are attributable. There are certain exemptions for income received by certain categories of agent (such as some brokers and investment managers).

(F) The references to "interest" above mean "interest" as understood in UK tax law. The statements above do not take any account of any different definitions of "interest" or "principal" which may prevail under any other law or which may be created by the terms and conditions of the notes or any related documentation.

2. Tax on Ownership and Disposition

(A) Holders of the notes that are companies within the charge to UK corporation tax may be subject to UK corporation tax on their holding, disposal and redemption of the notes (including a part redemption of the notes that are redeemable in two or more instalments). In general, all returns on and fluctuations in the value of the notes will be brought into account in computing taxable income broadly in accordance with securities holders' statutory accounting treatment. Fluctuations in value relating to foreign exchange gains and losses in respect of the notes will also be brought into account in computing income.

(B) Holders of the notes who are individuals and who are resident in the UK or carry on a trade, profession or vocation in the UK through a branch or agency to which the notes are attributable may be subject to UK income or capital gains tax on the disposal or redemption of the notes (including a part redemption of the notes that are redeemable in two or more instalments). The nature of the tax charge will depend on the terms of the notes in question and the particular circumstances of the relevant securities holder. In particular, we urge individual notes holders to have regard, where appropriate, to the capital gains tax legislation including the rules applying to "temporary non-residents," the "accrued income scheme" and the "deeply discounted securities" legislation.

3. Stamp Duty and Stamp Duty Reserve Tax

No UK stamp duty or stamp duty reserve tax should arise on the issue or transfer of a note, or on its redemption.

United States Federal Income Tax Consequences

This section describes the material United States federal income tax consequences to a United States holder (as defined below) of owning the notes. This section applies to you only if you acquire notes in the offering at the offering price and you hold your notes as capital assets for tax purposes. This section addresses only United States federal income taxation and does not discuss all of the tax consequences that may be relevant to you in light of your individual circumstances, including foreign, state or local tax consequences, and tax consequences arising under the Medicare contribution tax on net investment income or the alternative minimum tax. This section does not apply to you if you are a member of a class of holders subject to special rules, such as:

- a dealer in securities,
- a trader in securities that elects to use a mark-to-market method of accounting for your securities holdings,
- a bank,
- a life insurance company,

- a tax-exempt organization,
- a person that owns notes that are a hedge or that are hedged against interest rate risks,
- a person that owns notes as part of a straddle or conversion transaction for tax purposes,
- a person that purchases or sells notes as part of a wash sale for tax purposes, or
- a person whose functional currency for tax purposes is not the U.S. dollar.

If you purchase notes at a price other than the offering price, the amortizable bond premium or market discount rules may also apply to you. You should consult your tax advisor regarding this possibility.

This section is based on the Internal Revenue Code of 1986, as amended, its legislative history, existing and proposed regulations under the Internal Revenue Code, published rulings and court decisions, all as currently in effect. These laws are subject to change, possibly on a retroactive basis. This section does not constitute tax advice and we can provide no assurance that the tax consequences contained in this section will not be challenged by the Internal Revenue Service (the "IRS") or will be sustained by a United States court if they were to be challenged.

You are a United States holder if you are a beneficial owner of a note and you are, for United States federal income tax purposes:

- a citizen or resident of the United States,
- a domestic corporation,
- an estate whose income is subject to United States federal income tax regardless of its source, or
- a trust if a United States court can exercise primary supervision over the trust's administration and one or more United States persons are authorized to control all substantial decisions of the trust.

If an entity or arrangement that is treated as a partnership for United States federal income tax purpose holds the notes, the United States federal income tax treatment of a partner will generally depend on the status of the partner and the tax treatment of the partnership. A partner in a partnership holding the notes should consult its tax advisor with regard to the United States federal income tax treatment of an investment in the notes.

Please consult your own tax advisor concerning the consequences of owning these notes in your particular circumstances under the Internal Revenue Code and the laws of any other taxing jurisdiction.

Payments of Interest. You will be taxed on interest on your note as ordinary income at the time you receive the interest or when it accrues, depending on your method of accounting for tax purposes.

Interest paid by the Company on the notes is generally income from sources outside the United States for purposes of the rules regarding the foreign tax credit allowable to a United States holder and will generally be "passive" income for purposes of computing the foreign tax credit.

Purchase, Sale and Retirement of the Notes. Your tax basis in your note generally will be its cost. You will generally recognize capital gain or loss on the sale or retirement of your note equal to the difference between the amount you realize on the sale or retirement, excluding any amounts attributable to accrued but unpaid interest (which will be treated as interest payments), and your tax basis in your note. Capital gain of a noncorporate United States holder is generally taxed at preferential rates where the property is held for more than one year.

Information with Respect to Foreign Financial Assets. A United States holder that owns "specified foreign financial assets" with an aggregate value in excess of $50,000 (and in some circumstances, a higher threshold) may be required to file an information report with respect to such assets with its tax returns. "Specified foreign financial assets" may include financial accounts maintained by foreign financial institutions, as well as the following, but only if they are held for investment and not held in accounts maintained by financial institutions: (i) stocks and securities issued by non-United States persons, (ii) financial instruments and contracts that have non-United States issuers or counterparties, and (iii) interests in foreign entities. United States holders are urged to consult their tax advisors regarding the application of this reporting requirement to their ownership of the notes.

Backup Withholding and Information Reporting. If you are a noncorporate United States holder, information reporting requirements, on Internal Revenue Service Form 1099, generally would apply to payments of principal and interest on a note within the United States, and the payment of proceeds to you from the sale of a note effected at a United States office of a broker.

Additionally, backup withholding may apply to such payments if you fail to comply with applicable certification requirements or (in the case of interest payments) are notified by the IRS that you have failed to report all interest and dividends required to be shown on your federal income tax returns.

Payment of the proceeds from the sale of a note effected at a foreign office of a broker generally will not be subject to information reporting or backup withholding. However, a sale effected at a foreign office of a broker could be subject to information reporting in the same manner as a sale within the United States (and in certain cases may be subject to backup withholding as well) if (i) the broker has certain connections to the United States, (ii) the proceeds or confirmation are sent to the United States or (iii) the sale has certain other specified connections with the United States.

You generally may obtain a refund of any amounts withheld under the backup withholding rules that exceed your income tax liability by filing a refund claim with the IRS.

PLAN OF DISTRIBUTION

Subject to the terms and conditions contained in the purchase agreement dated May 10, 2022, among us and the initial purchasers in relation to the offering of the notes (the "Purchase Agreement"), we sold to each initial purchaser named below, and each initial purchaser severally and not jointly purchased from us, the principal amount of the notes set forth opposite that initial purchaser's name.

Initial Purchaser	Principal Amount of Notes	
Citigroup Global Markets Inc.	U.S.$	200,000,000
J.P. Morgan Securities LLC	U.S.$	200,000,000
BofA Securities, Inc.	U.S.$	33,334,000
Scotia Capital (USA) Inc.	U.S.$	33,333,000
SMBC Nikko Securities America, Inc.	U.S.$	33,333,000
Total	U.S.$	500,000,000

Citigroup Global Markets Inc. and J.P. Morgan Securities LLC acted as Global Coordinators and Joint-Bookrunning Managers for the offering. BofA Securities, Inc., Scotia Capital (USA) Inc. and SMBC Nikko Securities America, Inc. acted as Joint Book-Running Managers for the offering.

The Purchase Agreement entitled the initial purchasers to terminate the issue of the notes in certain circumstances prior to payment to the Company. The Company agreed to indemnify the initial purchasers against certain liabilities in connection with the offering and may be required to contribute to payments the initial purchasers may be required to make in respect thereof.

Subject to the terms and conditions set forth in the Purchase Agreement, the initial purchasers severally and not jointly, purchased all of the notes sold under the Purchase Agreement if any of these notes are purchased.

The initial purchasers may offer and sell the notes through certain of their affiliates. The initial purchasers initially proposed to offer the notes at the offering prices set forth on the cover page hereof. After the initial offering, the offering prices may from time to time be varied by the initial purchasers. The initial purchasers reserved the right to reject, cancel or modify an order of notes in whole or in part.

The Company has agreed with the initial purchasers that neither it nor any person acting on its behalf will, without the prior written consent of the initial purchasers, for the period from and including the date of the Purchase Agreement through and including the date that is 60 days after the Closing Date, offer, sell, contract to sell or otherwise dispose of any unsecured capital markets debt securities (other than the notes) of, the Company and having a tenor of more than one year.

The notes are new issues of securities with no established trading market.

The initial purchasers are not obligated to make a market in the notes, and, accordingly, no assurance can be given as to the liquidity of, or trading market for, the notes.

In connection with the offering, the initial purchasers may over-allot or effect transactions with a view to supporting the market price of the notes at a level higher than that which might otherwise prevail for a limited period after the date of issue of the notes. However, there may be no obligation on the initial purchasers to do this. Such stabilization, if commenced, may be discontinued at any time.

No action has been or will be taken in any jurisdiction that would permit a public offering of the notes or the possession, circulation or distribution of any material relating to the Company in any jurisdiction where action for such purpose is required. Accordingly, the notes may not be offered or sold, directly or indirectly, nor may any offering material or advertisement in connection with the notes

(including this listing memorandum and any amendment or supplement hereto) be distributed or published in or from any country or jurisdiction, except under circumstances that would result in compliance with any applicable rules and regulations of any such country or jurisdiction.

Certain of the initial purchasers and their affiliates have engaged, and may in the future engage, in investment banking and/or commercial banking transactions with, and may perform services for, the Company and its affiliates in the ordinary course of business. In addition, in the ordinary course of their business activities, the initial purchasers and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of the Company or the Company's affiliates (including the notes). If any of the initial purchasers or their affiliates has a lending relationship with us, certain of those initial purchasers or their affiliates routinely hedge, and certain other of those initial purchasers or their affiliates may hedge, their credit exposure to us consistent with their customary risk management policies. Typically, these initial purchasers and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities, including potentially the notes offered hereby. Any such credit default swaps or short positions could adversely affect future trading prices of the notes offered here. The initial purchasers and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments. The Group used the net proceeds of the offering to repay indebtedness outstanding under the Issuer's Senior Loan.

Pre-Issue Trades Settlement

Delivery of notes has been made against payment therefor on the Closing Date, which was the third business day following the date of pricing (such settlement being referred to as "T+3"). Under Rule 15c6-l under the Exchange Act, trades in the United States secondary market generally are required to settle in two business days ("T+2"), unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wished to trade notes in the United States on the date of pricing were required, by virtue of the fact the notes will initially settle in T+3, to specify an alternate settlement cycle at the time of any such trade to prevent a failed settlement. Settlement procedures in other countries may vary and purchasers of notes may be affected by such local settlement practices.

United States

(a) The notes have not been and will not be registered under the Securities Act and may not be offered or sold within the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. Each initial purchaser has represented, warranted and undertaken that it proposes to offer the notes for resale (a) to persons they reasonably believe to be QIBs, within the meaning of Rule 144A under the Securities Act, in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 144A and (b) in "offshore transactions" (as defined in Rule 902(k) under the Securities Act) in accordance with Rule 903 or Rule 904 of Regulation S under the Securities Act.

(b) In addition, until 40 days after the commencement of the offering, an offer or sale of any of the notes within the United States by any dealer (whether or not participating in the offering) may violate the registration requirements of the Securities Act if the offer or sale is made otherwise than in accordance with Rule 144A.

Canada

The notes may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in the Canadian National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the notes must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this listing memorandum (including any amendment thereto) contain a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Prohibition of Sales to EEA Retail Investors

The notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the EEA. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in MiFID II; or (ii) a customer within the meaning of the Insurance Distribution Directive, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II. Consequently, no key information document required by the PRIIPs Regulation for offering or selling the notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

United Kingdom Offer Restriction

This listing memorandum is only being distributed to and is only directed at, persons who are outside the UK or persons in the UK that are (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (ii) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (each such person being referred to as a "relevant person"). In the UK, the notes are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire the notes will be engaged in only with, relevant persons. This listing memorandum and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the UK. Any person in the UK that is not a relevant person should not act or rely on this document or any of its contents.

Prohibition of Sales to UK retail investors

The notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the UK. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the EUWA; or (ii) a customer within the meaning of the provisions of FSMA and any rules or regulations made under the FSMA to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA. Consequently, no key information document required by the UK PRIIPs Regulation for offering or selling the notes or otherwise making them available to retail investors in the UK has been

prepared and therefore offering or selling the notes or otherwise making them available to any retail investor in the UK may be unlawful under the UK PRIIPs Regulation.

Chile

The notes being offered will not be registered under the Securities Market Law (*Ley de Mercado de Valores*) in the Securities Registry (*Registro de Valores*) or in the Foreign Securities Registry (*Registro de Valores Extranjeros*) of the Chilean Financial Markets Commission (*Comisión para el Mercado Financiero*, or the "CMF") and, therefore, the notes are not subject to the supervision of the CMF. As unregistered securities in Chile, we are not required to disclose public information about the notes in Chile. Accordingly, the notes will not be publicly offered to persons in Chile unless they are registered in the corresponding Securities Registry. The notes, as a general rule, may only be offered in Chile in circumstances that do not constitute a public offering under Chilean law or in compliance with General Rule (*Norma de Carácter General*) No. 336 of the CMF, dated June 27, 2012 ("CMF Rule 336"). Pursuant to the Securities Market Law, a public offering of securities is an offering that is addressed to the general public or to certain specific categories or groups thereof. Considering that the definition of public offering is quite broad, even an offering addressed to a small group of investors may be considered to be addressed to a certain specific category or group of the public and therefore be considered public under applicable law. However, pursuant to Rule 336, the notes may be privately offered in Chile to certain "qualified investors" (*Inversionistas Calificados*) identified as such therein (which in turn are further described in General Rule No. 216 of the CMF, dated June 12, 2008).

CMF Rule 336 requires the following information to be provided to prospective investors in Chile:

1. Date of commencement of the offer: April 26, 2022. The offer of the notes is subject to CMF Rule 336;

2. The subject matter of this offer are securities not registered with the Securities Registry (*Registro de Valores*) of the CMF, nor with the Foreign Securities Registry (*Registro de Valores Extranjeros*) of the CMF, therefore the notes are not being subject to the oversight of the CMF;

3. Since the notes are not registered in Chile there is no obligation by the issuer to make publicly available information about the notes in Chile; and

4. The notes shall not be subject to public offering in Chile unless registered with the corresponding Securities Registry of the CMF.

Singapore

This listing memorandum has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, the notes cannot be offered or sold or be made the subject of an invitation for subscription or purchase and will not be offered or sold or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time (the "SFA")) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the notes are subscribed or purchased under Section 275 of the SFA by a relevant person that is:

- a corporation (that is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor;
- securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the notes pursuant to an offer made under Section 275 of the SFA except:
- to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- where no consideration is or will be given for the transfer;
- where the transfer is by operation of law;
- as specified in Section 276(7) of the SFA; or
- as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Singapore Securities and Futures Act Product Classification – Solely for the purposes of its obligations pursuant to sections 309B(1)(a) and 309B(1)(c) of the Securities and Futures Act (Chapter 289 of Singapore) (the "SFA"), the Company has determined, and hereby notifies all relevant persons (as defined in Section 309A of the SFA) that the notes are "prescribed capital markets products" (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Hong Kong

This listing memorandum has not been approved by or registered with the Securities and Futures Commission of Hong Kong or the Registrar of Companies of Hong Kong. No person may offer or sell in Hong Kong, by means of any document, any notes other than (1) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance, or (2) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance. No person may issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the notes which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to notes which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

Taiwan

The notes have not been and will not be registered or filed with, or approved by, the Financial Supervisory Commission of Taiwan and/or other regulatory authority of Taiwan pursuant to relevant securities laws and regulations of Taiwan and may not be issued, offered or sold within Taiwan through a public offering or in circumstances that constitute an offer within the meaning of the Securities and Exchange Act of Taiwan that requires a registration, filing or approval of the Financial Supervisory

Commission of Taiwan and/or other regulatory authority of Taiwan. No person or entity in Taiwan has been authorized to offer or sell the notes in Taiwan. The notes may be made available outside Taiwan for purchase outside Taiwan by Taiwan resident investors, but may not be offered or sold in Taiwan.

Australia

No placement document, prospectus, product disclosure statement, or other disclosure document (including as defined in the Corporations Act 2001 (Cth) ("Corporations Act")) has been or will be lodged with the Australian Securities and Investments Commission ("ASIC") or any other governmental agency, in relation to the offering. This listing memorandum does not constitute a prospectus, product disclosure statement, or other disclosure document for the purposes of Corporations Act, and does not purport to include the information required for a prospectus, product disclosure statement, or other disclosure document under the Corporations Act. No action has been taken which would permit an offering of the notes in circumstances that would require disclosure under Parts 6D.2 or 7.9 of the Corporations Act.

The notes may not be offered for sale, nor may application for the sale or purchase or any notes be invited in Australia (including an offer or invitation that is received by a person in Australia) and neither this listing memorandum nor any other offering material or advertisement relating to the notes may be distributed or published in Australia unless, in each case:

(a) the aggregate consideration payable on acceptance of the offer or invitation by each offeree or invitee is at least A$500,000 (or its equivalent in another currency, in either case, disregarding moneys lent by the person offering the notes or making the invitation or its associates) or the offer or invitation otherwise does not require disclosure to investors in accordance with Part 6D.2 or 7.9 of the Corporations Act;

(b) the offer, invitation, or distribution complied with the conditions of the Australian financial services license of the person making the offer, invitation, or distribution or an applicable exemption from the requirement to hold such license;

(c) the offer, invitation, or distribution complies with all applicable Australian laws, regulations and directives (including, without limitation, the licensing requirements set out in Chapter 7 of the Corporations Act);

(d) the offer or invitation does not constitute an offer or invitation to a person in Australia who is a "retail client" as defined for the purposes of Section 761G of the Corporations Act; and

(e) such action does not require any document to be lodged with ASIC or the ASX

Switzerland

This listing memorandum is not intended to constitute, and does not constitute, an offer to the public or solicitation to purchase or invest in the notes described therein.

The notes have not been and will not be publicly offered, directly or indirectly, in Switzerland, within the meaning of the Swiss Financial Services Act ("FinSA") except (i) to any investor that qualifies as a professional within the meaning of the FinSA, and (ii) in any other circumstance qualifying as an exemption within the meaning of article 36 paragraph 1 of the FinSA, provided in each case, that no such

offer of notes referred to in clauses (i) and (ii) above shall require the publication of a prospectus for offers of the notes in Switzerland pursuant to FinSA.

The notes have not been and shall not be admitted to any trading venue (exchange or multilateral trading facility) in Switzerland.

Japan

The notes have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended, the "Financial Instruments and Exchange Act"). Accordingly, the notes will not, directly or indirectly, be offered or sold in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to, for the benefit of, any resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and other relevant laws and regulations of Japan.

Peru

The notes and the information contained in this listing memorandum are not being publicly marketed or offered in Peru and will not be distributed or caused to be distributed to the general public in Peru. Peruvian securities laws and regulations on public offerings will not be applicable to the offering of the notes and therefore, the disclosure obligations set forth therein will not be applicable to the Company or the sellers of the notes before or after their acquisition by prospective investors. The notes and the information contained in this listing memorandum have not been and will not be reviewed, confirmed, approved or in any way submitted to the SMV nor have they been registered under the Securities Market Law (*Ley del Mercado de Valores*) or any other Peruvian regulations. Accordingly, the notes cannot be offered or sold within Peruvian territory except to the extent any such offering, or sale qualified as a private offering under Peruvian regulations and complies with the provisions on private offerings set therein. The notes may not be offered or sold in Peru except in compliance with the securities law thereof.

Colombia

The notes may not be offered, sold or negotiated in Colombia, except under circumstances which do not constitute a public offering of securities under applicable Colombian securities laws and regulations. Furthermore, foreign financial entities must abide by the terms of Decree 2555 of 2010 to privately offer the notes to their Colombian clients.

Luxembourg

This listing memorandum has not been approved by and will not be submitted for approval to the Luxembourg Financial Sector Supervisory Authority (*Commission de Surveillance du Secteur Financier*) for purposes of public offering or sale in the Grand Duchy of Luxembourg, and accordingly, the notes may not be offered or sold to the public in the Grand Duchy of Luxembourg, directly or indirectly, and neither this listing memorandum nor any other offering circular, prospectus, form of application, advertisement or other material may be distributed, or otherwise made available in, or from or published in, the Grand Duchy of Luxembourg, except in circumstances which do not constitute an offer of securities to the public, subject

to prospectus requirements, in accordance with the Luxembourg law of 10 July 2005 on prospectuses for securities, as amended.

Dubai

The notes have not been and may not be offered to any person in the Dubai International Finance Centre unless such offer is an (a) an "Exempt Offer" in accordance with the Market Rules 2012 of the Dubai Financial Services Authority (the "DFSA") (b) made only to persons who meet the Professional Client criteria set out in Rule 2.3.2 of the DFSA Conduct of Business Module.

Ireland

The notes will not be offered or sold, and no other action with respect of the notes shall be taken, in Ireland otherwise than in conformity with the provisions of (a) the European Union (Markets in Financial Instruments) Regulations 2017 or any codes of conduct used in connection therewith and the provisions of the Investor Compensation Act 1998, (b) the Companies Act 2014, the Central Bank Acts 1942 to 2018 and any code of conduct rules made under Section 117(1) of the Central Bank Act 1989, (c) Regulation (EU) 2017/1129, the European Union (Prospectus) Regulations 2019 and any rules and guidance issued by the Central Bank under Section 1363 of the Companies Act 2014 and (d) the Market Abuse Regulation (EU 596/2014) (as amended), the European Union (Market Abuse) 2016 (as amended) and any rules and guidance issued by the Central Bank under Section 1370 of the Companies Act 2014.

Italy

The offering of the notes has not been registered pursuant to Italian securities legislation and, accordingly, no notes may be offered, sold or delivered, nor may copies of this listing memorandum or of any other document relating to the notes be distributed in the Republic of Italy, except:

(i) to qualified investors (*investitori qualificati*), as defined pursuant to Article 100 of Legislative Decree No. 58 of 24 February 1998, as amended (the "Financial Services Act") and Article 34-ter, first paragraph, letter (b) of CONSOB Regulation No. 11971 of 14 May 1999, as amended from time to time ("Regulation No. 11971"); or

(ii) in other circumstances which are exempted from the rules on public offerings pursuant to Article 100 of the Financial Services Act and Article 34-ter of Regulation No. 11971.

Any offer, sale or delivery of the notes or distribution of copies of the listing memorandum or any other document relating to the notes in the Republic of Italy under clause (i) or (ii) above must be:

a) made by an investment firm, bank or financial intermediary permitted to conduct such activities in the Republic of Italy in accordance with the Financial Services Act, CONSOB Regulation No. 16190 of 29 October 2007 (as amended from time to time) and Legislative Decree No. 385 of 1 September 1993, as amended (the "Banking Act"); and

b) in compliance with Article 129 of the Banking Act, as amended, and the implementing guidelines of the Bank of Italy, as amended from time to time, pursuant to which the Bank

of Italy may request information on the issue or the offer of securities in the Republic of Italy; and

c) in compliance with any other applicable laws and regulations or requirement imposed by CONSOB or other Italian authority.

Mexico

The notes have not been and will not be registered with the Mexican National Securities Registry (Registro Nacional de Valores) maintained by the Mexican National Banking and Securities Commission (Comisión Nacional Bancaria y de Valores) ("CNBV"), and may not be offered or sold publicly in Mexico, except that the notes may be offered to institutional and qualified investors pursuant to the private placement exemption set forth in article 8 of the Mexican Securities Market Law (Ley del Mercado de Valores). The information contained in this listing memorandum is exclusively the responsibility of the Company and has not been reviewed or authorized by the CNBV. The acquisition of the notes by an investor who is a resident of Mexico will be made under such investor's own responsibility.

ENFORCEMENT OF CIVIL LIABILITIES AND SERVICE OF PROCESS

We are a company organized and incorporated under the laws of England and Wales. Most of our directors, executive officers and controlling persons named herein are non-residents of the United States and substantially all of the assets of such non-resident persons and all of our assets are located outside the United States. As a result, it may not be possible for investors to effect service of process within the United States upon such persons or us or to enforce judgments obtained in U.S. courts against them or us based on civil liability provisions of the securities laws of the United States. We will appoint Corporation Service Company as an agent to receive service of process with respect to any action brought against us in any federal or state court in the State of New York arising pursuant to the indenture.

There is also doubt as to the enforceability, in original actions in Chilean courts, of liabilities including those predicated solely on U.S. federal securities laws and as to the enforceability in Chilean courts of judgments of United States courts obtained in actions including those predicated upon the civil liability provisions of U.S. federal securities laws.

No bilateral treaty is currently in effect between the United States and Chile that covers the reciprocal enforcement of civil foreign judgments. In the past, Chilean courts have enforced judgments rendered in the United States by virtue of the legal principles of reciprocity and comity, consisting of the review in Chile of the United States judgment, in order to ascertain, among other matters, whether Chilean legal principles of due process and public policy (*orden público*) have been complied with, without reviewing the merits of the subject matter of the case.

LISTING AND GENERAL INFORMATION

Clearing Systems

The notes have been accepted for trading in book-entry form by DTC. For the Rule 144A notes, the ISIN number is US03718NAB29 and the CUSIP number is 03718N AB2. For the Regulation S notes, the ISIN number is USG0399BAA55 and the CUSIP number is G0399B AA5.

Listing

Application has been made to the FCA for the notes to be admitted to the Official List and application will be made to the London Stock Exchange for such notes to be admitted to trading on the Main Market. The Main Market is a regulated market for the purposes of UK MiFIR. Such approval relates only to the notes which are to be admitted to trading on the Main Market for the purposes of the UK MiFIR and/or which are to be offered to the public in the UK.

Documents Available

For so long as the notes are listed on the Main Market of the London Stock Exchange, copies of the following items will be available in electronic form at www.antofagasta.co.uk:

(a) this listing memorandum;

(b) the indenture;

(c) the Issuer's constitutional documents; and

(d) consolidated audited financial statements of the Issuer for the years ended December 31, 2021 and 2020.

Any websites referred to herein do not form part of this listing memorandum.

Validity of the Listing Memorandum and Supplements

This listing memorandum is valid for 12 months. For the avoidance of doubt, the Issuer shall have no obligation to supplement this listing memorandum after the admission to trading of the notes.

Estimate of Expenses

The total expenses related to the admission of the notes to trading on the London Stock Exchange's Main Market are estimated to be £7,800.00.

Authorization

We have obtained all necessary consents, approvals and authorizations in connection with the issuance and performance of the notes.

On April 19, 2022, our Board authorized the issuance of the notes.

Legal Entity Identifier

The Legal Entity Identifier (LEI) code of the Issuer is 213800MY6QVH4FVLD628.

Yield

The yield of the notes is 5.864%, as calculated on May 10, 2022 on the basis of the issue price of the notes. It is not an indication of future yield.

No Material Adverse Change

Except as disclosed under "Management's Discussion and Analysis of Financial Condition and Results of Operations," there has been no material adverse change in the prospects of the Issuer since December 31, 2021, the date of the Issuer's most recent audited consolidated financial statements included in this listing memorandum.

No Significant Change

Except as disclosed under "Management's Discussion and Analysis Of Financial Condition and Results of Operations—Recent Developments" in this listing memorandum, there has been no significant change in the financial performance and financial position of the Group since December 31, 2021.

Litigation

Except as disclosed under "Management's Discussion and Analysis Of Financial Condition and Results of Operations—Recent Developments" and "Business—Legal Proceedings" in this listing memorandum, the Issuer has not been involved in any governmental, legal or arbitration proceedings (including such proceedings which are pending or threatened of which the Issuer is aware) in the 12 months preceding the date of this listing memorandum which is reasonably likely to have or have had in the recent past a significant effect on the financial position or profitability of the Issuer and/or the Group.

Material Contracts

Except for those contracts entered into in the ordinary course of business of the Group, none of the Issuer nor any other member of the Group has, in the last two years up to the date of this listing memorandum, entered into any material contracts which are not in the ordinary course of the Group's business and which could result in any member of the Group being under an obligation or entitlement that is material to the Group's ability to meet its obligations to holders of the notes.

Conflicts of Interest

To the Issuer's knowledge, there are no existing or potential conflicts of interest between any duties of the directors of the Issuer and their private interest and other duties.

Auditor

The statutory auditor of the Issuer for the period covered by the historical financial information included in this Listing Memorandum is PricewaterhouseCoopers LLP, 1 Embankment Place, London WC2N 6RH, United Kingdom.

VALIDITY OF THE NOTES

The validity of the notes has been passed upon for us by Sullivan & Cromwell LLP, our United States and New York counsel and for the initial purchasers by Milbank LLP, United States and New York counsel for the initial purchasers.

INDEPENDENT AUDITORS

Our consolidated financial statements as of and for each of the years ended December 31, 2021, December 31, 2020 and December 31, 2019, which have been prepared in accordance with IFRS and are included in this listing memorandum, have been audited by PricewaterhouseCoopers LLP, our independent auditors, as stated in their reports appearing herein.

GLOSSARY OF CERTAIN TERMS

- **2019 Audited Financial Statements**: Our annual audited consolidated financial statements presented in U.S. dollars as of and for the year ended December 31, 2019, which include the notes thereto.

- **2020 Audited Financial Statements**: Our annual audited consolidated financial statements presented in U.S. dollars as of and for the year ended December 31, 2020, which include the notes thereto.

- **2021 Audited Financial Statements**: Our annual audited consolidated financial statements presented in U.S. dollars as of and for the year ended December 31, 2021, which include the notes thereto.

- **Antucoya**: Minera Antucoya S.A., a 70%-owned subsidiary incorporated in Chile.

- **Barrick Gold**: Barrick Gold Corporation, incorporated in Canada and our joint venture partner in Zaldívar and Tethyan.

- **CCP**: Cost and Competitiveness Programme, our initiative implemented in 2014 that is designed to streamline our business and result in cost savings.

- **Centinela**: Minera Centinela S.A., a 70%-owned subsidiary incorporated in Chile that holds the Centinela Concentrates and Centinela Cathodes operations.

- **Chilean peso**: Chilean currency.

- **COMEX**: A commodity exchange that trades metals such as gold, silver, copper and aluminum.

- **Company**: Antofagasta plc.

- **Directors**: The Directors of the Company.

- **EBITDA**: Earnings Before Interest, Tax, Depreciation and Amortization. EBITDA is calculated by adding back depreciation, amortization, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group's subsidiaries, and the Group's proportional share of the EBITDA of its associates and joint ventures.

- **EIA**: Environmental Impact Assessment.

- **El Arrayán**: Parque Eólico el Arrayán SpA, a 30%-owned associate that operates a wind-power plant providing up to 40MW of electricity to Los Pelambres.

- **Encuentro**: Copper oxide and sulfide prospect in the Centinela Mining District.

- **ENGIE**: ENGIE Energía Chile S.A., a coal-fired power system in which we disposed of our interest in March 2020.

- **Esperanza Sur**: Copper deposit in the Centinela Mining District.

- **FCA**: Financial Conduct Authority, a UK regulatory body.

- **FCAB**: Ferrocarril de Antofagasta a Bolivia, the name of our Transport division.
- **Financial Statements**: The 2019 Audited Financial Statements, 2020 Audited Financial Statements and 2021 Audited Financial Statements.
- **FTSE100 Index**: A share index of the 100 companies listed on the London Stock Exchange with the highest market capitalization.
- **GAAP**: Generally Accepted Accounting Practice or Generally Accepted Accounting Principles, a collection of commonly followed accounting rules and standards for financial reporting.
- **Group**: Antofagasta plc and its subsidiary companies and joint ventures.
- **IAS**: International Accounting Standards, as adopted by the UK.
- **IASB**: International Accounting Standards Board.
- **ICMM**: International Council on Metals and Mining.
- **IFRIC**: International Financial Reporting Standards Interpretations Committee.
- **IFRS**: With respect to the period from January 1, 2019 to December 31, 2019, International Financial Reporting Standards as adopted by the European Union, for the period from January 1, 2020 to December 31, 2020, International Accounting Standards in conformity with the requirements of the Companies Act 2006 and for the period from January 1, 2021 to December 31, 2021 the UK-adopted International Accounting Standards.
- **Inversiones Hornitos**: Inversiones Hornitos S.A., which owns the 150MW Hornitos thermoelectric power plant in Mejillones in Chile's Antofagasta region.
- **LIBOR**: London Inter Bank Offered Rate.
- **Los Pelambres**: Minera Los Pelambres S.A., a 60%-owned subsidiary incorporated in Chile.
- **LME**: London Metal Exchange.
- **LSE**: London Stock Exchange.
- **LTIFR**: Lost Time Injury Frequency Rate. The number of accidents with lost time during the year per million hours worked.
- **LTIP**: Long Term Incentive Plan in which the Group's CEO, Executive Committee members and other senior managers participate.
- **Main Market**: The London Stock Exchange's regulated market.
- **Marubeni**: Marubeni Corporation, the Group's 30% minority partner in Centinela and Antucoya.
- ***Ministerio del Medio Ambiente***: Chilean Ministry of the Environment.
- **Platts**: A provider of energy and metals information and source of benchmark price assessments.

- **PPA**: Power Purchase Agreement.
- **Quiñenco**: Quiñenco S.A., a Chilean financial and industrial group listed on the Santiago Stock Exchange and controlled by a foundation in which members of the Luksic family are interested.
- **Reko Diq**: A copper-gold deposit in Pakistan, previously a subsidiary of Tethyan.
- **RCA**: Resolucion de Calificación Ambiental, Environmental Approval Resolution.
- **Realized prices**: Effective sale price achieved comparing revenues (grossed up for treatment and refining charges for concentrate) with sales volumes.
- **SEIA**: Chilean Environmental Impact Assessment Service, a government environmental regulator is in charge of conducting environmental impact assessments and issuing permits.
- **SERNAGEOMIN**: Servicio Nacional de Geología y Minería, a government agency that provides geological and technical advice and regulates the mining industry in Chile.
- **SMA**: the Bureau of the Environment (*Superintendencia del Medio Ambiente*), an independent agency which audits the issuance of RCAs.
- **SX-EW**: solvent-extraction electrowinning process used to produce copper cathodes at Centinela, Antucoya and Zaldívar.
- **Tesoro**: Copper oxide open pits forming part of the Centinela operation.
- **Tethyan**: Tethyan Copper Company Limited, a 50-50 joint venture with Barrick Gold incorporated in Australia.
- **Twin Metals Minnesota Project**: A copper, nickel and platinum group metals underground-mining project located in Minnesota, United States.
- **UK**: United Kingdom.
- **UK Corporate Governance Code**: The UK Corporate Governance Code is a set of principles of good corporate governance, most of which have their own more detailed provisions published by the Financial Reporting Council, most recently updated in 2018 and that applies to accounting periods beginning on or after January 1, 2019.
- **U.S.**: United States.
- **U.S. dollar**: United States currency.
- **Zaldívar**: Compañía Minera Zaldívar SpA, a 50-50 joint venture with Barrick Gold, which is operated by the Group.

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*Extracts with respect to our Audited Financial Statements have been taken from our Annual Reports for the years ending December 31, 2021, 2020 and 2019 without material adjustment. Certain documents that are either cross referenced to within the included extracts or noted within the audit report may not appear herein. Such documents are not required to be included in the listing memorandum and such information is not incorporated by reference in, and does not form part of, the listing memorandum.

Report on the audit of the financial statements

Opinion

In our opinion:

- Antofagasta plc's Group financial statements and Parent Company financial statements (the "financial statements") give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 December 2021 and of the Group's profit and the Group's cash flows for the year then ended;
- the Group financial statements have been properly prepared in accordance with UK-adopted international accounting standards;
- the Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law); and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements, included within the Annual Report and Financial Statements 2021 (the "Annual Report"), which comprise: the consolidated and Parent Company balance sheets as at 31 December 2021; the consolidated income statement, the consolidated statement of comprehensive income, the consolidated cash flow statement, and the consolidated and Parent Company statements of changes in equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Our opinion is consistent with our reporting to the Audit and Risk Committee.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, as applicable to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, we declare that non-audit services prohibited by the FRC's Ethical Standard were not provided.

Other than those disclosed in note 8 to the Group financial statements, we have provided no non-audit services to the Parent Company or its controlled undertakings in the period under audit.

Our audit approach

Overview

Audit scope

- We identified two components (2020: two) as individually financially significant components, which required an audit of their complete financial information due to their financial significance to the Group, and a further three components (2020: three) where we concluded that a full scope audit of the component financial information was warranted.
- We also determined that specified procedures were necessary in respect of certain balances within the corporate segment and transport division to ensure that we had sufficient coverage from our audit work over each line of the Group's financial statements.
- Taken together, the components at which audit work was performed accounted for 98% of Group revenue.

Key audit matters

- Assessment of indicators of impairment and impairment reversal for property, plant and equipment and intangible assets, in particular in respect of the Antucoya cash generating unit and Twin Metals mining licences (Group) and investments in subsidiaries (Parent)

Materiality

- Overall Group materiality: $108 million (2020: $64 million) based on 5% of three year average profit before tax adjusted for one-off items.
- Overall Parent Company materiality: $26.5 million (2020: $22.0 million) based on 1% of total assets.
- Performance materiality: $81 million (2020: $48 million) (Group) and $19.875 million (2020: $16.5 million) (Parent Company).

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements.

In planning our work, including identifying areas of audit risk and determining an appropriate audit response, we were mindful of the increased focus on the impact of climate change risk on companies and their financial reporting, and also that the Group has identified climate change as a principal risk. As part of our audit, we made enquiries of management to understand its processes to assess the extent of the potential impact of climate change risks on the Group and its financial statements. This included consideration of the Group's Climate Change Strategy and specific targets to reduce Scope 1 and 2 emissions by 30% by 2025 relative to the 2020 baseline, to use electricity solely from renewable sources at its mining operations by the end of 2022, and, in the long term, to achieve carbon neutrality.

We considered the financial statement line items, including accounting estimates, that are most likely to be impacted by climate change risks and related commitments. Given that the material impact of climate change on the Group is likely, principally, to crystallise in the medium to long term, we concluded that the risk of material misstatement in the financial statements associated with climate change relates primarily to the valuation of property, plant and equipment and associated estimates of future cash flows. Our audit response to this aspect of climate change risk is included in the related key audit matter set out below.

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

This is not a complete list of all risks identified by our audit.

COVID-19 (Group and Parent Company), which was a key audit matter last year, is no longer included because the key audit matter was to address the response to the initial year impacted by COVID-19. We have addressed the continuing impact of COVID-19 on the financial statements but do not consider COVID-19 itself to constitute a key audit matter. Otherwise, the key audit matters below are consistent with last year.

Key audit matter	How our audit addressed the key audit matter
Assessment of indicators of impairment and impairment reversal for property, plant and equipment and intangible assets, in particular in respect of the Antucoya cash generating unit and Twin Metals mining licences (Group) and investments in subsidiaries (Parent) In accordance with IAS 36 'Impairment of Assets', the Directors are required to perform an impairment assessment of long-lived assets at any time an indicator of impairment exists. The Directors considered various external and internal factors, as set out in IAS 36 'Impairment of Assets', in assessing whether an indicator of impairment, or in respect of Antucoya, impairment reversal, existed as at 31 December 2021 in respect of the operating mine cash generating units ("CGUs"), such as short- and long-term forecast copper prices, the operational performance of these mines and estimates of movements in indicative value during the year based on the latest Life of Mine plans. This assessment included consideration of the impact of climate risks, including scenario analysis, as detailed in note 5 to the Group financial statements. The Directors concluded that no indicators of impairment or impairment reversal existed as at 31 December 2021 in respect of these CGUs and, therefore, no detailed impairment tests were performed. This assessment required judgement on the part of the Directors in determining whether an impairment trigger existed and was, therefore, considered a key audit matter. As a result of the strong copper price environment through the year and an associated increase in market consensus forecast pricing for copper, there is a heightened risk of potential impairment reversal at Antucoya, given the cumulative historical impairments of $716 million recorded in 2012 and 2016. Refer to note 5 to the Group financial statements and the Audit and Risk Committee's views set out on pages 135 and 136.	We assessed management's conclusion that there were no indicators of impairment or impairment reversal, other than for Twin Metals as discussed below, as at 31 December 2021. Our procedures included evaluating management's assessment, including its completeness by reference to both internal and external factors, including but not limited to the impact of COVID-19, operational performance in the year, macro-economic factors including forecast copper prices, foreign currency exchange rates and market interest rates, climate change, and expected future production profiles and capital expenditure as included in the latest Life of Mine plan for each operation. In addition, we evaluated management's quantitative impairment indicator assessments, and the process by which the indicative valuations were determined, including verifying the mathematical accuracy of the cash flow models and agreeing future capital and operating expenditure to the latest Board approved budgets and the latest approved Life of Mine plans. We assessed the reasonableness of the expected capital and operating expenses in light of their historical levels and recent operational performance, and considered the competence and objectivity of management's internal technical experts who prepared the Life of Mine plans. We evaluated the appropriateness of key market related assumptions in the indicative valuation models, including the copper prices, discount rates and foreign currency exchange rates, with the support of our valuation experts. We also performed sensitivity analysis around the key assumptions within the cash flow forecasts, using both lower long-term copper prices and a stronger Chilean peso. In addition, we assessed the impact of incorporating estimates of the potential future costs relating to climate change risks, based on the Task Force on Climate-related Financial Disclosures "TCFD" scenario analyses prepared by management during the year, into these quantitative impairment indicator assessments. In light of the above, we assessed the appropriateness of the related disclosures in note 5 to the Group financial statements, including the sensitivities provided. Overall, we identified no material issues in our work.

Key audit matter	How our audit addressed the key audit matter
During the year, the Directors identified an indicator of impairment of the intangible asset associated with the Twin Metals project. This asset was assessed for impairment indicators in accordance with the requirements of IFRS 6 'Exploration for and Evaluation of Mineral Resources', with a trigger identified due to the uncertainty associated with the project as a result of legal challenges and the cancellation of certain permits and leases. Based on the impairment assessment, an impairment has been recognised in the year for \$150.1 million in respect of the intangible asset. In addition, associated property, plant and equipment of \$27.5 million has also been impaired. Refer to note 4 to the Group financial statements and the Audit and Risk Committee's views set out on page 135. As at 31 December 2021, the Parent Company holds investments in subsidiaries amounting to \$529.1 million (2020: \$538.6 million), comprising shares and long-term funding balances that the Directors do not intend to demand repayment of in the foreseeable future. Judgement is required to assess whether impairment triggers exist and, where triggers are identified, to determine whether the recoverable amount is no lower than the investment carrying value. In assessing for impairment triggers, management considers whether the underlying net assets of the investment support the carrying amount, the nature of the underlying assets and whether other facts and circumstances, including impairments recorded in the Group financial statements, could also represent a trigger. For loan balances, the Directors considered whether the relevant subsidiary could repay the loans if they were demanded at the balance sheet date. Based on management's assessment, no impairment triggers in respect of the carrying value of investments in subsidiaries were identified at the balance sheet date, and nor was the recognition of an expected credit loss warranted. Refer to note C to the Parent Company's financial statements.	In respect of Twin Metals, we assessed the developments during 2021 and subsequent to the year end and determined that they should, taken collectively, be considered as an indicator of impairment as at 31 December 2021. In assessing management's determination of the recoverable amount of the associated assets, we read the most recent pre-feasibility study for the project (prepared in 2019) and met with management to understand how the various project permits impact the accessible resource base and potential mine plan, obtained legal letters from management's external counsel in respect of the likelihood of reinstatement of cancelled permits through the available legal pathways, and considered alternative valuations that might be determined by a market participant. We also assessed the appropriateness of the related disclosures in note 4 to the Group financial statements and considered the appropriateness of the presentation of the impairment charge as an exceptional item. Overall, we identified no material issues in our work. In respect of investments in subsidiaries in the Parent Company, we performed the following: • evaluated and challenged management's assessment and judgements in relation to the identification of impairment triggers, including ensuring that consideration had been given to the results of the Group's impairment assessment in respect of intangible assets and property, plant and equipment of the Twin Metals project; • independently performed an assessment of other potential internal and external impairment triggers, including considering the market capitalisation of the Group with reference to the carrying value of investments in subsidiaries in the Parent Company; and • evaluated the ability of the subsidiaries to repay loan balances. As a result of our work, we are satisfied that the carrying value of the Parent Company's investments in subsidiaries is appropriate as at 31 December 2021.

How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the Group and the Parent Company, the accounting processes and controls, and the industry in which the Group operates.

The core mining business comprises four mining operations: Los Pelambres; Centinela; Antucoya and Zaldívar, a joint venture with Barrick Gold Corporation operated by the Group. These mines produce copper cathodes, copper concentrates and significant volumes of by-products.

In addition to mining, the Group has a transport division that provides rail and road cargo services in northern Chile, predominantly to mining customers, including to the Group's own operations.

All of the above operations are located in Chile. In addition, the Group has corporate head offices located in both Santiago, Chile (Antofagasta Minerals S.A.) and London, UK (Antofagasta plc). The Group also has exploration projects in various countries.

In establishing the overall approach to the Group audit, we determined the type of work that needed to be performed at each of the four mine sites and the corporate offices in Chile, by us, as the Group engagement team and by component auditors from PwC Chile operating under our instruction. Los Pelambres and Centinela were considered to be financially significant components of the Group, due to their contribution towards Group profit before tax, and so required audits of their complete financial information. Antucoya and Zaldívar, as well as the Parent Company Antofagasta plc, were also subject to an audit of their complete financial information. We also requested that component auditors perform specified procedures over the corporate head office in Chile, and specific line items of other entities within the Group (including the transport division) to ensure that we had sufficient coverage from our audit work over each line of the Group's financial statements. The Group engagement team also performed specified procedures in respect of the recoverability of the intangible asset associated with the Twin Metals' mining licences. For all other components, the Group team performed analytical review procedures.

Where work was performed by component auditors, we determined the level of involvement we needed to have in the audit work to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the Group financial statements as a whole. As a result of Covid-19, we were unable to visit Chile for the 2021 audit. As such, our oversight procedures included the issuance of formal, written instructions to the component auditors setting out the work to be performed, regular communication throughout the audit cycle including regular component calls, review of certain component auditor workpapers and participation in audit clearance meetings. In most cases communication was performed through video conferencing.

Taken together, the components where we performed our audit work accounted for 98% of consolidated revenue, 97% of consolidated profit before tax and 94% of consolidated profit before tax adjusted for one-off items. This was before considering the contribution to our audit evidence from performing audit work at the Group level, including disaggregated analytical review procedures, which cover a significant portion of the Group's smaller and lower risk components that were not directly included in our Group audit scope.

The Parent Company financial statements are prepared in the corporate head office in Santiago, with oversight from the Group Financial Controller based in London, and are ultimately reviewed and approved by the Directors alongside the Group financial statements. The Parent Company financial statements were audited by the Group engagement team.

Materiality

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Financial statements - Group	Financial statements - Parent Company
Overall materiality	$108 million (2020: $64 million).	$26.5 million (2020: $22.0 million).
How we determined it	5% of three year average profit before tax adjusted for one-off items	1% of total assets
Rationale for benchmark applied	For overall Group materiality, we chose to use an underlying earnings measure as the benchmark because an underlying measure removes the impact of material items that do not recur from year to year or otherwise significantly affect the underlying trend of performance from continuing operations. The adoption of a multi-year average benchmark for materiality responds to longer term trends in commodity markets and reduces volatility in the measure year-on-year. Using our professional judgement, we determined materiality for this year at $108 million, which equates to 3.0% of the current year's profit before tax adjusted for one-off items.	For the Parent Company materiality, we determined our materiality based on total assets, which is more relevant than a performance-related measure as the Parent Company is an investment holding company for the Group.

For each component in the scope of our Group audit, we allocated a materiality that is less than our overall Group materiality. The range of materiality allocated across components was between $9 million and $90 million.

We use performance materiality to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds overall materiality. Specifically, we use performance materiality in determining the scope of our audit and the nature and extent of our testing of account balances, classes of transactions and disclosures, for example in determining sample sizes. Our performance materiality was 75% (2020: 75%) of overall materiality, amounting to $81 million (2020: $48 million) for the Group financial statements and $19.875 million (2020: $16.5 million) for the Parent Company financial statements.

In determining the performance materiality, we considered a number of factors - the history of misstatements, risk assessment and aggregation risk and the effectiveness of controls - and concluded that an amount at the upper end of our normal range was appropriate.

We agreed with the Audit and Risk Committee that we would report to them misstatements identified during our audit above $5.4 million (Group audit) (2020: $3.2 million) and $1.325 million (Parent Company audit) (2020: $1.1 million) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Conclusions relating to going concern

Our evaluation of the Directors' assessment of the Group's and the Parent Company's ability to continue to adopt the going concern basis of accounting included:

- Obtaining and examining management's base case forecasts and downside scenarios, checking that the forecasts had been subject to board review and, in the case of the base case, approval;
- Considering the historical reliability of management forecasting by comparing budgeted results with actual performance;
- Assessing the future cash flows included in the base case to ensure that these were consistent with our understanding from work performed over other key accounting estimates in the financial statements such as the impairment indicator assessment;
- Performing our own sensitivity analysis to understand the impact of changes in cash flows and net debt on the resources available to the Group;
- Assessing the covenants applicable to the Group's borrowings and considering whether management's forecasts supported ongoing compliance with the covenants; and
- Reading management's paper to the Audit and Risk Committee in respect of going concern, and agreeing the forecasts set out in this paper to the underlying base case cash flow model.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Group's and the Parent Company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

In auditing the financial statements, we have concluded that the Directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

However, because not all future events or conditions can be predicted, this conclusion is not a guarantee as to the Group's and the Parent Company's ability to continue as a going concern.

In relation to the Directors' reporting on how they have applied the UK Corporate Governance Code, we have nothing material to add or draw attention to in relation to the Directors' statement in the financial statements about whether the Directors considered it appropriate to adopt the going concern basis of accounting.

Our responsibilities and the responsibilities of the Directors with respect to going concern are described in the relevant sections of this report.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The Directors are responsible for the other information, which includes reporting based on the TCFD recommendations. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic report and Directors' Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on our work undertaken in the course of the audit, the Companies Act 2006 requires us also to report certain opinions and matters as described below.

Strategic Report and Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic Report and Directors' Report for the year ended 31 December 2021 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements.

In light of the knowledge and understanding of the Group and Parent Company and their environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic Report and Directors' Report.

Directors' Remuneration

In our opinion, the part of the Directors' and CEO remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006.

Corporate governance statement

The Listing Rules require us to review the Directors' statements in relation to going concern, longer-term viability and that part of the corporate governance statement relating to the Parent Company's compliance with the provisions of the UK Corporate Governance Code specified for our review. Our additional responsibilities with respect to the corporate governance statement as other information are described in the Reporting on other information section of this report.

Based on the work undertaken as part of our audit, we have concluded that each of the following elements of the corporate governance statement is materially consistent with the financial statements and our knowledge obtained during the audit, and we have nothing material to add or draw attention to in relation to:

- The Directors' confirmation that they have carried out a robust assessment of the emerging and principal risks;
- The disclosures in the Annual Report that describe those principal risks, what procedures are in place to identify emerging risks and an explanation of how these are being managed or mitigated;
- The Directors' statement in the financial statements about whether they considered it appropriate to adopt the going concern basis of accounting in preparing them, and their identification of any material uncertainties to the Group's and Parent Company's ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements;
- The Directors' explanation as to their assessment of the Group's and Parent Company's prospects, the period this assessment covers and why the period is appropriate; and
- The Directors' statement as to whether they have a reasonable expectation that the Parent Company will be able to continue in operation and meet its liabilities as they fall due over the period of its assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

Our review of the Directors' statement regarding the longer-term viability of the Group was substantially less in scope than an audit and only consisted of making inquiries and considering the Directors' process supporting their statement; checking that the statement is in alignment with the relevant provisions of the UK Corporate Governance Code; and considering whether the statement is consistent with the financial statements and our knowledge and understanding of the Group and Parent Company and their environment obtained in the course of the audit.

In addition, based on the work undertaken as part of our audit, we have concluded that each of the following elements of the corporate governance statement is materially consistent with the financial statements and our knowledge obtained during the audit:

- The Directors' statement that they consider the Annual Report, taken as a whole, is fair, balanced and understandable, and provides the information necessary for the members to assess the Group's and Parent Company's position, performance, business model and strategy;
- The section of the Annual Report that describes the review of effectiveness of risk management and internal control systems; and
- The section of the Annual Report describing the work of the Audit and Risk Committee.

We have nothing to report in respect of our responsibility to report when the Directors' statement relating to the Parent Company's compliance with the Code does not properly disclose a departure from a relevant provision of the Code specified under the Listing Rules for review by the auditors.

Responsibilities for the financial statements and the audit

Responsibilities of the Directors for the financial statements

As explained more fully in the Statement of Directors' responsibilities in respect of the financial statements, the Directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The Directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Auditors' responsibilities for the audit of the financial statements

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

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud, is detailed below.

Based on our understanding of the Group and industry, we identified that the principal risks of non-compliance with laws and regulations related to breaches of environmental regulations, health and safety regulations, and unethical and prohibited business practices, and we considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the financial statements such as the Companies Act 2006 and tax law in the jurisdictions in which the Group operates. We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to the posting of inappropriate journal entries to increase revenue or reduce expenditure, and management bias in accounting estimates. The Group engagement team shared this risk assessment with the component auditors so that they could include appropriate audit procedures in response to such risks in their

work. Audit procedures performed by the Group engagement team and/or component auditors included:

- Inquiries with management, including the Group's Vice President of Legal, regarding its consideration of known or suspected instances of non-compliance with laws and regulations;
- Obtaining legal letters from the Group's external legal advisers in respect of litigation and claims and other such matters, where considered necessary;
- Evaluation of management's controls designed to prevent and detect irregularities;
- Challenging assumptions and judgements made by management in respect of critical accounting judgements and significant accounting estimates; and
- Identifying and testing journal entries, in particular any journal entries posted with certain unusual account combinations.

There are inherent limitations in the audit procedures described above. We are less likely to become aware of instances of non-compliance with laws and regulations that are not closely related to events and transactions reflected in the financial statements. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

Our audit testing might include testing complete populations of certain transactions and balances, possibly using data auditing techniques. However, it typically involves selecting a limited number of items for testing, rather than testing complete populations. We will often seek to target particular items for testing based on their size or risk characteristics. In other cases, we will use audit sampling to enable us to draw a conclusion about the population from which the sample is selected.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report

This report, including the opinions, has been prepared for and only for the Parent Company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Companies Act 2006 exception reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not obtained all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- certain disclosures of Directors' remuneration specified by law are not made; or
- the Parent Company financial statements and the part of the Directors' and CEO remuneration report to be audited are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

Appointment

Following the recommendation of the Audit and Risk Committee, we were appointed by the members on 20 May 2015 to audit the financial statements for the year ended 31 December 2015 and subsequent financial periods. The period of total uninterrupted engagement is seven years, covering the years ended 31 December 2015 to 31 December 2021.

Other matter

In due course, as required by the Financial Conduct Authority Disclosure Guidance and Transparency Rule 4.1.14R, these financial statements will form part of the ESEF-prepared annual financial report filed on the National Storage Mechanism of the Financial Conduct Authority in accordance with the ESEF Regulatory Technical Standard ('ESEF RTS'). This auditors' report provides no assurance over whether the annual financial report will be prepared using the single electronic format specified in the ESEF RTS.

Simon Morley (Senior Statutory Auditor)

for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
London

24 March 2022

Consolidated income statement

For the year ended 31 December 2021

	Note(s)	Excluding exceptional items 2021 $m	Exceptional Items 2021 $m	2021 $m	Excluding exceptional items 2020 $m	Exceptional Items 2020 $m	2020 $m
Group revenue	6,7	**7,470.1**	**–**	**7,470.1**	5,129.3	–	5,129.3
Total operating costs		**(3,891.1)**	**(177.6)**	**(4,068.7)**	(3,537.1)	–	(3,537.1)
Operating profit from subsidiaries	6,8	**3,579.0**	**(177.6)**	**3,401.4**	1,592.2	–	1,592.2
Net share of results from associates and joint ventures	6,18	**59.7**	**–**	**59.7**	5.1	–	5.1
Impairment of investment in associate	3	**–**	**–**	**–**	–	(80.8)	(80.8)
Total profit from operations, associates and joint ventures	8	**3,638.7**	**(177.6)**	**3,461.1**	1,597.3	(80.8)	1,516.5
Investment income		**5.0**	**–**	**5.0**	18.9	–	18.9
Interest expense		**(63.4)**	**–**	**(63.4)**	(77.1)	–	(77.1)
Other finance items		**74.4**	**–**	**74.4**	(45.2)	–	(45.2)
Net finance income / (expense)	10	**16.0**	**–**	**16.0**	(103.4)	–	(103.4)
Profit before tax	6	**3,654.7**	**(177.6)**	**3,477.1**	1,493.9	(80.8)	1,413.1
Income tax expense	11	**(1,332.9)**	**90.6**	**(1,242.3)**	(546.2)	19.7	(526.5)
Profit from continuing operations	6	**2,321.8**	**(87.0)**	**2,234.8**	947.7	(61.1)	886.6
Profit from discontinued operations	12	**–**	**–**	**–**	7.3	–	7.3
Profit for the year		**2,321.8**	**(87.0)**	**2,234.8**	955.0	(61.1)	893.9
Attributable to:							
Non-controlling interests	31	**917.4**	**27.2**	**944.6**	408.4	(20.9)	387.5
Owners of the parent	13	**1,404.4**	**(114.2)**	**1,290.2**	546.6	(40.2)	506.4

							US cents
Basic earnings per share	13						
From continuing operations		**142.5**	**(11.6)**	**130.9**	54.7	(4.1)	50.6
From discontinued operations		**–**	**–**	**–**	0.7	–	0.7
Total continuing and discontinued operations		**142.5**	**(11.6)**	**130.9**	55.4	(4.1)	51.3

Consolidated statement of comprehensive income

For the year ended 31 December 2021

	Note(s)	**2021 $m**	2020 $m
Profit for the year	6	**2,234.8**	893.9
Items that may be or were subsequently reclassified to profit or loss:			
Losses on cash flow hedges		**(90.9)**	(32.1)
Losses in fair value of cash flow hedges transferred to the income statement	25	**126.8**	3.4
Currency translation adjustment		**(1.6)**	0.9
Tax relating to these items		**(4.4)**	2.4
Total items that may be or were subsequently reclassified to profit or loss		**29.9**	(25.4)
Items that will not be subsequently reclassified to profit or loss:			
Actuarial gains on defined benefit plans	27	**3.1**	9.8
(Losses)/gains in fair value of equity investments	19	**(2.1)**	5.5
Tax relating to these items		**(2.5)**	(2.6)
Total items that will not be subsequently reclassified to profit or loss		**(1.5)**	12.7
Total other comprehensive income/(expense)		**28.4**	(12.7)
Total comprehensive income for the year		**2,263.2**	881.2
Attributable to:			
Non-controlling interests	31	**952.8**	383.2
Equity holders of the Company		**1,310.4**	498.0

	2021 $m	2020 $m
Total comprehensive income for the year – continuing operations	**2,263.2**	873.9
Total comprehensive income for the year – discontinued operations	**–**	7.3
	2,263.2	881.2

Consolidated statement of changes in equity

For the year ended 31 December 2021

	Share capital $m	Share premium $m	Other reserves (Note 30) $m	Retained earnings (Note 30) $m	**Equity attributable to equity owners of the parent $m**	Non-controlling interests $m	**Total equity $m**
At 1 January 2020	89.8	199.2	(18.1)	7,112.8	**7,383.7**	2,017.3	**9,401.0**
Capital increases from non-controlling interest (Note 23)[1]	–	–	–	–	**–**	210.0	**210.0**
Profit for the year	–	–	–	506.4	**506.4**	387.5	**893.9**
Other comprehensive (expense)/income for the year	–	–	(12.5)	4.1	**(8.4)**	(4.3)	**(12.7)**
Dividends	–	–	–	(131.1)	**(131.1)**	(280.0)	**(411.1)**
At 31 December 2020	**89.8**	**199.2**	**(30.6)**	**7,492.2**	**7,750.6**	**2,330.5**	**10,081.1**
Profit for the year	–	–	–	1,290.2	**1,290.2**	944.6	**2,234.8**
Other comprehensive income for the year	–	–	20.2	–	**20.2**	8.2	**28.4**
Dividends	–	–	–	(710.8)	**(710.8)**	(604.5)	**(1,315.3)**
At 31 December 2021	**89.8**	**199.2**	**(10.4)**	**8,071.6**	**8,350.2**	**2,678.8**	**11,029.0**

1. In 2020, a capital contribution of $210 million was received from Marubeni, the minority partner at Antucoya, in order to replace part of Antucoya's subordinated debt financing with equity.

Consolidated balance sheet

As at 31 December 2021

	Note(s)	2021 $m	2020 $m
Non-current assets			
Intangible assets	15	–	150.1
Property, plant and equipment	16	**10,538.5**	9,851.9
Other non-current assets		**1.3**	2.6
Inventories	20	**270.4**	278.1
Investment in associates and joint ventures	18	**905.8**	914.6
Trade and other receivables	21	**51.2**	55.9
Derivative financial instruments	25	–	0.3
Equity investments	19	**8.7**	11.1
Deferred tax assets	28	**96.8**	6.4
		11,872.7	11,271.0
Current assets			
Inventories	20	**532.8**	592.7
Trade and other receivables	21	**1,146.1**	1,016.9
Current tax assets		**13.7**	49.8
Derivative financial instruments	25	–	1.1
Liquid investments	22	**2,969.7**	2,426.0
Cash and cash equivalents	22	**743.4**	1,246.8
		5,405.7	5,333.3
Total assets		**17,278.4**	16,604.3
Current liabilities			
Short-term borrowings	23	**(337.1)**	(603.4)
Derivative financial instruments	25	–	(37.4)
Trade and other payables	24	**(829.1)**	(808.8)
Short-term decommissioning and restoration provisions	29	**(33.8)**	(22.2)
Current tax liabilities		**(374.2)**	(153.9)
		(1,574.2)	(1,625.7)
Non-current liabilities			
Medium and long-term borrowings	23	**(2,835.5)**	(3,151.4)
Trade and other payables	24	**(16.8)**	(11.0)
Liabilities in relation to joint ventures	18	**(0.6)**	(1.1)
Post-employment benefit obligations	27	**(107.5)**	(123.2)
Decommissioning and restoration provisions	29	**(302.3)**	(498.0)
Deferred tax liabilities	28	**(1,412.5)**	(1,112.8)
		(4,675.2)	(4,897.5)
Total liabilities		**(6,249.4)**	(6,523.2)
Net assets		**11,029.0**	10,081.1
Equity			
Share capital	30	**89.8**	89.8
Share premium	30	**199.2**	199.2
Other reserves	30	**(10.4)**	(30.6)
Retained earnings	30	**8,071.6**	7,492.2
Equity attributable to equity owners of the parent		**8,350.2**	7,750.6
Non-controlling interests	31	**2,678.8**	2,330.5
Total equity		**11,029.0**	10,081.1

The financial statements on pages 173 to 224 were approved by the Board of Directors on 24 March 2022 and signed on its behalf by

Jean-Paul Luksic
Chairman

Tony Jensen
Senior Independent Director

Consolidated cash flow statement

For the year ended 31 December 2021

	Note(s)	2021 $m	2020 $m
Cash flow from continuing operations	32	**4,507.7**	2,431.1
Interest paid		**(60.7)**	(52.7)
Income tax paid		**(776.9)**	(319.7)
Net cash from operating activities		**3,670.1**	2,058.7
Investing activities			
Capital contributions to joint ventures	18	**(33.5)**	(7.2)
Dividends from associates	18	**142.5**	–
Acquisition of mining properties		**(4.5)**	(1.5)
Proceeds from sale of property, plant and equipment		**1.5**	0.8
Purchases of property, plant and equipment		**(1,773.0)**	(1,305.9)
Net increase in liquid investments	22	**(543.7)**	(886.3)
Interest received		**7.4**	12.6
Net cash used in investing activities		**(2,203.3)**	(2,187.5)
Financing activities			
Dividends paid to equity holders of the Company	14	**(710.8)**	(131.1)
Dividends paid to preference shareholders of the Company	14	**(0.1)**	(0.1)
Dividends paid to non-controlling interests	31	**(604.5)**	(280.0)
Capital increase from non-controlling interest [1]		**–**	210.0
Proceeds from issue of new borrowings	32	**149.1**	2,398.6
Repayments of borrowings	32	**(694.7)**	(1,393.8)
Principal elements of lease payments	32	**(88.9)**	(86.5)
Net cash (used in)/generated from financing activities		**(1,949.9)**	717.1
Net (decrease)/increase in cash and cash equivalents		**(483.1)**	588.3
Cash and cash equivalents at beginning of the year		**1,246.8**	653.7
Net (decrease)/increase in cash and cash equivalents	32	**(483.1)**	588.3
Effect of foreign exchange rate changes	32	**(20.3)**	4.8
Cash and cash equivalents at end of the year	22,32	**743.4**	1,246.8

1. In 2020, a capital contribution of $210 million was received from Marubeni, the minority partner at Antucoya, in order to replace part of Antucoya's subordinated debt financing with equity.

Notes to the financial statements

1 Basis of preparation

The financial statements have been prepared in accordance with UK-adopted International Accounting Standards. The financial statements have been prepared on the going concern basis.

On 31 December 2020, IFRS as adopted by the European Union at that date was brought into UK law and became UK-adopted International Accounting Standards, with future changes being subject to endorsement by the UK Endorsement Board. Antofagasta plc transitioned to UK-adopted International Accounting Standards in its financial statements on 1 January 2021. This change constitutes a change in accounting framework. However, there is no impact on recognition, measurement or disclosure in the period reported as a result of the change in framework.

Going concern

The Directors have assessed the going concern status of the Group, considering the period to 31 December 2023.

The Group's business activities, together with those factors likely to affect its future performance, are set out in the Strategic Report, and in particular within the Operating Review. Details of the cash flows of the Group during the period, along with its financial position at the period-end, are set out in the Financial Review. The consolidated financial statements include details of the Group's cash, cash equivalents and liquid investment balances in Note 22, and details of borrowings are set out in Note 23.

When assessing the going concern status of the Group, the Directors have considered in particular its financial position, including its significant balance of cash, cash equivalents and liquid investments and the terms and remaining durations of the borrowing facilities in place. The Group had a strong financial position as at 31 December 2021, with combined cash, cash equivalents and liquid investments of $3,713.1 million. Total borrowings were $3,172.6 million, resulting in a net cash position of $540.5 million. Of the total borrowings, only 11% is repayable within one year, and 13% repayable between one and two years.

When assessing the prospects of the Group, the Directors have considered the Group's copper price forecasts, the Group's expected production levels, operating cost profile and capital expenditure. These forecasts are based on the Group's budgets and Life-of-Mine models, which are also used when assessing relevant accounting estimates. This analysis has focused on the existing asset base of the Group, without factoring in potential development projects, which is considered appropriate for an assessment of the Group's ability to manage the impact of a depressed economic environment. The analysis has only included the draw-down of existing committed borrowing facilities, and has not assumed that any new borrowing facilities will be put in place. The Directors have assessed the key risks which could impact the prospects of the Group over the going concern period and consider the most relevant to be risks to the copper price outlook, as this is the factor most likely to result in significant volatility in earnings and cash generation. Robust down-side sensitivity analyses have been performed, assessing the impact of:

- A significant deterioration in the future copper price forecasts by 10% throughout the going concern period.
- In addition to the above deterioration in the copper price throughout the review period, an even more pronounced short-term reduction of 15% in the copper price for a period of three months.
- The Group's most significant individual operational risks. In respect of the El Mauro tailings storage facility at Los Pelambres, the risk of a major failure is considered to be extremely low, principally because of the nature of the design and construction, as well as the rigorous ongoing monitoring and controls and its performance since it was built. Given this, it has not been considered appropriate to include a scenario incorporating the possible impact of a potential major dam failure within the sensitivity analyses.
- A shut-down of the Group's operations for a period of three months as the result of COVID-19 or other issues.
- The proposed new Chilean mining royalty, taking into account the Group's existing tax stability agreements.

These stress-tests each indicated results which could be managed in the normal course of business. The analysis indicated that the Group is expected to remain in compliance with all of the covenant requirements of its borrowings throughout the review period and retain sufficient liquidity. Based on their assessment of the Group's prospects and viability, the Directors have formed a judgement, at the time of approving the financial statements, that there are no material uncertainties that the Directors are aware of that cast doubt on the Group's going concern status and that there is a reasonable expectation that the Group has adequate resources to continue in operational existence for the period to 31 December 2023. The Directors therefore consider it appropriate to adopt the going concern basis of accounting in preparing its financial statements.

Company structure

Antofagasta plc is a company limited by shares, incorporated and domiciled in the United Kingdom at 103 Mount Street, London W1K 2TJ. The immediate parent of the Group is Metalinvest Establishment, which is controlled by the E. Abaroa Foundation, in which members of the Luksic family are interested.

The nature of the Group's operations is mining and exploration activities and the transport of rail and road cargo.

A) Adoption of new accounting standards

The following accounting standards, amendments and interpretations became effective in the current reporting period:

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

The application of these standards and interpretations effective for the first time in the current year has had no significant impact on the amounts reported in these financial statements.

B) Accounting standards issued but not yet effective

At the date of authorisation of these financial statements, the following standards and interpretations, which have not been applied in these financial statements, were in issue but not yet effective:

- IFRS 17, Insurance Contracts
- Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendments to IAS 12)
- Classification of Liabilities as Current or Non-Current (Amendments to IAS 1)
- Disclosure of Accounting Policies – Amendments to IAS 1 and IFRS Practice Statement 2
- Definition of Accounting Estimates – Amendments to IAS 8
- Reference to the Conceptual Framework (Amendments to IFRS 3)
- Property, Plant and Equipment – Proceeds before Intended Use (Amendments to IAS 16)

1 Basis of preparation continued

- Onerous Contracts – Cost of Fulfilling a Contract (Amendments to IAS 37)
- Annual Improvements to IFRS Standards 2018-2020 (Amendments to IFRS 1, IFRS 9, IFRS 16 and IAS 41)

The item which is expected to have most relevance to the Group is the amendment to IAS 16 Property, Plant and Equipment – Proceeds before intended use. Currently the Group deducts amounts received from the sale of products during the initial ramp-up of new projects, before commercial production is achieved, from the capital cost of the project. Under the amendment to IAS 16, such amounts will instead be recognised as revenue in the income statement along with a corresponding allocation of related operating expenses, which is likely to result in increased revenue and operating expenses and a higher initial capitalised amount. The amendment will be applicable in the year beginning on 1 January 2022. The amendment would apply retrospectively only to relevant projects in progress at 1 January 2021 which were generating proceeds, and there were no such projects at 1 January 2021.

2 Principal accounting policies

A) Accounting convention

These financial statements have been prepared under the historical cost convention as modified by the use of fair values to measure certain financial instruments, principally provisionally priced sales as explained in Note 2(F) and financial derivative contracts as explained in Note 2(W).

B) Basis of consolidation

The financial statements comprise the consolidated financial statements of Antofagasta plc ("the Company" or "the Parent" or "the Parent Company") and its subsidiaries (collectively "the Group").

Subsidiaries – A subsidiary is an entity over which the Group has control, which is the case when the Group is exposed to, 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. The consolidated financial statements include all the assets, liabilities, revenues, expenses and cash flows of the Company and its subsidiaries after eliminating inter-company balances and transactions. For partly-owned subsidiaries, the net assets and profit attributable to non-controlling shareholders are presented as "Non-controlling interests" in the consolidated balance sheet and consolidated income statement.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on an acquisition-by-acquisition basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS. Subsequent to acquisition, the carrying amount of non-controlling interests is the amount of those interests at initial recognition plus the non-controlling interests' share of subsequent changes in equity. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Changes in the Group's ownership interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the Company.

When the Group loses control of a subsidiary, a gain or loss is recognised in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests. When assets of the subsidiary are carried at revalued amounts or fair values and the related cumulative gain or loss has been recognised in other comprehensive income and accumulated in equity, the amounts previously recognised in other comprehensive income and accumulated in equity are accounted for as if the Group had directly disposed of the relevant assets (ie reclassified to profit or loss or transferred directly to retained earnings as specified by applicable IFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IFRS 9 Financial Instruments: Recognition and Measurement or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

Acquisitions and disposals are treated as explained in Note 2(G) relating to business combinations and goodwill.

C) Investments in associates

An associate is an entity over which the Group is in a position to exercise significant influence, but not control or joint control, through the power to participate in the financial and operating policy decisions of that entity. The results and assets and liabilities of associates are incorporated in these consolidated financial statements using the equity method of accounting. This requires recording the investment initially at cost to the Group and then, in subsequent periods, adjusting the carrying amount of the investment to reflect the Group's share of the associate's results less any impairment and any other changes to the associate's net assets such as dividends. When the Group loses control of a former subsidiary but retains an investment in associate in that entity, the initial carrying value of the investment in associate is recorded at its fair value at that point. When the Group's share of losses of an associate exceeds the Group's interest in that associate, the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

D) Joint arrangements

A joint arrangement is an arrangement in which two or more parties have joint control. Joint arrangements are accounted depending on the nature of the arrangement.

i) **Joint ventures** – are accounted for using the equity method in accordance with IAS 28 Investment in Associates and Joint Ventures as described in Note 18.

ii) **Joint operations** – are accounted for recognising directly the assets, obligations, revenues and expenses of the joint operator in the joint arrangement. The assets, liabilities, revenues and expenses are accounted for in accordance with the relevant IFRS.

When a Group entity transacts with its joint arrangements, profits and losses resulting from the transactions with the joint arrangements are recognised in the Group's consolidated financial statements only to the extent of interests in the joint arrangements that are not related to the Group.

E) Currency translation

The functional currency for each entity in the Group is determined as the currency of the primary economic environment in which it operates. Transactions in currencies other than the functional currency of the entity are translated at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in currencies other than the functional currency are retranslated at year end exchange rates. Gains and losses on retranslation are included in net profit or loss for the period within other finance items.

The presentational currency of the Group and the functional currency of the Company is the US dollar. On consolidation, income statement items for entities with a functional currency other than the US dollar are translated into US dollars at average rates of exchange. Balance sheet items are translated at period-end exchange rates. Exchange differences on translation of the net assets of such entities are taken to equity and recorded in a separate currency translation reserve. Cumulative translation differences arising after the transition date to IFRS are recognised as income or as expenses in the income statement in the period in which an operation is disposed of.

On consolidation, exchange gains and losses which arise on balances between Group entities are taken to reserves where that balance is, in substance, part of the net investment in a foreign operation, ie where settlement is neither planned nor likely to occur in the foreseeable future. All other exchange gains and losses on Group balances are recognised in the income statement within other finance items.

Fair value adjustments and any goodwill arising on the acquisition of a foreign entity are treated as assets of the foreign entity and translated at the period-end rate.

F) Revenue recognition and other income

Revenue represents the value of goods and services supplied to third parties during the year. Revenue is measured at the fair value of consideration received or receivable, and excludes any applicable sales tax.

Revenue is recognised when the Group satisfies a performance obligation by transferring a promised good or service (ie an asset) to a customer. An asset is transferred when (or as) the customer obtains control of that asset.

For the Group's mining products, the customer generally gains control over the material when it has been loaded at the port of loading, and so this is the point of revenue recognition. The Group sells a significant proportion of its products on Cost, Insurance & Freight (CIF) Incoterms, which means that the Group is responsible for shipping the product to a destination port specified by the customer. The shipping service represents a separate performance obligation, and revenue in relation to such services is recognised separately from the sale of the material over time as the shipping service is provided, along with the associated costs. Shipment revenue is recognised at the contracted price to the Group as this reflects the standalone selling price.

Revenue from mining activities is recorded at the invoiced amounts with an adjustment for provisional pricing at each reporting date, as explained below. For copper and molybdenum concentrates, which are sold to smelters and roasting plants for further processing into fully refined metal, the price of the concentrate invoiced to the customer reflects the market value of the fully refined metal less a "treatment charge" deduction, to reflect the lower value of this partially processed material compared with the fully refined metal. Revenue includes amounts from the sale of by-products such as gold and silver.

Copper and molybdenum concentrate sale agreements and copper cathode sale agreements generally provide for provisional pricing of sales at the time of shipment, with final pricing based on the monthly average London Metal Exchange ("LME") copper price or the monthly average market molybdenum price for specified future periods. This normally ranges from one to four months after delivery to the customer. For sales contracts which contain provisional pricing mechanisms, the initial invoice typically reflects the month-average market price for the metal in the month of shipment, with the associated receivable balance subsequently measured at fair value through profit or loss. Gains and losses from the marking-to market of the receivable balance in relation to open sales are recognised through adjustments to other income presented within revenue in the income statement and to trade receivables in the balance sheet. The fair value calculations are based on forward prices at the period end for copper concentrate and cathode sales, and period-end average prices for molybdenum concentrate sales due to the absence of a futures market for this product.

For the Transport division, revenue in respect of its transportation and ancillary services are recognised over time in line with the performance of those services.

Interest income

Interest income is accrued on a time basis, by reference to the principal outstanding and the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

Dividend income

Dividend income from equity investments, associates and joint ventures is recognised when the shareholders' right to receive payment has been established. For associates and joint ventures, it is recorded as a decrease of the investment.

G) Business combinations and goodwill

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. The results of businesses acquired during the year are brought into the consolidated financial statements from the effective date of acquisition. The identifiable assets, liabilities and contingent liabilities of a business, which can be measured reliably, are recorded at their provisional fair values at the date of acquisition. Provisional fair values are finalised within 12 months of the acquisition date. Acquisition-related costs are expensed as incurred.

When the consideration transferred by the Group in a business combination includes assets or liabilities resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Changes in the fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the "measurement period" (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

2 Principal accounting policies continued

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as "measurement period" adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at subsequent reporting dates in accordance with IFRS 9.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date (ie the date when the Group obtains control) and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances which existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Goodwill arising in a business combination is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net identifiable assets acquired and liabilities assumed. Any goodwill on the acquisition of subsidiaries is separately disclosed, while any goodwill on the acquisition of associates and joint ventures is included within investments in equity accounted entities. Internally generated goodwill is not recognised. Where the fair values of the identifiable net assets acquired exceed the sum of the consideration transferred, the surplus is credited to the profit or loss in the period of acquisition as a bargain purchase gain.

The Group sometimes enters into earn-in arrangements whereby the Group acquires an interest in a project company in exchange for funding exploration and evaluation expenditure up to a specified level of expenditure or a specified stage in the life of the project. Funding is usually conditional on the achievement of key milestones by the partner. Typically there is no consideration transferred or funding liability on the effective date of acquisition of the interest in the project company and no goodwill is recognised on this type of transaction.

The results of businesses sold during the year are included in the consolidated financial statements for the period up to the effective date
of disposal. Gains or losses on disposal are calculated as the difference between the sales´ proceeds (net of expenses) and the net assets attributable to the interest which has been sold. Where a disposal represents a separate major line of business or geographical area of operations, the net results attributable to the disposed entity are shown separately in the income statement as a discontinued operation.

H) Exploration and evaluation expenditure

Exploration and evaluation costs, other than those incurred in acquiring exploration licences, are expensed in the year in which they are incurred. When a mining project is considered to be commercially viable (normally when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved) all further directly attributable pre-production expenditure is capitalised. Capitalisation of pre-production expenditure ceases when commercial levels of production are achieved.

Costs incurred in acquiring exploration and mining licences are classified as intangible assets when construction of the related mining operation has not yet commenced. When construction commences the licences are transferred from intangible assets to the mining properties category within property, plant and equipment.

I) Stripping costs

Pre-stripping and operating stripping costs are incurred in the course of the development and operation of open-pit mining operations.

Pre-stripping costs relate to the removal of waste material as part of the initial development of an open-pit, in order to allow access to the ore body. The capitalised costs are depreciated once production commences on a unit of production basis, in proportion to the volume of ore extracted in the year compared with total proven and probable reserves for that pit at the beginning of the year.

Operating stripping costs relate to the costs of extracting waste material as part of the ongoing mining process. The ongoing mining and development of the Group's open-pit mines is generally performed via a succession of individual phases. The costs of extracting material from an open-pit mine are generally allocated between ore and waste stripping in proportion to the tonnes of material extracted. The waste stripping costs are generally absorbed into inventory and expensed as that inventory is processed and sold. Where the stripping costs relate to a significant stripping campaign which is expected to provide improved access to an identifiable component of the ore body (typically an individual phase within the overall mine plan), the costs of removing waste in order to improve access to that part of the ore body will be capitalised within property, plant and equipment. The capitalised costs will then be amortised on a unit of production basis, in proportion to the volume of ore extracted compared with the total ore contained in the component of the pit to which the stripping campaign relates.

J) Intangible assets

Exploration and mining licences are classified as intangible assets when construction of the related mining operation has not yet commenced. When construction commences, the licences are transferred from intangible assets to the mining properties category within property, plant and equipment.

K) Property, plant and equipment

The costs of mining properties and leases, which include the costs of acquiring and developing mining properties and mineral rights, are capitalised as property, plant and equipment in the year in which they are incurred, when a mining project is considered to be commercially viable (normally when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved). The cost of property, plant and equipment comprises the purchase price and any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended. Once a project has been established as commercially viable, related development expenditure is capitalised. This includes costs incurred in preparing the site for mining operations, including pre-stripping costs. Capitalisation ceases when the mine is capable of commercial production, with the exception of development costs which give rise to a future benefit.

Interest on borrowings related to construction or development of projects is capitalised, until such time as the assets are substantially ready for their intended use or sale which, in the case of mining properties, is when they are capable of commercial production.

L) Depreciation of property, plant and equipment

Depreciation of an asset begins when it is available for use, ie when it is in the location and condition necessary for it to be capable of operating in the manner intended.

Property, plant and equipment is depreciated over its useful life, or over the remaining life of the operation if shorter, to residual value. The major categories of property, plant and equipment are depreciated as follows:

(i) **Land** – freehold land is not depreciated unless the value of the land is considered to relate directly to a particular mining operation, in which case the land is depreciated on a straight-line basis over the expected mine life.

(ii) **Mining properties** – mining properties, including capitalised financing costs, are depreciated on a unit of production basis, in proportion to the volume of ore extracted in the year compared with total proven and probable reserves at the beginning of the year.

(iii) **Buildings and infrastructure** – straight-line basis over 10 to 25 years.

(iv) **Railway track** (including trackside equipment) – straight-line basis over 20 to 25 years.

(v) **Wagons and rolling stock** – straight-line basis over 10 to 20 years.

(vi) **Machinery, equipment and other assets** – are depreciated on a unit of production basis, in proportion to the volume of ore/material processed or on a straight-line basis over 5 to 20 years.

(vii) **Assets under construction** – no depreciation until asset is available for use.

(viii) **Lease right-of-use assets** – depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

(ix) **Stripping cost** – capitalised costs are amortised on a unit of production basis, in proportion to the volume of ore extracted compared with the total ore contained in the component of the pit to which the stripping campaign relates (Note 16).

Residual values and useful lives are reviewed, and adjusted if appropriate, at least annually, and changes to residual values and useful lives are accounted for prospectively.

M) Impairment of property, plant and equipment and intangible assets

Property, plant and equipment and intangible assets relating to exploration and mining licences are reviewed for impairment if there is any indication that the carrying amount may not be recoverable. In respect of historical impairments recognised in prior years, the Group assesses whether there is any indication that impairment may no longer exist or may have decreased.

If any such indications exist, the recoverable amount of the asset is estimated in order to determine the extent of the impairment or reversal (if any). Where the asset does not generate cash flows that are largely independent from other assets, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of fair value less costs of disposal and value in use. Fair value less costs of disposal reflects the net amount the Group would receive from the sale of the asset in an orderly transaction between market participants. For mining assets, this would generally be determined based on the present value of the estimated future cash flows arising from the continued use, further development or eventual disposal of the asset. The estimates used in determining the present value of those cash flows are those that an independent market participant would consider appropriate. Value in use reflects the expected present value of the future cash flows which the Group would generate through the operation of the asset in its current condition, without taking into account potential enhancements or further development of the asset. The fair value less costs of disposal valuation will normally be higher than the value in use valuation, as realisation of the full potential of the Group's mining operations typically requires further capital expenditure and ongoing mine development, and accordingly the Group typically applies this valuation estimate in its impairment assessments, unless indicated otherwise. Details of the valuations and sensitivities of the Group's mining operations considered as part of the impairment trigger assessment are included in Note 5.

If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount is reduced to the recoverable amount. An impairment charge is recognised in the income statement immediately. Where an impairment subsequently reverses, the carrying amount is increased to the revised estimate of recoverable amount, but so that the increased carrying amount does not exceed the carrying value that would have been determined if no impairment had previously been recognised after taking into account the depreciation and/or amortisation that would otherwise have been recorded in the intervening period. A reversal is recognised in the income statement immediately.

N) Inventory

Inventory consists of raw materials and consumables, work-in-progress and finished goods. Work-in-progress represents material that is in the process of being converted into finished goods. The conversion process for mining operations depends on the nature of the copper ore. For sulphide ores, processing includes milling and concentrating and results in the production of copper concentrate. For oxide ores, processing includes leaching of stockpiles, solvent extraction and electrowinning and results in the production of copper cathodes. Finished goods consist of copper concentrate containing gold and silver at Los Pelambres and Centinela and copper cathodes at Centinela and Antucoya. Los Pelambres and Centinela also produce molybdenum as a by-product.

Inventory is valued at the lower of cost, on a weighted average basis, and net realisable value. Net realisable value represents estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution. Cost of finished goods and work-in-progress is production cost and for raw materials and consumables it is purchase price. Production cost includes:

- labour costs, raw material costs and other costs directly attributable to the extraction and processing of ore;
- depreciation of plant, equipment and mining properties directly involved in the production process; and
- an appropriate allocation of production overheads.

Stockpiles represent ore that is extracted and is available for further processing. Costs directly attributable to the extraction of ore are generally allocated as part of production costs in proportion to the tonnes of material extracted. Operating stripping costs are generally absorbed into inventory, and therefore expensed as that inventory is processed and sold. If ore is not expected to be processed within 12 months of the balance sheet date it is included within non-current assets. If there is significant uncertainty as to when any stockpiled ore will be processed it is expensed as incurred.

2 Principal accounting policies continued

O) Taxation

Tax expense comprises the charges or credits for the year relating to both current and deferred tax.

Current tax is based on taxable profit for the year. Taxable profit may differ from net profit as reported in the income statement because it excludes items of income or expense that are taxable and deductible in different years and also excludes items that are not taxable or deductible. The liability for current tax is calculated using tax rates for each entity in the consolidated financial statements which have been enacted or substantively enacted at the balance sheet date.

Deferred tax is the tax expected to be payable or recoverable on temporary differences (ie differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax basis used in the computation of taxable profit). Deferred tax is accounted for using the balance sheet liability method and is provided on all temporary differences with certain limited exceptions as follows:

(i) tax payable on undistributed earnings of subsidiaries, associates and joint ventures is provided except where the Group is able to control the remittance of profits and it is probable that there will be no remittance of past profits earned in the foreseeable future;

(ii) deferred tax is not provided on the initial recognition of an asset or liability in a transaction that does not affect accounting profit or taxable profit and is not a business combination; nor is deferred tax provided on subsequent changes in the carrying value of such assets and liabilities, for example where they are depreciated; and

(iii) the initial recognition of any goodwill.

Deferred tax assets are recognised only to the extent that it is probable that they will be recovered through sufficient future taxable profit. The carrying amount of deferred tax assets is reviewed at each balance sheet date.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. Deferred tax is charged or credited in the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also taken directly to equity.

P) Provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (when the effect of the time value of money is material).

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

Q) Provisions for decommissioning and restoration costs

An obligation to incur decommissioning and restoration costs occurs when environmental disturbance is caused by the development or ongoing production of a mining property. Costs are estimated on the basis of a formal closure plan and are subject to regular formal review.

Such costs arising from the installation of plant and other site preparation work, discounted to their net present value, are provided and capitalised at the start of each project, as soon as the obligation to incur such costs arises. These decommissioning costs are charged against profit or loss over the life of the mine, through depreciation of the asset and unwinding or amortisation of the discount on the provision. Depreciation is included in operating costs while the unwinding of the discount is included within other finance items. Changes in the measurement of a liability relating to the decommissioning of plant or other site preparation work are added to, or deducted from, the cost of the related asset in the current year.

The costs for restoration of site damage, which is created on an ongoing basis during production, are provided for at their net present values and charged against profit or loss as extraction progresses. Changes in the measurement of a liability relating to site damage created during production, which relate to changes in the estimate of the closure costs, are charged against operating profit, and changes relating to the discount rate and foreign exchange are recorded within other finance items.

R) Share-based payments

For cash-settled share-based payments, a liability is recognised for the goods or services acquired, measured initially at the fair value of the liability. At the end of each reporting period until the liability is settled, and at the date of settlement, the fair value of the liability is remeasured, with any changes in fair value recognised in profit or loss for the year. The Group currently does not have any equity settled share-based payments to employees or third parties.

S) Post-employment benefits

The Group operates defined contribution schemes for a limited number of employees. For such schemes, the amount charged to the income statement is the contributions paid or payable in the year.

Employment terms may also provide for payment of a severance indemnity when an employment contract comes to an end. This is typically at the rate of one month for each year of service (subject in most cases to a cap as to the number of qualifying years of service) and based on final salary level. The severance indemnity obligation is treated as an unfunded defined benefit plan, and the calculation is based on valuations performed by an independent actuary using the projected unit credit method, which are regularly updated.

The obligation recognised in the balance sheet represents the present value of the severance indemnity obligation. Actuarial gains and losses are immediately recognised in other comprehensive income.

T) Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, deposits held on call with banks, highly liquid investments that are readily convertible into known amounts of cash, are subject to insignificant risk of changes in value and are held for the purpose of meeting short-term cash commitments rather than for investment or other purposes. The cash balance is presented net of bank overdrafts which are repayable on demand. Cash and cash equivalents have a maturity period of 90 days or less.

U) Liquid investments

Liquid investments represent highly liquid current asset investments such as term deposits and managed funds invested in high quality fixed income instruments. They do not meet the IAS 7 definition of cash and cash equivalents, normally because even if readily accessible, the underlying investments have an average maturity profile greater than 90 days from the date first entered into, or because they are held primarily for investment purposes rather than meeting short-term cash commitments. These assets are designated as fair value through profit or loss.

V) Leases

Leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payments that are based on an index or a rate
- amounts expected to be payable by the lessee under residual value guarantees
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of the lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs.

W) Other financial instruments

Financial assets and financial liabilities are recognised on the Group's balance sheet when the Group becomes a party to the contractual provisions of the instrument. Financial assets are derecognised when the contractual rights to the cash flows from the financial asset expire or the Group has transferred the asset to another party. Financial liabilities are removed from the Group's balance sheet when they are extinguished – ie when the obligation specified in the contract has been discharged, cancelled or expired.

(i) Investments – Equity investments which are not subsidiaries, associates or joint ventures are recognised at fair value. The Group generally applies an irrevocable election for each equity investment to designate them as Fair Value through Other Comprehensive Income (FVOCI). Dividends from equity investments are recognised in the income statement when the right to receive payment is established.

(ii) Trade and other receivables – As explained above, for sales contracts which contain provisional pricing mechanisms the total receivable balance is measured at fair value through profit or loss. Other receivable balances are recognised at amortised cost.

(iii) Trade and other payables – Trade and other payables are generally not interest-bearing and are normally stated at their nominal value.

(iv) Borrowings (loans and preference shares) – Interest-bearing loans and bank overdrafts are initially recorded at fair value which is typically equal to the proceeds received, net of direct issue costs. They are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis. The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis using the effective interest rate method. Amounts are either recorded as financing costs in profit or loss or capitalised in accordance with the accounting policy set out in Note 2(K). Finance charges are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

The Sterling-denominated preference shares issued by the Company carry a fixed rate of return without the right to participate in any surplus. They are accordingly classified within borrowings and translated into US dollars at period-end rates of exchange. Preference share dividends are included within other finance items within net finance expense in the income statement.

(v) Equity instruments – Equity instruments issued are recorded at the proceeds received, net of direct issue costs. Equity instruments of the Company comprise its Sterling-denominated issued ordinary share capital and related share premium. As explained in Note 2(E), the presentational currency of the Group and the functional currency of the Company is US dollars, and ordinary share capital and share premium are translated into US dollars at historical rates of exchange based on dates of issue.

(vi) Derivative financial instruments – As explained in Note 25(D), the Group periodically uses derivative financial instruments to reduce exposure to foreign exchange, interest rate and commodity price movements. The Group does not use such derivative instruments for trading purposes. The Group has applied the hedge accounting provisions of IFRS 9 Financial Instruments. The effective portion of changes in the fair value of derivative financial instruments that are designated and qualify as hedges of future cash flows have been recognised directly in equity, with such amounts subsequently recognised in profit or loss in the period when the hedged item affects profit or loss. Any ineffective portion is recognised immediately in profit or loss. Realised gains and losses on commodity derivatives recognised in profit or loss are recorded within revenue. The time value element of changes in the fair value of derivative options is recognised within other comprehensive income.

Financial assets with embedded derivatives are considered in their entirety when determining the appropriate classification and measurement. The treatment of embedded derivatives arising from provisionally priced commodity sales contracts is set out in further detail in Note 2(F) relating to revenue. Derivatives embedded in financial liabilities are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contract and the host contract is not measured at fair value. Changes in fair value are reported in profit or loss for the year.

2 Principal accounting policies continued

(vii) Impairment of financial assets – The Group applies the forward-looking expected credit loss model to its financial assets, other than those measured at fair value through profit or loss. The Group applies the IFRS 9 "simplified approach" to its trade receivables, measuring the loss allowance at the lifetime expected credit loss. For other financial assets, where the credit risk has not increased significantly since initial recognition, the loss allowance is measured at the 12 month expected credit loss. If there has been a significant increase in credit risk, the loss allowance is measured at the lifetime expected credit loss. Increases or decreases to the credit loss allowance are recognised immediately in profit or loss.

X) Exceptional items

Exceptional items are material items of income and expense which are non-regular or non-operating and typically non-cash, including impairments and profits or losses on disposals. The tax effect of items presented as exceptional is also classified as exceptional, as are material deferred tax adjustments that relate to more than one reporting period.

Y) Rounding

All amounts disclosed in the financial statements and notes have been rounded to the nearest million dollars unless otherwise stated.

These policies have been consistently applied to all the years presented, unless otherwise stated.

3 Critical accounting judgements and key sources of estimation uncertainty

Determining many of the amounts included in the financial statements involves the use of judgement and/or estimation. These judgements and estimates are based on management's best knowledge of the relevant facts and circumstances having regard to prior experience, but actual results may differ from the amounts included in the financial statements. Information about such judgements and estimates is included in the principal accounting policies in Note 2 or the other notes to the financial statements, and the key areas are set out below.

A) Judgements

The following are the critical judgements, apart from those involving estimations (which are dealt with separately), that have been made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognised in the financial statements.

(i) Non-financial assets impairment

As explained in Note 2(M), the Group reviews the carrying value of its intangible assets and property, plant and equipment to determine whether there is any indication that those assets are impaired. In performing assessments for impairment triggers, assets that do not generate largely independent cash inflows are allocated to an appropriate cash generating unit ("CGU"). Details of the valuations and sensitivities of the Group's mining operations considered as part of the impairment trigger assessment are included in Note 5, including quantitative sensitivity analyses. Details of the value of assets and liabilities for each of the mining operations are set out in Note 6.

When an impairment trigger is identified, an impairment test is performed, wherein the recoverable amount of those assets, or the CGU, is measured at the higher of their fair value less costs of disposal and value in use.

When an impairment test is performed, management necessarily applies its judgement in allocating assets to CGUs, in estimating the probability, timing and value of underlying cash flows and in selecting appropriate discount rates to be applied within the fair value less costs of disposal calculation. The key assumptions are set out in Note 2(M). Subsequent changes to CGU allocation, licensing status, reserves and resources, price assumptions or other estimates and assumptions in the fair value less costs of disposal calculation could impact the carrying value of the respective assets.

As explained in Note 4, the United States federal government has cancelled a number of the mining leases relating to the Twin Metals project. This was judged to be an impairment indicator as at the balance sheet date, and following the resulting impairment test an impairment has been recognised in respect of the $177.6 million of intangible assets and property, plant and equipment relating to the project.

As explained in Note 5, based on an assessment of both qualitative and quantitative factors, there were no indicators of potential impairment, or reversal of previous impairments, for the Group's non-current assets associated with its mining operations at the 2021 year-end, and accordingly no impairment tests have been performed.

(ii) Capitalisation of project costs within property, plant and equipment

As explained in Note 2(K) the costs of developing mining properties are capitalised as property, plant and equipment when the mining project is considered to be commercially viable. Commercial viability is normally considered to be demonstrable when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved. Management reviews amounts capitalised to ensure that the treatment of that expenditure as capital rather than operating expenditure is reasonable, in particular in respect of the commercial viability of the project.

As at 31 December 2021, $180 million of feasibility study costs relating to the Centinela Second Concentrator project, which is still under evaluation and has not yet received final Board approval, were capitalised within property, plant and equipment. Should the Group ultimately take the decision not to proceed with the development of this project, then it is likely that the corresponding element of the capitalised feasibility study costs would need to be impaired.

The capitalisation of the construction and commissioning costs for a new mining operation ceases, and depreciation commences, when the operation is in the condition necessary for it to be capable of operating in the manner intended (which is termed as achieving commercial production).

The determination of the commercial production date requires judgement which involves the consideration of a number of relevant factors, including the successful completion of commissioning tests and the processing and production levels achieved compared with expected design capacity.

B) Estimates

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

(i) Deferred taxation

No deferred tax liability is recognised in respect of the undistributed earnings of subsidiaries where it is not likely that those profits will be distributed in the foreseeable future. When determining whether it is likely that distributions will be made in the foreseeable future, and what is the appropriate foreseeable future period for this purpose, the Group considers factors such as the predictability of the likely future Group dividends, taking into account the Group's dividend policy and the level of potential volatility of the Group's future earnings, as well as the current level of distributable reserves at the Antofagasta plc entity level. As set out in Note 28, at 31 December 2021 deferred withholding tax liabilities of $23.1 million have been recognised, which relate to undistributed earnings of subsidiaries where it is considered likely that the corresponding profits will be distributed in the foreseeable future. The value of the remaining undistributed earnings of subsidiaries, for which deferred tax liabilities have not been recognised, because the Group is in a position to control the timing of the distributions and it is likely that distributions will not be made in the foreseeable future, was $6,483 million (31 December 2020 – $4,980 million - restated from the previously reported amount of $4,810 million, reflecting the removal of amounts relating to entities with accumulated losses). If deferred withholding tax liabilities were recognised in respect of all of these remaining undistributed earnings of subsidiaries this would result in an additional deferred tax liability and expense of approximately $1,232 million.

As explained in Note 2(O), deferred tax assets are recognised only to the extent that it is probable that they will be recovered through sufficient future taxable profits. When assessing the probable future taxable profits, the Group considers whether the relevant Group entity has sufficient taxable temporary differences which will result in taxable amounts against which the unused tax losses can be utilised.

Generally under Chilean tax law most tax losses can be carried forward indefinitely, and so the expiry of tax losses is not generally an issue. The key assumptions to which the forecasts of the probable level of future taxable profits are most sensitive are future commodity prices, production levels and operating costs.

As set out in Note 28, the Group has recognised $96.8 million of deferred tax assets as at 31 December 2021, relating to tax losses, provisions and short-term timing differences. This includes $90.6 million of previously unrecognised deferred tax assets in respect of tax losses available for offset against future profits, which have been recognised at 31 December 2021. These losses may be carried forward indefinitely.

In previous periods the Group had reviewed these tax losses for potential recognition, and concluded that it was not probable that future taxable profits would be available against which the losses could be utilised, and accordingly had not recognised a deferred tax asset in respect of those losses. In making this assessment in previous periods, the Group had taken into account that the relevant Group entity (Antucoya) had consistently generated taxable losses in recent years, was continuing to generate taxable losses in the then current period, and was forecast to continue generating taxable losses in future periods. During 2021, there has been a significant improvement in the current copper price (with the copper price reaching record levels in nominal terms during the year) and also the near-term copper price outlook. As a result of this improvement in the copper price environment, Antucoya began to generate taxable profits in 2021. The improved near-term outlook for the copper price also means that Antucoya is now forecast to generate sufficient future taxable profits to fully utilise its remaining tax losses.

In addition to the above estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities, we have also set out the following additional estimates and assumptions which have a significant impact on the financial statements, but which are not considered to be key sources of estimation uncertainty as defined in IAS 1.

(i) Inventory valuation

The valuation of work in progress inventories involves a number of estimates, including the average ore grade, volume and density of ore stockpiles, and the recoveries in respect of material on the leach piles. Evaluating the net realisable value of the inventories also requires an estimate of the likely future copper price for the periods when it is expected that the inventories will be completed and sold. As set out in Note 20, the value of work in progress inventories at 31 December 2021 was $586.9 million.

If the copper spot price at 31 December 2021 (used for forecasting the likely sales price of short-term inventories) had been 10% lower, this would not have resulted in any net realisable value provision.

The valuation of leachpile inventories can be particularly complex, given the required estimates including in respect of the total recoveries and the speed of recovery in relation to the material on the piles. This is particularly the case with leachpiles with a long leaching cycle, where material may remain on the pile for several years before it has been fully leached. The operation with the most significant long-term leachpile inventory is Zaldívar, with a long-term leachpile with a value of approximately $140 million (on a 50% attributable basis) at 31 December 2021. This balance is forecast to be consumed over the operation's remaining 14-year mine life and its recoverability is based on the same assumptions about future operational considerations as detailed in Note 5. As a simple, high-level sensitivity, if this balance were reduced by 10% (due to changes in recovery estimates for example), this would result in a reduction in Zaldívar's inventory balance of approximately $14 million (on a 50% attributable basis).

(ii) Useful economic lives of property, plant and equipment and ore reserves estimates

As explained in Note 2(L), mining properties, including capitalised financing costs, are depreciated in proportion to the volume of ore extracted in the year compared with total proven and probable reserves at the beginning of the year.

There are numerous uncertainties inherent in estimating ore reserves, and assumptions that were valid at the time of estimation may change when new information becomes available. These include assumptions as to grade estimates and cut-off grades, recovery rates, commodity prices, exchange rates, production costs, capital costs, processing and reclamation costs and discount rates. The actual volume of ore extracted and any changes in these assumptions could affect prospective depreciation rates and carrying values.

The majority of other items of property, plant and equipment are depreciated on a straight-line basis over their useful economic lives. Management reviews the appropriateness of useful economic lives at least annually and, again, any changes could affect prospective depreciation rates and asset carrying values.

3 Critical accounting judgements and key sources of estimation uncertainty continued

The operation with the most significant depreciation expense is Centinela, with a depreciation expense of $655 million in 2021, representing approximately 60% of the total Group depreciation charge. As a simple high-level sensitivity, a 10% adjustment to the useful economic lives of Centinela's property, plant and equipment would result in an impact of approximately $65 million on the annual depreciation charge.

In the particular case of the Zaldívar joint venture, the following factors have been considered when assessing the appropriate useful economic lives, depreciation rates and asset carrying values:

- an Environmental Impact Assessment (EIA) has been submitted to extend the permits for water extraction (which currently expire during 2025) and general mining activities (which currently expire at the end of 2023) until 2031. Subsequent applications will be required in due course to further extend the permits beyond 2031. The assets'useful economic lives assume that essential permits will be extended to the end of the mine life, and other permits can be extended, or alternative solutions to enable the ongoing operation of the mine can be implemented. However, if essential permits are not extended, this may result in a change in the assets' useful economic lives or carrying value.
- Zaldívar's final pit phase, which represents approximately 20% of current ore reserves, impacts a portion of Minera Escondida's mine property, as well as infrastructure owned by third parties (road, railway, powerline and pipelines). The assets'useful economic lives assume that mining of the final pit phase, which is subject to agreements or easements to access these areas and relocate this infrastructure, will be possible.

(iii) Provisions for decommissioning and site restoration costs

As explained in Note 2(Q), provision is made, based on net present values, for decommissioning and site rehabilitation costs as soon as the obligation arises following the development or ongoing production of a mining property. The provision is based on a closure plan prepared with the assistance of external consultants.

Management uses its judgement and experience to provide for and (in the case of capitalised decommissioning costs) amortise these estimated costs over the life of the mine. The ultimate cost of decommissioning and site rehabilitation is uncertain and cost estimates can vary in response to many factors including changes to relevant legal requirements, the emergence of new restoration techniques or experience at other mine sites.

The expected timing and extent of expenditure can also change, for example in response to changes in ore reserves or processing levels. As a result, there could be significant adjustments to the provisions established which would affect future financial results.

Details of the decommissioning and restoration provisions are set out in Note 29. The total value of these provisions as at 31 December 2021 was $336.1 million. As a simple high-level sensitivity, a 10% increase in the forecast closure costs would increase the provision balance by approximately $34 million, the capitalised decommissioning costs asset within property, plant and equipment by approximately $12 million and the on-going annual operating expenses by approximately $1 million.

4 Exceptional items

Exceptional items are material items of income and expense which are non-regular or non-operating and typically non-cash, including impairments and profits or losses on disposals. The tax effect of items presented as exceptional is also classified as exceptional, as are material deferred tax adjustments that relate to more than one reporting period. The classification of these types of items as exceptional is considered to be useful as it provides an indication of the earnings generated by the ongoing businesses of the Group.

2021 – Impairment of Twin Metals' assets

Twin Metals Minnesota ("Twin Metals") is a wholly owned copper, nickel and platinum group metals (PGM) underground mining project, which holds copper, nickel, cobalt-PGM deposits in north-eastern Minnesota, US. In recent years, Twin Metals has been progressing its Mine Plan of Operations (MPO) and Scoping Environmental Assessment Worksheet Data Submittal, submitted in December 2019 to the US Bureau of Land Management (BLM) and Minnesota Department of Natural Resources (DNR), respectively. However, over the past year, while the Twin Metals project was advancing through environmental review, several actions were taken by the federal government that have changed the potential scenarios for the project.

In September 2021, the United States Forest Service (USFS) submitted an application to withdraw approximately 225,000 acres of land in the Superior National Forest from the scope of federal mineral leasing laws, subject to valid existing rights. In October 2021, the United States Bureau of Land Management (BLM) rejected Twin Metals' Preference Right Lease Applications (PRLAs) and Prospecting Permit Applications (PPAs). In January 2022, the United States Department of the Interior cancelled Twin Metals' MNES-1352 and MNES-1353 federal mineral leases. The PRLAs and federal mineral leases form a significant proportion of the mineral resources contained within Twin Metals' current project plan and, accordingly, it was determined that these events collectively represented an impairment trigger as at the balance sheet date.

Prior to the resulting impairment assessment being performed, as at 31 December 2021, the Group had recognised an intangible asset of $150.1 million and property, plant and equipment of $27.5 million relating to the Twin Metals project. The intangible asset arose upon the acquisition in 2015 of Duluth Metals, which owned a 60% stake in the Twin Metals project, with the carrying value of the intangible asset reflecting the consideration paid for that acquisition. The property, plant and equipment balances reflected the historical cost of acquiring those assets. These carrying values prior to the impairment did not, therefore, reflect an estimate of the commercial potential of the project as at 31 December 2021.

The Group believes that Twin Metals has a valid legal right to the mining leases and a strong case to defend its legal rights. Although the Group intends to pursue validation of those rights, considering the time and uncertainty related to any legal action to challenge the government decisions, an impairment has been recognised as at 31 December 2021 in respect of the $177.6 million of intangible assets and property, plant and equipment relating to the Twin Metals project.

2021 – Recognition of previously unrecognised deferred tax assets

At 31 December 2021, the Group recognised $90.6 million of previously unrecognised deferred tax assets relating to tax losses available for offset against future profits. In previous periods, the Group had reviewed these tax losses for potential recognition, and concluded that it was not probable that future taxable profits would be available against which the losses could be utilised, and accordingly had not recognised a deferred tax asset in respect of those losses. In making this assessment in previous periods, the Group had taken into account that the relevant Group entity (Antucoya) had consistently generated taxable losses in recent years, was continuing to generate taxable losses in the then current period, and was forecast to continue generating taxable losses in future periods, and the Group could not use these taxable losses to offset profits in other Group entities. During 2021, there has been a significant improvement in the current copper price (with the copper price reaching record levels in nominal terms during the year) and also the near-term copper price outlook. As a result of this improvement in the copper price environment, the relevant Group entity began to generate taxable profits in 2021. The improved near-term outlook for the copper price also means that the entity is now forecast to generate sufficient future taxable profits to fully utilise its remaining tax losses. Current forecasts indicate that the losses will be utilised over approximately the next eight years (compared with the remaining mine life for Antucoya of 22 years). The forecasts are based on Antucoya's Life-of-Mine model. When the tax losses are utilised in future years it is expected that the impact will be recorded within the underlying tax charge for that year, in order to match with the similar classification of the corresponding taxable profits of that year.

2020 – Impairment of the investment in Hornitos

On 31 March 2020, the Group agreed to dispose of its 40% interest in the Hornitos coal-fired power station to ENGIE Energía Chile S.A. ("ENGIE"), the owner of the remaining 60% interest. This was part of the value accretive renegotiation of Centinela's power purchase agreement, which as a result will be wholly supplied from lower cost renewable sources from 2022. In accordance with the terms of the agreement, the Group disposed of its investment to ENGIE in December 2021 for a nominal consideration, and has not been entitled to receive any further dividend income from Hornitos from the date of the agreement. Accordingly, the Group no longer had any effective economic interest in the results or assets of Hornitos from 31 March 2020 onwards, and therefore recognised an impairment of $80.8 million in respect of its investment in associate balance as of that date, and no longer recognised any share of Hornitos' results. The post-tax impact of the impairment is $61.1 million, of which $40.2 million is attributable to the equity owners of the Company.

5 Asset sensitivities

Other asset sensitivities

Based on an assessment of both qualitative and quantitative factors, there were no indicators of potential impairment, or reversal of previous impairments, for the Group's non-current assets associated with its mining operations at the 2021 year-end, and accordingly no impairment tests have been performed. The quantitative element of the trigger assessment, which is based on the Group's life-of-mine models, provides an indication of what the approximate recoverable amount of the Group's operations would be, were a full impairment test under IAS 36 to be performed. In order to provide an indication of the sensitivities of the approximate recoverable amount of the Group's mining operations, sensitivity analysis has been performed on the indicative valuation, prepared as part of the Group's impairment indicator analysis.

This impairment indicator valuation exercise demonstrated positive headroom for all of the Group's mining operations, with the recoverable amount of the assets in excess of their carrying value.

Relevant aspects of these indicative valuation estimates include:

Fair value less costs of disposal and value in use valuations

If a full IAS 36 impairment test were to be prepared, which was not the case as at 31 December 2021, the recoverable amount is the higher of fair value less costs of disposal and value in use. Fair value less costs of disposal reflects the net amount the Group would receive from the sale of the asset in an orderly transaction between market participants. For mining assets, this would generally be determined based on the present value of the estimated future cash flows arising from the continued use, further development or eventual disposal of the asset. Value in use reflects the expected present value of the future cash flows which the Group would generate through the operation of the asset in its current condition, without taking into account potential enhancements or further development of the asset. The fair value less costs of disposal valuation will normally be higher than the value in use valuation for mining companies, and accordingly the Group typically applies this valuation estimate in its impairment or valuation assessments.

Climate risks

The indicative valuations incorporate estimates of the potential future costs relating to climate risks. During 2021, the Group has implemented, and disclosed against, the recommendations of the Task Force on Climate-related Financial Disclosures ("TCFD"). This process is described in detail in the Task Force on Climate-related Financial Disclosures section of the Strategic Report. This process included scenario analyses assessing the potential future impact of transition and physical risks. In preparing this analysis, the Group used two climate scenarios to capture the broadest possible spectrum of climate-related risks and opportunities, an aggressive mitigation scenario and a high warming scenario. The total of the estimated potential transition and physical risk impacts under this approach is likely to overstate the probable overall impact, for example because if relatively aggressive actions are taken in order to minimise transition risks, this should reduce the risk of relatively significant physical impacts. However, in order to incorporate a simple and conservative estimate of the potential future costs of climate risks we have combined the estimates of the potential costs of the transition risk and physical risk scenarios, and incorporated those total cost forecasts into the indicative valuations.

5 Asset sensitivities continued

Copper price outlook

The assumption to which the value of the assets is most sensitive is the future copper price. The copper price forecasts (representing the Group's estimates of the assumptions that would be used by independent market participants in valuing the assets) are based on the forward curve for the short term and consensus analyst forecasts for the longer term. A long-term copper price of $3.30/lb (reflecting 2021 real terms) has been used in the base valuations used in the impairment indicator assessment. As an additional down-side sensitivity a valuation was performed with a long-term copper price of $2.97/lb, reflecting a 10% reduction in the long-term price forecast. Los Pelambres, Centinela, and Zaldívar still showed positive headroom in this alternative down-side scenario. However, the Antucoya valuation indicated a potential deficit of $160 million. This was a simple sensitivity exercise, looking at an illustrative change in the forecast long-term copper price in isolation. In reality, a deterioration in the long-term copper price environment is likely to result in corresponding improvements in a range of input cost factors. In particular, given that copper exports account for over 50% of Chile's exports, movements in the US dollar/Chilean peso exchange rate have historically been highly correlated to the copper price, and a decrease in the copper price is likely to result in a weakening of the Chilean peso, with a resulting reduction in the Group's operating costs and capital expenditure. These likely cost reductions, as well as potential operational changes which could be made in a weaker copper price environment, could partly mitigate the impact of the lower copper price modelled in these estimated potential sensitivities.

The US dollar/Chilean peso exchange rate

The value of the assets is also sensitive to movements in the US dollar/Chilean peso exchange rate. A long-term exchange rate of Ch$770/$1 has been used in the base valuations used in the impairment indicator assessment. As an additional down-side sensitivity an indicative valuation was performed with a 10% stronger long-term Chilean peso exchange rate assumption. Los Pelambres, Centinela, and Zaldívar all still showed positive headroom in this alternative down-side scenario. In the case of Antucoya, this down-side scenario indicated a potential break-even position. As noted above, movements in the US dollar/Chilean peso exchange rate have historically been highly correlated to the copper price and so in reality the exchange rate would not be expected to move in isolation.

Other relevant assumptions

In addition to the impact of climate change risks, the future copper price and the US dollar/Chilean peso exchange rate, the indicative valuations are sensitive to the assumptions in respect of future production levels, operating costs, sustaining and development capital expenditure, potential changes in the Chilean mining royalty regime, and the discount rate used to determine the present value of the future cash flows.

A real post-tax discount rate of 8% has been used in determining the present value of the forecast future cash flow from the assets as part of the impairment indicator assessment.

The COVID-19 situation is not expected to have a significant negative impact on the future production or capital projects of the Group's mining operations. The forecasts within the indicative valuations reflect estimates of the expected ongoing costs of managing the situation over the near-term.

As indicated by the sensitivities for movements in the long-term copper price and the US dollar/Chilean peso exchange rate described above, Antucoya is particularly sensitive to movements in the input assumptions.

The impairment trigger assessments for Los Pelambres and Centinela are not sensitive to movements in these assumptions. While Zaldívar is also not particularly sensitive to changes in the assumptions used in the indicative valuation prepared as part of the quantitative impairment indicator assessment, the conclusion that there are no impairment indicators does reflect certain assumptions about future operational considerations, which include the following:

- an Environmental Impact Assessment (EIA) has been submitted to extend the permits for water extraction (which currently expire during 2025) and general mining activities (which currently expire at the end of 2023) until 2031. Subsequent applications will be required in due course to further extend the permits beyond 2031. The indicative valuation assumes that essential permits will be extended to the end of the mine life, and other permits can be extended, or alternative solutions to enable the ongoing operation of the mine, can be implemented. However, if essential permits are not extended, this is likely to be considered an indicator of a potential impairment, requiring a full impairment assessment at that point.
- Zaldívar's final pit phase, which represents approximately 20% of current ore reserves, impacts a portion of Minera Escondida's mine property, as well as infrastructure owned by third parties (road, railway, powerline and pipelines). The indicative valuation assumes that mining of the final pit phase, which is subject to agreements or easements to access these areas and relocate this infrastructure, will be possible.

Indicators of potential reversal of previous impairments

Antucoya recognised impairments totalling $716 million in 2012 and 2016. Of the original impairment amounts, approximately $550 million remains in effect unamortised as at 31 December 2021. Based on an assessment of both qualitative and quantitative factors, there were no indicators of a potential reversal of these previous impairments at the 2021 year-end. As noted above, the indicative valuation exercise for Antucoya at the 2021 year-end indicated positive headroom for Antucoya. However, the headroom position is relatively marginal – the down-side sensitivity reflecting a 10% reduction in the long-term copper price resulted in a potential deficit of $160 million; the sensitivity using a 10% stronger long-term Chilean peso exchange rate assumption indicated a potential break-even position. Given this marginal headroom position, reasonably possible changes in the general market environment, the operational performance of the mine or the regulatory and taxation environment in Chile could result in a break-even or a potential deficit position for Antucoya and hence it was concluded that there was no impairment reversal trigger as at 31 December 2021.

However, if there is a future significant improvement in the performance and value of Antucoya, for example due to one, or a combination of, the following – a significant increase in the long-term copper price outlook, strong operational performance that is expected to be sustained into the future, and/or positive resolution of uncertainty with the regulatory and taxation environment in Chile – a full or partial reversal of these impairments could be triggered in future periods.

6 Segment information

The Group's operating and reportable segments are as follows:

- Los Pelambres
- Centinela
- Antucoya
- Zaldívar
- Exploration and evaluation
- Corporate and other items
- Transport division

For management purposes, the Group is organised into two business divisions based on their products – Mining and Transport. The Mining division is split further for management reporting purposes to show results by mine and exploration activity.

Los Pelambres produces primarily copper concentrate, molybdenum, gold and silver as a by-product. Centinela produces copper concentrate containing gold and silver as a by-product, molybdenum concentrates and copper cathodes. Antucoya and Zaldívar produce copper cathodes. The Transport division provides rail cargo and road cargo transport together with a number of ancillary services. All the operations are based in Chile. The Exploration and evaluation segment incurs exploration and evaluation expenses. "Corporate and other items" comprises costs incurred by the Company, Antofagasta Minerals SA, the Group's mining corporate centre and other entities, that are not allocated to any individual business segment. Consistent with its internal management reporting, the Group's corporate and other items are included within the Mining division.

The chief operating decision-maker (the Group's Chief Executive Officer) monitors the operating results of the business segments separately for the purpose of making decisions about resources to be allocated and assessing performance. Segment performance is evaluated based on the operating profit of each of the segments.

A) Segment revenues and results

For the year ended 31 December 2021

	Los Pelambres $m	Centinela $m	Antucoya $m	Zaldívar $m	Exploration and evaluation[2] $m	Corporate and other items $m	Mining $m	Transport division $m	Total $m
Revenue	3,621.0	2,981.3	697.8	–	–	–	7,300.1	170.0	7,470.1
Operating cost excluding depreciation	(1,095.0)	(1,062.0)	(360.7)	–	(103.2)	(76.0)	(2,696.9)	(106.3)	(2,803.2)
Depreciation	(281.8)	(654.7)	(98.3)	–	–	(13.0)	(1,047.8)	(30.9)	(1,078.7)
Loss on disposals	(3.7)	(4.0)	(0.5)	–	–	–	(8.2)	(1.0)	(9.2)
Provision against the carrying value of assets[4]	–	–	–	–	(177.6)	–	(177.6)	–	(177.6)
Operating profit/(loss)	2,240.5	1,260.6	238.3	–	(280.8)	(89.0)	3,369.6	31.8	3,401.4
Net share of results from associates and joint ventures	–	–	–	68.5	–	(9.0)	59.5	0.2	59.7
Investment income	1.4	1.5	0.3	–	–	1.7	4.9	0.1	5.0
Interest expense	(3.5)	(16.4)	(15.5)	–	–	(27.2)	(62.6)	(0.8)	(63.4)
Other finance items	41.1	26.1	4.9	–	–	5.1	77.2	(2.8)	74.4
Profit/(loss) before tax	2,279.5	1,271.8	228.0	68.5	(280.8)	(118.4)	3,448.6	28.5	3,477.1
Tax	(743.7)	(382.0)	(7.1)	–	–	(188.3)	(1,321.1)	(11.8)	(1,332.9)
Tax – exceptional items[3]	–	–	90.6	–	–	–	90.6	–	90.6
Profit/(loss) for the year	1,535.8	889.8	311.5	68.5	(280.8)	(306.7)	2,218.1	16.7	2,234.8
Non-controlling interests	607.5	252.2	84.4	–	–	0.5	944.6	–	944.6
Profit/(losses) attributable to the owners of the parent	928.3	637.6	227.1	68.5	(280.8)	(307.2)	1,273.5	16.7	1,290.2
EBITDA[1]	2,526.0	1,919.3	337.1	172.8	(103.2)	(84.0)	4,768.0	68.2	4,836.2
Additions to non-current assets									
Additions to property, plant and equipment	903.1	826.4	62.7	–	0.6	30.4	1,823.2	32.7	1,855.9
Segment assets and liabilities									
Segment assets	5,667.1	5,924.2	1,735.9	–	–	2,661.1	15,988.3	384.3	16,372.6
Investment in associates and joint ventures	–	–	–	900.0	–	–	900.0	5.8	905.8
Segment liabilities	(2,642.0)	(1,797.0)	(548.7)	–	–	(1,174.5)	(6,162.2)	(87.2)	(6,249.4)

1. EBITDA refers to Earnings Before Interest, Tax, Depreciation and Amortisation. EBITDA is calculated by adding back depreciation, amortisation, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group´s subsidiaries, and the Group´s proportional share of the EBITDA of its associates and joint ventures (refer to the Alternative Performance Measures section on page 229).
2. Operating cash outflow in the exploration and evaluation segment was $49.9 million.
3. During 2021, there was an exceptional item of $90.6 million which reflects the recognition of a deferred tax asset at Antucoya (see Note 4).
4. An impairment has been recognised as at 31 December 2021 in respect of the $177.6 million of intangible assets and property, plant and equipment relating to the Twin Metals project, presented as an exceptional item.

6 Segment information continued

For the year ended 31 December 2020

	Los Pelambres $m	Centinela $m	Antucoya $m	Zaldívar $m	Exploration and evaluation[2] $m	Corporate and other items $m	Mining $m	Transport division $m	Total $m
Revenue	2,655.1	1,844.5	480.3	–	–	–	4,979.9	149.4	5,129.3
Operating cost excluding depreciation	(992.1)	(932.8)	(314.5)	–	(85.1)	(66.2)	(2,390.7)	(91.4)	(2,482.1)
Depreciation	(252.6)	(662.9)	(94.6)	–	–	(7.8)	(1,017.9)	(30.8)	(1,048.7)
Loss on disposals	(2.5)	(1.8)	–	–	–	–	(4.3)	(2.0)	(6.3)
Operating profit/(loss)	1,407.9	247.0	71.2	–	(85.1)	(74.0)	1,567.0	25.2	1,592.2
Equity accounting results	–	–	–	12.2	–	(6.5)	5.7	(0.6)	5.1
Impairment of investment in associate[3]	–	(95.6)	–	–	–	–	(95.6)	14.8	(80.8)
Net share of results from associates and joint ventures	–	(95.6)	–	12.2	–	(6.5)	(89.9)	14.2	(75.7)
Investment income	4.7	4.3	0.8	–	–	9.0	18.8	0.1	18.9
Interest expense	(4.3)	(24.9)	(25.5)	–	–	(20.7)	(75.4)	(1.7)	(77.1)
Other finance items	(26.0)	(13.7)	(4.0)	–	–	(5.5)	(49.2)	4.0	(45.2)
Profit/(loss) before tax	1,382.3	117.1	42.5	12.2	(85.1)	(97.7)	1,371.3	41.8	1,413.1
Tax	(435.8)	(23.0)	(0.3)	–	–	(59.2)	(518.3)	(8.2)	(526.5)
Profit/(loss) for the year from continuing operations	946.5	94.1	42.2	12.2	(85.1)	(156.9)	853.0	33.6	886.6
Profit for the period from discontinued operations	–	–	–	–	–	7.3	7.3	–	7.3
Profit/(loss) for the year	946.5	94.1	42.2	12.2	(85.1)	(149.6)	860.3	33.6	893.9
Non-controlling interests	371.5	12.9	3.1	–	–	–	387.5	–	387.5
Profit/(losses) attributable to the owners of the parent	575.0	81.2	39.1	12.2	(85.1)	(149.6)	472.8	33.6	506.4
EBITDA[1]	1,663.0	911.7	165.8	95.5	(85.1)	(72.7)	2,678.2	61.0	2,739.2
Additions to non-current assets									
Additions to property, plant and equipment	827.3	441.8	44.6	–	–	8.4	1,322.1	26.2	1,348.3
Segment assets and liabilities									
Segment assets	5,475.9	5,898.8	1,641.5	–	–	2,284.2	15,300.4	382.9	15,683.3
Deferred tax assets	–	–	–	–	–	2.7	2.7	3.7	6.4
Investment in associates and joint ventures	–	–	–	909.0	–	–	909.0	5.6	914.6
Segment liabilities	(2,700.1)	(1,823.2)	(702.5)	–	–	(1,202.6)	(6,428.4)	(94.8)	(6,523.2)

1. EBITDA refers to Earnings Before Interest, Tax, Depreciation and Amortisation. EBITDA is calculated by adding back depreciation, amortisation, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group´s subsidiaries, and the Group´s proportional share of the EBITDA of its associates and joint ventures (refer to the Alternative Performance Measures section on page 229).
2. Operating cash outflow in the exploration and evaluation segment was $43.1 million.
3. On 31 March 2020, the Group agreed to dispose of its 40% interest in Hornitos coal-fired power station to ENGIE Energía Chile S.A. ("ENGIE"), the owner of the remaining 60% interest. This has resulted in a $80.8 million impairment in respect of the Group's investment in associate balance.

Notes to segment revenues and results

(i) Inter-segment revenues are eliminated on consolidation. The only inter-segment revenue related to sales from the Transport division to the mining division of $8.2 million (year ended 31 December 2020 – $6.8 million), has been eliminated and is therefore not reflected in the above figures.

(ii) Revenue includes provisionally priced sales of copper, gold and molybdenum concentrates and copper cathodes. Further details of such adjustments are given in Note 7.

(iii) For sales of concentrates, which are sold to smelters and roasting plants for further processing into fully refined metal, the price of the concentrate (which is the amount recorded as revenue) reflects the market value of the fully refined metal less a "treatment and refining charge" deduction, to reflect the lower value of this partially processed material compared with the fully refined metal. Treatment and refining charges for copper and molybdenum concentrates are detailed in Note 7.

(iv) The effects of tax and non-controlling interests on the expenses within the Exploration and evaluation segment are allocated to the mine that the exploration work relates to.

(v) The assets of the Transport division segment include $5.8 million (31 December 2020 – $5.6 million) relating to the Group's 30% interest in Antofagasta Terminal International SA ("ATI"), which operates a concession to manage installations in the port of Antofagasta. Further details of these investments are set out in Note 17.

B) Entity-wide disclosures

Revenue by product

	2021 $m	2020 $m
Copper		
• Los Pelambres	**3,097.0**	2,269.2
• Centinela concentrate	**1,735.4**	908.6
• Centinela cathodes	**774.1**	599.1
• Antucoya	**693.3**	475.9
Provision of shipping services[1]		
• Los Pelambres	**57.8**	54.4
• Centinela concentrate	**46.8**	31.8
• Centinela cathodes	**4.3**	4.8
• Antucoya	**4.5**	4.4
Gold		
• Los Pelambres	**91.0**	106.4
• Centinela concentrate	**345.4**	251.3
Molybdenum		
• Los Pelambres	**329.2**	181.8
• Centinela concentrate	**37.2**	27.7
Silver		
• Los Pelambres	**46.0**	43.3
• Centinela concentrate	**38.1**	21.2
Total	**7,300.1**	4,979.9
Transport division	**170.0**	149.4
	7,470.1	5,129.3

1. These prior year figures have been re-presented to separately analyse revenue from the sale of products and from the provision of shipping services.

Revenue by location of customer

	2021 $m	2020 $m
Europe		
• United Kingdom	**54.4**	123.3
• Switzerland	**1,303.7**	593.5
• Spain	**67.6**	29.3
• Germany	**121.5**	116.4
• Rest of Europe	**177.4**	92.3
Latin America		
• Chile	**282.0**	224.4
• Rest of Latin America	**214.7**	182.0
North America		
• United States	**666.5**	216.5
Asia		
• Japan	**1,842.3**	1,631.1
• China	**1,236.9**	531.4
• Singapore	**726.1**	667.5
• South Korea	**322.6**	353.4
• Hong Kong	**217.1**	235.7
• Rest of Asia	**237.3**	132.5
	7,470.1	5,129.3

Information about major customers

In the year ended 31 December 2021, the Group's mining revenue included $1,015.1 million related to one large customer that individually accounted for more than 10% of the Group's revenue (year ended 31 December 2020 – one large customer representing $763.4 million).

6 Segment information continued

Non-current assets by location of assets

	2021 $m	2020 $m Restated
Chile	**11,715.2**	11,023.2
USA	**1.0**	178.3
	11,716.2	11,201.5

The above amounts reflect non-current assets excluding financial assets and deferred tax assets. The non-current assets shown above exclude $96.7 million ($6.4 million – 2020) of deferred tax assets, $51.1 million ($51.7 million – 2020) of receivables (being financial assets), $8.7 million of equity investments ($11.1 million – 2020) and nil ($0.3 million – 2020) of derivative instruments. The prior period comparatives have been restated to exclude financial assets and deferred tax assets, resulting in a reduction in respect of the assets located in Chile of $69.5 million as at 31 December 2020.

7 Group Revenue

Copper and molybdenum concentrate sale contracts and copper cathode sale contracts generally provide for provisional pricing of sales at the time of shipment, with final pricing being based on the monthly average London Metal Exchange copper price or monthly average molybdenum price for specified future periods. This normally ranges from one to four months after shipment to the customer. For sales contracts which contain provisional pricing mechanisms the total receivable balance is measured at fair value through profit or loss. Gains and losses from the mark-to-market of open sales are recognised through adjustments to revenue in the income statement and to trade receivables in the balance sheet. The Group determines mark-to-market prices using forward prices at each period-end for copper concentrate and cathode sales, and period-end month average prices for molybdenum concentrate sales due to the absence of a futures market in the market price references for that commodity in the majority of the Group's contracts.

With sales of concentrates, which are sold to smelters and roasting plants for further processing into fully refined metal, the price of the concentrate (which is the amount recorded as revenue) reflects the market value of the fully refined metal less a "treatment and refining charge" deduction, to reflect the lower value of this partially processed material compared with the fully refined metal.

The shipping service represents a separate performance obligation, and is recognised separately from the sale of the material over time as the shipping service is provided.

An analysis of the Group's revenue is as follows:

	2021 $m	2020 $m
Revenue from contracts with customers		
Sale of products	**6,809.0**	4,617.3
Provision of shipping services associated with the sale of products[1]	**113.4**	95.4
Transport division[2]	**170.0**	149.4
Provisional pricing adjustments in respect of copper, gold and molybdenum	**377.7**	267.2
Total revenue	**7,470.1**	5,129.3

1. The Group sells a significant proportion of its products on Cost, Insurance & Freight (CIF) Incoterms, which means that the Group is responsible for shipping the product to a destination port specified by the customer.
2. The Transport division provides rail and road cargo transport together with a number of ancillary services.

For the year ended 31 December 2021

	Los Pelambres Copper concentrate $m	Centinela Copper concentrate $m	Centinela Copper cathodes $m	Antucoya Copper cathodes $m	Los Pelambres Gold in concentrate $m	Centinela Gold in concentrate $m	Los Pelambres Molybdenum concentrate $m	Centinela Molybdenum concentrate $m
Provisionally priced sales of products	2,966.6	1,685.3	824.3	749.7	93.3	354.8	322.1	38.4
Revenue from freight services	57.8	46.8	4.3	4.5	–	–	–	–
	3,024.4	1,732.1	828.6	754.2	93.3	354.8	322.1	38.4
Effects of pricing adjustments to previous year invoices								
Reversal of mark-to-market adjustments at the end of the previous year	(58.7)	(26.8)	0.1	(0.5)	–	(0.9)	0.2	(0.3)
Settlement of sales invoiced in the previous year	175.1	74.7	1.8	1.5	(1.0)	(4.0)	6.4	1.2
Total effect of adjustments to previous year invoices in the current year	116.4	47.9	1.9	1.0	(1.0)	(4.9)	6.6	0.9
Effects of pricing adjustments to current year invoices								
Settlement of sales invoiced in the current year	92.2	58.8	10.2	6.0	(1.1)	(4.1)	30.6	5.8
Mark-to-market adjustments at the end of the current year	12.0	5.2	0.3	0.8	–	0.4	(5.7)	(0.7)
Total effect of adjustments to current year invoices	104.2	64.0	10.5	6.8	(1.1)	(3.7)	24.9	5.1
Total pricing adjustments	220.6	111.9	12.4	7.8	(2.1)	(8.6)	31.5	6.0
Realised losses on commodity derivatives	–	–	(62.6)	(64.2)	–	–	–	–
Treatment and refining charges	(90.2)	(61.8)	–	–	(0.2)	(0.8)	(24.4)	(7.2)
Revenue	3,154.8	1,782.2	778.4	697.8	91.0	345.4	329.2	37.2

The categories of revenue which are principally affected by different economic factors are the individual product types. A summary of revenue by product is set out in Note 6.

The table above sets out the impact of provisional pricing adjustments, derivative commodity instruments and treatment and refining charges for the more significant products. The revenue from these products, along with the revenue from other products and services, is reconciled to total revenue in Note 6.

The revenue from the individual products shown in the above table excludes revenue from sales of silver and the Transport division, which are presented in the revenue by product table in Note 5 to reconcile to Group Revenue.

With sales of concentrates at Los Pelambres and Centinela, which are sold to smelters and roasting plants for further processing into fully refined metal, the price of the concentrate invoiced to the customer reflects the market value of the fully refined metal less a "treatment and refining charge" deduction, to reflect the lower value of this partially processed material compared with the fully refined metal. For accounting purposes, the revenue amount is the net of the market value of fully refined metal less the treatment and refining charges. Under the standard industry definition of cash costs, treatment and refining charges are regarded as an expense and part of the total cash cost figure.

7 Group Revenue continued

For the year ended 31 December 2020[1]

	Los Pelambres Copper concentrate $m	Centinela Copper concentrate $m	Centinela Copper cathodes $m	Antucoya Copper cathodes $m	Los Pelambres Gold in concentrate $m	Centinela Gold in concentrate $m	Los Pelambres Molybdenum concentrate $m	Centinela Molybdenum concentrate $m
Provisionally priced sales of products	2,202.3	917.5	590.0	470.4	104.9	250.6	205.0	31.6
Revenue from freight services	54.4	31.8	4.8	4.4	–	–	–	–
Provisionally invoiced gross sales	2,256.7	949.3	594.8	474.8	104.9	250.6	205.0	31.6
Effects of pricing adjustments to previous year invoices								
Reversal of mark-to-market adjustments at the end of the previous year	(29.1)	(15.2)	(0.4)	(0.4)	–	(1.2)	0.4	–
Settlement of sales invoiced in the previous year	(43.6)	(18.7)	(0.3)	(0.3)	0.2	3.7	(1.5)	(0.2)
Total effect of adjustments to previous year invoices in the current year	(72.7)	(33.9)	(0.7)	(0.7)	0.2	2.5	(1.1)	(0.2)
Effects of pricing adjustments to current year invoices								
Settlement of sales invoiced in the current year	194.6	67.0	11.2	7.8	1.5	(2.0)	4.6	2.1
Mark-to-market adjustments at the end of the current year	58.7	26.8	(0.1)	0.5	–	0.9	(0.2)	0.3
Total effect of adjustments to current year invoices	253.3	93.8	11.1	8.3	1.5	(1.1)	4.4	2.4
Total pricing adjustments	180.6	59.9	10.4	7.6	1.7	1.4	3.3	2.2
Realised losses on commodity derivatives	–	–	(1.3)	(2.1)	–	–	–	–
Treatment and refining charges	(113.6)	(68.8)	–	–	(0.2)	(0.7)	(26.5)	(6.1)
Revenue	2,323.7	940.4	603.9	480.3	106.4	251.3	181.8	27.7

1. These prior year figures have been re-presented to separately analyse revenue from the sale of products and from the provision of shipping services.

The revenue from the individual products shown in the above table excludes revenue from sales of silver and the Transport division, which are presented in the revenue by product table in Note 5 to reconcile to Group Revenue.

With sales of concentrates at Los Pelambres and Centinela, which are sold to smelters and roasting plants for further processing into fully refined metal, the price of the concentrate invoiced to the customer reflects the market value of the fully refined metal less a "treatment and refining charge" deduction, to reflect the lower value of this partially processed material compared with the fully refined metal. For accounting purposes, the revenue amount is the net of the market value of fully refined metal less the treatment and refining charges. Under the standard industry definition of cash costs, treatment and refining charges are regarded as an expense and part of the total cash cost figure.

(I) Copper concentrate

The typical period for which sales of copper concentrate remain open until settlement occurs is a range of approximately three to four months from shipment date.

		2021	2020
Sales provisionally priced at the balance sheet date	Tonnes	**177,900**	162,300
Average mark-to-market price	$/lb	**4.41**	3.52
Average provisional invoice price	$/lb	**4.37**	3.28

(II) Copper cathodes

The typical period for which sales of copper cathodes remain open until settlement occurs is approximately one month from shipment date.

		2021	2020
Sales provisionally priced at the balance sheet date	Tonnes	**15,000**	13,800
Average mark-to-market price	$/lb	**4.42**	3.52
Average provisional invoice price	$/lb	**4.39**	3.50

(III) Gold in concentrate

The typical period for which sales of gold in concentrate remain open until settlement occurs is approximately one month from shipment date.

		2021	2020
Sales provisionally priced at the balance sheet date	Ounces	**32,300**	16,300
Average mark-to-market price	$/oz	**1,801**	1,917
Average provisional invoice price	$/oz	**1,791**	1,861

(IV) Molybdenum concentrate

The typical period for which sales of molybdenum remain open until settlement occurs is approximately two months from shipment date.

		2021	2020
Sales provisionally priced at the balance sheet date	Tonnes	**2,400**	2,000
Average mark-to-market price	$/lb	**18.60**	9.34
Average provisional invoice price	$/lb	**19.65**	9.38

As detailed above, the effects of gains and losses from the marking-to-market of open sales are recognised through adjustments to revenue in the income statement and to trade debtors in the balance sheet. The effect of mark-to-market adjustments on the balance sheet at the end of each period are as follows:

	Effect on debtors of year end mark-to-market adjustments	
	2021 $m	2020 $m
Los Pelambres – copper concentrate	**12.0**	58.7
Los Pelambres – molybdenum concentrate	**(5.7)**	(0.2)
Centinela – copper concentrate	**5.2**	26.8
Centinela – molybdenum concentrate	**(0.7)**	0.3
Centinela – gold in concentrate	**0.4**	0.9
Centinela – copper cathodes	**0.3**	(0.1)
Antucoya – copper cathodes	**0.8**	0.5
	12.3	86.9

8 Profit before tax

Operating profit from subsidiaries and total profit from operations and associates and joint ventures is derived from Group revenue by deducting operating costs as follows:

	2021 $m	2020 Restated $m
Group revenue	**7,470.1**	5,129.3
Cost of sales	**(3,120.2)**	(2,856.9)
Gross profit	**4,349.9**	2,272.4
Administrative and distribution expenses	**(550.4)**	(453.9)
Other operating income	**31.8**	27.0
Other operating expenses[1]	**(429.9)**	(253.3)
Operating profit from subsidiaries	**3,401.4**	1,592.2
Net share of results from associates and joint ventures	**59.7**	5.1
Impairment of investment in associate	**–**	(80.8)
Total profit from operations, associates and joint ventures	**3,461.1**	1,516.5

1. The prior period comparatives have been restated to reflect a reclassification from Administrative and distribution expenses to Other operating expenses of $30.7 million related to project labour costs.

Other operating expenses comprise $103.2 million of exploration and evaluation expenditure (2020 – $85.1 million), $19.8 million in respect of the employee severance provision (2020 – $17.9 million), $11.3 million in respect of the closure provision (2020 – $45.2 million), $177.6 million in respect of the provision against the carrying value of assets relating to the Twin Metals project (2020 – nil) and $118.0 million of other expenses (2020 – $105.2 million).

Profit before tax is stated after (charging)/crediting:

	2021 $m	2020 $m
Foreign exchange gains/(losses)		
• included in net finance costs	**49.9**	(28.4)
• included in income tax expense	**–**	0.1
Depreciation of property, plant and equipment		
• owned assets	**(997.1)**	(966.9)
• leased assets	**(81.6)**	(81.8)
Loss on disposal of property, plant and equipment	**(9.2)**	(6.3)
Cost of inventories recognised as an expense	**(2,033.0)**	(1,810.0)
Employee benefit expense	**(498.0)**	(453.8)
Decommissioning and restoration (operating expenses)	**(11.3)**	(45.2)
Severance charges	**(19.8)**	(17.9)
Exploration and evaluation expense	**(103.2)**	(85.1)
Provision against carrying value of assets[1]	**(177.6)**	-
Auditors´ remuneration	**(1.9)**	(1.8)

1. Includes impairment provision recognised in respect of $27.5 million of property, plant and equipment (note 16) and $150.1 million of intangible assets (note 15) relating to the Twin Metals project.

A more detailed analysis of auditors´ remuneration on a worldwide basis is provided below:

Group	2021 $000	2020 $000
Fees payable to the Company´s auditors and its associates for the audit of the parent company and consolidated financial statements	**1,242**	920
Fees payable to the Company´s auditors and its associates for other services:		
• The audit of the Company's subsidiaries	**415**	323
• Audit-related assurance services[1]	**200**	185
• Other assurance services[2]	**–**	352
	1,857	1,780

1. The audit-related assurance services relate to the half-year review performed by the auditors.
2. The other assurance services in 2020 related to the bond issue in that year, which required the Group to engage PwC to act as the reporting accountant for that transaction, work which is in effect required to be performed by the Group's auditor.

Details of the Company's policy on the use of auditors for non-audit services: the reason why the auditor was used rather than another supplier and how the auditor's independence and objectivity was safeguarded are set out in the Audit and Risk Committee report on page 134. No services were provided pursuant to contingent fee arrangements.

9 Employees

A) Average monthly number of employees

	2021 Number	2020 Number
Los Pelambres	**959**	944
Centinela	**2,226**	2,092
Michilla	**–**	3
Antucoya	**817**	798
Exploration and evaluation	**71**	67
Corporate and other employees		
• Chile	**566**	528
• United Kingdom	**4**	4
• Other	**4**	4
Mining and Corporate	**4,647**	4,440
Transport division	**1,336**	1,379
	5,983	5,819

(i) The average number of employees for the year includes all the employees of subsidiaries. The average number of employees does not include contractors who are not directly employed by the Group.

(ii) The average number of employees does not include employees from associates and joint ventures.

B) Aggregate remuneration

The aggregate remuneration of the employees included in the table above was as follows:

	2021 $m	2020 $m
Wages and salaries	**(469.9)**	(430.2)
Social security costs	**(28.1)**	(23.6)
	(498.0)	(453.8)

C) Key management personnel

In accordance with IAS 24, key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including any Directors (Executive and Non-Executive) of the Company. Key management personnel who are not Directors have been identified as responsible senior management at the Corporate Centre and those responsible for the running of the key business divisions of the Group.

Compensation for key management personnel (including Directors) was as follows:

	2021 $m	2020 $m
Salaries and short-term employee benefits	**(40.1)**	(18.6)
	(40.1)	(18.6)

Disclosures on Directors' remuneration required by Schedule 8 of the Large and Medium-sized Companies and Group (Financial Statement) Regulations 2008, including those specified for audit by that Schedule, are included in the Remuneration report on pages 148 to 155.

10 Net finance income/(expense)

	2021 $m	2020 $m
Investment income		
Interest income	**3.4**	3.4
Gains on liquid investments held at fair value through profit or loss	**1.6**	15.5
	5.0	18.9
Interest expense		
Interest expense	**(63.4)**	(77.1)
	(63.4)	(77.1)
Other finance items		
Unwinding of discount on provisions	**(6.2)**	(7.5)
Adjustment to provision discount rates	**30.8**	(9.2)
Effects of changes in foreign exchange rates	**49.9**	(28.4)
Preference dividends	**(0.1)**	(0.1)
	74.4	(45.2)
Net finance income/(expense)	**16.0**	(103.4)

During 2021, amounts capitalised and consequently not included within the above table were as follows: $12.1 million at Los Pelambres (year ended 31 December 2020 – $21.0 million) and $2.1 million at Centinela (year ended 31 December 2020 – $5.7 million).

The interest expense shown above includes $7.9 million in respect of leases (2020 – $9.7 million).

11 Income tax expense

The tax charge for the year comprised the following:

	2021 $m	2020 $m
Current tax charge		
• Corporate tax (principally first category tax in Chile)	**(560.8)**	(353.5)
• Mining tax (royalty)	**(250.0)**	(106.1)
• Withholding tax	**(224.7)**	(55.8)
• Exchange gains on corporate tax balances	**–**	0.1
	(1,035.5)	(515.3)
Deferred tax charge		
• Corporate tax (principally first category tax in Chile)	**(237.4)**	(1.1)
• Mining tax (royalty)	**0.9**	4.2
• Withholding tax	**29.7**	(14.3)
	(206.8)	(11.2)
Total tax charge	**(1,242.3)**	(526.5)

The rate of first category (ie corporate) tax in Chile is 27.0% (2020 – 27.0%).

In addition to first category tax and the mining tax, the Group incurs withholding taxes on any remittance of profits from Chile. Withholding tax is levied on remittances of profits from Chile at 35% less first category (ie corporate) tax already paid in respect of the profits to which the remittances relate.

The Group's mining operations are also subject to a mining tax (royalty), which is calculated as a percentage of taxable mining operating profit. Production from Los Pelambres and Antucoya is subject to a rate of between 5–14%, depending on the level of operating profit margin. At Centinela, production from Encuentro Oxides, the Tesoro North East pit and the Run-of-Mine processing at Centinela Cathodes are subject to a rate of between 5–14%, depending on the level of operating profit margin, and production from Centinela Concentrates and the Tesoro Central and Mirador pits is subject to a rate of 5% of taxable operating profit.

	Year ended Excluding exceptional items 2021		Year ended Including exceptional items 2021		Year ended Excluding exceptional items 2020		Year ended Including exceptional items 2020	
	$m	%	$m	%	$m	%	$m	%
Profit before tax	**3,654.7**		**3,477.1**		1,493.9		1,413.1	
Tax at the Chilean corporate tax rate of 27%	**(986.8)**	**27.0**	**(938.8)**	**27.0**	(403.4)	27.0	(381.5)	27.0
Mining tax (royalty)	**(243.8)**	**6.7**	**(243.8)**	**7.0**	(101.3)	6.8	(101.3)	7.2
Deduction of mining tax (royalty) as an allowable expense in determination of first category tax	**67.8**	**(1.9)**	**67.8**	**(1.9)**	28.1	(1.9)	28.1	(2.0)
Withholding tax	**(195.0)**	**5.3**	**(195.0)**	**5.6**	(70.0)	4.7	(70.0)	5.0
Items not deductible from first category tax	**(31.6)**	**0.9**	**(31.6)**	**0.9**	(9.8)	0.7	(9.8)	0.6
Adjustment in respect of prior years	**(12.1)**	**0.3**	**(12.1)**	**0.3**	(1.6)	0.1	(1.6)	0.1
Tax effect of share of profit of associates and joint ventures	**16.1**	**(0.4)**	**16.1**	**(0.5)**	1.4	(0.1)	1.4	(0.1)
Impact of previously unrecognised tax losses on current tax	**52.5**	**(1.4)**	**52.5**	**(1.5)**	10.5	(0.7)	10.5	(0.7)
Impact of recognition of previously unrecognised tax losses on deferred tax	**–**	**–**	**90.6**	**(2.6)**	–	–	–	–
Provision against carrying value of assets	**–**	**–**	**(48.0)**	**1.4**	–	–	–	–
Impairment of investment in associate	**–**	**–**	**–**	**–**	–	–	(2.2)	0.2
Net other items	**–**	**–**	**–**	**–**	(0.1)	–	(0.1)	–
Tax expense and effective tax rate for the year	**(1,332.9)**	**36.5**	**(1,242.3)**	**35.7**	(546.2)	36.6	(526.5)	37.3

The effective tax rate excluding exceptional items of 36.5% varied from the statutory rate principally due to the mining tax (royalty) (net impact of $176.0 million/4.8% including the deduction of the mining tax (royalty) as an allowable expense in the determination of first category tax), the withholding tax relating to the remittance of profits from Chile (impact of $195.0 million/5.3%), items not deductible for Chilean corporate tax purposes, principally the funding of expenses outside of Chile (impact of $31.6 million/0.9%) and adjustments in respect of prior years (impact of $12.1 million/0.3%), partly offset by the impact of previously unrecognised tax losses (impact of $52.5 million/1.4%) and the impact of the recognition of the Group's share of profit from associates and joint ventures, which are included in the Group's profit before tax, net of their respective tax charges (impact of $16.1 million/0.4%).

The impact of the exceptional items on the effective tax rate including exceptional items was $42.6 million/1.2%.

The main factors which could impact the sustainability of the Group's existing effective tax rate are:

- the level of future distributions made by the Group's Chilean subsidiaries out of Chile, which could result in increased withholding tax charges
- the impact of expenses which are not deductible for Chilean first category tax. Some of these expenses are relatively fixed costs, and so the relative impact of these expenses on the Group's effective tax rate will vary depending on the Group's total profit before tax in a particular year.

There are no significant tax uncertainties which would require critical judgements, estimates or potential provisions other than deferred tax judgements and estimates as explained in Note 3 B (i).

12 Discontinued operations

There are no profits from discontinued operations in the year ended 2021.

In 2016, the Group disposed of Minera Michilla SA, with the profit on disposal, along with the results for that year, being presented on the "Profit for the period from discontinued operations" line in the income statement. The Group retained certain residual options over the Michilla operation, and in December 2020, the current owner of Michilla paid the Group $10.0 million in order to extinguish those options, resulting in a post-tax gain for the Group of $7.3 million. Consistent with the original presentation in 2016, this gain has been reflected on the "Profit for the period from discontinued operations" line in the income statement for the year ended 2020.

13 Earnings per share

	2021 $m	2020 $m
Profit for the period attributable to equity holders of the Company (exc. exceptional items)	**1,404.4**	546.6
Exceptional Items	**(114.2)**	(40.2)
Less profit from discontinuing operations	**–**	(7.3)
Profit for the period attributable to equity holders of the Company (inc. exceptional items) from continuing operations	**1,290.2**	499.1

	2021 Number	2020 Number
Ordinary shares in issue throughout each year	**985,856,695**	985,856,695

13 Earnings per share continued

	2021 cents	2020 cents
Basic earnings per share (exc. exceptional items) from continuing operations	**142.5**	54.7
Basic earnings per share (exceptional items) from continuing operations	**(11.6)**	(4.1)
Basic earnings per share (inc. exceptional items) from continuing operations	**130.9**	50.6
Basic earnings per share from discontinued operations	**–**	0.7
Total continuing and discontinued operations (inc. exceptional items)	**130.9**	51.3

Basic earnings per share are calculated as profit after tax and non-controlling interests, based on 985,856,695 (2020: 985,856,695) ordinary shares.

There was no potential dilution of earnings per share in either year set out above, and therefore diluted earnings per share did not differ from basic earnings per share as disclosed above.

Reconciliation of basic earnings per share from continuing operations:

		2021	2020
Profit for the year attributable to equity holders of the Company	$m	**1,290.2**	506.4
Less: profit for discontinued operations attributable to equity holders of the Company	$m	**–**	(7.3)
Profit from continuing operations attributable to equity holders of the Company	$m	**1,290.2**	499.1
Ordinary shares	Number	**985,856,695**	985,856,695
Basic earnings per share from continuing operations	cents	**130.9**	50.6

14 Dividends

Amounts recognised as distributions to equity holders in the year:

	2021 $m	2020 $m	2021 cents per share	2020 cents per share
Final dividend paid in June (proposed in relation to the previous year)				
• Ordinary	**478.1**	70.0	**48.5**	7.1
Interim dividend paid in October				
• Ordinary	**232.7**	61.1	**23.6**	6.2
	710.8	131.1	**72.1**	13.3

The recommended final dividend for each year, which is subject to approval by shareholders at the Annual General Meeting and has therefore not been included as a liability in these financial statements, is as follows:

	2021 $m	2020 $m	2021 cents per share	2020 cents per share
Final dividend proposed in relation to the year				
• Ordinary	**1,172.1**	478.1	**118.9**	48.5

This gives total dividends proposed in relation to 2021 (including the interim dividend) of 142.5 cents per share or $1,404.8 million (2020 – 54.7 cents per share or $539.3 million).

In accordance with IAS 32, preference dividends have been included within net finance expense (see Note 10) and amounted to $0.1 million (2020 – $0.1 million).

Further details of the currency election timing and process (including the default currency of payment) are available on the Antofagasta plc website (antofagasta.co.uk) or from the Company's registrar, Computershare Investor Services PLC on +44 370 702 0159.

Further details relating to dividends for each year are given in the Directors' Report on page 161.

15 Intangible assets

	$m
At 1 January 2020	150.1
Additions	–
Disposals	–
At 31 December 2020	**150.1**
Additions	**–**
Provision against carrying value	**(150.1)**
At 31 December 2021	**–**

The $150.1 million intangible asset reflects the cost of Twin Metals' mining licences assets included within the corporate segment. As explained in Note 4, an impairment provision has been recognised in respect of this asset as at 31 December 2021.

16 Property, plant and equipment

	Land $m	Mining properties $m	Stripping costs $m	Buildings and infrastructure $m	Railway track $m	Wagons and rolling stock $m	Machinery, equipment and others $m	Assets under construction $m	Right-of-use assets $m	Total $m
Cost										

At 1 January 2020	60.6	667.5	1,880.5	5,464.8	99.7	203.6	7,059.0	1,335.3	430.6	17,201.6
Additions	1.4	–	356.7	0.2	–	–	0.3	937.4	33.6	1,329.6
Additions – capitalised depreciation	–	–	67.8	–	–	–	–	–	–	67.8
Adjustment to capitalised decommissioning provisions	–	–	–	59.4	–	–	–	–	–	59.4
Capitalisation of interest	–	–	–	–	–	–	8.0	18.7	–	26.7
Capitalisation of critical spare parts	–	–	–	–	–	–	10.2	–	–	10.2
Reclassifications	–	–	–	403.7	9.7	14.6	192.5	(620.5)	–	–
Asset disposals	(0.1)	–	–	–	(1.1)	(10.2)	(3.1)	(4.3)	(5.3)	(24.1)
At 31 December 2020	61.9	667.5	2,305.0	5,928.1	108.3	208.0	7,266.9	1,666.6	458.9	18,671.2
At 1 January 2021	61.9	667.5	2,305.0	5,928.1	108.3	208.0	7,266.9	1,666.6	458.9	18,671.2
Additions	–	4.5	502.5	–	–	–	3.9	1,283.2	61.8	1,855.9
Additions – capitalised depreciation	–	–	72.0	–	–	–	–	–	–	72.0
Adjustment to capitalised decommissioning provisions	–	–	–	(119.9)	–	–	–	–	–	(119.9)
Capitalisation of interest	–	–	–	–	–	–	–	14.2	–	14.2
Capitalisation of critical spare parts	–	–	–	–	–	–	0.9	–	–	0.9
Reclassifications	–	–	–	1.4	14.5	5.8	4.7	(26.6)	(2.8)	(3.0)
Asset disposals	–	–	–	(5.7)	–	(7.3)	(32.0)	(8.2)	(17.6)	(70.8)
At 31 December 2021	**61.9**	**672.0**	**2,879.5**	**5,803.9**	**122.8**	**206.5**	**7,244.4**	**2,929.2**	**500.3**	**20,420.5**
Accumulated depreciation and impairment										
At 1 January 2020	–	(530.3)	(704.1)	(2,383.2)	(34.0)	(91.2)	(3,731.2)	–	(170.9)	(7,644.9)
Charge for the year	–	(31.8)	(413.0)	(230.4)	(4.8)	(18.8)	(268.1)	–	(81.8)	(1,048.7)
Depreciation capitalised in inventories	–	–	–	–	–	–	(74.8)	–	–	(74.8)
Depreciation capitalised in property, plant and equipment	–	–	–	–	–	–	(67.8)	–	–	(67.8)
Asset disposals	–	–	–	–	0.3	9.2	2.1	–	5.3	16.9
At 31 December 2020	–	(562.1)	(1,117.1)	(2,613.6)	(38.5)	(100.8)	(4,139.8)	–	(247.4)	(8,819.3)
At 1 January 2021	–	(562.1)	(1,117.1)	(2,613.6)	(38.5)	(100.8)	(4,139.8)	–	(247.4)	(8,819.3)
Charge for the year	–	(26.0)	(255.3)	(274.1)	(5.9)	(17.1)	(418.7)	–	(81.6)	(1,078.7)
Depreciation capitalised in inventories	–	–	–	–	–	–	54.1	–	–	54.1
Depreciation capitalised in property, plant and equipment	–	–	–	–	–	–	(72.0)	–	–	(72.0)
Reclassifications	–	–	–	–	–	–	–	–	1.4	1.4
Impairment	(25.0)	–	–	(2.2)	–	–	(0.3)	–	–	(27.5)
Asset disposals	–	–	–	–	–	6.4	36.0	–	17.6	60.0
At 31 December 2021	**(25.0)**	**(588.1)**	**(1,372.4)**	**(2,889.9)**	**(44.4)**	**(111.5)**	**(4,540.7)**	**–**	**(310.0)**	**(9,882.0)**
Net book value										
At 31 December 2021	**36.9**	**83.9**	**1,507.1**	**2,914.0**	**78.4**	**95.0**	**2,703.7**	**2,929.2**	**190.3**	**10,538.5**
At 31 December 2020	61.9	105.4	1,187.9	3,314.5	69.8	107.2	3,127.1	1,666.6	211.5	9,851.9

The Group has no (2020 – nil) assets pledged as security against bank loans provided to the Group.

At 31 December 2021, the Group had entered into contractual commitments for the acquisition of property, plant and equipment amounting to $599.3 million (2020 – $849.5 million) of which $396.7 million was related to Los Pelambres and $169.4 million to Centinela.

The average interest rate for the amounts capitalised was 1.9% (2020 – 4.2%).

At 31 December 2021, assets capitalised relating to the decommissioning provision were $263.9 million (2020 – $199.5 million).

Depreciation capitalised in property, plant and equipment of $72.0 million related to the depreciation of assets used in mine development (operating stripping) at Centinela, Los Pelambres and Antucoya (2020 – $67.8 million).

As explained in Note 4, an impairment provision has been recognised in respect of $27.5 million of property, plant and equipment relating to the Twin Metals project.

17 Investments in subsidiaries

The subsidiaries of the Group, the percentage of equity owned and the main country of operation are set out below. These interests are consolidated within these financial statements.

	Country of incorporation	Country of operations	Registered office	Nature of business	Economic interest
Direct subsidiaries of the Parent Company					
Antofagasta Railway Company plc	UK	Chile	1	Railway	100%
Andes Trust Limited (The)	UK	UK	1	Investment	100%
Chilean Northern Mines Limited	UK	Chile	1	Investment	100%
Andes Re Limited	Bermuda	Bermuda	4	Insurance	100%
Indirect subsidiaries of the Parent Company					
Minera Los Pelambres SCM	Chile	Chile	2	Mining	60%
Minera Centinela SCM	Chile	Chile	2	Mining	70%
Minera Antucoya SCM	Chile	Chile	2	Mining	70%
Antofagasta Minerals SA	Chile	Chile	2	Mining	100%
Alfa Estates Limited	Jersey	Jersey	3	Investment	100%
Energía Andina Geothermal SpA	Chile	Chile	2	Energy	100%
MLP Transmisión SA	Chile	Chile	2	Energy	100%
Northern Minerals Investment (Jersey) Limited	Jersey	Jersey	3	Investment	100%
Northern Metals (UK) Limited	UK	UK	1	Investment	100%
Northern Minerals Holding Co	USA	USA	5	Investment	100%
Duluth Metals Limited	Canada	Canada	7	Investment	100%
Twin Metals (UK) Limited	UK	UK	1	Investment	100%
Twin Metals (USA) Inc	USA	USA	6	Investment	100%
Twin Metals Minnesota LLC	USA	USA	6	Mining	100%
Franconia Minerals (US) LLC	USA	USA	6	Mining	100%
Duluth Metals Holdings (USA) Inc	USA	USA	13	Investment	100%
Duluth Exploration (USA) Inc	USA	USA	14	Investment	100%
DMC LLC (Minnesota)	USA	USA	13	Investment	100%
DMC (USA) LLC (Delaware)	USA	USA	13	Investment	100%
DMC (USA) Corporation	USA	USA	13	Investment	100%
Antofagasta Investment Company Limited	UK	UK	1	Investment	100%
Minprop Limited	Jersey	Jersey	3	Mining	100%
Antomin 2 Limited	BVI	BVI	8	Mining	51%
Antomin Investors Limited	BVI	BVI	8	Mining	51%
Antofagasta Minerals Australia Pty Limited	Australia	Australia	9	Mining	100%
Minera Anaconda Peru	Peru	Peru	10	Mining	100%
Los Pelambres Holding Company Limited	UK	UK	1	Investment	100%
Los Pelambres Investment Company Limited	UK	UK	1	Investment	100%
Lamborn Land Co	USA	USA	5	Investment	100%
Anaconda South America Inc	USA	USA	15	Investment	100%
El Tesoro (SPV Bermuda) Limited	Bermuda	Bermuda	4	Investment	100%
Antofagasta Minerals Canada	Canada	Canada	9	Agency	100%
Antofagasta Minerals (Shanghai) Co Limited	China	China	16	Agency	100%
Andes Investments Company (Jersey) Limited	Jersey	Jersey	3	Investment	100%
Bolivian Rail Investors Co Inc	USA	USA	5	Investment	100%
Inversiones Los Pelambres Chile Limitada	Chile	Chile	2	Investment	100%
Equatorial Resources SpA	Chile	Chile	2	Investment	100%
Minera Santa Margarita de Astillas SCM	Chile	Chile	2	Mining	82.0%

	Country of incorporation	Country of operations	Registered office	Nature of business	Economic interest
Minera Penacho Blanco SA	Chile	Chile	2	Mining	66.6%
Michilla Costa SpA	Chile	Chile	2	Logistics	99.9%
Minera Pampa Fenix SCM	Chile	Chile	2	Investment	90.0%
Minera Mulpun Limitada	Chile	Chile	2	Mining	100%
Fundación Minera Los Pelambres	Chile	Chile	2	Community development	100%
Inversiones Punta de Rieles Limitada	Chile	Chile	12	Investment	100%
Ferrocarril Antofagasta a Bolivia (Permanent Establishment)	Chile	Chile	12	Railway	100%
Inversiones Chilean Northern Mines Limitada	Chile	Chile	12	Investment	100%
The Andes Trust Chile SA	Chile	Chile	12	Investment	100%
Forestal SA	Chile	Chile	12	Forestry	100%
Servicios de Transportes Integrados Limitada	Chile	Chile	12	Road transport	100%
Inversiones Train Limitada	Chile	Chile	12	Investment	100%
Servicios Logisticos Capricornio Limitada	Chile	Chile	12	Transport	100%
Embarcadores Limitada	Chile	Chile	12	Transport	100%
FCAB Ingenieria y Servicios 2 Limitada	Chile	Chile	12	Transport	100%
Inmobiliaria Parque Estación SA	Chile	Chile	12	Real Estates	100%
Emisa Antofagasta SA	Chile	Chile	12	Transport	100%

Registered offices:

1 103 Mount Street, London, W1K 2TJ, UK
2 Avenida Apoquindo N° 4001, Piso 18, Las Condes, Santiago, Chile
3 22 Grenville Street, St Helier, Jersey, JE4 8PX3, Channel Islands
4 Crawford House, 50 Cedar Avenue, Hamilton HM 11, Bermuda
5 1209 Orange Street, Wilmington, DE 19801, USA
6 6040 Earle Brown Drive, 480 Brooklyn Center, MN 55430, USA
7 161 Bay Street, Suite 4320, Toronto, Ontario, M5J 2S1, Canada
8 PO Box 958, Road Town, Tortola VG1110, British Virgin Islands
9 Riparian Plaza, Level 28, 71 Eagle Street, Brisbane, Qld 4001, Australia
10 Avenida Paseo de la Republica Nº 3245 Piso 3, Lima, Peru
11 Avenida 16 de Julio N° 1440, piso 19 oficina 1905, La Paz, Bolivia
12 Simon Bolivar 255, Antofagasta, Chile
13 6041 Earle Brown Drive, 480 Brooklyn Center, MN 55430, USA
14 1010 Dale Street N, St Paul, MN 55117-5603, USA
15 2711 Centerville Road, Suite 400, Wilmington, DE 19808, USA
16 Unit 3309, IFC 2, 8 Century Avenue, Shanghai, China

With the exception of the Antofagasta Railway Company plc, all of the above Group companies have only one class of ordinary share capital in issue. The Antofagasta Railway Company plc has ordinary and preference share capital in issue, with the ordinary share capital representing 76% of the Company's total share capital, and the preference share capital representing 24%. Antofagasta plc holds 100% of both the ordinary and preference shares.

The proportion of voting rights is proportional to the economic interest for the companies listed above.

18 Investment in associates and joint ventures

	ATI (ii) 2021 $m	Minera Zaldívar (iii) 2021 $m	Tethyan Copper (iv) 2021 $m	Total 2021 $m
Balance at the beginning of the year	**5.6**	**909.0**	**–**	**914.6**
Obligations on behalf of JV and associates at the beginning of the year	**–**	**–**	**(1.1)**	**(1.1)**
Capital contribution	**–**	**–**	**9.5**	**9.5**
Share of net profit/(loss) before tax	**0.2**	**99.0**	**(9.0)**	**90.2**
Share of tax	**–**	**(30.5)**	**–**	**(30.5)**
Share of profit/(loss) from JV and associates	**0.2**	**68.5**	**(9.0)**	**59.7**
Dividends receivable	**–**	**(77.5)**	**–**	**(77.5)**
Balance at the end of the year	**5.8**	**900.0**	**–**	**905.8**
Obligations on behalf of JV and associates at the end of the year	**–**	**–**	**(0.6)**	**(0.6)**

	Inversiones Hornitos 2020 $m	ATI 2020 $m	Minera Zaldívar 2020 $m	Tethyan Copper 2020 $m	Total 2020 $m
Balance at the beginning of the year	56.9	6.1	961.8	–	1,024.8
Obligations on behalf of JV and associates at the beginning of the year	–	–	–	(1.8)	(1.8)
Capital contribution	23.9	–	–	7.2	31.1
Impairment of investment in associate (i)	(80.8)	–	–	–	(80.8)
Share of net (loss)/profit before tax	–	(0.9)	19.6	(6.5)	12.2
Share of tax	–	0.4	(7.5)	–	(7.1)
Share of (loss)/profit from JV and associates	–	(0.5)	12.1	(6.5)	5.1
Dividends receivable	–	–	(65.0)	–	(65.0)
Balance at the end of the year	–	5.6	909.0	–	914.6
Obligations on behalf of JV and associates at the end of the year	–	–	–	(1.1)	(1.1)

The investments which are included in the $905.2 million balances at 31 December 2021 are set out below:

Investment in associates

(i) On 31 March 2020, the Group agreed to dispose of its 40% interest in the Hornitos coal-fired power station to ENGIE Energía Chile S.A. ("ENGIE"), the owner of the remaining 60% interest. This was part of the value accretive renegotiation of Centinela's power purchase agreement which as a result will be wholly supplied from lower cost renewable sources from 2022. Under the terms of the agreement, the Group disposed of its investment to ENGIE in December 2021 for a nominal consideration, and has not been entitled to receive any further dividend income from Hornitos from the date of the agreement. Accordingly, the Group no longer had any effective economic interest in the results or assets of Hornitos from 31 March 2020 onwards, and therefore recognised an impairment of $80.8 million in respect of its investment in associate balance as at that date, and no longer recognises any share of Hornitos' results. The post-tax impact of the provision is $61.1 million, of which $40.2 million is attributable to the equity owners of the Company.

(ii) The Group's 30% interest in Antofagasta Terminal Internacional ("ATI"), which operates a concession to manage installations in the port of Antofagasta.

Investment in joint ventures

(iii) The Group's 50% interest in Minera Zaldívar SpA ("Zaldívar").

(iv) The Group's 50% interest in Tethyan Copper Company Limited ("Tethyan"), which is a joint venture with Barrick Gold Corporation in respect of the Reko Diq project in the Islamic Republic of Pakistan ("Pakistan"). Tethyan has been pursuing arbitration claims against Pakistan following the unlawful denial of a mining lease for the project in 2011. Details in respect of the arbitration are set out in Note 35.

As the net carrying value of the interest in Tethyan is negative, it is included within non-current liabilities, as the Group is liable for its share of the joint venture's obligations.

Summarised financial information for the associates is as follows:

	ATI 2021 $m	Total 2021 $m
Cash and cash equivalents	**1.2**	**1.2**
Current assets	**13.7**	**13.7**
Non-current assets	**99.3**	**99.3**
Current liabilities	**(22.5)**	**(22.5)**
Non-current liabilities	**(75.0)**	**(75.0)**
Revenue	**47.2**	**47.2**
Profit from continuing operations	**1.3**	**1.3**
Total comprehensive income	**1.3**	**1.3**

	ATI 2020 $m	Total 2020 $m
Cash and cash equivalents	0.2	0.2
Current assets	11.3	11.3
Non-current assets	108.2	108.2
Current liabilities	(19.9)	(19.9)
Non-current liabilities	(83.5)	(83.5)
Revenue	40.4	40.4
Loss from continuing operations	(1.9)	(1.9)
Total comprehensive expense	(1.9)	(1.9)

Summarised financial information for the joint ventures is as follows:

	Minera Zaldívar 2021 $m	Tethyan Copper 2021 $m	Total 2021 $m
Cash and cash equivalents	**46.4**	**3.6**	**50.0**
Current assets	**664.0**	**3.6**	**667.6**
Non-current assets	**1,675.1**	**–**	**1,675.1**
Current financial liabilities (excl. trade and other payables and provisions)	**(54.3)**	**–**	**(54.3)**
Current liabilities	**(170.2)**	**(5.1)**	**(175.3)**
Non-current financial liabilities (excl. trade and other payables and provisions)	**(124.4)**	**–**	**(124.4)**
Non-current liabilities	**(155.1)**	**(0.1)**	**(155.2)**
Revenue	**849.2**	**–**	**849.2**
Depreciation and amortisation	**(160.4)**	**(3.0)**	**(163.4)**
Interest income	**0.3**	**2.0**	**2.3**
Interest expense	**(0.5)**	**–**	**(0.5)**
Income tax expense	**(62.1)**	**–**	**(62.1)**
Profit/(loss) after tax from continuing and discontinued operations	**137.1**	**(18.0)**	**119.1**
Total comprehensive income/(expense)	**137.1**	**(18.0)**	**119.1**

	Minera Zaldívar 2020 Restated[1] $m	Tethyan Copper 2020 $m	Total 2020 Restated $m
Cash and cash equivalents	66.8	4.2	71.0
Current assets	958.2	4.2	962.4
Non-current assets	1,427.2	–	1,427.2
Current liabilities	(290.0)	(6.2)	(296.2)
Non-current liabilities	(241.3)	(0.1)	(241.4)
Revenue	599.3	–	599.3
Depreciation and amortisation	(145.2)	(1.0)	(146.2)
Interest income	0.9	5.0	5.9
Interest expense	(0.6)	–	(0.6)
Income tax expense or income	(16.1)	–	(16.1)
Profit/(loss) after tax from continuing and discontinued operations	24.3	(12.9)	11.4
Total comprehensive income/(expense)	24.3	(12.9)	11.4

1. The prior period comparatives have been restated to reflect the net position in respect of deferred tax assets/liabilities ($429.1 million) and to reclassify liquid investments which had been included within the cash and cash equivalents line ($214.2 million).

The above summarised financial information is based on the amounts included in the IFRS financial statements of the associate or joint venture (100% of the results or balances of the associate or joint venture, rather than the Group's proportionate share), after the Group's fair value adjustments and applying the Group's accounting policies.

19 Equity investments

	2021 $m	2020 $m
Balance at the beginning of the year	**11.1**	5.1
Movement in fair value	**(2.1)**	5.5
Foreign currency exchange differences	**(0.3)**	0.5
Balance at the end of the year	**8.7**	11.1

Equity investments represent those investments which are not subsidiaries, associates or joint ventures and are not held for trading purposes. The fair value of all equity investments is based on quoted market prices.

20 Inventories

	2021 $m	20201 $m
Current		
Raw materials and consumables	**155.6**	178.2
Work-in-progress	**316.5**	339.3
Finished goods	**60.7**	75.2
	532.8	592.7
Non-current		
Work-in-progress	**270.4**	278.1
Total	**803.2**	870.8

During 2021, no net realisable value ("NRV") adjustment has been recognised (2020 – $1.5 million). Non-current work-in-progress represents inventory expected to be processed more than 12 months after the balance sheet date.

The carrying value of the Group's inventory balances has been reassessed with consideration of the effects of the COVID-19 pandemic. No material adjustments have been made to the carrying values of the inventory balances for the years ended 31 December 2021 and 31 December 2020 as a result of the COVID-19 pandemic.

21 Trade and other receivables

Trade and other receivables do not generally carry any interest, are principally short-term in nature and are normally stated at their nominal value less any impairment.

	Due in one year		Due after one year		Total	
	2021 $m	2020 $m	**2021 $m**	2020 $m	**2021 $m**	2020 $m
Trade receivables	**1,040.0**	832.6	**–**	–	**1,040.0**	832.6
Other receivables	**106.1**	184.3	**51.2**	55.9	**157.3**	240.2
	1,146.1	1,016.9	**51.2**	55.9	**1,197.3**	1,072.8

The largest balances of trade receivables are with equity participants in the key mining projects. Many other significant trade receivables are secured by letters of credit or other forms of security. There is no material element which is interest-bearing. Trade receivables include mark-to-market adjustments in respect of provisionally priced sales of copper and molybdenum concentrates which remain open as to final pricing. Further details of such adjustments are given in Note 7. Other receivables includes employee loans of $42.9 million (31 December 2020 – $47.4 million).

Movements in the provision for doubtful debts were as follows:

	2021 $m	2020 $m
Balance at the beginning of the year	**(1.5)**	(3.1)
Utilised in year	**0.1**	1.8
Foreign currency exchange difference	**0.2**	(0.2)
Balance at the end of the year	**(1.2)**	(1.5)

The ageing analysis of the trade and other receivables balance is as follows:

		Past due but not impaired			
	Neither past due nor impaired $m	Up to 3 months past due $m	3-6 months past due $m	More than 6 months past due $m	Total $m
2021	**1,187.1**	**8.4**	**0.3**	**1.5**	**1,197.3**
2020	1,064.3	8.0	0.2	0.3	1,072.8

With respect to the trade receivables that are neither past due nor impaired, there are no indications that the debtors will not meet their payment obligations. The carrying value of the trade receivables recorded in the financial statements represents the Group's maximum exposure to credit risk.

The recoverability of the Group's trade receivables has been reassessed with consideration of the effects of the COVID-19 pandemic. No material adjustments have been made to the carrying values of trade receivables for the years ended 31 December 2021 and 31 December 2020 as a result of the COVID-19 pandemic.

22 Cash and cash equivalents, and liquid investments

The fair value of cash and cash equivalents, and liquid investments is not materially different from the carrying values presented. The credit risk on cash and cash equivalents is limited because the counterparties are banks with high credit ratings assigned by international credit rating agencies.

Cash and cash equivalents, and liquid investments comprised:

	2021 $m	2020 $m
Cash and cash equivalents	**743.4**	1,246.8
Liquid investments	**2,969.7**	2,426.0
	3,713.1	3,672.8

At 31 December 2021 and 2020 there is no cash which is subject to restriction.

The denomination of cash, cash equivalents and liquid investments was as follows:

	2021 $m	2020 $m
US dollars	**3,673.8**	3,558.9
Chilean pesos	**37.8**	112.8
Sterling	**1.2**	–
Other	**0.3**	1.1
	3,713.1	3,672.8

The credit quality of cash, cash equivalents and liquid investments are as follow:

	2021 $m	2020 $m
AAA	**1,772.4**	2,007.1
AA+	**2.2**	–
AA	**54.4**	46.0
AA-	**121.1**	279.5
A+	**799.5**	553.3
A	**904.0**	741.5
A-	**–**	33.9
BBB+	**–**	2.1
Subtotal	**3,653.6**	3,663.4
Cash at bank[1]	**59.5**	9.4
Total cash, cash equivalents and liquid investments	**3,713.1**	3,672.8

1. Cash at bank is held with investment grade financial institutions.

There have been no impairments recognised in respect of cash or cash equivalents in the year ended 31 December 2021 (31 December 2020 - nil).

23 Borrowings

A) Analysis by type of borrowing

Borrowings may be analysed by business segment and type as follows:

	Note	2021 $m	2020 $m
Los Pelambres			
• Senior loan	(i)	**(1,188.3)**	(1,288.1)
• Leases	(ii)	**(54.8)**	(91.4)
Centinela			
• Senior loan	(iii)	**(386.8)**	(496.5)
• Subordinated debt	(iv)	**–**	(203.0)
• Leases	(v)	**(59.8)**	(78.0)
Antucoya			
• Senior loan	(vi)	**(196.3)**	(261.1)
• Subordinated debt	(vii)	**(184.5)**	(191.5)
• Short-term loan	(viii)	**(35.0)**	(75.0)
• Leases	(ix)	**(23.4)**	(19.9)
Corporate and other items			
• Senior loan	(x)	**(497.3)**	(496.6)
• Bond	(xi)	**(496.1)**	(495.6)
• Leases	(xii)	**(20.4)**	(18.6)
Transport division			
• Senior loan	(xiii)	**(25.8)**	(36.5)
• Leases	(xiv)	**(1.4)**	(0.3)
Preference shares	(xv)	**(2.7)**	(2.7)
Total		**(3,172.6)**	(3,754.8)

(i) The senior loan at Los Pelambres is divided into three tranches. The first tranche has a remaining duration of 4 years and has an interest rate of US LIBOR six-month rate plus 1.05%. The second tranche has a remaining duration of 7 years and has an interest rate of US LIBOR six-month rate plus 0.85%. The third tranche has a remaining duration of 6.5 years and has an interest rate of US LIBOR six-month rate plus 1.10%. As at 31 December 2021, $1,420 million of the loan facility had been drawn-down and $209 million had been paid. The loans are subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained.

(ii) Leases at Los Pelambres are denominated in US dollars with an average interest rate of US LIBOR six-month rate plus 1.74% and a remaining duration of 0.5 years.

(iii) The senior loan at Centinela is US dollar denominated with a duration of 4 years and an interest rate of US LIBOR six-month rate plus 0.95%. The loan is subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained.

(iv) The US dollar denominated subordinated debt at Centinela was repaid on 19 November 2021.

(v) Leases at Centinela are denominated in US dollars with an average interest rate of US LIBOR six-month rate plus 4.8% and a remaining duration of 5 years.

(vi) The senior loan at Antucoya represents a US dollar denominated syndicated loan. This loan has a remaining duration of 3 years and has an interest rate of US LIBOR six-month rate plus 1.3%. The loan is subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained.

(vii) Subordinated debt at Antucoya is US dollar denominated, provided to Antucoya by Marubeni Corporation with a remaining duration of 3 years and an interest rate of US LIBOR six-month rate plus 3.65%. Subordinated debt provided by Group companies to Antucoya has been eliminated on consolidation.

(viii) The short-duration loan at Antucoya is US dollar denominated, comprising a working capital loan for an average period of 0.8 years and has an interest rate of US LIBOR six-month rate plus a weighted average spread of 0.25%.

(ix) Leases at Antucoya are denominated in US dollars with an average interest rate of US LIBOR six-month rate plus 2.0% and a remaining duration of 2.5 years.

(x) The senior loan at Corporate (Antofagasta plc) is US dollar denominated with an interest rate of US LIBOR six-month rate plus 2.25% and has a remaining duration of 4 years.

(xi) Antofagasta plc in October 2020 issued a corporate bond for $500 million with a 10-year tenor with a yield of 2.415%.

(xii) Leases at Corporate and other items are denominated in Unidades de Fomento (inflation-linked Chilean pesos) and have a remaining duration of 5 years and are at fixed rates with an average interest rate of 5.2%.

(xiii) Long-term loans at the Transport division are US dollar denominated, and have a remaining duration of 1.5 years and an interest rate of US LIBOR six-month rate plus 1.06%.

(xiv) Leases at the Transport division are US dollar denominated in with an average interest rate of US LIBOR six-month rate plus 3.2% and a remaining duration of 5 years.

(xv) The preference shares are Sterling-denominated and issued by Antofagasta plc. There were 2 million shares of £1 each authorised, issued and fully paid at 31 December 2018. The preference shares are non-redeemable and are entitled to a fixed cumulative dividend of 5% per annum. On winding up, they are entitled to repayment and any arrears of dividend in priority to ordinary shareholders but are not entitled to participate further in any surplus. Each preference share carries 100 votes in any general meeting of the Company.

B) Leases

Information in respect of the Group's leases is contained in the following notes:

- Note 16 – depreciation charges, additions and disposals in respect of the right of use assets relating to the leases
- Note 32(B) – repayments of the lease balances and new lease liabilities arising during the period
- Note 10 – interest expense in respect of the lease balances

C) Analysis of borrowings by currency

The exposure of the Group's borrowings to currency risk is as follows:

At 31 December 2021	**Chilean pesos $m**	**Sterling $m**	**US dollars $m**	**2021 Total $m**
Corporate loans	**–**	**–**	**(2,294.5)**	**(2,294.5)**
Bond	**–**	**–**	**(496.1)**	**(496.1)**
Other loans (including short-term loans)	**–**	**–**	**(219.5)**	**(219.5)**
Leases	**(113.5)**	**(4.3)**	**(42.0)**	**(159.8)**
Preference shares	**–**	**(2.7)**	**–**	**(2.7)**
	(113.5)	**(7.0)**	**(3,052.1)**	**(3,172.6)**

At 31 December 2020	Chilean pesos $m	Sterling $m	US dollars $m	2020 Total $m
Corporate loans	–	–	(2,578.8)	(2,578.8)
Bond	–	–	(495.6)	(495.6)
Other loans (including short-term loans)	–	–	(469.5)	(469.5)
Leases	(169.5)	–	(38.7)	(208.2)
Preference shares	–	(2.7)	–	(2.7)
	(169.5)	(2.7)	(3,582.6)	(3,754.8)

D) Analysis of borrowings by type of interest rate

The exposure of the Group's borrowings to interest rate risk is as follows:

At 31 December 2021	**Fixed $m**	**Floating $m**	**2021 Total $m**
Corporate loans	**–**	**(2,294.5)**	**(2,294.5)**
Bond	**(496.1)**	**–**	**(496.1)**
Other loans (including short-term loans)	**–**	**(219.5)**	**(219.5)**
Leases	**(143.9)**	**(15.9)**	**(159.8)**
Preference shares	**(2.7)**	**–**	**(2.7)**
	(642.7)	**(2,529.9)**	**(3,172.6)**

At 31 December 2020	Fixed $m	Floating $m	2020 Total $m
Corporate loans	–	(2,578.8)	(2,578.8)
Bond	(495.6)	–	(495.6)
Other loans (including short-term loans)	–	(469.5)	(469.5)
Leases	(177.6)	(30.6)	(208.2)
Preference shares	(2.7)	–	(2.7)
	(675.9)	(3,078.9)	(3,754.8)

23 Borrowings continued

E) Maturity profile

The maturity profile of the Group's borrowings is as follows:

At 31 December 2021	Within 1 year $m	Between 1-2 years $m	Between 2-5 years $m	After 5 years $m	2021 Total $m
Corporate loans	**(233.0)**	**(367.0)**	**(1,526.7)**	**(167.8)**	**(2,294.5)**
Bond	–	–	–	**(496.1)**	**(496.1)**
Other loans	**(35.0)**	–	**(184.5)**	–	**(219.5)**
Leases	**(69.9)**	**(38.2)**	**(51.7)**	–	**(159.8)**
Preference shares	–	–	–	**(2.7)**	**(2.7)**
	(337.9)	**(405.2)**	**(1,762.9)**	**(666.6)**	**(3,172.6)**

At 31 December 2020	Within 1 year $m	Between 1-2 years $m	Between 2-5 years $m	After 5 years $m	2020 Total $m
Corporate loans	(454.3)	(471.3)	(941.0)	(712.2)	(2,578.8)
Bond	–	–	–	(495.6)	(495.6)
Other loans	(75.0)	–	–	(394.5)	(469.5)
Leases	(74 .1)	(62.6)	(67.4)	(4.1)	(208.2)
Preference shares	–	–	–	(2.7)	(2.7)
	(603.4)	(533.9)	(1,008.4)	(1,609.1)	(3,754.8)

The amounts included above for leases are based on the present value of minimum lease payments.

The total minimum lease payments for these leases may be analysed as follows:

	2021 $m	2020 $m
Within 1 year	**(74.7)**	(81.3)
Between 1 – 2 years	**(40.5)**	(66.7)
Between 2 – 5 years	**(54.8)**	(71.9)
After 5 years	–	(4.3)
Total minimum lease payments	**(170.0)**	(224.2)
Less amounts representing finance charges	**10.2**	16.0
Present value of minimum lease payments	**(159.8)**	(208.2)

All leases are on a fixed payment basis and no arrangements have been entered into for contingent rental payments.

24 Trade and other payables

	Due in one year		Due after one year		Total	
	2021 $m	2020 $m	2021 $m	2020 $m	2021 $m	2020 $m
Trade creditors	**(579.5)**	(536.5)	–	–	**(579.5)**	(536.5)
Other creditors and accruals	**(249.6)**	(272.3)	**(16.8)**	(11.0)	**(266.4)**	(283.3)
	(829.1)	(808.8)	**(16.8)**	(11.0)	**(845.9)**	(819.8)

Trade creditors and accruals principally comprise amounts outstanding for trade purchases and ongoing costs. Other creditors are mainly related to property plant and equipment payables, finance interest and employee retentions.

The average credit period taken for trade purchases is 20 days (2020 – 21 days).

At 31 December 2021, the other creditors and accruals include $10.1 million (2020 – $3.8 million) relating to prepayments. Prepayments are offset against payables to the same suppliers where there is a right of offset.

25 Financial instruments and financial risk management

A) Categories of financial instruments

The carrying value of financial assets and financial liabilities is shown below:

	At fair value through profit and loss	At fair value through other comprehensive income	Held at amortised cost	Total
				2021 $m
Financial assets				
Equity investments	**–**	**8.7**	**–**	**8.7**
Loans and receivables	**1,011.7**	**–**	**83.3**	**1,095.0**
Cash and cash equivalents	**–**	**–**	**743.4**	**743.4**
Liquid investments	**2,969.7**	**–**	**–**	**2,969.7**
	3,981.4	**8.7**	**826.7**	**4,816.8**
Financial liabilities				
Trade and other payables	**–**	**–**	**(835.6)**	**(835.6)**
Borrowings and leases	**–**	**–**	**(3,172.6)**	**(3,172.6)**
	–	**–**	**(4,008.2)**	**(4,008.2)**

	At fair value through profit and loss	At fair value through other comprehensive income	Held at amortised cost	Total
				2020 $m
Financial assets				
Derivative financial assets	1.4	–	–	1.4
Equity investments	–	11.1	–	11.1
Loans and receivables	808.0	–	184.6	992.6
Cash and cash equivalents	–	–	1,246.8	1,246.8
Liquid investments	2,426.0	–	–	2,426.0
	3,235.4	11.1	1,431.4	4,677.9
Financial liabilities				
Derivative financial liabilities	(37.4)	–	–	(37.4)
Trade and other payables	(0.3)	–	(815.8)	(816.1)
Borrowings and leases	–	–	(3,754.8)	(3,754.8)
	(37.7)	–	(4,570.6)	(4,608.3)

The fair value of the fixed rate bond included within the "Borrowings and leases" category was $476.2 million at 31 December 2021 compared with its carrying value of $496.1 million. The fair value of all other financial assets and financial liabilities carried at amortised cost approximates the carrying value presented above.

	2021 $m	2020 $m
Financial assets		
Trade and other receivables (non-current) per balance sheet	**51.2**	55.9
Trade and other receivables (current) per balance sheet	**1,146.1**	1,016.9
Total trade and other receivables per balance sheet	**1,197.3**	1,072.8
Less: non-financial assets (including prepayments and VAT receivables)	**(102.3)**	(80.2)
Total loans and receivables (financial assets)	**1,095.0**	992.6
Financial liabilities		
Trade and other payables (current) per balance sheet	**(829.1)**	(808.8)
Trade and other payables (non-current) per balance sheet	**(16.8)**	(11.0)
Total trade and other payables per balance sheet	**(845.9)**	(819.8)
Less: non-financial liabilities (including VAT payables)	**10.3**	3.7
Total loans and payables (financial liabilities)	**(835.6)**	(816.1)

25 Financial instruments and financial risk management continued

B) Fair value of financial instruments

	Level 1 $m	Level 2 $m	Level 3 $m	Total 2021 $m
Financial assets				
Equity investments (b)	**8.7**	**–**	**–**	**8.7**
Loans and receivables (c)	**–**	**1,011.7**	**–**	**1,011.7**
Liquid investments (d)	**–**	**2,969.7**	**–**	**2,969.7**

	8.7	**3,981.4**	**–**	**3,990.1**
Financial liabilities				
Trade and other payables	–	–	–	–
	–	–	–	–

	Level 1 $m	Level 2 $m	Level 3 $m	Total 2020 $m
Financial assets				
Derivative financial assets (a)	–	1.4	–	1.4
Equity investments (b)	11.1	–	–	11.1
Loans and receivables (c)	–	808.0	–	808.0
Liquid investments (d) (restated)	–	2,426.0	–	2,426.0
	11.1	3,235.4	–	3,246.5
Financial liabilities				
Derivative financial liabilities (a)	–	(37.4)	–	(37.4)
Trade and other payables	–	(0.3)	–	(0.3)
	–	(37.7)	–	(37.7)

Recurring fair value measurements are those that are required in the balance sheet at the end of each reporting year.

a) Derivatives in designated hedge accounting relationships are valued using a discounted cash flow analysis valuation model, which includes observable credit spreads and using the applicable yield curve for the duration of the instruments for non-optional derivatives, and option pricing models for optional derivatives. These are level 2 inputs as described below. Hedging instruments in place during 2021 and 2020 related to commodity and foreign exchange options.

b) Equity investments are investments in shares on active markets and are valued using unadjusted quoted market values of the shares at the financial reporting date. These are level 1 inputs as described below.

c) Provisionally priced metal sales for the period are marked-to-market at the end of the period. Gains and losses from the marking-to-market of open sales are recognised through adjustments to revenue in the income statement and trade receivables in the balance sheet. Forward prices at the end of the period are used for copper sales while period-end average prices are used for molybdenum concentrate sales. These are level 2 inputs as described below.

d) Liquid investments are highly liquid current asset investments that are valued reflecting market prices at the period end. These are level 2 inputs as described below. The 2020 comparative figures have been restated to reclassify these amounts from level 1 to level 2 inputs.

The inputs to the valuation techniques described above are categorised into three levels, giving the highest priority to unadjusted quoted prices in active markets (level 1) and the lowest priority to unobservable inputs (level 3 inputs):

- Level 1 fair value measurement inputs are unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2 fair value measurement inputs are derived from inputs other than quoted market prices included in level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 fair value measurement inputs are unobservable inputs for the asset or liability.

The degree to which inputs into the valuation techniques used to measure the financial assets and liabilities are observable and the significance of these inputs in the valuation are considered in determining whether any transfers between levels have occurred. In the year ended 31 December 2021, there were no transfers between levels in the hierarchy.

C) Financial risk management

The Group's activities expose it to a variety of financial risks: market risk (including commodity price risk, currency risk, interest rate risk and other price risk), credit risk and liquidity risk. The Group periodically uses derivative financial instruments, to reduce its exposure to commodity price, foreign exchange and interest rate movements. The Group does not use such derivative instruments for speculative trading purposes.

The Board of Directors is responsible for overseeing the Group's risk management framework. The Audit and Risk Committee assists the Board with its review of the effectiveness of the risk management process, and monitoring of key risks and mitigations. The Internal Audit department undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the Audit and Risk Committee.

(I) Commodity price risk

The Group generally sells its copper and molybdenum concentrate and copper cathode output at prevailing market prices, subject to final pricing adjustments which normally range from one to four months after delivery to the customer, and it is therefore exposed to changes in market prices for copper and molybdenum both in respect of future sales and previous sales, which remain open as to final pricing. In 2021, sales of copper and molybdenum concentrate and copper cathodes represented 90.8% of Group revenue and therefore revenues and earnings depend significantly on LME and realised copper prices.

The Group periodically uses futures and min-max options to manage its exposure to copper prices. These instruments may give rise to accounting volatility due to fluctuations in their fair value prior to the maturity of the instruments. Details of those copper and molybdenum concentrate sales and copper cathode sales, which remain open as to final pricing, are given in Note 7. Details of commodity rate derivatives entered into by the Group are given in Note 23(E).

Commodity price sensitivity

The sensitivity analysis below shows the impact of a movement in the copper price on the financial instruments held as at the reporting date. A movement in the copper market price as at the reporting date will affect the final pricing adjustment to sales that remain open at that date, impacting the trade receivables balance and consequently the income statement. A movement in the copper market price will also affect the valuation of commodity derivatives, impacting the hedging reserve in equity if the fair value movement relates to an effective designated cash flow hedge, and impacting the income statement if it does not. The calculation assumes that all other variables, such as currency rates, remain constant.

- If the copper market price as at the reporting date had increased by 10 c/lb, profit attributable to the owners of the parent would have increased by $18.4 million (2020 – increase by $16.8 million).
- If the copper market price as at the reporting date had decreased by 10 c/lb, profit attributable to the owners of the parent would have decreased by $18.4 million (2020 – decrease by $16.8 million). In addition, a movement in the average copper price during the year would impact revenue and earnings. A 10 c/lb change in the average copper price during the year would have affected profit attributable to the owners of the parent by $64.8 million (2020 – $73.5 million) and earnings per share by 6.6 cents (2020 – 7.5 cents), based on production volumes in 2021, without taking into account the effects of provisional pricing and hedging activity. A $1/lb change in the average molybdenum price for the year would have affected profit attributable to the owners of the parent by $9.2 million (2020 – $11.8 million), and earnings per share by 0.9 cents (2020 – 1.2 cents), based on production volumes in 2021, and without taking into account the effects of provisional pricing. A $100/oz change in the average gold price for the year would have affected profit attributable to the owners of the parent by $11.5 million (2020 – $10.1 million), and earnings per share by 1.2 cents (2020 – 1.0 cents), based on production volumes in 2021, and without taking into account the effects of provisional pricing.

(II) Currency risk

The Group is exposed to a variety of currencies. The US dollar, however, is the currency in which the majority of the Group's sales are denominated. Operating costs are influenced by the countries in which the Group's operations are based (principally in Chile) as well as those currencies in which the costs of imported goods and services are determined. After the US dollar, the Chilean peso is the most important currency influencing costs and to a lesser extent sales.

Given the significance of the US dollar to the Group's operations, this is the presentational currency of the Group for internal and external reporting. The US dollar is also the currency for borrowing and holding surplus cash, although a portion of this may be held in other currencies, notably Chilean pesos and Sterling, to meet short-term operating and capital commitments and dividend payments.

When considered appropriate, the Group uses forward exchange contracts and currency swaps to limit the effects of movements in exchange rates in foreign currency denominated assets and liabilities. The Group may also use these instruments to reduce currency exposure on future transactions and cash flows. Details of any exchange rate derivatives entered by the Group in the year are given in Note 25(D).

The currency exposure of the Group's cash, cash equivalents and liquid investments is given in Note 22, and the currency exposure of the Group's borrowings is given in Note 23(C). The effects of exchange gains and losses included in the income statement are given in Note 10. Exchange differences on translation of the net assets of entities with a functional currency other than the US dollar are taken to the currency translation reserve and are disclosed in the Consolidated Statement of Changes in Equity on page 174.

25 Financial instruments and financial risk management continued

Currency sensitivity

The sensitivity analysis below shows the impact of a movement in the US dollar/Chilean peso exchange rate on the financial instruments held as at the reporting date.

The impact on profit or loss is as a result of the retranslation of monetary financial instruments (including cash, cash equivalents, liquid investments, trade receivables, trade payables and borrowings). The impact on equity is as a result of changes in the fair value of derivative instruments which are effective designated cash flow hedges, and changes in the fair value of equity investments. The calculation assumes that all other variables, such as interest rates, remain constant.

If the US dollar had strengthened by 10% against the Chilean peso as at the reporting date, profit attributable to the owners of the parent would have increased by $6.1 million (2020 – increase of $15.8 million). If the US dollar had weakened by 10% against the Chilean peso as at the reporting date, profit attributable to the owners of the parent would have decreased by $7.4 million (2020 – decrease of $19.3 million).

(III) Interest rate risk

The Group's policy is generally to borrow and invest cash at floating rates. Fluctuations in interest rates may impact the Group's net finance income or cost, and to a lesser extent the value of financial assets and liabilities. The Group occasionally uses interest rate swaps and collars to manage interest rate exposures on a portion of its existing borrowings. Details of any interest rate derivatives entered into by the Group are given in Note 25(D).

The interest rate exposure of the Group's borrowings is given in Note 23.

Interest rate sensitivity

The sensitivity analysis below shows the impact of a movement in interest rates in relation to the financial instruments held as at the reporting date. The impact on profit or loss reflects the impact on annual interest expense in respect of the floating rate borrowings held as at the reporting date, and the impact on annual interest income in respect of cash and cash equivalents held as at the reporting date. The impact on equity is as a result of changes in the fair value of derivative instruments which are effective designated cash flow hedges. The calculation assumes that all other variables, such as currency rates, remain constant.

If the interest rate increased by 1%, based on the financial instruments held as at the reporting date, profit attributable to the owners of the parent would have decreased by $6.4 million (2020 – decrease of $1.7 million). This does not include the effect on the income statement of changes in the fair value of the Group's liquid investments relating to the underlying investments in fixed income instruments.

(IV) Other price risk

The Group is exposed to equity price risk on its equity investments.

Equity price sensitivity

The sensitivity analysis below shows the impact of a movement in the equity values of the equity investment financial assets held as at the reporting date.

If the value of the equity investments had increased by 10% as at the reporting date, equity would have increased by $0.9 million (2020 – increase of $1.1 million). There would have been no impact on the income statement.

(V) Cash flow risk

The Group's future cash flows depend on a number of factors, including commodity prices, production and sales levels, operating costs, capital expenditure levels, and financial income and costs. Its cash flows are therefore subject to the exchange, interest rate and commodity price risks described above as well as operating factors and input costs. To reduce the risk of potential short-term disruptions to the supply of key inputs such as electricity and sulphuric acid, the Group enters into medium and long-term supply contracts to help ensure continuity of supply. Long-term electricity supply contracts are in place at each of the Group's mines, in most cases linking the cost of electricity under the contract to the current cost of electricity on the Chilean grid or the generation cost of the supplier. The Group seeks to lock in supply of sulphuric acid for future periods of a year or longer, with contract prices agreed in the latter part of the year, to be applied to purchases of acid in the following year. Further information on production and sales levels and operating costs are given in the Operating review on pages 68 to 89.

(VI) Credit risk

Credit risk arises from trade and other receivables, cash, cash equivalents, liquid investments and derivative financial instruments. The Group's credit risk is primarily to trade receivables. The credit risk on cash, cash equivalents and liquid investments and on derivative financial instruments is limited as the counterparties are financial institutions with high credit ratings assigned by international credit agencies.

The largest balances of trade receivables are with equity participants in the key mining projects. Many other significant trade receivables are secured by letters of credit or other forms of security. All customers are subject to credit review procedures, including the use of external credit ratings where available. Credit is provided only within set limits, which are regularly reviewed. The main customers are recurrent with a good credit history during the years they have been customers.

Outstanding receivable balances are monitored on an ongoing basis.

The carrying value of financial assets recorded in the financial statements represents the maximum exposure to credit risk. The amounts presented in the balance sheet are net of allowances for any doubtful receivables (Note 21).

The Group has recognised an expected credit loss provision for its employee receivables, with the main inputs into the provision calculation being the average level of staff turnover and the average level of recovery of receivables from former employees. For the reasons set out above, the expected credit loss risk for other trade and other receivable balances is considered to be immaterial to the Group.

(VII) Liquidity risk

The Group manages liquidity risk by maintaining adequate cash reserves and financing facilities, through the review of forecast and actual cash flows.

The Group typically holds surplus cash in demand or term deposits or highly liquid investments, which typically can be accessed or liquidated within 24 hours.

At the end of 2021, the Group was in a net cash position (2020 – net debt position), as disclosed in Note 32(C). Details of cash, cash equivalents and liquid investments are given in Note 22, while details of borrowings including the maturity profile are given in Note 23(E). Details of undrawn committed borrowing facilities are also given in Note 23.

The following table analyses the maturity of the Group's contractual commitments in respect of its financial liabilities and derivative financial instruments. The table has been drawn up based on the undiscounted cash flows on the earliest date on which the Group can be required to pay. The table includes both interest and principal cash flows.

At 31 December 2021	**Less than 1 year $m**	**Between 1-2 years $m**	**Between 2-5 years $m**	**After 5 years $m**	**2021 Total $m**
Corporate loans	**(267.1)**	**(398.5)**	**(1,574.8)**	**(170.6)**	**(2,411.0)**
Other loans (including short-term loans and bond)	**(47.0)**	**(11.9)**	**(242.7)**	**(555.5)**	**(857.1)**
Leases	**(74.7)**	**(40.5)**	**(54.5)**	**–**	**(169.7)**
Preference shares*	**–**	**–**	**–**	**(2.7)**	**(2.7)**
Trade and other payables	**(829.1)**	**(16.8)**	**–**	**–**	**(845.9)**
	(1,217.9)	**(467.7)**	**(1,872.0)**	**(728.8)**	**(4,286.4)**

At 31 December 2020	Less than 1 year $m	Between 1-2 years $m	Between 2-5 years $m	After 5 years $m	2020 Total $m
Corporate loans	(444.5)	(462.6)	(1,046.5)	(792.0)	(2,745.6)
Other loans (including short-term loans and bond)	(88.3)	(24.1)	–	(1,011.7)	(1,124.1)
Leases	(81.2)	(66.7)	(71.8)	(4.4)	(224.1)
Preference shares*	–	–	–	(2.7)	(2.7)
Trade and other payables	(808.8)	(11.0)	–	–	(819.8)
Derivative financial instruments	(36.0)	–	–	–	(36.0)
	(1,458.8)	(564.4)	(1,118.3)	(1,810.8)	(4,952.3)

* The preference shares pay an annual dividend of £100,000 in perpetuity, and accordingly it is not possible to determine total amounts payable for periods without a fixed end date.

(VIII) Capital risk management

The Group's objectives are to return capital to shareholders while leaving the Group with sufficient funds to progress its short, medium and long-term growth plans as well as preserving the financial flexibility to take advantage of opportunities as they may arise. This policy remains unchanged.

The Group monitors capital on the basis of net cash/debt (defined as cash, cash equivalents and liquid investments less borrowings) which was net cash of $540.5 million at 31 December 2021 (2020 – net debt $82.0 million), as well as gross cash (defined as cash, cash equivalents and liquid investments) which was $3,713.1 million at 31 December 2021 (2020 – $3.672.8 million). The Group's total cash is held in a combination of on demand and term deposits and managed funds investing in high quality, fixed income instruments. The managed funds are held primarily for investment purposes rather than meeting short-term cash commitments and accordingly these amounts are presented as liquid investments; however they are included in net cash for monitoring and decision-making purposes. The Group has a risk averse investment strategy. The Group's borrowings are detailed in Note 23. Additional project finance or shareholder loans are taken out by the operating subsidiaries to fund projects on a case-by-case basis.

Under the terms of the major borrowing facilities, the Group is required to comply with the following financial covenants:

1) Net Financial Debt/EBITDA

2) EBITDA/Interest Expense

3) Total Indebtedness/Tangible Net Worth

The Group has complied with these covenants throughout the reporting period.

D) Derivative financial instruments

The Group periodically uses derivative financial instruments, to reduce its exposure to commodity price, foreign exchange and interest rate movements. The Group does not use such derivative instruments for speculative trading purposes.

The Group has applied the hedge accounting provisions of IFRS 9 "Financial Instruments". Changes in the fair value of derivative financial instruments that are designated and effective as hedges of future cash flows have been recognised directly in equity, with such amounts subsequently recognised in the income statement in the period when the hedged item affects profit or loss. Any ineffective portion is recognised immediately in the income statement. Realised gains and losses on commodity derivatives recognised in the income statement have been recorded within revenue. The time value element of changes in the fair value of derivative options is recognised within other comprehensive income. Realised gains and losses and changes in the fair value of exchange and interest derivatives are recognised within other finance items for those derivatives where hedge accounting has not been applied. When hedge accounting has been applied, the realised gains and losses on exchange and interest derivatives are recognised within other finance items and interest expense respectively.

25 Financial instruments and financial risk management continued

Hedges for future cash flows at the 2021 year-end relate to provisionally priced trade receivables and foreign exchange and commodity options, and are immaterial to the Group.

26 Long-term incentive plan

The long-term incentive plan (the "Plan") forms part of the remuneration of senior managers in the Group. Directors are not eligible to participate in the Plan.

Details of the Awards

Under the Plan, the Group may grant awards based on the price of ordinary shares in the Company and cannot grant awards over actual shares.

- Restricted Awards: These awards are conditional rights to receive cash payment by reference to a specified number of the Company's ordinary shares, subject to the relevant employee remaining employed by the Group when the Restricted Award vests; and
- Performance Awards: These awards are conditional rights to receive cash payment by reference to a specified number of the Company's ordinary shares subject to both the satisfaction of a performance condition and the relevant employee remaining employed by the Group when the Performance Award vests.

When awards vest under the Plan, participants become entitled to receive a cash payment by reference to the number and portion of awards that have vested and the market value of the Company's ordinary shares on the date of vesting. There is no exercise price payable by participants in respect of the awards.

Restricted Awards can only vest in full if participants remain employed by the Group for three years from the date that Restricted Awards are granted. In ordinary circumstances, the first one-third of a Restricted Award will vest after one year, the second one-third will vest after two years and the remaining one-third will vest after three years. There are no performance criteria attached to Restricted Awards. The fair value of Restricted Awards granted under the Plan is recorded as a compensation expense over the vesting periods, with a corresponding liability recognised for the fair value of the liability at the end of each period until settled.

Performance Awards only vest if certain performance criteria are met. The performance criteria reflect a number of factors including total shareholder return, earnings levels, growth in the Group's reserves and resources and project delivery targets. The fair value of Performance Awards under the Plan is recorded as a compensation expense over the vesting period, with a corresponding liability at the end of each period until settled.

Valuation process and accounting for the awards

The fair value of the awards is determined using a Monte Carlo simulation model. The inputs into the Monte Carlo simulation model are as follows:

	2021	2020
Weighted average forecast share price at vesting date	**$18.0**	$19.2
Expected volatility	**39.23%**	49.56%
Expected life of awards	**3 years**	3 years
Expected dividend yields	**3.94%**	0.73%
Discount rate	**0.08%**	0.08%

Expected volatility was determined by calculating the historical volatility of the Group's share price over the previous five years. The expected life of awards used in the model has been adjusted based on management's best estimate for the effects of non-transferability and compliance of the objectives determined according to the characteristic of each plan.

The number of awards outstanding at the end of the year is as follows:

	Restricted Awards	Performance Awards
Outstanding at 1 January 2021	**738,735**	**1,629,526**
Granted during the year	**197,631**	**312,198**
Cancelled during the year	**(65,993)**	**(114,990)**
Payments during the year	**(326,230)**	**(441,259)**
Outstanding at 31 December 2021	**544,143**	**1,385,475**
Number of awards that have vested	**245,089**	

The Group has recorded a liability of $18.9 million at 31 December 2021, of which $9.2 million is due after more than one year (31 December 2020 – $22.3 million of which $11.0 million was due after more than one year) and total expenses of $9.0 million for the year (2020 – expenses of $17.2 million).

27 Post-employment benefit obligations

A) Defined contribution schemes

The Group operates defined contribution schemes for a limited number of employees. The amount charged to the income statement in 2021 was $0.1 million (2020 – $0.1 million), representing the amount paid in the year. There were no outstanding amounts which remain payable at the end of either year.

B) Severance provisions

Employment terms at some of the Group's operations provide for payment of a severance payment when an employment contract comes to an end. This is typically at the rate of one month for each year of service (subject in most cases to a cap as to the number of qualifying years of service) and based on final salary level. The severance payment obligation is treated as an unfunded defined benefit plan, and the obligation recognised is based on valuations performed by an independent actuary using the projected unit credit method, which are regularly updated. The obligation recognised in the balance sheet represents the present value of the severance payment obligation. Actuarial gains and losses are immediately recognised in other comprehensive income.

The most recent valuation was carried out in 2021 by Ernst & Young, a qualified actuary in Santiago, Chile who is not connected with the Group.

The main assumptions used to determine the actuarial present value of benefit obligations were as follows:

	2021 %	2020 %
Average nominal discount rate	**6.3%**	3.5%
Average rate of increase in salaries	**2.3%**	2.0%
Average staff turnover	**4.9%**	5.7%

Amounts included in the income statement in respect of severance provisions are as follows:

	2021 $m	2020 $m
Current service cost (charge to operating profit)	**(19.8)**	(17.9)
Interest cost (charge to other finance items)	**(3.6)**	(4.9)
Foreign exchange credit/(charge) to other finance items	**19.6**	(6.2)
Total charge to income statement	**(3.8)**	(29.0)

Movements in the present value of severance provisions were as follows:

	2021 $m	2020 $m
Balance at the beginning of the year	**(123.2)**	(118.7)
Current service cost	**(19.8)**	(17.9)
Actuarial gains	**3.1**	9.8
Unwinding of discount on provisions	**(3.6)**	(4.9)
Paid in the year	**16.4**	14.5
Foreign currency exchange difference	**19.6**	(6.0)
Balance at the end of the year	**(107.5)**	(123.2)

Assumptions description

Discount rate

	31 December 2021	31 December 2020
Nominal discount rate	**6.50%**	3.64%
Reference rate name	**20-year Chilean Central Bank Bonds**	20-year Chilean Central Bank Bonds
Governmental or corporate rate	**Governmental**	Governmental
Reference rating	**AA-/AA+**	AA-/AA+
Corresponds to an Issuance market (primary) or secondary market	**Secondary**	Secondary
Issuance currency associated to the reference rate	**Chilean peso**	Chilean peso
Date of determination of the reference interest rate	**31 October 2021**	15 November 2020
Source of the reference interest rate	**Bloomberg**	Bloomberg

The discount rate is the interest rate used to discount the estimated future severance payments to their present value. The table above shows the principal instruments and assumptions utilised in determining the discount rate.

Rate of increase in salaries

This represents the estimated average rates of future salary increases, reflecting likely future promotions and other changes. This has been based on historical information for the Group for the period from 2017 to 2021.

27 Post-employment benefit obligations continued

Turnover rate

This represents the estimated average level of future employee turnover. This has been based on historical information for the Group for the period from 2017 to 2021.

Sensitivity analysis

Significant actuarial assumptions for the determination of the defined obligation are discount rate, expected salary increase and staff turnover. The sensitivity analysis below has been determined based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period, while holding all other assumptions constant.

- If the discount rate is 100 basis points higher, the defined benefit obligation would decrease by $5.3 million. If the discount rate is 100 basis points lower, the defined benefit obligation would increase by $6.0 million.
- If the expected salary growth increases by 1%, the defined benefit obligation would increase by $5.4 million. If the expected salary growth decreases by 1%, the defined benefit obligation would decrease by $5.0 million.
- If the staff turnover increases by 1%, the defined benefit obligation would decrease by $2.4 million. If the staff turnover decreases by 1%, the defined benefit obligation would increase by $2.8 million.

28 Deferred tax assets and liabilities

	Accelerated capital allowances $m	Temporary differences on provisions $m	Withholding tax $m	Short-term differences $m	Mining tax (Royalty) $m	Tax losses $m	Disposal $m	Total $m
At 1 January 2020	(1,111.8)	120.0	(38.5)	35.5	(107.4)	5.2	–	(1.097.0)
(Charge)/credit to income	(10.3)	2.9	(14.3)	6.5	4.2	(0.2)	–	(11.2)
Disposal of subsidiary	–	–	–	–	–	–	0.1	0.1
Charge deferred in equity	–	2.0	–	–	(0.3)	–		1.7
Reclassifications	–	(0.3)	–	–	–	0.3	–	–
At 31 December 2020 and 1 January 2021	**(1,122.1)**	**124.6**	**(52.8)**	**42.0**	**(103.5)**	**5.3**	**0.1**	**(1,106.4)**
(Charge)/credit to income	**(248.9)**	**(7.5)**	**29.7**	**(103.3)**	**1.0**	**31.7**	**(0.1)**	**(297.4)**
Exceptional items	**–**	**–**	**–**	**–**	**–**	**90.6**	**–**	**90.6**
Charge deferred in equity	**–**	**(2.1)**	**–**	**–**	**(0.4)**	**–**	**–**	**(2.5)**
At 31 December 2021	**(1,371.0)**	**115.0**	**(23.1)**	**(61.3)**	**(102.9)**	**127.6**	**–**	**(1,315.7)**

The charge to the income statement of $206.8 million (2020 – $11.2 million) included an impact from foreign exchange differences of nil (2020 – included a credit of $0.1 million).

Certain deferred tax assets and liabilities have been offset. Deferred tax assets and liabilities are offset where there is a legally enforceable right to do so, which under Chilean tax regulations is only possible within individual legal entities.

The following is the analysis of the deferred tax balance (after offset):

	2021 $m	2020 $m
Net deferred tax assets	**96.8**	6.4
Net deferred tax liabilities	**(1,412.5)**	(1,112.8)
Net deferred tax balances	**(1,315.7)**	(1,106.4)

At 31 December 2021, the Group had unused tax losses associated with Chilean entities (predominantly Antucoya) of $472.5 million (2020 – $599.4 million) available for offset against future profits. Generally under Chilean tax law most tax losses can be carried forward indefinitely. A deferred tax asset of $127.6 million has been recognised in respect of 100% of these losses as at 31 December 2021 (31 December 2020 – $5.3 million in respect of $19.6 million of the losses). In addition, at 31 December 2021, the Group had unused tax losses associated with entities outside of Chile (predominantly in respect of the Twin Metals project) of $428.0 million (2020 – $399.7 million - which were previously not disclosed) in respect of which no deferred tax asset has been recognised. A portion of the Twin Metals tax losses expire in the period from 2030 – 2037, and the remainder can be carried forward indefinitely.

At 31 December 2021, the Group recognised $90.6 million of previously unrecognised deferred tax assets relating to tax losses available for offset against future profits. In previous periods, the Group had reviewed these tax losses for potential recognition, and concluded that it was not probable that future taxable profits would be available against which the losses could be utilised, and accordingly had not recognised a deferred tax asset in respect of those losses. In making this assessment in previous periods the Group had taken into account that the relevant Group entity (Antucoya) had consistently generated taxable losses in recent years, was continuing to generate taxable losses in the then current period, and was forecast to continue generating taxable losses in future periods. During 2021, there has been a significant improvement in the current copper price (with the copper price reaching record levels in nominal terms during the year) and also the near-term copper price outlook. As a result of this improvement in the copper price environment, Antucoya began to generate taxable profits in 2021. The improved near-term outlook for the copper price also means that Antucoya is now forecast to generate sufficient future taxable profits to fully utilise its remaining tax losses. Current forecasts indicate that the losses will be utilised over approximately the next eight years (compared with the remaining mine life for Antucoya of 22 years). The forecasts are based on Antucoya's Life-of-mine model. When the tax losses are utilised in future years, it is expected that the impact will be recorded within the underlying tax charge for that year, in order to match with the similar classification of the corresponding taxable profits of that year.

28 Deferred tax assets and liabilities continued

At 31 December 2021, deferred withholding tax liabilities of $23.1 million have been recognised (31 December 2020 – $52.8 million) which relate to undistributed earnings of subsidiaries where it is considered likely that the corresponding profits will be distributed in the foreseeable future. The value of the remaining undistributed earnings of subsidiaries, for which deferred tax liabilities have not been recognised, because the Group is in a position to control the timing of the distributions and it is likely that distributions will not be made in the foreseeable future, was $6,483 million (31 December 2020 – $4,980 million - restated from the previously reported amount of $4,810 million, reflecting the removal of amounts relating to entities with accumulated losses).

Temporary differences arising in connection with interests in associates are insignificant.

The deferred tax balance of $1,315.7 million (2020 – $1,106.4 million) includes $1,272.6 million (2020 – $1,053.4 million) due in more than one year.

All amounts are shown as non-current on the face of the balance sheet as required by IAS 12 Income Taxes.

29 Decommissioning and restoration provisions

	2021 $m	2020 $m
Balance at the beginning of the year	**(520.2)**	(413.2)
Charge to operating profit in the year	**(11.3)**	(45.2)
Unwind of discount to net interest in the year	**(2.6)**	(2.6)
Adjustment to provision discount rates	**30.8**	(9.2)
Capitalised adjustment to provision	**119.9**	(59.4)
Utilised in year	**33.8**	22.2
Foreign currency exchange difference	**13.5**	(12.8)
Balance at the end of the year	**(336.1)**	(520.2)
Short-term provisions	**(33.8)**	(22.2)
Long-term provisions	**(302.3)**	(498.0)
Total	**(336.1)**	(520.2)

Decommissioning and restoration costs relate to the Group's mining operations. Costs are estimated on the basis of a formal closure plan and are subject to regular independent formal review by Sernageomin, the Chilean government agency which regulates the mining industry in Chile. There have not been any significant updates to the mining operations closure plans approved by Sernageomin during the year. During 2020, the Pelambres, Centinela and Zaldívar balances were updated to reflect new plans approved by Sernageomin during that year. The provision balance reflects the present value of the forecast future cash flows expected to be incurred in line with the closure plans, discounted using Chilean real interest rates with durations corresponding with the timings of the closure activities. At 31 December 2021, the real discount rates ranged from 2.3% to 2.5% (31 December 2020: 0.5% to 0.9%).

It is estimated that the provision will be utilised from 2022 until 2064 based on current mine plans, with approximately 19% of the total provision balance expected to be utilised between 2022 and 2031, approximately 48% between 2032 and 2041, approximately 9% between 2042 and 2051 and approximately 23% between 2052 and 2068.

Given the long-term nature of these balances, it is possible that future climate risks could impact the appropriate amount of these provisions, both in terms of the nature of the decommissioning and site rehabilitation activities that are required, or the costs of undertaking those activities. During 2021, the Group has implemented, and disclosed against, the recommendations of the Task Force on Climate-related Financial Disclosures ("TCFD"). This process included scenario analyses assessing the potential future transition and physical risks. As a simple high-level sensitivity, we have considered whether the level of estimated costs relating to the potential future risks, identified under the scenario analysis could indicate a general level of future cost increases as a consequence of climate risks, which could indicate a significant potential impact on these provision balances. This analysis did not indicate a significant potential impact on the decommissioning and restoration provision balances. However, more detailed specific analysis of the potential impacts of climate risks in future periods could result in adjustments to these provision balances. When future updates to the closure plans are prepared and submitted to Sernageomin for review and approval, it is likely that there will be more detailed consideration of potential climate risk impacts which may need to be incorporated into the plan assumptions. In addition, Sernageomin may introduce new regulations or guidance in respect of climate risks which may need to be addressed in future updates to the Group's closure plans.

30 Share capital and other reserves

(I) Share capital

The ordinary share capital of the Company is as follows:

	2021 Number	2020 Number	2021 $m	2020 $m
Authorised				
Ordinary shares of 5p each	**1,300,000,000**	1,300,000,000	**118.9**	118.9

	2021 Number	2020 Number	2021 $m	2020 $m
Issued and fully paid				
Ordinary shares of 5p each	**985,856,695**	985,856,695	**89.8**	89.8

The Company has one class of ordinary shares which carry no right to fixed income. Each ordinary share carries one vote at any general meeting.

There were no changes in the authorised or issued share capital of the Company in either 2021 or 2020. Details of the Company's preference share capital, which is included within borrowings in accordance with IAS 32 Financial Instruments, are given in Note 23A(xiv).

(II) Other reserves and retained earnings

Details of the share premium account, hedging, fair value and translation reserves and retained earnings for both 2021 and 2020 are included within the consolidated statement of changes in equity on page 174.

	2021 $m	2020 $m
Share premium		
At 1 January and 31 December	**199.2**	199.2
Hedging reserves[1]		
At 1 January	**(23.9)**	(5.0)
Parent and subsidiaries net cash flow hedge fair value losses	**(100.4)**	(24.2)
Parent and subsidiaries net cash flow hedge losses transferred to the income statement	**126.8**	3.4
Tax on the above	**(2.5)**	1.9
At 31 December	**–**	(23.9)
Equity investment revaluation reserves[2]		
At 1 January	**(5.3)**	(10.8)
(Losses)/gains on equity investment	**(2.1)**	5.5
At 31 December	**(7.4)**	(5.3)
Foreign currency translation reserves[3]		
At 1 January	**(1.4)**	(2.3)
Currency translation adjustment	**(1.6)**	0.9
At 31 December	**(3.0)**	(1.4)
Total other reserves per balance sheet	**(10.4)**	(30.6)
Retained earnings		
At 1 January	**7,492.2**	7,112.8
Parent and subsidiaries' profit for the period	**1,230.5**	582.1
Equity accounted units' profit after tax for the period	**59.7**	(75.7)
Actuarial gains/(loss)[4]	**–**	4.1
Total comprehensive income for the year	**8,782.4**	7,623.3
Dividends paid	**(710.8)**	(131.1)
At 31 December	**8,071.6**	7,492.2

1. The hedging reserves record gains or losses on cash flow hedges that are recognised initially in equity (through other comprehensive income), as described in Note 25.
2. The equity investments revaluation reserves record fair value gains or losses relating to equity investments, as described in Note 19.
3. Exchange differences arising on the translation of the Group's net investment in foreign-controlled companies are taken to the foreign currency translation reserves. The cumulative differences relating to an investment are transferred to the income statement when the investment is disposed of.
4. Actuarial gains or losses relating to long-term employee benefits, as described in Note 27.

31 Non-controlling interests

The non-controlling interests of the Group during 2021 and 2020 are as follows:

	Non-controlling Interest %	Country	At 1 January 2021 $m	Share of profit for the financial year $m	Capital Increase $m	Share of dividends $m	Hedging and actuarial gains $m	At 31 December 2021 $m
Los Pelambres	**40.0**	**Chile**	**1,107.3**	**608.0**	**–**	**(512.0)**	**1.2**	**1,204.5**
Centinela	**30.0**	**Chile**	**1,113.7**	**252.2**	**–**	**(92.5)**	**2.5**	**1,275.9**
Antucoya	**30.0**	**Chile**	**109.5**	**84.4**	**–**	**–**	**4.5**	**198.4**
Total			**2,330.5**	**944.6**	**–**	**(604.5)**	**8.2**	**2,678.8**

	Non-controlling Interest %	Country	At 1 January 2020 $m	Share of profit/(losses) for the financial year $m	Capital Increase[1] $m	Share of dividends $m	Hedging and actuarial gains/(losses) $m	At 31 December 2020 $m
Los Pelambres	40.0	Chile	1,012.4	371.5	–	(280.0)	3.4	1,107.3
Centinela	30.0	Chile	1,103.2	12.9	–	–	(2.4)	1,113.7
Antucoya	30.0	Chile	(98.3)	3.1	210.0	–	(5.3)	109.5
Total			2,017.3	387.5	210.0	(280.0)	(4.3)	2,330.5

1. A capital contribution of $210 million was received from Marubeni, the minority partner at Antucoya, in order to replace part of Antucoya's subordinated debt financing with equity.

The proportion of the voting rights is proportional with the economic interest for each of the companies listed above.

Summarised financial position and cash flow information for the years ended 2021 and 2020 is set out below:

	Los Pelambres 2021 $m	Centinela 2021 $m	Antucoya 2021 $m
Non-controlling interest (%)	**40.0%**	**30.0%**	**30.0%**
Cash and cash equivalents	**14.2**	**122.7**	**48.4**
Current assets	**1,073.3**	**1,358.0**	**381.4**
Non-current assets	**4,593.8**	**4,561.2**	**1,354.6**
Current liabilities	**(519.1)**	**(714.5)**	**(183.8)**
Non-current liabilities	**(2,123.0)**	**(1,082.6)**	**(364.9)**
Net cash from operating activities	**1,816.8**	**1,885.5**	**295.3**
Net cash used in investing activities	**(878.6)**	**(837.6)**	**(49.3)**
Net cash used in financing activities	**(1,408.4)**	**(1,152.6)**	**(206.9)**

	Los Pelambres 2020 $m	Centinela 2020 $m	Antucoya 2020 $m
Non-controlling interest (%)	40.0%	30.0%	30.0%
Cash and cash equivalents (restated)[1]	247.6	239.2	52.5
Current assets	1,466.5	1,490.8	324.5
Non-current assets	4,009.4	4,408.0	1,317.0
Current liabilities	(764.6)	(495.5)	(246.4)
Non-current liabilities	(1,935.5)	(1,327.7)	(456.1)
Net cash from operating activities	1,196.9	790.8	147.3
Net cash used in investing activities	(776.6)	(460.4)	(41.3)
Net cash from/(used in) financing activities	74.8	(88.0)	(75.8)

1. The prior period comparatives have been restated to reclassify liquid investments of $657.2 million at Los Pelambres, $497.1 million at Centinela and $91.1 million at Antucoya out of the cash and cash equivalents line.

Notes to the summarised financial position and cash flow

(i) The amounts disclosed for each subsidiary are based on the amounts included in the consolidated financial statements (100% of the results and balances of the subsidiary rather than the non-controlling interest proportionate share) before inter-company eliminations.

(ii) Summarised income statement information is shown in the segment information in Note 6.

(iii) There are some subsidiaries with a non controlling interest portion not included in this note where those portions are not material to the Group.

32 Notes to the consolidated cash flow statement

A) Reconciliation of profit before tax to cash flow from continuing operations

	2021 $m	2020 $m
Profit before tax	**3,477.1**	1,413.1
Depreciation	**1,078.7**	1,048.7
Net loss on disposals	**9.2**	6.3

Net finance (income)/expense	**(16.0)**	103.4
Net share of results from associates and joint ventures (exc. exceptional items)	**(59.7)**	(5.1)
Provision for impairment	**177.6**	(80.8)
Decrease/(increase) in inventories	**10.9**	(13.6)
Increase in debtors	**(206.8)**	(259.9)
Increase in creditors	**55.7**	31.0
(Decrease)/increase in provisions	**(19.0)**	26.4
Cash flow generated from continuing operations	**4,507.7**	2,431.1

B) Analysis of changes in net debt

	At 1 January 2021 $m	Cash flow $m	Fair value gains $m	New leases $m	Amortisation of finance costs $m	Capitalisation of interest $m	Movement between maturity categories $m	Other $m	Exchange $m	At 31 December 2021 $m
Cash and cash equivalents	**1,246.8**	**(483.1)**	**–**	**–**	**–**	**–**	**–**	**–**	**(20.3)**	**743.4**
Liquid investments	**2,426.0**	**543.7**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**2,969.7**
Total cash and cash equivalents and liquid investments	**3,672.8**	**60.6**	**–**	**–**	**–**	**–**	**–**	**–**	**(20.3)**	**3,713.1**
Borrowings due within one year	**(529.8)**	**545.6**	**–**	**–**	**–**	**–**	**(294.2)**	**10.4**	**–**	**(268.0)**
Borrowings due after one year	**(3,013.8)**	**–**	**–**	**–**	**(5.7)**	**(16.6)**	**294.2**	**–**	**(0.2)**	**(2,742.1)**
Leases due within one year	**(73.6)**	**88.9**	**–**	**–**	**–**	**–**	**(84.4)**	**–**	**–**	**(69.1)**
Leases due after one year	**(134.9)**	**–**	**–**	**(61.8)**	**–**	**–**	**84.4**	**–**	**21.6**	**(90.7)**
Preference shares	**(2.7)**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**(2.7)**
Total borrowings	**(3,754.8)**	**634.5**	**–**	**(61.8)**	**(5.7)**	**(16.6)**	**–**	**10.4**	**21.4**	**(3,172.6)**
Net cash/(debt)	**(82.0)**	**695.1**	**–**	**(61.8)**	**(5.7)**	**(16.6)**	**–**	**10.4**	**1.1**	**540.5**

	At 1 January 2020 $m	Cash flow $m	Fair value gains $m	New leases $m	Amortisation of finance costs $m	Capitalisation of interest $m	Movement between maturity categories $m	Other $m	Exchange $m	At 31 December 2020 $m
Cash and cash equivalents	653.7	588.3	–	–	–	–	–	–	4.8	1,246.8
Liquid investments	1,539.7	887.9	(1.6)	–	–	–	–	–	–	2,426.0
Total cash and cash equivalents and liquid investments	2,193.4	1,476.2	(1.6)	–	–	–	–	–	4.8	3,672.8
Borrowings due within one year	(648.4)	200.1	–	–	–	–	(88.8)	4.7	2.6	(529.8)
Borrowings due after one year	(1,861.8)	(1,204.9)	–	–	(12.5)	(23.4)	88.8	–	–	(3,013.8)
Leases due within one year	(75.6)	18.2	–	–	–	–	(14.1)	(2.1)	–	(73.6)
Leases due after one year	(168.4)	68.3	–	(33.5)	–	–	14.1	0.3	(15.7)	(134.9)
Preference shares	(2.6)	–	–	–	–	–	–	–	(0.1)	(2.7)
Total borrowings	(2,756.8)	(918.3)	–	(33.5)	(12.5)	(23.4)	–	2.9	(13.2)	(3,754.8)
Net debt	(563.4)	557.9	(1.6)	(33.5)	(12.5)	(23.4)	–	2.9	(8.4)	(82.0)

32 Notes to the consolidated cash flow statement continued

C) Net cash/(debt)

	2021 $m	2020 $m
Cash, cash equivalents and liquid investments	**3,713.1**	3,672.8
Total borrowing	**(3,172.6)**	(3,754.8)
Net cash/(debt)	**540.5**	(82.0)

33 Exchange rates

Assets and liabilities denominated in foreign currencies are translated into US dollars and Sterling at the period-end rates of exchange.

Results denominated in foreign currencies have been translated into US dollars at the average rate for each period.

	2021	2020
Year-end rates	**$1.3490 = £1**	$1.3600 = £1
	$1 = Ch$844.69	$1 = Ch$710.95
Average rates	**$1.3750 = £1**	$1.2820 = £1
	$1 = Ch$759.81	$1 = Ch$792.07

34 Related party transactions

Transactions between the Company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note. Transactions between the Group and its associates and joint ventures are disclosed below.

The transactions which Group companies entered into with related parties who are not members of the Group are set out below. There are no guarantees given or received and no provisions for doubtful debts related to the amount of outstanding balances.

A) Quiñenco SA

Quiñenco SA ("Quiñenco") is a Chilean financial and industrial conglomerate, the shares of which are traded on the Santiago Stock Exchange, and in which members of the Luksic family are interested. Two Directors of the Company, Jean-Paul Luksic and Andronico Luksic, are also directors of Quiñenco.

The following transactions took place between the Group and the Quiñenco group of companies, all of which were on normal commercial terms at market rates:

- the Group made purchases of fuel from ENEX SA, a subsidiary of Quiñenco, of $263.9 million (2020 – $212.6 million). The balance due to ENEX SA at the end of the year was $20.4 million (2020 – nil);
- the Group earned interest income of nil (2020 – $1.7 million) during the year on deposits with Banco de Chile SA, a subsidiary of Quiñenco. Deposit balances at the end of the year were nil (2020 – nil);
- the Group earned interest income of $0.1 million (2020 – $0.3 million) during the year on investments with BanChile Administradora General de Fondos SA, a subsidiary of Quiñenco. Investment balances at the end of the year were $2.2 million (2020 – nil);
- the Group purchased shipping services from Hapag Lloyd, an associate of Quiñenco, of $8.9 million (2020 – $7.0 million). The balance due to Hapag Lloyd at the end of the year was $0.4 million (2020 – nil).

B) Compañía de Inversiones Adriático SA

In 2021, the Group leased office space on normal commercial terms from Compañía de Inversiones Adriático SA, a company in which members of the Luksic family are interested, at a cost of $0.8 million (2020 –$0.7 million).

C) Antomin 2 Limited and Antomin Investors Limited

The Group holds a 51% interest in Antomin 2 Limited ("Antomin 2") and Antomin Investors Limited ("Antomin Investors"), which own a number of copper exploration properties. The Group originally acquired its 51% interest in these properties for a nominal consideration from Mineralinvest Establishment, which continues to hold the remaining 49% of Antomin 2 and Antomin Investors. Mineralinvest is owned by the E. Abaroa Foundation, in which members of the Luksic family are interested. During the year ended 31 December 2021, the Group incurred $0.1 million (year ended 31 December 2020 – $0.1 million) of exploration expense at these properties.

D) Tethyan Copper Company Limited

As explained in Note 18 the Group has a 50% interest in Tethyan Copper Company Limited ("Tethyan"), which is a joint venture with Barrick Gold Corporation over Tethyan's mineral interests in Pakistan. During 2021, the Group contributed $9.5 million (2020 – $7.2 million) to Tethyan.

34 Related party transactions continued

E) Compañia Minera Zaldívar SpA

The Group has a 50% interest in Zaldívar (see Note 18), which is a joint venture with Barrick Gold Corporation. Antofagasta is the operator of Zaldívar. The balance due from Zaldívar to Group companies at the end of the year was $2.5 million (2020 – $0.5 million). During 2021, Zaldívar declared dividends of $77.5 million to the Group (2020 – $65.0 million).

F) Inversiones Hornitos SA

As explained in Note 3, on 31 March 2020 the Group agreed to dispose of its 40% interest in Hornitos coal-fired power station to ENGIE Energía Chile S.A. ("ENGIE"), the owner of the remaining 60% interest. Under the terms of this agreement, the Group agreed to make a final capital contribution to Hornitos of $24 million, the payment of which took place during 2021. During 2020 the Group paid $128.2 million to Inversiones Hornitos in relation to the energy supply contract at Centinela. During 2020 and 2021, the Group has not received dividends from Inversiones Hornitos SA.

G) Directors and other key management personnel

Information relating to Directors' remuneration and interests is given in the Remuneration Report on page 152. Information relating to the remuneration of key management personnel including the Directors is given in Note 9.

35 Reko Diq project

In July 2019, the World Bank Group's International Centre for Settlement of Investment Disputes ("ICSID") awarded $5.84 billion in damages (compensation and accumulated interest as at the date of the award) to Tethyan Copper Company Pty Limited ("Tethyan"), the joint venture held equally by the Company and Barrick Gold Corporation, in relation to an arbitration claim filed against the Islamic Republic of Pakistan ("Pakistan") following the unlawful denial of a mining lease for the Reko Diq project in Pakistan in 2011. As at 31 December 2021, the outstanding award amount, including interest, was approximately $6.45 billion.

In March 2022 the Company reached an agreement in principle with Barrick Gold and the Governments of Pakistan and Balochistan on a framework that provides for the reconstitution of the Reko Diq project, and a pathway for the Company to exit the project. If definitive agreements are executed and the conditions to closing are satisfied, a consortium comprising various Pakistani state-owned enterprises will acquire an interest in the project for consideration of approximately $900m to jointly develop the project with Barrick, and Antofagasta would exit. If all the conditions are satisfied during 2022, we would expect to receive the proceeds in 2023.

36 Litigation and contingent liabilities

The Group is subject from time to time to legal proceedings, claims, complaints and investigations arising out of the ordinary course of business. The Group cannot predict the outcome of individual legal actions or claims or complaints or investigations. As a result, the Group may become subject to liabilities that could affect our business, financial position and reputation. Litigation is inherently unpredictable and large judgments may at times occur. The Group may incur, in the future, judgments or enter into settlements of claims that could lead to material cash outflows. The Group considers that no material loss to the Group is expected to result from the legal proceedings, claims, complaints and investigations that the Group is currently subject to. Provision is made for all liabilities that are expected to materialise through legal claims against the Group.

37 Ultimate Parent Company

The immediate parent of the Group is Metalinvest Establishment, which is controlled by the E. Abaroa Foundation, in which members of the Luksic family are interested.

Both Metalinvest Establishment and the E. Abaroa Foundation are domiciled in Liechtenstein. Information relating to the interest of Metalinvest Establishment and the E. Abaroa Foundation is given in the Directors' Report.

Antofagasta plc – balance sheet of the Parent company and related notes

The Balance Sheet of the Parent Company as at 31 December 2021 is as follows:

	Note	2021 $m	2020 $m
Non-current assets			
Investment in subsidiaries	E	**529.1**	538.6
Other receivables		**–**	485.0
Property, plant and equipment		**5.1**	–
		534.2	1,023.6
Current assets			
Other receivables	E	**57.8**	573.5
Liquid investments		**1,649.4**	447.2
Cash and cash equivalents		**422.8**	177.7
		2,130.0	1,198.4
Total assets		**2,664.2**	2,222.0
Current liabilities			
Amounts payable to subsidiaries		**(302.2)**	(303.7)
Other payables		**(15.4)**	(8.3)
		(317.6)	(312.0)
Non-current liabilities			
Medium and long-term borrowings	F	**(993.4)**	(994.9)
		(993.4)	(994.9)
Total liabilities		**(1,311.0)**	(1,307.0)
Net assets		**1,353.2**	915.0
Equity			
Share capital		**89.8**	89.8
Share premium		**199.2**	199.2
Retained earnings			
At 1 January		**626.0**	197.7
Profit for the year attributable to the owners		**1,149.0**	559.4
Other changes in retained earnings		**(710.8)**	(131.1)
At 31 December		**1,064.2**	626.0
Total equity		**1,353.2**	915.0

The financial statements on pages 225-228 were approved by the Board of Directors on 24 March 2022 and signed on its behalf by

Jean-Paul Luksic
Chairman

Tony Jensen
Senior Independent Director

Parent Company statement of changes in equity

	Share capital $m	Share premium $m	Retained earnings $m	Total equity $m
At 1 January 2020	89.8	199.2	197.7	486.7
Comprehensive income for the year	–	–	559.4	559.4
Dividends	–	–	(131.1)	(131.1)
At 31 December 2020	89.8	199.2	626.0	915.0
Comprehensive income for the year	**–**	**–**	**1,149.0**	**1,149.0**
Dividends	**–**	**–**	**(710.8)**	**(710.8)**
At 31 December 2021	**89.8**	**199.2**	**1,064.2**	**1,353.2**

The ordinary shares rank after the preference shares in entitlement to dividend and on a winding-up. Each ordinary share carries one vote at any general meeting.

Antofagasta plc is a company limited by shares, incorporated and domiciled in the United Kingdom at 103 Mount Street, London W1K 2TJ.

A) Basis of preparation of the balance sheet and related notes of the Parent Company

The Antofagasta plc Parent Company balance sheet and related notes have been prepared in accordance with the Companies Act 2006 applicable to companies using FRS 101, which applies the recognition and measurement bases of IFRS with reduced disclosure requirements. The financial information has been prepared on an historical cost basis. The financial statements have been prepared on a going concern basis. The functional currency of the Company and the presentation currency adopted is US dollars.

The following exemptions from the requirements of IFRS have been applied in the preparation of these financial statements, in accordance with FRS 101:

- Paragraphs 45(b) and 46 to 52 of IFRS 2, 'Share-based payment' (details of the number and weighted-average exercise prices of share options and how the fair value of goods or services received was determined)
- IFRS 7, 'Financial Instruments: Disclosures'
- Paragraphs 91 to 99 of IFRS 13, 'Fair value measurement' (disclosure of valuation techniques and inputs used for fair value measurement of assets and liabilities)
- Paragraph 38 of IAS 1, 'Presentation of financial statements' comparative information requirements in respect of:

  (i) paragraph 79(a)(iv) of IAS 1, 'Presentation of financial statements'

  (ii) paragraph 73(e) of IAS 16, 'Property, plant, and equipment'

  (iii) paragraph 118(e) of IAS 38, Intangible assets (reconciliations between the carrying amount at the beginning and end of the period)

- The following paragraphs of IAS 1, 'Presentation of financial statements':
  - 10(d), (statement of cash flows)
  - 10(f) (a statement of financial position as at the beginning of the preceding period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements)
  - 16 (statement of compliance with all IFRS)
  - 38A (requirement for minimum of two primary statements, including cash flow statements)
  - 38B-D (additional comparative information)
  - 40A-D (requirements for a third statement of financial position)
  - 111 (cash flow statement information), and
  - 134-136 (capital management disclosures)
- IAS 7, 'Statement of cash flows'
- Paragraph 30 and 31 of IAS 8 'Accounting policies, changes in accounting estimates and errors' (requirement for the disclosure of information when an entity has not applied a new IFRS that has been issued but is not yet effective)
- Paragraph 17 of IAS 24, 'Related party disclosures' (key management compensation)
- The requirements in IAS 24, 'Related party disclosures' to disclose related party transactions entered into between two or more members of a group. All of the Parent Company's inter-company transactions and balances are with wholly-owned subsidiaries of the Group.

As permitted by section 408 of the Companies Act 2006, the profit and loss account of the Parent Company is not presented as part of these financial statements. The profit after tax for the year of the Parent Company amounted to $1,149.0 million (2020 – $559.4 million).

B) Principal accounting policies of the Parent Company

A summary of the principal accounting policies is set out below. These accounting policies have been applied consistently.

A) Currency translation

The Company's functional currency is the US dollar. Transactions in currencies other than the functional currency are translated at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities, including amounts due from or to subsidiaries, denominated in currencies other than the functional currency (being US dollars) are retranslated at year-end exchange rates. Gains and losses on retranslation are included in net profit or loss for the year.

B) Revenue recognition

Dividends proposed by subsidiaries are recognised as income by the Company when they represent a present obligation of the subsidiaries, in the period in which they are formally approved for payment.

Interest income is accrued on a time basis, by reference to the principal outstanding and the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

C) Dividends payable

Dividends proposed are recognised when they represent a present obligation, in the period in which they are formally approved for payment. Accordingly, an interim dividend is recognised when paid and a final dividend is recognised when approved by shareholders.

D) Investments in subsidiaries

Investments in subsidiaries represent equity holdings in subsidiaries and long-term amounts owed by subsidiaries. Such investments are valued at cost less any impairment provisions. Investments relating to equity holdings in subsidiaries are reviewed for impairment if events or changes in circumstances indicate that the carrying amount may not be recoverable; the recoverable amount of the investment is the higher of fair value less costs of disposal and value in use. Investments relating to long-term amounts owed by subsidiaries are reviewed to assess if a material expected credit loss provision is required in respect of these balances.

E) Liquid investments and cash and cash equivalents

Liquid investments represent highly liquid current asset investments such as term deposits and managed funds invested in high quality fixed income instruments. They do not meet the IAS 7 definition of cash and cash equivalents, normally because even if readily accessible, the underlying investments have an average maturity profile greater than 90 days from the date first entered into, or because they are held primarily for investment purposes rather than meeting short-term cash commitments. Cash and cash equivalents comprise cash on hand, deposits held on call with banks, highly liquid investments that are readily convertible into known amounts of cash, and which are subject to insignificant risk of changes in value and are held for the purpose of meeting short-term cash commitments rather than for investment or other purposes. The cash balance is presented net of bank overdrafts which are repayable on demand. Cash and cash equivalents have a maturity period of 90 days or less.

F) Borrowings

Interest-bearing loans and bank overdrafts are initially recorded at the proceeds received, net of direct issue costs. They are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis. The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis using the effective interest rate method.

G) Borrowings – preference shares

The Sterling-denominated preference shares issued by the Company carry a fixed rate of return without the right to participate in any surplus. They are accordingly classified as borrowings and translated into US dollars at year-end rates of exchange. Preference share dividends are included within finance costs.

H) Equity instruments – ordinary share capital and share premium

Equity instruments issued are recorded at the proceeds received, net of direct issue costs. Equity instruments of the Company comprise its Sterling-denominated issued ordinary share capital and related share premium.

The presentational and the functional currency of the Company is US dollars, and ordinary share capital and share premium are translated into US dollars at historical rates of exchange based on dates of issue.

C) Significant accounting estimates and judgements

We do not consider there to be critical accounting judgements or key sources of estimation uncertainty which could have a significant risk of causing a material adjustment to the carrying amounts of the Company's assets and liabilities within the next financial year. We have set out below the most significant judgements and estimates applied in the preparation of the Company's balance sheet. The most significant accounting judgement is whether there are impairment indicators in respect of the carrying value of the Company's investments in subsidiaries. The most significant accounting estimate is whether a credit loss provision is required in respect of any of the Company's receivable balances. Over 99% of the receivable balances relate to intercompany balances, primarily with Group holding companies which hold the Group's investments in the operating companies. There is not considered to be any significant risk of a relevant overstatement of these carrying values. In assessing this, the Group has considered the overall market capitalisation of the Group, which was $17.8 billion at 31 December 2021, the cash and other assets held by the relevant Group companies and the level of earnings generated by the Group's operations.

D) Employee Benefit Expense

A) Average number of employees

The average monthly number of employees was 4 (2020 – 4), engaged in management and administrative activities.

B) Aggregate remuneration

The aggregate remuneration of the employees mentioned above was as follows:

	2021 $m	2020 $m
Wages and salaries	**2.3**	1.8
Social security costs	**0.3**	0.2
Other pension costs	**0.1**	0.1
	2.7	2.1

The above employee figures exclude Directors who receive Directors' fees from Antofagasta plc. Details of fees payable to Directors are set out in the Remuneration Report.

E) Subsidiaries

A) Investment in subsidiaries

	2021 $m	2020 $m
Shares in subsidiaries at cost	**60.6**	60.6
Amounts owed by subsidiaries due after more than one year	**468.5**	478.0
	529.1	538.6

	Shares $m	Loans $m	Total $m
1 January 2021	60.6	478.0	538.6
31 December 2021	**60.6**	**468.5**	**529.1**

The above amount of $468.5 million (31 December 2020 – $478.0 million) in respect of amounts owed by subsidiaries due after more than one year relates to long-term funding balances for which the Company does not expect to demand repayment in the foreseeable future and which form an integral part of the Company's long-term investment in those subsidiary companies.

B) Trade and other receivables – amounts owed by subsidiaries due after one year

At 31 December 2021, an amount of nil (31 December 2020 – $485.0 million) was owed to the Company by an indirect subsidiary, pursuant to a 10-year loan agreement. There have been no impairments recognised in respect of subsidiary receivables as at 31 December 2021.

C) Trade and other receivables – amounts owed by subsidiaries due within one year

At 31 December 2021, amounts owed by subsidiaries due within one year were $54.5 million (31 December 2020 – $568.4 million). These balances principally relate to inter-company dividends declared but not yet paid to the Company by its immediate subsidiary companies. There have been no impairments recognised in respect of subsidiary receivables as at 31 December 2021.

F) Borrowings – preference shares

The authorised, issued and fully paid preference share capital of the Company comprised 2,000,000 5% cumulative preference shares of £1 each at both 31 December 2021 and 31 December 2020. As explained in Note 23C, the preference shares are recorded in the balance sheet in US dollars at period-end rates of exchange.

The preference shares are non-redeemable and are entitled to a fixed 5% cumulative dividend, payable in equal instalments in June and December of each year. On a winding-up, the preference shares are entitled to repayment and any arrears of dividend in priority to ordinary shareholders, but are not entitled to participate further in any surplus. Each preference share carries 100 votes (see Note 23A (xv)) at any general meeting.

Report on the audit of the financial statements

Opinion

In our opinion:

- Antofagasta plc's Group financial statements and Parent Company financial statements (the "financial statements") give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 December 2020 and of the Group's profit and the Group's cash flows for the year then ended;
- the Group financial statements have been properly prepared in accordance with international accounting standards in conformity with the requirements of the Companies Act 2006;
- the Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law); and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements, included within the Annual Report and Financial Statements 2020 (the "Annual Report"), which comprise: the consolidated and Parent Company balance sheets as at 31 December 2020; the consolidated income statement, the consolidated statement of comprehensive income, the consolidated cash flow statement, and the consolidated and Parent Company statements of changes in equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Our opinion is consistent with our reporting to the Audit and Risk Committee.

Separate opinion in relation to international financial reporting standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union

As explained in note 1 to the Group financial statements, the Group, in addition to applying international accounting standards in conformity with the requirements of the Companies Act 2006, has also applied international financial reporting standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union.

In our opinion, the Group financial statements have been properly prepared in accordance with international financial reporting standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, as applicable to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, we declare that non-audit services prohibited by the FRC's Ethical Standard were not provided to the Group.

Other than those disclosed in note 8 to the financial statements, we have provided no non-audit services to the Group in the period under audit.

Our audit approach

Context

The most significant impact on the audit for the year ended 31 December 2020 was the COVID-19 pandemic. As a result of COVID-19, Chile and the United Kingdom were both placed under government lockdowns for large parts of our 2020 audit cycle, which impacted the way we conducted our work, with more procedures being performed remotely, including the Group team's direction and oversight of our component teams. The impacts of the pandemic, both from a financial reporting perspective and as it related to delivering the audit largely remotely, were continuously re-evaluated throughout the year, including the impact of the pandemic on our risk assessment.

Overview

Audit scope

- We identified two components (2019: two) as individually financially significant components, which required an audit of their complete financial information due to their financial significance to the Group, and a further three components (2019: three) where we concluded that a full scope audit of the component financial information was warranted.
- We also determined that specified procedures were necessary in respect of certain balances within the corporate segment and transport division to ensure that we had sufficient coverage from our audit work over each line of the Group's financial statements.
- Taken together, the components at which audit work was performed accounted for 97% of Group revenue.

Key audit matters

- Assessment of indicators of impairment for the Antucoya and Centinela cash generating units (Group)
- COVID-19 (Group and Parent Company)

Materiality

- Overall Group materiality: $64 million (2019: $70 million) based on approximately 5% of three year average profit before tax adjusted for one-off items.
- Overall Parent Company materiality: $22 million (2019: $13 million) based on 1% of total assets.
- Performance materiality: $48 million (Group) and $16.5 million (Parent Company).

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements.

Capability of the audit in detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined in the Auditors' responsibilities for the audit of the financial statements section, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud, is detailed below.

Based on our understanding of the Group and industry, we identified that the principal risks of non-compliance with laws and regulations related to breaches of safety and environmental regulations and unethical and prohibited business practices, and we considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the preparation of the financial statements such as the Companies Act 2006. We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to the posting of inappropriate journal entries to increase revenue or reduce expenditure, and management bias in accounting estimates. The Group engagement team shared this risk assessment with the component auditors so that they could include appropriate audit procedures in response to such risks in their work. Audit procedures performed by the Group engagement team and/or component auditors included:

- Inquiries with management, including the Group's Vice President of Legal and the Head of Internal Audit, regarding their consideration of known or suspected instances of non-compliance with laws and regulation, fraud, and breaches of applicable environmental regulations;
- Obtaining legal letters from the Group's external legal advisers in respect of litigation and claims and other such matters, where considered necessary;
- Evaluation of management's controls designed to prevent and detect irregularities, in particular their anti-bribery controls;
- Challenging assumptions and judgements made by management in respect of critical accounting judgements and significant accounting estimates, in particular in relation to impairment indicator assessments at Antucoya and Centinela (see related key audit matter below); and
- Identifying and testing journal entries, in particular any journal entries posted with certain unusual account combinations.

There are inherent limitations in the audit procedures described above. We are less likely to become aware of instances of non-compliance with laws and regulations that are not closely related to events and transactions reflected in the financial statements. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

This is not a complete list of all risks identified by our audit.

COVID-19 is a new key audit matter this year. Provisions for decommissioning and restoration, which was a key audit matter last year, is no longer included because of the reduced audit risk given the absence of both significant cost estimate updates and also any mandatory reviews by the Chilean regulator of the cost estimate in the current year. Otherwise, the key audit matters below are consistent with last year.

Key audit matter	How our audit addressed the key audit matter
Assessment of indicators of impairment for the Antucoya and Centinela cash generating units (Group) In accordance with IAS 36 'Impairment of assets', the Directors are required to perform an impairment assessment of long-lived assets at any time an indicator of impairment exists. The Directors considered various external and internal factors, as set out in IAS 36, in assessing whether an impairment indicator existed as at 31 December 2020, such as short- and long-term forecast copper prices, the operational performance of these mines and indicative estimates of movements in value during the year based on the latest Life of Mine plans. The Directors concluded that no impairment indicators existed as at 31 December 2020 in respect of either Antucoya or Centinela and, therefore, no detailed impairment tests were performed. This assessment required judgement on the part of the Directors in determining whether an impairment trigger existed and was, therefore, considered a key audit matter. There is a heightened level of potential impairment risk at Antucoya, given its relatively high cost base, and at Centinela given its sensitivity to changes in the long-term copper price. Refer to note 5 to the financial statements and the Audit and Risk Committee's views set out on page 125.	We assessed management's conclusion that there were no impairment indicators as at 31 December 2020. Our procedures included evaluating management's assessment of impairment indicators, including evaluating the completeness of the assessment by reference to both internal and external factors, including but not limited to the impact of COVID-19, operational performance in the year, macro-economic factors including forecast copper prices, foreign currency exchange rates and market interest rates, climate change, and expected future production profiles and capital expenditure as included in the latest Life of Mine plan for each operation. In addition, we evaluated management's quantitative impairment indicator assessments, and the process by which they were drawn up, including verifying the mathematical accuracy of the cash flow models and agreeing future capital and operating expenditure to the latest Board approved budgets and the latest approved Life of Mine plans. We assessed the reasonableness of the expected capital and operating expenses in light of their historical levels and recent operational performance, and considered the competence and objectivity of management's internal technical experts who prepared the Life of Mine plans. We evaluated the appropriateness of key market related assumptions in the indicative valuation models, including the copper prices, discount rates and foreign currency exchange rates, with the support of our valuation experts. We performed sensitivity analysis around the key assumptions within the cash flow forecasts, using both lower long-term copper prices and a stronger Chilean peso. In light of the above, we assessed the appropriateness of the related disclosures in note 5 to the financial statements, including the sensitivities provided. Overall, we identified no material issues in our work.
COVID-19 (Group and Parent Company) Management has undertaken an assessment of the impact of COVID-19 on the Group and Parent Company financial statements focusing on the potential impact of the pandemic on the Group's accounting estimates and judgements. The areas where management has given greatest attention to the accounting and disclosure implications of COVID-19 are as follows: • The Group's going concern assessment (note 1 to the financial statements); • Impairment considerations, including asset sensitivities (note 5 to the financial statements); • Net realisable value of inventories (note 20 to the financial statements; and • Recoverability of trade receivables (note 21 to the financial statements). We focused on the impact of COVID-19 on the Group and Parent Company financial statements as its impact may be significant and pervasive, both in terms of the impact on a range of the Group's accounting judgements and estimates, including but not limited to impairment, and in terms of the related disclosures in the Annual Report. Refer also to the Audit and Risk Committee's views set out on page 125. In addition, restrictions on travel and office closures limited our ability to access mine sites and resulted in a large proportion of the audit being delivered remotely.	We issued specific audit instructions to component teams, requesting additional risk assessments to be performed on the impact of COVID-19 locally, and directed component auditors to perform further procedures to address the additional areas that may be subject to significant estimates or judgements to ensure the appropriateness and completeness of our audit risk assessment and planned audit response. We assessed our ability to execute the audit when operating under lockdown and the related international travel restrictions. We implemented alternative communication and review protocols with management and with our component auditors. We also held a planning meeting involving management and our component auditors, and agreed ways to facilitate a remote audit, including determining how we could ensure appropriate access to relevant documentation that we needed for our audit. We increased the frequency and extent of our direction and oversight of our component audit teams, using more frequent video conferencing and more extensive remote working paper reviews, to satisfy ourselves as to the appropriateness of audit work performed by our component teams based in Santiago. With the support of our component teams where necessary, we evaluated management's accounting estimates in light of COVID-19. We considered its impact on impairment and we have reported a separate key audit matter in respect of the assessment of indicators of impairment at Antucoya and Centinela. Our procedures and conclusions in respect of going concern are set out separately within the Conclusions relating to going concern section of this report. We assessed management's disclosures in the Annual Report in relation to the impact of COVID-19, considering whether the disclosures were consistent with our underlying audit procedures both at the Group and at the component level. Overall, we identified no material issues from our work.

How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the Group and the Parent Company, the accounting processes and controls, and the industry in which they operate.

The core mining business comprises four mining operations: Los Pelambres; Centinela; Antucoya and Zaldívar, a joint venture with Barrick Gold Corporation operated by the Group. These mines produce copper cathodes, copper concentrates and significant volumes of by-products.

In addition to mining, the Group has a transport division that provides rail and road cargo services in northern Chile, predominantly to mining customers, including to the Group's own operations.

All of the above operations are located in Chile. In addition, the Group has corporate head offices located in both Santiago, Chile (Antofagasta Minerals S.A.) and London, UK (Antofagasta plc). The Group also has exploration projects in various countries.

In establishing the overall approach to the Group audit, we determined the type of work that needed to be performed at each of the four mine sites and the corporate offices in Chile, by us, as the Group engagement team and by component auditors from PwC Chile operating under our instruction. Los Pelambres and Centinela were considered to be financially significant components of the Group, due to their contribution towards Group profit before tax, and so required audits of their complete financial information. Antucoya and Zaldívar, as well as the Parent Company Antofagasta plc, were also subject to an audit of their complete financial information. We also requested that component auditors perform specified procedures over the corporate offices in Chile, and specific line items of other entities within the Group (including the transport division) to ensure that we had sufficient coverage from our audit work over each line of the Group's financial statements. The Group engagement team also performed specified procedures in respect of the recoverability of the intangible asset associated with the Twin Metals' mining licences, held within the corporate segment. For all other components, the Group team performed analytical review procedures.

Where work was performed by component auditors, we determined the level of involvement we needed to have in the audit work to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the Group financial statements as a whole.

A UK staff member was seconded to PwC Chile to be an integral part of the team for part of the year. The Group team also reviewed the component auditor working papers and reviewed other communications dealing with significant accounting and auditing issues.

Materiality

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Financial statements – Group	Financial statements – Parent Company
Overall materiality	$64 million (2019: $70 million)	$22 million (2019: $13 million)
How we determined it	Approximately 5% of three year average profit before tax adjusted for one-off items	1% of total assets
Rationale for benchmark applied	For overall Group materiality, we chose to use an underlying earnings measure as the benchmark because an underlying measure removes the impact of material items that do not recur from year to year or otherwise significantly affect the underlying trend of performance from continuing operations. The adoption of a multi-year average benchmark for materiality responds to longer term trends in commodity markets and reduces volatility in the measure year-on-year. Using our professional judgement, we determined materiality for this year at $64 million, which equates to approximately 4.3% of the current year's profit before tax adjusted for one-off items.	For the Parent Company materiality, we determined our materiality based on total assets, which is more applicable than a performance-related measure as the company is an investment holding company for the Group.

For each component in the scope of our Group audit, we allocated a materiality that is less than our overall Group materiality. The range of materiality allocated across components was between $6 million and $45 million.

We use performance materiality to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds overall materiality. Specifically, we use performance materiality in determining the scope of our audit and the nature and extent of our testing of account balances, classes of transactions and disclosures, for example in determining sample sizes. Our performance materiality was 75% of overall materiality, amounting to $48 million for the Group financial statements and $16.5 million for the Parent Company financial statements.

In determining the performance materiality, we considered a number of factors – the history of misstatements, risk assessment and aggregation risk and the effectiveness of controls – and concluded that an amount at the upper end of our normal range was appropriate.

We agreed with the Audit and Risk Committee that we would report to them misstatements identified during our audit above $3.2 million (Group audit) (2019: $3.5 million) and $1.1 million (Parent Company audit) (2019: $650,000) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Conclusions relating to going concern

Our evaluation of the Directors' assessment of the Group's and the Parent Company's ability to continue to adopt the going concern basis of accounting included:

- Obtaining and examining management's base case forecasts and downside scenarios, checking that the forecasts have been subject to board review and, in the case of the base case, approval;
- Considering the historical reliability of management forecasting by comparing budgeted results with actual performance;
- Assessing the future cash flows included in the base case to ensure that these were consistent with our understanding from work performed over other key accounting estimates in the financial statements such as the impairment indicator assessment;
- Performing our own sensitivity analysis to understand the impact of changes in cash flows and net debt on the resources available to the Group;
- Assessing the covenants applicable to the Group's borrowings and considering whether the forecasts supported ongoing compliance with the covenants; and
- Reading management's paper to the Audit and Risk Committee in respect of going concern, and agreeing the forecasts set out in this paper to the underlying base case cash flow model.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Group's and the Parent Company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

In auditing the financial statements, we have concluded that the Directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

However, because not all future events or conditions can be predicted, this conclusion is not a guarantee as to the Group's and the Parent Company's ability to continue as a going concern.

In relation to the Parent Company's reporting on how they have applied the UK Corporate Governance Code, we have nothing material to add or draw attention to in relation to the Directors' statement in the financial statements about whether the Directors considered it appropriate to adopt the going concern basis of accounting.

Our responsibilities and the responsibilities of the Directors with respect to going concern are described in the relevant sections of this report.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The Directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic report and Directors' report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on our work undertaken in the course of the audit, the Companies Act 2006 requires us also to report certain opinions and matters as described below.

Strategic Report and Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic report and Directors' report for the year ended 31 December 2020 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements.

In light of the knowledge and understanding of the Group and Parent Company and their environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic report and Directors' report.

Directors' Remuneration

In our opinion, the part of the Directors' and CEO remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006.

Corporate governance statement

The Listing Rules require us to review the Directors' statements in relation to going concern, longer-term viability and that part of the corporate governance statement relating to the Parent Company's compliance with the provisions of the UK Corporate Governance Code specified for our review. Our additional responsibilities with respect to the corporate governance statement as other information are described in the Reporting on other information section of this report.

Based on the work undertaken as part of our audit, we have concluded that each of the following elements of the corporate governance statement is materially consistent with the financial statements and our knowledge obtained during the audit, and we have nothing material to add or draw attention to in relation to:

- The Directors' confirmation that they have carried out a robust assessment of the emerging and principal risks;
- The disclosures in the Annual Report that describe those principal risks, what procedures are in place to identify emerging risks and an explanation of how these are being managed or mitigated;
- The Directors' statement in the financial statements about whether they considered it appropriate to adopt the going concern basis of accounting in preparing them, and their identification of any material uncertainties to the Group's and Parent Company's ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements;
- The Directors' explanation as to their assessment of the Group's and Parent Company's prospects, the period this assessment covers and why the period is appropriate; and
- The Directors' statement as to whether they have a reasonable expectation that the Parent Company will be able to continue in operation and meet its liabilities as they fall due over the period of its assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

Our review of the Directors' statement regarding the longer-term viability of the Group was substantially less in scope than an audit and only consisted of making inquiries and considering the Directors' process supporting their statement; checking that the statement is in alignment with the relevant provisions of the UK Corporate Governance Code; and considering whether the statement is consistent with the financial statements and our knowledge and understanding of the Group and Parent Company and their environment obtained in the course of the audit.

In addition, based on the work undertaken as part of our audit, we have concluded that each of the following elements of the corporate governance statement is materially consistent with the financial statements and our knowledge obtained during the audit:

- The Directors' statement that they consider the Annual Report, taken as a whole, is fair, balanced and understandable, and provides the information necessary for the members to assess the Group's and Parent Company's position, performance, business model and strategy;
- The section of the Annual Report that describes the review of effectiveness of risk management and internal control systems; and
- The section of the Annual Report describing the work of the Audit and Risk Committee.

We have nothing to report in respect of our responsibility to report when the Directors' statement relating to the Parent Company's compliance with the Code does not properly disclose a departure from a relevant provision of the Code specified under the Listing Rules for review by the auditors.

Responsibilities for the financial statements and the audit

Responsibilities of the Directors for the financial statements

As explained more fully in the Statement of Directors' responsibilities, the Directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The Directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Auditors' responsibilities for the audit of the financial statements

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

Our audit testing might include testing complete populations of certain transactions and balances, possibly using data auditing techniques. However, it typically involves selecting a limited number of items for testing, rather than testing complete populations. We will often seek to target particular items for testing based on their size or risk characteristics. In other cases, we will use audit sampling to enable us to draw a conclusion about the population from which the sample is selected.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report

This report, including the opinions, has been prepared for and only for the Parent Company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Companies Act 2006 exception reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not obtained all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- certain disclosures of Directors' remuneration specified by law are not made; or
- the Parent Company financial statements and the part of the Directors' and CEO remuneration report to be audited are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

Appointment

Following the recommendation of the Audit and Risk Committee, we were appointed by the members on 20 May 2015 to audit the financial statements for the year ended 31 December 2015 and subsequent financial periods. The period of total uninterrupted engagement is 6 years, covering the years ended 31 December 2015 to 31 December 2020.

Simon Morley (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
London

15 March 2021

Consolidated income statement

For the year ended 31 December 2020

	Notes	Excluding exceptional items 2020 $m	Exceptional Items 2020 $m	2020 $m	2019 $m
Group revenue	6,7	**5,129.3**	**–**	**5,129.3**	4,964.5
Total operating costs		**(3,537.1)**	**–**	**(3,537.1)**	(3,588.7)
Operating profit from subsidiaries	6,8	**1,592.2**	**–**	**1,592.2**	1,375.8
Net share of results from associates and joint ventures	6,18	**5.1**	**–**	**5.1**	24.4
Impairment of investment in associate	3	**–**	**(80.8)**	**(80.8)**	–
Total profit from operations, associates and joint ventures	8	**1,597.3**	**(80.8)**	**1,516.5**	1,400.2
Investment income		**18.9**	**–**	**18.9**	47.1
Interest expense		**(77.1)**	**–**	**(77.1)**	(111.1)
Other finance items		**(45.2)**	**–**	**(45.2)**	13.0
Net finance expense	10	**(103.4)**	**–**	**(103.4)**	(51.0)
Profit before tax	6	**1,493.9**	**(80.8)**	**1,413.1**	1,349.2
Income tax expense	11	**(546.2)**	**19.7**	**(526.5)**	(506.1)
Profit from continuing operations	6	**947.7**	**(61.1)**	**886.6**	843.1
Profit from discontinued operations	12	**7.3**	**–**	**7.3**	–
Profit for the year		**955.0**	**(61.1)**	**893.9**	843.1
Attributable to:					
Non-controlling interests	31	**408.4**	**(20.9)**	**387.5**	341.7
Profit attributable to the owners of the parent	13	**546.6**	**(40.2)**	**506.4**	501.4

					US cents
Basic earnings per share	13				
From continuing operations		**54.7**	**(4.1)**	**50.6**	50.9
From discontinued operations		**0.7**	**–**	**0.7**	–
Total continuing and discontinued operations		**55.4**	**(4.1)**	**51.3**	50.9

Consolidated income statement

For the year ended 31 December 2020

	Note	2020 $m	2019 $m
Profit for the year	6	**893.9**	843.1
Items that may be or were subsequently reclassified to profit or loss:			
(Losses)/gains on cash flow hedges – time value		**(19.2)**	0.4
Losses on cash flow hedges – intrinsic value	25	**(12.9)**	(7.7)
Losses/(gains) in fair value of cash flow hedges transferred to the income statement	25	**3.4**	(0.8)
Deferred tax effects arising on cash flow hedges deferred in reserves		**2.4**	2.0
Currency translation adjustment		**0.9**	–
Total items that may be or were subsequently reclassified to profit or loss		**(25.4)**	(6.1)
Items that will not be subsequently reclassified to profit or loss:			
Actuarial gains/(losses) on defined benefit plans	27	**9.8**	(4.7)
Tax on items recognised through Other Comprehensive income/(expense) which will not be reclassified to profit or loss in the future		**(2.6)**	0.9
Gains in fair value of equity investments	19	**5.5**	0.3
Share of other comprehensive losses of equity accounted units, net of tax		**–**	(0.3)
Total items that will not be subsequently reclassified to profit or loss		**12.7**	(3.8)
Total other comprehensive expense		**(12.7)**	(9.9)
Total comprehensive income for the year		**881.2**	833.2
Attributable to:			
Non-controlling interests	31	**383.2**	338.6
Equity holders of the Company		**498.0**	494.6

	2020 $m	2019 $m
Total comprehensive income for the year – continuing operations	**873.9**	833.2
Total comprehensive income for the year – discontinued operations	**7.3**	–
	881.2	833.2

Consolidated Statement of Changes in Equity

For the year ended 31 December 2020

	Share capital $m	Share premium $m	Other reserves (Note 30) $m	Retained earnings (Note 30) $m	Equity attributable to equity owners of the parent $m	Non-controlling interests $m	Total equity $m
At 1 January 2019	89.8	199.2	(14.5)	7,084.9	**7,359.4**	2,078.7	**9,438.1**
Profit for the year	–	–	–	501.4	**501.4**	341.7	**843.1**
Other comprehensive expense for the year	–	–	(3.6)	(3.2)	**(6.8)**	(3.1)	**(9.9)**
Dividends	–	–	–	(470.3)	**(470.3)**	(400.0)	**(870.3)**
At 31 December 2019	**89.8**	**199.2**	**(18.1)**	**7,112.8**	**7,383.7**	**2,017.3**	**9,401.0**
Capital increases from non-controlling interest (Note 23) [1]	–	–	–	–	**–**	210.0	**210.0**
Profit for the year	–	–	–	506.4	**506.4**	387.5	**893.9**
Other comprehensive expense for the year	–	–	(12.5)	4.1	**(8.4)**	(4.3)	**(12.7)**
Dividends	–	–	–	(131.1)	**(131.1)**	(280.0)	**(411.1)**
At 31 December 2020	**89.8**	**199.2**	**(30.6)**	**7,492.2**	**7,750.6**	**2,330.5**	**10,081.1**

1. A capital contribution of $210 million was received from Marubeni, the minority partner at Antucoya, in order to replace part of Antucoya's subordinated debt financing with equity (see Notes 23 and 31).

Consolidated Balance sheet

As at 31 December 2020

	Note	2020 $m	2019 $m
Non-current assets			
Intangible assets	15	**150.1**	150.1
Property, plant and equipment	16	**9,851.9**	9,556.7
Other non-current assets		**2.6**	2.1
Inventories	20	**278.1**	208.0
Investment in associates and joint ventures	18	**914.6**	1,024.8
Trade and other receivables	21	**55.9**	48.2
Derivative financial instruments	25	**0.3**	1.7
Equity investments	19	**11.1**	5.1
Deferred tax assets	28	**6.4**	8.2
		11,271.0	11,004.9
Current assets			
Inventories	20	**592.7**	586.4
Trade and other receivables	21	**1,016.9**	682.4
Current tax assets		**49.8**	140.2
Derivative financial instruments	25	**1.1**	3.1
Liquid investments	22	**2,426.0**	1,539.7
Cash and cash equivalents	22	**1,246.8**	653.7
		5,333.3	3,605.5
Total assets		**16,604.3**	14,610.4
Current liabilities			
Short-term borrowings	23	**(603.4)**	(723.9)
Derivative financial instruments	25	**(37.4)**	(9.6)
Trade and other payables	24	**(808.8)**	(750.6)
Short-term decommissioning and restoration provisions	29	**(22.2)**	(22.0)
Current tax liabilities		**(153.9)**	(42.8)
		(1,625.7)	(1,548.9)
Non-current liabilities			
Medium and long-term borrowings	23	**(3,151.4)**	(2,032.9)
Derivative financial instruments	25	**–**	(2.5)
Trade and other payables	24	**(11.0)**	(8.2)
Liabilities in relation to joint venture	18	**(1.1)**	(1.8)
Post-employment benefit obligations	27	**(123.2)**	(118.7)
Decommissioning and restoration provisions	29	**(498.0)**	(391.2)
Deferred tax liabilities	28	**(1,112.8)**	(1,105.2)
		(4,897.5)	(3,660.5)
Total liabilities		**(6,523.2)**	(5,209.4)
Net assets		**10,081.1**	9,401.0
Equity			
Share capital	30	**89.8**	89.8
Share premium		**199.2**	199.2
Other reserves	30	**(30.6)**	(18.1)
Retained earnings	30	**7,492.2**	7,112.8
Equity attributable to equity owners of the parent		**7,750.6**	7,383.7
Non-controlling interests	31	**2,330.5**	2,017.3
Total equity		**10,081.1**	9,401.0

The financial statements on pages 165-211 were approved by the Board of Directors on 15 March 2021 and signed on its behalf by

Jean-Paul Luksic
Chairman

Ollie Oliveira
Senior Independent Director

Consolidated Cash Flow Statement

For the year ended 31 December 2020

	Notes	2020 $m	2019 $m
Cash flow from continuing operations	32	**2,431.1**	2,570.7
Interest paid		**(52.7)**	(76.3)
Income tax paid		**(319.7)**	(403.6)
Net cash from operating activities		**2,058.7**	2,090.8
Investing activities			
Capital contributions to joint ventures	18	**(7.2)**	(1.8)
Dividends from associates	18	**–**	58.0
Acquisition of mining properties		**(1.5)**	(5.2)
Proceeds from sale of property, plant and equipment		**0.8**	1.9
Purchases of property, plant and equipment		**(1,305.9)**	(1,073.6)
Net increase in liquid investments	22	**(886.3)**	(676.5)
Interest received		**12.6**	41.0
Net cash used in investing activities		**(2,187.5)**	(1,656.2)
Financing activities			
Dividends paid to equity holders of the Company	14	**(131.1)**	(470.3)
Dividends paid to preference shareholders of the Company	14	**(0.1)**	(0.1)
Dividends paid to non-controlling interests	31	**(280.0)**	(400.0)
Capital increase from non-controlling interest [1]		**210.0**	–
Proceeds from issue of new borrowings	32	**2,398.6**	741.4
Repayments of borrowings	32	**(1,393.8)**	(588.1)
Principal elements of lease payments	32	**(86.5)**	(92.5)
Net cash from/(used in) financing activities		**717.1**	(809.6)
Net increase/(decrease) in cash and cash equivalents		**588.3**	(375.0)
Cash and cash equivalents at beginning of the year		**653.7**	1,034.4
Net increase/(decrease) in cash and cash equivalents	32	**588.3**	(375.0)
Effect of foreign exchange rate changes	32	**4.8**	(5.7)
Cash and cash equivalents at end of the year	22,32	**1,246.8**	653.7

1. A capital contribution of $210 million was received from Marubeni, the minority partner at Antucoya, in order to replace part of Antucoya's subordinated debt financing with equity (see Notes 23 and 31).

1 Basis of preparation

The financial statements have been prepared in accordance with both international accounting standards in conformity with the requirements of the Companies Act 2006 and international financial reporting standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union.The financial statements have been prepared on the going concern basis.

Going concern

The Group's business activities, together with those factors likely to affect its future performance, are set out in the Strategic Report, and in particular within the Operating Review. Details of the cash flows of the Group during the period, along with its financial position at the period-end, are set out in the Financial Review. The financial statements include details of the Group's cash, cash equivalents and liquid investment balances in Note 22, and details of borrowings are set out in Note 23.

When assessing the going concern status of the Group the Directors have considered in particular its financial position, including its significant balance of cash, cash equivalents and liquid investments and the borrowing facilities in place, including their terms and remaining durations. The Group had a strong financial position as at 31 December 2020, with combined cash, cash equivalents and liquid investments of $3,672.8 million. Total borrowings were $3,754.8 million, resulting in a net debt position of just $82.0 million. Of the total borrowings, only 16% is repayable within one year, and 14% repayable between one and two years. 43% of the borrowings are repayable after more than 5 years.

When assessing the prospects of the Group, the Directors have considered the Group's copper price forecasts, the Group's expected production levels, operating cost profile, and capital expenditure. This analysis has focused on the existing asset base of the Group, without factoring in potential development projects, which is considered appropriate for an assessment of the Group's ability to manage the impact of a depressed economic environment. The analysis has only included the draw-down of existing committed borrowing facilities, and has not assumed that any new borrowing facilities will be put in place. The Directors have assessed the principal risks which could impact the prospects of the Group over the going concern period and consider the most relevant to be risks to the copper price outlook. Robust down-side sensitivity analyses have been performed, assessing the impact of:

- A significant deterioration in the copper price outlook over the going concern period;
- A shut-down of the Group's operations for several months as the result of COVID-19 related issues; and
- The occurrence of several of the Group's most significant potential risks within a single year, such as temporary shut-downs or operational disruption due to issues such as labour strikes or water availability.

These stress-tests all indicated results which could be managed in the normal course of business. Based on their assessment of the Group's prospects and viability, the Directors have formed a judgement, at the time of approving the financial statements, that there are no material uncertainties that cast doubt on the Group's going concern status and that there is a reasonable expectation that the Group has adequate resources to continue in operational existence for at least twelve months from the date of approval of the financial statements. The Directors therefore consider it appropriate to adopt the going concern basis of accounting in preparing its financial statements.

Company structure

Antofagasta plc is a company limited by shares, incorporated and domiciled in the United Kingdom at Cleveland House, 33 King Street, London SW1Y 6RJ.

The immediate parent of the Group is Metalinvest Establishment, which is controlled by E. Abaroa Foundation, in which members of the Luksic family are interested.

The nature of the Group entities' operations is mainly related to mining and exploration activities and the transport of rail and road cargo.

A) Adoption of new accounting standards

The following accounting standards, amendments and interpretations became effective in the current reporting period:

- Amendments to References to the Conceptual Framework in IFRS Standards
- Definition of a Business (Amendments to IFRS 3)
- Definition of Material (Amendments to IAS 1 and IAS 8)
- Interest Rate Benchmark Reform (Amendments to IFRS 9, IAS 39 and IFRS 7)
- Covid-19-Related Rent Concessions (Amendment to IFRS 16)

The application of these standards and interpretations effective for the first time in the current year has had no significant impact on the amounts reported in these financial statements.

B) Accounting standards issued but not yet effective

At the date of authorisation of these financial statements, the following standards and interpretations, which have not been applied in these financial statements, were in issue but not yet effective:

- IFRS 17, Insurance Contracts
- Classification of Liabilities as Current or Non-Current (Amendments to IAS 1)
- Reference to the Conceptual Framework (Amendments to IFRS 3)
- Property, Plant and Equipment – Proceeds before Intended Use (Amendments to IAS 16)
- Onerous Contract – Cost of Fulfilling a Contract (Amendments to IAS 37)
- Annual Improvements to IFRS Standards 2018-2020 (Amendments to IFRS 1, IFRS 9, IFRS 16 and IAS 41)

The item which is expected to have most relevance to the Group is the amendment to IAS 16 Property, Plant and Equipment – Proceeds before intended use. Currently the Group deducts amounts received from the sale of products during the initial ramp-up of new projects, before commercial production is achieved, from the capital cost of the project. Under the amendment to IAS 16 such amounts will instead be recognised as revenue in the income statement along with a corresponding allocation of related operating expenses, which is likely to result in increased revenue and operating expenses and a higher initial capitalised amount.

2 Principal accounting policies

A) Accounting convention

These financial statements have been prepared under the historical cost convention as modified by the use of fair values to measure certain financial instruments, principally provisionally priced sales as explained in Note 2(F) and financial derivative contracts as explained in Note 2(W).

B) Basis of consolidation

The financial statements comprise the consolidated financial statements of Antofagasta plc ("the Company") and its subsidiaries (collectively "the Group").

Subsidiaries – A subsidiary is an entity over which the Group has control, which is the case when the Group is exposed to, 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. The consolidated financial statements include all the assets, liabilities, revenues, expenses and cash flows of the Company and its subsidiaries after eliminating inter-company balances and transactions. For partly-owned subsidiaries, the net assets and profit attributable to non-controlling shareholders are presented as "Non-controlling interests" in the consolidated balance sheet and consolidated income statement.

2 Principal accounting policies continued

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on an acquisition-by-acquisition basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS. Subsequent to acquisition, the carrying amount of non-controlling interests is the amount of those interests at initial recognition plus the non-controlling interests' share of subsequent changes in equity. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Changes in the Group's ownership interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the Company.

When the Group loses control of a subsidiary, a gain or loss is recognised in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests. When assets of the subsidiary are carried at revalued amounts or fair values and the related cumulative gain or loss has been recognised in other comprehensive income and accumulated in equity, the amounts previously recognised in other comprehensive income and accumulated in equity are accounted for as if the Group had directly disposed of the relevant assets (ie reclassified to profit or loss or transferred directly to retained earnings as specified by applicable IFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IFRS 9 Financial Instruments: Recognition and Measurement or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

Acquisitions and disposals are treated as explained in Note 2(G) relating to business combinations and goodwill.

C) Investments in associates

An associate is an entity over which the Group is in a position to exercise significant influence, but not control or joint control, through the power to participate in the financial and operating policy decisions of that entity. The results and assets and liabilities of associates are incorporated in these consolidated financial statements using the equity method of accounting. This requires recording the investment initially at cost to the Group and then, in subsequent periods, adjusting the carrying amount of the investment to reflect the Group's share of the associate's results less any impairment and any other changes to the associate's net assets such as dividends. When the Group loses control of a former subsidiary but retains an investment in associate in that entity the initial carrying value of the investment in associate is recorded at its fair value at that point. When the Group's share of losses of an associate exceeds the Group's interest in that associate the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

D) Joint arrangements

A joint arrangement is an arrangement of which two or more parties have joint control. Joint arrangements are accounted depending on the nature of the arrangement.

i) Joint ventures – are accounted for using the equity method in accordance with IAS 28 Investment in Associates and Joint Ventures as described in Note 18.

ii) Joint operations – are accounted for recognising directly the assets, obligations, revenues and expenses of the joint operator in the joint arrangement. The assets, liabilities, revenues and expenses are accounted for in accordance with the relevant IFRS.

When a Group entity transacts with its joint arrangements, profits and losses resulting from the transactions with the joint arrangements are recognised in the Group's consolidated financial statements only to the extent of interests in the joint arrangements that are not related to the Group.

E) Currency translation

The functional currency for each entity in the Group is determined as the currency of the primary economic environment in which it operates. Transactions in currencies other than the functional currency of the entity are translated at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in currencies other than the functional currency are retranslated at year-end exchange rates. Gains and losses on retranslation are included in net profit or loss for the period within other finance items.

The presentational currency of the Group and the functional currency of the Company is the US dollar. On consolidation, income statement items for entities with a functional currency other than the US dollar are translated into US dollars at average rates of exchange. Balance sheet items are translated at period-end exchange rates. Exchange differences on translation of the net assets of such entities are taken to equity and recorded in a separate currency translation reserve. Cumulative translation differences arising after the transition date to IFRS are recognised as income or as expenses in the income statement in the period in which an operation is disposed of.

On consolidation, exchange gains and losses which arise on balances between Group entities are taken to reserves where that balance is, in substance, part of the net investment in a foreign operation, ie where settlement is neither planned nor likely to occur in the foreseeable future. All other exchange gains and losses on Group balances are dealt with in the income statement.

Fair value adjustments and any goodwill arising on the acquisition of a foreign entity are treated as assets of the foreign entity and translated at the period-end rate.

F) Revenue recognition

Revenue represents the value of goods and services supplied to third parties during the year. Revenue is measured at the fair value of consideration received or receivable, and excludes any applicable sales tax.

Revenue is recognised when the Group satisfies a performance obligation by transferring a promised good or service (ie an asset) to a customer. An asset is transferred when (or as) the customer obtains control of that asset.

For the Group's mining products the customer generally gains control over the material when it has been loaded at the port of loading, and so this is the point of revenue recognition. The Group sells a significant proportion of its products on Cost, Insurance & Freight (CIF) Incoterms, which means that the Group is responsible for shipping the product to a destination port specified by the customer. The shipping service represents a separate performance obligation, and is recognised separately from the sale of the material over time as the shipping service is provided, along with the associated costs. Shipment revenue is recognised at the contracted price as this reflects the standalone selling price.

Revenue from mining activities is recorded at the invoiced amounts with an adjustment for provisional pricing at each reporting date, as explained below. For copper and molybdenum concentrates, which are sold to smelters and roasting plants for further processing, the invoiced amount is the market value of the metal payable by the customer, net of deductions for tolling charges. Revenue includes amounts from the sale of by-products.

Copper and molybdenum concentrate sale agreements and copper cathode sale agreements generally provide for provisional pricing of sales at the time of shipment, with final pricing based on the monthly average London Metal Exchange ("LME") copper price or the monthly average market molybdenum price for specified future periods. This normally ranges from one to four months after delivery to the customer. For sales contracts, which contain provisional pricing mechanisms, the total receivable balance is measured at fair value through profit or loss. Gains and losses from the marking-to market of open sales are recognised through adjustments to other income as part of revenues in the income statement and to trade receivables in the balance sheet. The fair value calculations are based on forward prices at the period end for copper concentrate and cathode sales, and period-end average prices for molybdenum concentrate sales due to the absence of a futures market.

For the Transport division, revenue in respect of its transportation and ancillary services are recognised in line with the performance of those services.

Other Income

Interest income is accrued on a time basis, by reference to the principal outstanding and the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

Dividend income from equity investments, associates and joint ventures is recognised when the shareholders' right to receive payment has been established. For associates and joint ventures, it is recorded as a decrease of the investment.

G) Business combinations and goodwill

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. The results of businesses acquired during the year are brought into the consolidated financial statements from the effective date of acquisition. The identifiable assets, liabilities and contingent liabilities of a business, which can be measured reliably, are recorded at their provisional fair values at the date of acquisition. Provisional fair values are finalised within 12 months of the acquisition date. Acquisition-related costs are expensed as incurred.

When the consideration transferred by the Group in a business combination includes assets or liabilities resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Changes in the fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the "measurement period" (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as "measurement period" adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at subsequent reporting dates in accordance with IFRS 9.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date (ie the date when the Group obtains control) and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances which existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Goodwill arising in a business combination is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net identifiable assets acquired and liabilities assumed. Any goodwill on the acquisition of subsidiaries is separately disclosed, while any goodwill on the acquisition of associates and joint ventures is included within investments in equity accounted entities. Internally generated goodwill is not recognised. Where the fair values of the identifiable net assets acquired exceed the sum of the consideration transferred, the surplus is credited to the profit or loss in the period of acquisition as a bargain purchase gain.

The Group sometimes enters into earn-in arrangements whereby the Group acquires an interest in a project company in exchange for funding exploration and evaluation expenditure up to a specified level of expenditure or a specified stage in the life of the project. Funding is usually conditional on the achievement of key milestones by the partner. Typically there is no consideration transferred or funding liability on the effective date of acquisition of the interest in the project company and no goodwill is recognised on this type of transaction.

The results of businesses sold during the year are included in the consolidated financial statements for the period up to the effective date of disposal. Gains or losses on disposal are calculated as the difference between the sales´ proceeds (net of expenses) and the net assets attributable to the interest which has been sold. Where a disposal represents a separate major line of business or geographical area of operations, the net results attributable to the disposed entity are shown separately in the income statement as a discontinued operation.

H) Exploration and evaluation expenditure

Exploration and evaluation costs, other than those incurred in acquiring exploration licences, are expensed in the year in which they are incurred. When a mining project is considered to be commercially viable (normally when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved) all further directly attributable pre-production expenditure is capitalised. Capitalisation of pre-production expenditure ceases when commercial levels of production are achieved.

Costs incurred in acquiring exploration and mining licences are classified as intangible assets when construction of the related mining operation has not yet commenced. When construction commences the licences are transferred from intangible assets to the mining properties category within property, plant and equipment.

2 Principal accounting policies continued

I) Stripping costs

Pre-stripping and operating stripping costs are incurred in the course of the development and operation of open-pit mining operations.

Pre-stripping costs relate to the removal of waste material as part of the initial development of an open-pit, in order to allow access to the ore body. The capitalised costs are depreciated once production commences on a unit of production basis, in proportion to the volume of ore extracted in the year compared with total proven and probable reserves for that pit at the beginning of the year.

Operating stripping costs relate to the costs of extracting waste material as part of the ongoing mining process. The ongoing mining and development of the Group's open-pit mines is generally performed via a succession of individual phases. The costs of extracting material from an open-pit mine are generally allocated between ore and waste stripping in proportion to the tonnes of material extracted. The waste stripping costs are generally absorbed into inventory and expensed as that inventory is processed and sold. Where the stripping costs relate to a significant stripping campaign which is expected to provide improved access to an identifiable component of the ore body (typically an individual phase within the overall mine plan), the costs of removing waste in order to improve access to that part of the ore body will be capitalised within property, plant and equipment. The capitalised costs will then be amortised on a unit of production basis, in proportion to the volume of ore extracted compared with the total ore contained in the component of the pit to which the stripping campaign relates.

J) Intangible assets

Intangible assets with finite useful lives that are acquired separately are carried at cost less accumulated amortisation and accumulated impairment losses. Exploration and mining licences are classified as intangible assets when construction of the related mining operation has not yet commenced. When construction commences the licences are transferred from intangible assets to the mining properties category within property, plant and equipment. Amortisation is recognised on a straight-line basis over the estimated useful lives of the intangible assets. The estimated useful life and amortisation method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Intangible assets acquired in a business combination and recognised separately from goodwill are initially recognised at their fair value at the acquisition date (which is regarded as their cost).

Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost less accumulated amortisation and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognised in profit or loss when the asset is derecognised.

K) Property, plant and equipment

The costs of mining properties and leases, which include the costs of acquiring and developing mining properties and mineral rights, are capitalised as property, plant and equipment in the year in which they are incurred, when a mining project is considered to be commercially viable (normally when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved). The cost of property, plant and equipment comprises the purchase price and any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended. Once a project has been established as commercially viable, related development expenditure is capitalised. This includes costs incurred in preparing the site for mining operations, including pre-stripping costs. Capitalisation ceases when the mine is capable of commercial production, with the exception of development costs which give rise to a future benefit.

Interest on borrowings related to construction or development of projects is capitalised, until such time as the assets are substantially ready for their intended use or sale which, in the case of mining properties, is when they are capable of commercial production.

L) Depreciation of property, plant and equipment

Depreciation of an asset begins when it is available for use, ie when it is in the location and condition necessary for it to be capable of operating in the manner intended.

Property, plant and equipment is depreciated over its useful life, or over the remaining life of the operation if shorter, to residual value. The major categories of property, plant and equipment are depreciated as follows:

- **(i)** **Land** – freehold land is not depreciated unless the value of the land is considered to relate directly to a particular mining operation, in which case the land is depreciated on a straight-line basis over the expected mine life.
- **(ii)** **Mining properties** – mining properties, including capitalised financing costs, are depreciated on a unit of production basis, in proportion to the volume of ore extracted in the year compared with total proven and probable reserves at the beginning of the year.
- **(iii)** **Buildings and infrastructure** – straight-line basis over 10 to 25 years.
- **(iv)** **Railway track** (including trackside equipment) – straight-line basis over 20 to 25 years.
- **(v)** **Wagons and rolling stock** – straight-line basis over 10 to 20 years.
- **(vi)** **Machinery, equipment and other assets** – are depreciated on a unit of production basis, in proportion to the volume of ore/material processed or on a straight-line basis over 5 to 20 years.
- **(vii)** **Assets under construction** – no depreciation until asset is available for use.
- **(viii)** **Lease right-of-use assets** – depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.
- **(ix)** **Stripping cost** – The capitalised costs will then be amortised on a unit of production basis, in proportion to the volume of ore extracted compared with the total ore contained in the component of the pit to which the stripping campaign relates (Note 16).

Residual values and useful lives are reviewed, and adjusted if appropriate, at least annually, and changes to residual values and useful lives are accounted for prospectively.

M) Impairment of property, plant and equipment and intangible assets

Property, plant and equipment and finite life intangible assets are reviewed for impairment if there is any indication that the carrying amount may not be recoverable. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment (if any). Where the asset does not generate cash flows that are independent from other assets, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Any intangible asset with an indefinite useful life is tested for impairment annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs of disposal and value in use. Fair value less costs of disposal reflects the net amount the Group would receive from the sale of the asset in an orderly transaction between market participants. For mining assets this would generally be determined based on the present value of the estimated future cash flows arising from the continued use, further development or eventual disposal of the asset. The estimates used in determining the present value of those cash flows are those that an independent market participant would consider

appropriate. Value in use reflects the expected present value of the future cash flows which the Group would generate through the operation of
the asset in its current condition, without taking into account potential enhancements or further development of the asset. The fair value less
costs of disposal valuation will normally be higher than the value in use valuation, and accordingly the Group typically applies this valuation
estimate in its impairment assessments.

If the recoverable amount of an asset or cash-generating unit is estimated
to be less than its carrying amount, the carrying amount is reduced to the recoverable amount. An impairment charge is recognised in the income statement immediately. Where an impairment subsequently reverses, the carrying amount is increased to the revised estimate of recoverable amount, but so that the increased carrying amount does not exceed the carrying value that would have been determined if no impairment had previously been recognised. A reversal is recognised in the income statement immediately.

N) Inventory

Inventory consists of raw materials and consumables, work-in-progress and finished goods. Work-in-progress represents material that is in the process
of being converted into finished goods. The conversion process for mining operations depends on the nature of the copper ore. For sulphide ores, processing includes milling and concentrating and results in the production
of copper concentrate. For oxide ores, processing includes leaching of stockpiles, solvent extraction and electrowinning and results in the production of copper cathodes. Finished goods consist of copper concentrate containing gold and silver at Los Pelambres and Centinela and copper cathodes at Centinela and Antucoya. Los Pelambres and Centinela also produce molybdenum as a by-product.

Inventory is valued at the lower of cost, on a weighted average basis, and
net realisable value. Net realisable value represents estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution. Cost of finished goods and work-in-progress is production cost and for raw materials and consumables it is purchase
price. Production cost includes:

- labour costs, raw material costs and other costs directly attributable to the extraction and processing of ore;
- depreciation of plant, equipment and mining properties directly involved in the production process; and
- an appropriate portion of production overheads.

Stockpiles represent ore that is extracted and is available for further processing. Costs directly attributable to the extraction of ore are generally allocated as part of production costs in proportion to the tonnes of material extracted. Operating stripping costs are generally absorbed into inventory,
and therefore expensed as that inventory is processed and sold. If ore is
not expected to be processed within 12 months of the statement of financial position date it is included within non-current assets. If there is significant uncertainty as to when any stockpiled ore will be processed it is expensed
as incurred.

O) Taxation

Tax expense comprises the charges or credits for the year relating to both current and deferred tax.

Current tax is based on taxable profit for the year. Taxable profit may differ from net profit as reported in the income statement because it excludes items of income or expense that are taxable and deductible in different years and also excludes items that are not taxable or deductible. The liability for current tax is calculated using tax rates for each entity in the consolidated financial statements which have been enacted or substantively enacted at
the balance sheet date.

Deferred tax is the tax expected to be payable or recoverable on temporary differences (ie differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax basis used
in the computation of taxable profit). Deferred tax is accounted for using
the balance sheet liability method and is provided on all temporary differences with certain limited exceptions as follows:

(i) tax payable on undistributed earnings of subsidiaries, associates and joint ventures is provided except where the Group is able to control the remittance of profits and it is probable that there will be no remittance
of past profits earned in the foreseeable future;

(ii) deferred tax is not provided on the initial recognition of an asset or liability in a transaction that does not affect accounting profit or taxable profit and is not a business combination; nor is deferred tax provided on subsequent changes in the carrying value of such assets and liabilities, for example where they are depreciated; and

(iii) the initial recognition of any goodwill.

Deferred tax assets are recognised only to the extent that it is probable that they will be recovered through sufficient future taxable profit. The carrying amount of deferred tax assets is reviewed at each balance sheet date.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. Deferred tax is charged or credited in the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also taken directly to equity.

P) Provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (when the effect of the time value of money is material).

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognised as
an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

Q) Provisions for decommissioning and restoration costs

An obligation to incur decommissioning and restoration costs occurs
when environmental disturbance is caused by the development or ongoing production of a mining property. Costs are estimated on the basis of a formal closure plan and are subject to regular formal review.

Such costs arising from the installation of plant and other site preparation work, discounted to their net present value, are provided and capitalised at
the start of each project, as soon as the obligation to incur such costs arises. These decommissioning costs are charged against profit or loss over the life of the mine, through depreciation of the asset and unwinding or amortisation of the discount on the provision. Depreciation is included in operating costs while the unwinding of the discount is included within other finance expenses. Changes in the measurement of a liability relating to the decommissioning of plant or other site preparation work are added to, or deducted from, the cost of the related asset in the current year.

The costs for restoration of site damage, which is created on an ongoing
basis during production, are provided for at their net present values and charged against profit or loss as extraction progresses. Changes in the measurement of a liability relating to site damage created during production,
which relate to changes in the estimate of the closure costs, are charged against operating profit, and changes relating to the discount rate and foreign exchange are recorded within other finance expenses.

2 Principal accounting policies continued

R) Share-based payments

For cash-settled share-based payments, a liability is recognised for the goods or services acquired, measured initially at the fair value of the liability. At the end of each reporting period until the liability is settled, and at the date of settlement, the fair value of the liability is remeasured, with any changes in fair value recognised in profit or loss for the year. The Group currently does not have any equity settled share-based payments to employees or third parties.

S) Post-employment benefits

The Group operates defined contribution schemes for a limited number of employees. For such schemes, the amount charged to the income statement is the contributions paid or payable in the year.

Employment terms may also provide for payment of a severance indemnity when an employment contract comes to an end. This is typically at the rate of one month for each year of service (subject in most cases to a cap as to the number of qualifying years of service) and based on final salary level. The severance indemnity obligation is treated as an unfunded defined benefit plan, and the calculation is based on valuations performed by an independent actuary using the projected unit credit method, which are regularly updated.

The obligation recognised in the balance sheet represents the present value of the severance indemnity obligation. Actuarial gains and losses are immediately recognised in other comprehensive income.

T) Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, deposits held on call with banks, highly liquid investments that are readily convertible into known amounts of cash and which are subject to insignificant risk of changes in value, net of bank overdrafts which are repayable on demand. Cash and cash equivalents normally have a maturity period of 90 days or less.

U) Liquid investments

Liquid investments represent highly liquid current asset investments such as term deposits and managed funds invested in high quality fixed income instruments. They do not meet the IAS 7 definition of cash and cash equivalents, normally because even if readily accessible, the underlying investments have an average maturity profile greater than 90 days from the date first entered into. These assets are designated as fair value through profit or loss.

V) Leases

Leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payments that are based on an index or a rate
- amounts expected to be payable by the lessee under residual value guarantees
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of the lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs.

W) Other financial instruments

Financial assets and financial liabilities are recognised on the Group's balance sheet when the Group becomes a party to the contractual provisions of the instrument. Financial assets are derecognised when the contractual rights to the cash flows from the financial asset expire or the Group has transferred the asset to another party. Financial liabilities are removed from the Group's balance sheet when they are extinguished – ie when the obligation specified in the contract has been discharged, cancelled or expired.

(i) **Investments** – Equity investments which are not subsidiaries, associates or joint ventures are recognised at fair value. The Group generally applies an irrevocable election for each equity investment to designate them as Fair Value through Other Comprehensive Income (FVOCI). Dividends from equity investments are recognised in the income statement when the right to receive payment is established.

(ii) **Trade and other receivables** – As explained above, for sales contracts which contain provisional pricing mechanisms the total receivable balance is measured at fair value through profit or loss. Other receivable balances are recognised at amortised cost.

(iii) **Trade and other payables** – Trade and other payables are generally not interest-bearing and are normally stated at their nominal value.

(iv) **Borrowings (loans and preference shares)** – Interest-bearing loans and bank overdrafts are initially recorded at fair value which is typically equal to the proceeds received, net of direct issue costs. They are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis. The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis using the effective interest rate method. Amounts are either recorded as financing costs in profit or loss or capitalised in accordance with the accounting policy set out in Note 2(K). Finance charges are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

The Sterling-denominated preference shares issued by the Company carry a fixed rate of return without the right to participate in any surplus. They are accordingly classified within borrowings and translated into US dollars at period-end rates of exchange. Preference share dividends are included within finance costs.

(v) **Equity instruments** – Equity instruments issued are recorded at the proceeds received, net of direct issue costs. Equity instruments of the Company comprise its Sterling-denominated issued ordinary share capital and related share premium. As explained in Note 2(E), the presentational currency of the Group and the functional currency of the Company is US dollars, and ordinary share capital and share premium are translated into US dollars at historical rates of exchange based on dates of issue.

(vi) **Derivative financial instruments** – As explained in Note 25(D), the Group periodically uses derivative financial instruments to reduce exposure to foreign exchange, interest rate and commodity price movements. The Group does not

use such derivative instruments for trading purposes. The Group has applied the hedge accounting provisions of IFRS 9 Financial Instruments. The effective portion of changes in the fair value of derivative financial instruments that are designated and qualify as hedges of future cash flows have been recognised directly in equity, with such amounts subsequently recognised in profit or loss in the period when the hedged item affects profit or loss. Any ineffective portion is recognised immediately in profit or loss. Realised gains and losses on commodity derivatives recognised in profit or loss are recorded within revenue. The time value element of changes in the fair value of derivative options is recognised within other comprehensive income.

Financial assets with embedded derivatives are considered in their entirety when determining the appropriate classification and measurement. The treatment of embedded derivatives arising from provisionally priced commodity sales contracts is set out in further detail in Note 2(F) relating to revenue. Derivatives embedded in financial liabilities are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contract and the host contract is not measured at fair value. Changes in fair value are reported in profit or loss for the year.

(vii) Impairment of financial assets – The Group applies the forward-looking expected credit loss model to its financial assets, other than those measured at fair value through profit or loss. The Group applies the IFRS 9 "simplified approach" to its trade receivables, measuring the loss allowance at the lifetime expected credit loss. For other financial assets, where the credit risk has not increased significantly since initial recognition, the loss allowance is measured at the 12 month expected credit loss. If there has been a significant increase in credit risk, the loss allowance is measured at the lifetime expected credit loss. Increases or decrease to the credit loss allowance are recognised immediately in profit or loss.

X) Exceptional items

Exceptional items are material items of income and expense which are non-regular or non-operating and typically non-cash movements. Profit excluding exceptional items is considered to be a useful performance measure as it provides an indication of the underlying earnings of the Group's operations, excluding these one-off items.

Y) Rounding

All amounts disclosed in the financial statements and notes have been rounded off to the nearest million dollars unless otherwise stated.

These policies have been consistently applied to all the years presented, unless otherwise stated.

3 Critical accounting judgements and key sources of estimation uncertainty

Determining many of the amounts included in the financial statements involves the use of judgement and/or estimation. These judgements and estimates are based on management's best knowledge of the relevant facts and circumstances having regard to prior experience, but actual results may differ from the amounts included in the financial statements. Information about such judgements and estimates is included in the principal accounting policies in Note 2 or the other notes to the financial statements, and the key areas are set out below.

A) Judgements

The following are the critical judgements, apart from those involving estimations (which are dealt with separately), that the Directors have made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognised in the financial statements.

(i) Capitalisation of project costs within property, plant and equipment

As explained in Note 2(K) the costs of developing mining properties are capitalised as property, plant and equipment when the mining project is considered to be commercially viable. Commercial viability is normally considered to be demonstrable when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved. Management reviews amounts capitalised to ensure that the treatment of that expenditure as capital rather than operating expenditure is reasonable, in particular in respect of the commercial viability of the project.

As at 31 December 2020 $ 23.0 million of feasibility study costs relating to projects which are still under evaluation and have not yet received final Board approval were capitalised within property, plant and equipment. Should the Group ultimately take the decision to abandon any of these projects, and not continue with their development, then it is likely that the corresponding element of the capitalised feasibility study costs would need to be impaired.

The capitalisation of the construction and commissioning costs for a new mining operation ceases, and depreciation commences, when the operation is in the condition necessary for it to be capable of operating in the manner intended (which is termed as achieving commercial production).

The determination of the commercial production date requires judgement which involves the consideration of a number of relevant factors, including the successful completion of commissioning tests and the processing and production levels achieved compared with expected design capacity.

(ii) Deferred taxation

As explained in Note 2(O), deferred tax assets are recognised only to the extent that it is probable that they will be recovered through sufficient future taxable profits. Generally under Chilean tax law most tax losses can be carried forward indefinitely, and so the expiry of tax losses is not generally an issue. The key assumptions to which the forecasts of the probable level of future taxable profits are most sensitive are future commodity prices, production levels and operating costs.

3 Critical accounting judgements and key sources of estimation uncertainty continued

As set out in Note 28, the Group has recognised $6.4 million of deferred tax assets as at 31 December 2020, with the majority of these deferred tax assets relating to short-term timing differences and provisions.
The Group had unused tax losses of $599.4 million available for offset against future profits. Deferred tax assets of $5.3 million have been recognised in respect of $19.6 million of these losses, with no deferred tax assets recognised in respect of the remaining $579.8 million of tax losses. If the Group's assessment as to the recoverability of those tax losses were to change, then potentially additional deferred tax assets
of up to $157 million could be recognised. In determining that it is not currently appropriate to recognise these additional deferred tax assets the Group has taken into account that the entities involved have consistently generated taxable losses in recent years, and are currently forecast to continue generating taxable losses in forthcoming years.

No deferred tax liability is recognised in respect of the undistributed earnings of subsidiaries where it is not likely that those profits will be distributed in the foreseeable future. When determining whether it is likely that distributions will be made in the foreseeable future, and what is the appropriate foreseeable future period for this purpose, the Group considers factors such as the predictability of the likely future Group dividends, taking into account the Group's dividend policy and the level of potential volatility of the Group's future earnings, as well as the current level of distributable reserves at the Antofagasta plc entity level. As set out in Note 28, at 31 December 2020 deferred withholding tax liabilities of $52.8 million have been recognised, which relate to undistributed earnings of subsidiaries where it is considered likely that the corresponding profits will be distributed in the foreseeable future. The value of the remaining undistributed earnings of subsidiaries for which deferred tax liabilities have not been recognised was $4,810 million.

B) Estimates

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk
of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

(i) Non-financial assets impairment

As explained in Note 2(M), the Group reviews the carrying value
of its intangible assets and property, plant and equipment to determine whether there is any indication that those assets are impaired. In making assessments for impairment, assets that do not generate independent cash flows are allocated to an appropriate cash generating unit ("CGU"). The recoverable amount of those assets, or CGU, is measured at the higher of their fair value less costs of disposal and value in use.

Details of the valuations and sensitivities of the Group's mining operations are included in Note 5, including quantitative sensitivity analyses.

Management necessarily applies its judgement in allocating assets to CGUs, in estimating the probability, timing and value of underlying cash flows and in selecting appropriate discount rates to be applied within the fair value less costs of disposal calculation. The key assumptions are set out in Note 2(M) and Note 5. Subsequent changes to CGU allocation, licensing status, reserves and resources, price assumptions or other estimates and assumptions in the fair value less cost to dispose calculation could impact the carrying value of the respective assets.

(ii) Inventory valuation

The valuation of work in progress inventories involves a number of estimates, including the average ore grade, volume and density of ore stockpiles, and the total recoveries and the speed of recovery in respect of material on the leach piles. Evaluating the net realisable value of the inventories also requires an estimate of the likely future copper price for the periods when it is expected that the inventories will be completed and sold. As set out in Note 20, the value of work in progress inventories at 31 December 2020 was $617.4 million.

If the copper spot price at 31 December 2020 (used for forecasting the likely sales price of short-term inventories) had been 5% lower, this would have resulted in a net realisable value provision and charge to the Income Statement of approximately $9 million.

(iii) Useful economic lives of property, plant and equipment and ore reserves estimates

As explained in Note 2(L), mining properties, including capitalised financing costs, are depreciated in proportion to the volume of ore extracted in the year compared with total proven and probable reserves at the beginning of the year.

There are numerous uncertainties inherent in estimating ore reserves, and assumptions that were valid at the time of estimation may change when new information becomes available. These include assumptions as to grade estimates and cut-off grades, recovery rates, commodity prices, exchange rates, production costs, capital costs, processing and reclamation costs and discount rates. The actual volume of ore extracted and any changes in these assumptions could affect prospective depreciation rates and carrying values.

The majority of other items of property, plant and equipment are depreciated on a straight-line basis over their useful economic lives. Management reviews the appropriateness of useful economic lives at least annually and, again, any changes could affect prospective depreciation rates and asset carrying values.

The total depreciation and amortisation charge for 2020 was $1,048.7 million, and so as a very simplistic sensitivity, a 10% adjustment to the useful economic lives of all of the Group's property, plant and equipment would result in an impact of approximately $100 million on the annual depreciation charge.

(iv) Provisions for decommissioning and site restoration costs

As explained in Note 2(Q), provision is made, based on net present values, for decommissioning and site rehabilitation costs as soon as the obligation arises following the development or ongoing production of a mining property. The provision is based on a closure plan prepared with the assistance of external consultants.

Management uses its judgement and experience to provide for and (in the case of capitalised decommissioning costs) amortise these estimated costs over the life of the mine. The ultimate cost of decommissioning and site rehabilitation is uncertain and cost estimates can vary in response to many factors including changes to relevant
legal requirements, the emergence of new restoration techniques or experience at other mine sites.

The expected timing and extent of expenditure can also change, for example in response to changes in ore reserves or processing levels. As a result, there could be significant adjustments to the provisions established which would affect future financial results.

Details of the decommissioning and restoration provisions are set out in Note 29. The total value of these provisions as at 31 December 2020 was $520.2 million.

4 Exceptional items

Exceptional items are material items of income and expense which are non-regular or non-operating and typically non-cash movements. The exceptional items in 2020 and their impact on the results are set out below.

On 31 March 2020 the Group agreed to dispose of its 40% interest in Hornitos coal-fired power station to ENGIE Energía Chile S.A. ("ENGIE"), the owner of the remaining 60% interest. This was part of the value accretive renegotiation of Centinela's power purchase agreement which as a result will be wholly supplied from lower cost renewable sources from 2022. Under the terms of the agreement the Group will dispose of its investment to
Engie in 2021 for a nominal consideration, and will not be entitled to receive any further dividend income from Hornitos from the date of the agreement. Accordingly, the Group no longer has any effective economic interest in
the results or assets of Hornitos from 31 March 2020 onwards, and has therefore recognised an impairment of $80.8 million in respect of its investment in associate balance, and will no longer recognise any share of Hornitos' results. The post-tax impact of the impairment is $61.1 million, of which $40.2 million is attributable to the equity owners of the Company.

There were no exceptional items in 2019.

5 Asset sensitivities

Other asset sensitivities

Based on an assessment of both qualitative and quantitative factors,
there were no indicators of potential impairment, or reversal of previous impairments, for the Group's non-current assets associated with its mining operations at the 2020 year-end, and accordingly no impairment reviews have been performed. The quantitative element of the trigger assessment provides an indication of what the approximate recoverable amount of the Group's operations would be, were a full impairment test under IAS 36
to be performed. In order to provide an indication of the sensitivities of the approximate recoverable amount of the Group's mining operations, sensitivity analysis has been performed on the preliminary valuation, prepared as part of the Group's impairment indicator analysis.

The COVID-19 situation is not expected to have a relevant negative impact on the future production, operating expenses or capital projects of the Group's mining operations.

The recoverable amount is the higher of fair value less costs of disposal
and value in use. Fair value less costs of disposal reflects the net amount
the Group would receive from the sale of the asset in an orderly transaction between market participants. For mining assets this would generally be determined based on the present value of the estimated future cash flows arising from the continued use, further development or eventual disposal of the asset. Value in use reflects the expected present value of the future cash flows which the Group would generate through the operation of the asset in its current condition, without taking into account potential enhancements or further development of the asset. The fair value less costs of disposal valuation will normally be higher than the value in use valuation, and accordingly the Group typically applies this valuation estimate in its impairment or valuation assessments.

This impairment indicator valuation exercise demonstrated positive headroom for all of the Group's mining operations, with the recoverable amount of the assets in excess of their carrying value.

If a full IAS 36 impairment test were to be prepared, which was not the case as at 31 December 2020, the assumption to which the value of the assets
is most sensitive is the future copper price. The copper price forecasts (representing the Group's estimates of the assumptions that would be used by independent market participants in valuing the assets) are based on the forward curve for the short term and consensus analyst forecasts including both investment banks and commodity consultants for the longer term.

A long-term copper price of $3.10/lb has been used in the base valuations
used in the impairment indicator assessment. As an additional down-side sensitivity a valuation was performed with a long-term copper price of $2.90/lb, reflecting the lower quartile price in the consensus of analyst forecasts used when assessing the appropriate long-term price. Los Pelambres, Centinela and Zaldivar still showed a positive headroom in this alternative down-side scenario, however the Antucoya valuation indicated
a potential deficit of approximately $15million. This was a simple sensitivity exercise, looking at an illustrative change in the forecast long-term copper price in isolation. In reality, a deterioration in the long-term copper price environment is likely to result in corresponding improvements in a range of input cost factors. In particular, given that copper exports account for over 50% of Chile's exports, movements in the US dollar/Chilean peso exchange rate are highly correlated to the copper price, and a decrease in the copper price is likely to result in a weakening of the Chilean peso, with a resulting reduction in the Group's operating costs and capital expenditure. These likely cost reductions, as well as potential operational changes which could be made in a weaker copper price environment, could partly mitigate the impact of the lower copper price modelled in these estimated potential sensitivities.

In addition to the future copper price, the valuations are sensitive to the assumptions in respect of the discount rate used to determine the present value of the future cash flows, future operating costs, sustaining and development capital expenditure, and the US dollar/Chilean peso exchange rate. As an additional down-side sensitivity a valuation was performed
with a 10% stronger long-term Chilean peso exchange rate assumption.
Los Pelambres, Centinela, Antucoya and Zaldivar all still showed a positive headroom in this alternative down-side scenario. A real post-tax discount rate of 8% has been used in determining the present value of the forecast future cash flows from the assets as part of the impairment indicator assessment.

Climate change aspects relevant to asset sensitivities

The "Taskforce on Climate Related Financial Disclosures" ("TCFD") section on pages 54-56 of the Annual Report provides detail of the Group's on-going work to assess and reduce the Group's exposure to climate risks, in line with the TCFD framework. During 2020 the Group conducted an initial qualitative assessment of the potential risks and opportunities and likely business impacts under two climate change scenarios, and during 2021 will select the most material risks and opportunities to undergo a quantitative scenario analysis in order to estimate in more detail the potential operational and financial impact to our operations. The following section provides a high-level summary of the way in which climate change related factors could be relevant to the sensitivities of the values of the Group's mining operations, based on the Group's existing analysis.

Relevant aspects of the Group's operations

The following aspects of the Group's mining operations are particularly relevant when looking at the potential impacts of climate change on the operational performance and value of the Group's mining operations:

- The Group's mining business is focused on copper. The transition to a low-carbon economy requires many carbon reduction measures with two major drivers being the increased demand for renewable energy and the electrification of transportation systems. As copper is a primary component
in these technologies, this is expected to have a positive impact on copper demand in the medium- to long-term.
- The Group has been working to eliminate its involvement with coal-fired electricity generation. The Group has electricity supply contracts in place which mean that from 2022 all of the mining operations' electricity supply
will be from renewable sources.
- The Group has also held a 40% interest in the Hornitos coal-fired power station in northern Chile. In March 2020 the Group agreed to dispose of this interest, recognising a full impairment of the carrying value of this investment.

5 Asset sensitivities continued

- The Group's sensitivity analysis has identified an increased risk of drought in the Coquimbo region where Los Pelambres is situated as one of the principal potential climate related physical risks for the Group. In the Atacama region where Antucoya, Centinela and Zaldivar are situated, water scarcity has always been acute and is expected to remain so. The Group has been focused on reducing its use of continental fresh water for a number of years, through the use of sea water and maximising the level of recycling of water in its operations. Centinela and Antucoya were designed to operate entirely with raw (i.e. non-desalinated) sea water. Los Pelambres is currently constructing a desalination plant, and by 2025 this will result in 95% of its water usage coming from desalinated sea water or recycled water. Zaldívar has submitted an Environmental Impact Assessment for an extension of its mine life to 2031 and this includes an application to extend the mine's water extraction rights from 2025, when they currently expire.

Relevant aspects of the asset sensitivity and valuation analysis

The nature of the asset sensitivity and valuation analysis described above means that some level of assessment of potential future climate-related risks should effectively already be incorporated into a number of the key assumptions used in this analysis. As explained above, the Group typically uses a "fair value less cost to dispose" methodology when performing this analysis, which reflects the price the Group could expect to receive from the sale of the asset to an external market participant. Accordingly, the Group uses assumptions which an external market participant could reasonably be expected to use when valuing the asset. Therefore, where possible the Group uses assumptions which are supported by external market data – in particular, in respect of the forecasts for the future copper price, the future US dollar / Chilean peso exchange rate and the discount rate. This market data should reflect the market's current best estimate of the risks and opportunities impacting, for example, the future copper price or comparable mining assets etc – including within those overall risks and opportunities the market's current assessment of the probable impact of climate-related factors.

6 Segment information

The Group's reportable segments are as follows:

- Los Pelambres
- Centinela
- Antucoya
- Zaldívar
- Exploration and evaluation
- Corporate and other items
- Transport division

For management purposes, the Group is organised into two business divisions based on their products – Mining and Transport. The Mining division is split further for management reporting purposes to show results by mine and exploration activity. Los Pelambres produces primarily copper concentrate, molybdenum, gold and silver as a by-product. Centinela produces copper concentrate containing gold and silver as a by-product, molybdenum concentrates and copper cathodes. Antucoya and Zaldívar produce copper cathodes. The Transport division provides rail cargo and road cargo transport together with a number of ancillary services. All the operations are based in Chile. The Exploration and evaluation segment incurs exploration and evaluation expenses. "Corporate and other items" comprises costs incurred by the Company, Antofagasta Minerals SA, the Group's mining corporate centre and other entities, that are not allocated to any individual business segment. Consistent with its internal management reporting, the Group's corporate and other items are included within the Mining division.

The chief operating decision-maker (the Group's Chief Executive Officer) monitors the operating results of the business segments separately for the purpose of making decisions about resources to be allocated and assesses performance. Segment performance is evaluated based on the operating profit of each of the segments.

A) Segment revenues and results

For the year ended 31 December 2020

	Los Pelambres $m	Centinela $m	Antucoya $m	Zaldívar $m	Exploration and evaluation[2] $m	Corporate and other items $m	Mining $m	Transport division $m	Total $m
Revenue	2,655.1	1,844.5	480.3	–	–	–	4,979.9	149.4	5,129.3
Operating cost excluding depreciation	(992.1)	(932.8)	(314.5)	–	(85.1)	(66.2)	(2,390.7)	(91.4)	(2,482.1)
Depreciation and amortisation	(252.6)	(662.9)	(94.6)	–	–	(7.8)	(1,017.9)	(30.8)	(1,048.7)
Loss on disposals	(2.5)	(1.8)	–	–	–	–	(4.3)	(2.0)	(6.3)
Operating profit/(loss)	1,407.9	247.0	71.2	–	(85.1)	(74.0)	1,567.0	25.2	1,592.2
Equity accounting results	–	–	–	12.2	–	(6.5)	5.7	(0.6)	5.1
Impairment of investment in associate[3]	–	(95.6)	–	–	–	–	(95.6)	14.8	(80.8)
Net share of results from associates and joint ventures	–	(95.6)	–	12.2	–	(6.5)	(89.9)	14.2	(75.7)
Investment income	4.7	4.3	0.8	–	–	9.0	18.8	0.1	18.9
Interest expense	(4.3)	(24.9)	(25.5)	–	–	(20.7)	(75.4)	(1.7)	(77.1)
Other finance items	(26.0)	(13.7)	(4.0)	–	–	(5.5)	(49.2)	4.0	(45.2)
Profit/(loss) before tax	1,382.3	117.1	42.5	12.2	(85.1)	(97.7)	1,371.3	41.8	1,413.1
Tax	(435.8)	(23.0)	(0.3)	–	–	(59.2)	(518.3)	(8.2)	(526.5)
Profit/(loss) for the year from continuing operations	946.5	94.1	42.2	12.2	(85.1)	(156.9)	853.0	33.6	886.6
Profit for the period from discontinued operations	–	–	–	–	–	7.3	7.3	–	7.3
Profit/(loss) for the year	946.5	94.1	42.2	12.2	(85.1)	(149.6)	860.3	33.6	893.9
Non-controlling interests	371.5	12.9	3.1	–	–	–	387.5	–	387.5
Profit/(losses) attributable to the owners of the parent	575.0	81.2	39.1	12.2	(85.1)	(149.6)	472.8	33.6	506.4
EBITDA[1]	1,663.0	911.7	165.8	95.5	(85.1)	(72.7)	2,678.2	61.0	2,739.2
Additions to non-current assets									
Capital expenditure	827.3	441.8	44.6	–	–	8.4	1,322.1	26.2	1,348.3
Segment assets and liabilities									
Segment assets	5,475.9	5,898.8	1,641.5	–	–	2,284.2	15,300.4	382.9	15,683.3
Deferred tax assets	–	–	–	–	–	2.7	2.7	3.7	6.4
Investment in associates and joint venture	–	–	–	909.0	–	–	909.0	5.6	914.6
Segment liabilities	(2,700.1)	(1,823.2)	(702.5)	–	–	(1,202.6)	(6,428.4)	(94.8)	(6,523.2)

1. EBITDA refers to Earnings Before Interest, Tax, Depreciation and Amortisation. EBITDA is calculated by adding back depreciation, amortisation, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group´s subsidiaries, and the Group´s proportional share of the EBITDA of its associates and joint ventures (Refer to the Alternative Performance Measures section on page 216).
2. Operating cash outflow in the exploration and evaluation segment was $43.1 million.
3. On 31 March 2020 the Group agreed to dispose of its 40% interest in Hornitos coal-fired power station to ENGIE Energía Chile S.A. ("ENGIE"), the owner of the remaining 60% interest. This has resulted in a $80.8 million impairment in respect of the Group's investment in associate balance.

6 Segment information continued

For the year ended 31 December 2019

	Los Pelambres $m	Centinela $m	Antucoya $m	Zaldívar $m	Exploration and evaluation[2] $m	Corporate and other items $m	Mining $m	Transport division $m	Total $m
Revenue	2,363.9	2,007.9	432.2	–	–	–	4,804.0	160.5	4,964.5
Operating cost excluding depreciation	(979.8)	(1,048.4)	(345.9)	–	(111.1)	(70.8)	(2,556.0)	(105.7)	(2,661.7)
Depreciation and amortisation	(258.5)	(532.2)	(92.2)	–	–	(7.9)	(890.8)	(23.5)	(914.3)
Loss on disposals	(10.5)	(1.5)	–	–	–	–	(12.0)	(0.7)	(12.7)
Operating profit/(loss)	1,115.1	425.8	(5.9)	–	(111.1)	(78.7)	1,345.2	30.6	1,375.8
Equity accounting results	–	–	–	15.5	–	(2.5)	13.0	11.4	24.4
Investment income	11.1	7.9	1.4	–	–	26.2	46.6	0.5	47.1
Interest expense	(7.7)	(36.5)	(42.7)	–	–	(21.7)	(108.6)	(2.5)	(111.1)
Other finance items	8.8	3.4	(0.5)	–	–	1.8	13.5	(0.5)	13.0
Profit/(loss) before tax	1,127.3	400.6	(47.7)	15.5	(111.1)	(74.9)	1,309.7	39.5	1,349.2
Tax	(341.4)	(88.5)	(0.2)	–	–	(68.2)	(498.3)	(7.8)	(506.1)
Profit/(loss) for the year from continuing operations	785.9	312.1	(47.9)	15.5	(111.1)	(143.1)	811.4	31.7	843.1
Profit/(loss) for the year	785.9	312.1	(47.9)	15.5	(111.1)	(143.1)	811.4	31.7	843.1
Non-controlling interests	(309.0)	(69.4)	36.7	–	–	–	(341.7)	–	(341.7)
Profit/(losses) attributable to the owners of the parent	476.9	242.7	(11.2)	15.5	(111.1)	(143.1)	469.7	31.7	501.4
EBITDA[1]	1,384.1	959.5	86.3	112.6	(111.1)	(73.3)	2,358.1	80.8	2,438.9
Additions to non-current assets									
Capital expenditure	573.0	535.9	43.0	–	–	16.0	1,167.9	68.6	1,236.5
Segment assets and liabilities									
Segment assets	4,251.2	5,792.2	1,647.1	–	–	1,543.3	13,233.8	343.6	13,577.4
Deferred tax assets	–	–	–	–	–	5.5	5.5	2.7	8.2
Investment in associates and joint venture	–	–	–	961.8	–	–	961.8	63.0	1,024.8
Segment liabilities	(1,696.7)	(1,789.6)	(933.3)	–	–	(694.0)	(5,113.6)	(95.8)	(5,209.4)

1. EBITDA refers to Earnings Before Interest, Tax, Depreciation and Amortisation. EBITDA is calculated by adding back depreciation, amortisation, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group´s subsidiaries, and the Group´s proportional share of the EBITDA of its associates and joint ventures (Refer to the Alternative Performance Measures section on page 216).
2. Operating cash outflow in the exploration and evaluation segment was $43.0 million.

Notes to segment revenues and results

(i) Inter-segment revenues are eliminated on consolidation. Revenue from the Transport division segment is stated after eliminating inter-segmental sales to the mining division of $6.8 million (year ended 31 December 2019 – $5.3 million).

(ii) Revenue includes provisionally priced sales of copper, gold and molybdenum concentrates and copper cathodes. Further details of such adjustments are given in Note 7.

(iii) The copper and molybdenum concentrate sales are stated net of deductions for tolling charges. Tolling charges for copper and molybdenum concentrates are detailed in Note 7.

(iv) The effects of tax and non-controlling interests on the expenses within the Exploration and evaluation segment are allocated to the mine that the exploration work relates to.

(v) The assets of the Transport division segment include nil (31 December 2019 – $56.9 million) relating to the Group's 40% interest in Inversiones Hornitos SA ("Inversiones Hornitos"), which owns the 165MW Hornitos thermoelectric power plant in Mejillones in Chile's Antofagasta region and $5.6 million (31 December 2019 – $6.2 million) relating to the Group's 30% interest in Antofagasta Terminal International SA ("ATI"), which operates a concession to manage installations in the port of Antofagasta. Further details of these investments are set out in Note 18.

B) Entity-wide disclosures

Revenue by product[1]

	2020 $m	2019 $m
Copper		
• Los Pelambres	**2,323.6**	2,009.1
• Centinela concentrate	**940.4**	1,137.7
• Centinela cathodes	**603.9**	504.4
• Antucoya	**480.3**	432.2
Gold		
• Los Pelambres	**106.4**	75.2
• Centinela	**251.3**	332.5
Molybdenum		
• Los Pelambres	**181.8**	249.0
• Centinela	**27.7**	5.6
Silver		
• Los Pelambres	**43.3**	30.7
• Centinela	**21.2**	27.6
Total	**4,979.9**	4,804.0
Transport division	**149.4**	160.5
	5,129.3	4,964.5

Revenue by location of customer[1]

	2020 $m	2019 $m
Europe		
• United Kingdom	**123.3**	152.3
• Switzerland	**593.5**	612.4
• Spain	**29.3**	158.0
• Germany	**116.4**	102.7
• Rest of Europe	**92.3**	85.0
Latin America		
• Chile	**224.4**	213.8
• Rest of Latin America	**182.0**	95.3
North America		
• United States	**216.5**	88.9
Asia		
• Japan	**1,631.1**	1,561.5
• China	**531.4**	517.2
• Singapore	**667.5**	692.1
• South Korea	**353.4**	371.2
• Hong Kong	**235.7**	171.0
• Rest of Asia	**132.5**	143.1
	5,129.3	4,964.5

Information about major customers

In the year ended 31 December 2020 the Group's mining revenue included $763.4 million related to one large customer that individually accounted for more than 10% of the Group's revenue (year ended 31 December 2019 – one large customer representing $711.9 million).

1. Figures include both revenue from the sale of products and the associated income from the provision of shipping services.

Non-current assets by location of assets

	2020 $m	2019 $m Restated
Chile	**11,092.7**	10,818.0
USA	**178.3**	176.9
Other	**–**	0.1
	11,271.0	10,995.0

The above amounts reflect non-current assets excluding financial assets (in particular, derivative financial instruments) and deferred tax assets. The prior period comparatives have been restated to exclude financial assets and deferred tax assets, resulting in a reduction in respect of the assets located in Chile of $9.9 million as at 31 December 2019.

7 Revenue

Copper and molybdenum concentrate sale contracts and copper cathode sale contracts generally provide for provisional pricing of sales at the time of shipment, with final pricing being based on the monthly average London Metal Exchange copper price or monthly average molybdenum price for specified future periods. This normally ranges from one to four months after shipment to the customer. For sales contracts which contain provisional pricing mechanisms the total receivable balance is measured at fair value through profit or loss. Gains and losses from the mark-to-market of open sales are recognised through adjustments to revenue in the income statement and to trade receivables in the balance sheet. The Group determines mark-to-market prices using forward prices at each period-end for copper concentrate and cathode sales, and period-end month average prices for molybdenum concentrate sales due to the absence of a futures market in the market price references for that commodity in the majority of the Group's contracts.

The Group sells a significant proportion of its products on Cost, Insurance & Freight (CIF) Incoterms, which means that the Group is responsible for shipping the product to a destination port specified by the customer. The shipping service represents a separate performance obligation, and is recognised separately from the sale of the material over time as the shipping service is provided.

An analysis of the Group's revenue is as follows:

	2020 $m	2019 $m
Revenue from contracts with customers		
Sale of products	**4,617.3**	4,693.4
Provision of shipping services associated with the sale of products	**95.4**	92.9
Transport services	**149.4**	160.5
Provisional pricing adjustments in respect of copper, gold and molybdenum	**267.2**	17.7
Total revenue	**5,129.3**	4,964.5

The categories of revenue which are principally affected by different economic factors are the individual product types. A summary of revenue by product is set out in Note 6.

In addition to mark-to-market and final pricing adjustments, revenue also includes realised gains and losses relating to derivative commodity instruments. Details of these realised gains or losses are shown in the tables that follow.

Copper and molybdenum concentrate sales are stated net of deductions for tolling charges, as shown in the tables that follow.

For the year ended 31 December 2020[1]

	Los Pelambres Copper concentrate $m	Centinela Copper concentrate $m	Centinela Copper cathodes $m	Antucoya Copper cathodes $m	Los Pelambres Gold in concentrate $m	Centinela Gold in concentrate $m	Los Pelambres Molybdenum concentrate $m	Centinela Molybdenum concentrate $m
Provisionally invoiced gross sales	2,256.7	949.3	594.8	474.8	104.9	250.6	205.0	31.6
Effects of pricing adjustments to previous year invoices								
Reversal of mark-to-market adjustments at the end of the previous year	(29.1)	(15.2)	(0.4)	(0.4)	–	(1.2)	0.4	–
Settlement of sales invoiced in the previous year	(43.6)	(18.7)	(0.3)	(0.3)	0.2	3.7	(1.5)	(0.2)
Total effect of adjustments to previous year invoices in the current year	(72.7)	(33.9)	(0.7)	(0.7)	0.2	2.5	(1.1)	(0.2)
Effects of pricing adjustments to current year invoices								
Settlement of sales invoiced in the current year	194.6	67.0	11.2	7.8	1.5	(2.0)	4.6	2.1
Mark-to-market adjustments at the end of the current year	58.7	26.8	(0.1)	0.5	–	0.9	(0.2)	0.3
Total effect of adjustments to current year invoices	253.3	93.8	11.1	8.3	1.5	(1.1)	4.4	2.4
Total pricing adjustments	180.6	59.9	10.4	7.6	1.7	1.4	3.3	2.2
Realised losses on commodity derivatives	–	–	(1.3)	(2.1)	–	–	–	–
Revenue before deducting tolling charges	2,437.3	1,009.2	603.9	480.3	106.6	252.0	208.3	33.8
Tolling charges	(113.6)	(68.8)	–	–	(0.2)	(0.7)	(26.5)	(6.1)
Revenue net of tolling charges	2,323.7	940.4	603.9	480.3	106.4	251.3	181.8	27.7

For the year ended 31 December 2019[1]

	Los Pelambres Copper concentrate $m	Centinela Copper concentrate $m	Centinela Copper cathodes $m	Antucoya Copper cathodes $m	Los Pelambres Gold in concentrate $m	Centinela Gold in concentrate $m	Los Pelambres Molybdenum concentrate $m	Centinela Molybdenum concentrate $m
Provisionally invoiced gross sales	2,144.9	1,222.3	506.1	434.8	76.2	325.3	298.1	7.4
Effects of pricing adjustments to previous year invoices								
Reversal of mark-to-market adjustments at the end of the previous year	23.6	9.5	0.7	0.7	–	(0.7)	(0.7)	–
Settlement of sales invoiced in the previous year	0.3	9.9	(1.0)	(0.9)	(1.3)	1.4	(8.4)	–
Total effect of adjustments to previous year invoices in the current year	23.9	19.4	(0.3)	(0.2)	(1.3)	0.7	(9.1)	–
Effects of pricing adjustments to current year invoices								
Settlement of sales invoiced in the current year	(41.3)	(14.6)	(1.8)	(2.9)	0.5	6.4	(7.0)	(0.8)
Mark-to-market adjustments at the end of the current year	29.1	15.2	0.4	0.4	–	1.2	(0.4)	–
Total effect of adjustments to current year invoices	(12.2)	0.6	(1.4)	(2.5)	0.5	7.6	(7.4)	(0.8)
Total pricing adjustments	11.7	20.0	(1.7)	(2.7)	(0.8)	8.3	(16.5)	(0.8)
Realised gains on commodity derivatives	–	–	–	0.1	–	–	–	–
Revenue before deducting tolling charges	2,156.6	1,242.3	504.4	432.2	75.4	333.6	281.6	6.6
Tolling charges	(147.5)	(104.6)	–	–	(0.2)	(1.1)	(32.6)	(1.0)
Revenue net of tolling charges	2,009.1	1,137.7	504.4	432.2	75.2	332.5	249.0	5.6

1. Figures include both revenue from the sale of products and the associated income from the provision of shipping services.

(I) Copper concentrate

The typical period for which sales of copper concentrate remain open until settlement occurs is a range of approximately three to four months from shipment date.

		2020	2019
Sales provisionally priced at the balance sheet date	Tonnes	**162,300**	158,600
Average mark-to-market price	$/lb	**3.52**	2.81
Average provisional invoice price	$/lb	**3.28**	2.68

(II) Copper cathodes

The typical period for which sales of copper cathodes remain open until settlement occurs is approximately one month from shipment date.

		2020	2019
Sales provisionally priced at the balance sheet date	Tonnes	**13,800**	12,000
Average mark-to-market price	$/lb	**3.52**	2.80
Average provisional invoice price	$/lb	**3.50**	2.77

(III) Gold in concentrate

The typical period for which sales of gold in concentrate remain open until settlement occurs is approximately one month from shipment date.

		2020	2019
Sales provisionally priced at the balance sheet date	Ounces	**16,300**	21,200
Average mark-to-market price	$/oz	**1,917**	1,542
Average provisional invoice price	$/oz	**1,861**	1,485

(IV) Molybdenum concentrate

The typical period for which sales of molybdenum remain open until settlement occurs is approximately two months from shipment date.

		2020	2019
Sales provisionally priced at the balance sheet date	Tonnes	**2,000**	1,900
Average mark-to-market price	$/lb	**9.34**	9.20
Average provisional invoice price	$/lb	**9.38**	9.30

7 Revenue continued

As detailed above, the effects of gains and losses from the marking-to-market of open sales are recognised through adjustments to revenue in the income statement and to trade debtors in the balance sheet. The effect of mark-to-market adjustments on the balance sheet at the end of each period are as follows:

	Effect on debtors of year end mark-to-market adjustments	
	2020 $m	2019 $m
Los Pelambres – copper concentrate	**58.7**	29.1
Los Pelambres – molybdenum concentrate	**(0.2)**	(0.4)
Centinela – copper concentrate	**26.8**	15.2
Centinela – molybdenum concentrate	**0.3**	–
Centinela – gold in concentrate	**0.9**	1.2
Centinela – copper cathodes	**(0.1)**	0.4
Antucoya – copper cathodes	**0.5**	0.4
	86.9	45.9

8 Profit before tax

Operating profit from subsidiaries and total profit from operations and associates and joint ventures is derived from Group revenue by deducting operating costs as follows:

	2020 $m	2019 $m
Group revenue	**5,129.3**	4,964.5
Cost of sales	**(2,856.9)**	(2,963.6)
Gross profit	**2,272.4**	2,000.9
Administrative and distribution expenses	**(484.6)**	(445.9)
Other operating income	**27.0**	28.4
Other operating expenses	**(222.6)**	(207.6)
Operating profit from subsidiaries	**1,592.2**	1,375.8
Net share of results from associates and joint ventures	**5.1**	24.4
Impairment of investment in associate	**(80.8)**	–
Total profit from operations, associates and joint ventures	**1,516.5**	1,400.2

Other operating expenses comprise $85.0 million of exploration and evaluation expenditure (2019 – $111.0 million), $17.9 million in respect of the employee severance provision (2019 – $24.8 million), $45.2 million in respect of the closure provision (2019 – $2.8 million credit) and $74.5 million of other expenses (2019 – $74.5 million).

Profit before tax is stated after (charging)/crediting:

	2020 $m	2019 $m
Foreign exchange (gains)/losses		
• included in net finance costs	**(28.4)**	35.8
• included in income tax expense	**0.1**	0.7
Depreciation of property, plant and equipment		
• owned assets	**(966.9)**	(828.0)
• leased assets	**(81.8)**	(81.4)
Loss on disposal of property, plant and equipment	**(6.3)**	(12.7)
Cost of inventories recognised as expense	**(1,810.0)**	(1,970.1)
Employee benefit expense	**(453.8)**	(439.8)
Decommissioning and restoration	**(45.2)**	2.8
Severance charges	**(17.9)**	(24.8)
Exploration and evaluation expense	**(85.0)**	(111.1)
Auditors´ remuneration	**(1.8)**	(1.5)

A more detailed analysis of auditors´ remuneration on a worldwide basis is provided below:

Group	2020 $000	2019 $000
Fees payable to the Company´s auditors and its associates for the audit of parent company and consolidated financial statements	**920**	944
Fees payable to the Company´s auditors and its associates for other services:		
• The audit of the Company's subsidiaries	**323**	288
• Audit-related assurance services	**185**	219
• Tax advisory services	**–**	–
• Other assurance services	**352**	19
• Corporate finance services not covered above	**–**	–
• Other non-audit services	**–**	20
	1,780	1,490

Details of the Company's policy on the use of auditors for non-audit services, the reason why the auditor was used rather than another supplier and how the auditor's independence and objectivity was safeguarded are set out in the Audit and Risk Committee report on page 124. No services were provided pursuant to contingent fee arrangements.

9 Employees

A) Average monthly number of employees

	2020 Number	2019 Number
Los Pelambres	**944**	926
Centinela	**2,092**	2,057
Michilla	**3**	2
Antucoya	**798**	787
Exploration and evaluation	**67**	62
Corporate and other employees		
• Chile	**528**	469
• United Kingdom	**4**	4
• Other	**4**	4
Mining and Corporate	**4,440**	4,311
Transport division	**1,379**	1,408
	5,819	5,719

(i) The average number of employees for the year includes all the employees of subsidiaries. The average number of employees does not include contractors who are not directly employed by the Group.

(ii) The average number of employees does not include employees from associates and joint ventures.

(iii) The average number of employees includes Non-Executive Directors.

B) Aggregated remuneration

The aggregated remuneration of the employees included in the table above was as follows:

	2020 $m	2019 $m
Wages and salaries	**(430.2)**	(416.1)
Social security costs	**(23.6)**	(23.7)
	(453.8)	(439.8)

C) Key management personnel

In accordance with IAS 24, key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including any Directors (Executive and Non-Executive) of the Company. Key management personnel who are not Directors have been treated as responsible senior management at the Corporate Centre and those responsible for the running of the key business divisions of the Group.

Compensation for key management personnel (including Directors) was as follows:

	2020 $m	2019 $m
Salaries and short-term employee benefits	**(18.6)**	(16.1)
	(18.6)	(16.1)

Disclosures on Directors' remuneration required by Schedule 8 of the Large and Medium-sized Companies and Group (Financial Statement) Regulations 2008 including those specified for audit by that Schedule are included in the Remuneration report on page 139.

10 Net finance expense

	2020 $m	2019 $m
Investment income		
Interest income	**3.4**	9.8
Fair value through profit or loss	**15.5**	37.3
	18.9	47.1
Interest expense		
Interest expense	**(77.1)**	(111.1)
	(77.1)	(111.1)
Other finance items		
Unwinding of discount on provisions	**(16.7)**	(22.7)
Effects of changes in foreign exchange rates	**(28.4)**	35.8
Preference dividends	**(0.1)**	(0.1)
	(45.2)	13.0
Net finance expense	**(103.4)**	(51.0)

During 2020, amounts capitalised and consequently not included within the above table were as follows: $21.0 million at Los Pelambres (year ended 31 December 2019 – $12.5 million) and $5.7 million at Centinela (year ended 31 December 2019 – $4.7 million).

The fair value through profit or loss line represents the fair value gains relating to liquid investments.

The interest expense shown above includes $9.7 million in respect of leases (2019 – $13.0 million).

11 Income tax expense

The tax charge for the year comprised the following:

	2020 $m	2019 $m
Current tax charge		
• Corporate tax (principally first category tax in Chile)	**(353.5)**	(255.5)
• Mining tax (royalty)	**(106.1)**	(67.2)
• Withholding tax	**(55.8)**	(32.4)
• Exchange losses on corporate tax balances	**0.1**	0.7
	(515.3)	(354.4)
Deferred tax charge		
• Corporate tax (principally first category tax in Chile)	**(1.1)**	(125.1)
• Mining tax (royalty)	**4.2**	0.6
• Withholding tax	**(14.3)**	(27.2)
	(11.2)	(151.7)
Total tax charge	**(526.5)**	(506.1)

The rate of first category (ie corporate) tax in Chile is 27.0% (2019 – 27.0%).

In addition to first category tax and the mining tax, the Group incurs withholding taxes on any remittance of profits from Chile. Withholding tax is levied on remittances of profits from Chile at 35% less first category (ie corporation) tax already paid in respect of the profits to which the remittances relate.

The Group's mining operations are also subject to a mining tax (royalty). Production from Los Pelambres, Antucoya, Encuentro (oxides), the Tesoro North East pit and the Run-of-Mine processing at Centinela Cathodes is subject to a rate of between 5–14%, depending on the level of operating profit margin. Production from Centinela Concentrates and the Tesoro Central and Mirador pits is subject to a rate of 5% of taxable operating profit.

	Year ended Excluding exceptional items 2020		Year ended Including exceptional items 2020		2019	
	$m	%	$m	%	$m	%
Profit before tax	**1,493.9**		**1,413.1**		1,349.2	
Tax at the Chilean corporate tax rate of 27%	**(403.4)**	**27.0**	**(381.5)**	**27.0**	(364.3)	27.0
Impairment of investment in associate	**–**	**–**	**(2.2)**	**0.2**		
Mining tax (royalty)	**(101.3)**	**6.8**	**(101.3)**	**7.2**	(66.6)	4.9
Deduction of mining tax (royalty) as an allowable expense in determination of first category tax	**28.1**	**(1.9)**	**28.1**	**(2.0)**	19.1	(1.4)
Items not deductible from first category tax	**(9.8)**	**0.7**	**(9.8)**	**0.6**	(11.9)	0.9
Adjustment in respect of prior years	**(1.6)**	**0.1**	**(1.6)**	**0.1**	4.3	(0.3)
Withholding tax	**(70.0)**	**4.7**	**(70.0)**	**5.0**	(59.3)	4.4
Tax effect of share of profit of associates and joint ventures	**1.4**	**(0.1)**	**1.4**	**(0.1)**	4.7	(0.3)
Reversal of previously unrecognised tax losses/(unrecognised tax losses)	**10.5**	**(0.7)**	**10.5**	**(0.7)**	(33.0)	2.4
Net other items	**(0.1)**	**–**	**(0.1)**	**–**	0.9	(0.1)
Tax expense and effective tax rate for the year	**(546.2)**	**36.6**	**(526.5)**	**37.3**	(506.1)	37.5

The effective tax rate varied from the statutory rate principally due to the mining tax (royalty) (net impact of $73.2 million / 5.2% including the deduction of the mining tax (royalty) as an allowable expense in the determination of first category tax), the withholding tax relating to the remittance of profits from Chile (impact of $70.0 million / 5.0%), items not deductible for Chilean corporate tax purposes, principally the funding of expenses outside of Chile (impact of $9.8 million / 0.6%), adjustments in respect of prior years (impact of $1.6 million / 0.1%), partly offset by unrecognised tax gains (impact of $10.5 million / 0.7%) and the impact of the recognition of the Group's share of profit from associates and joint ventures, which are included in the Group's profit before tax net of their respective tax charges (impact of $1.4 million / 0.1%).

The impact of the exceptional items on the effective tax rate including exceptional items was $2.2 million / 0.2%.

The main factors which could impact the sustainability of the Group's existing effective tax rate are:

- the level of future distributions made by the Group's Chilean subsidiaries out of Chile, which could result in increased withholding tax charges,
- the impact of expenses which are not deductible for Chilean first category tax. Some of these expenses are relatively fixed costs, and so the relative impact of these expenses on the Group's effective tax rate will vary depending on the Group's total profit before tax in a particular year.

There are no significant tax uncertainties which would require critical judgements, estimates or potential provisions other than deferred tax estimates as explained in Note 3 A (ii).

12 Discontinued operations

In 2016 the Group disposed of Minera Michilla SA, with the profit on disposal, along with the results for that year, being presented on the "Profit for the period from discontinued operations" line in the income statement. The Group retained certain residual options over the Michilla operation, and in December 2020 the current owner of Michilla paid the Group $10.0 million in order to extinguish those options, resulting in a post-tax gain for the Group of $7.3 million. Consistent with the original presentation in 2016, this gain has been reflected on the "Profit for the period from discontinued operations" line in the income statement.

13 Earnings per share

	2020 $m	2019 $m
Profit for the year attributable to equity holders of the Company	**506.4**	501.4

	2020 Number	2019 Number
Ordinary shares in issue throughout each year	**985,856,695**	985,856,695

	2020 cents	2019 cents
Basic earnings per share		
From continuing operations	**50.6**	50.9
From discontinued operations	**0.7**	–
Total continuing and discontinued operations	**51.3**	50.9

Basic earnings per share are calculated as profit after tax and non-controlling interests, based on 985,856,695 (2019: 985,856,695) ordinary shares.

There was no potential dilution of earnings per share in either year set out above, and therefore diluted earnings per share did not differ from basic earnings per share as disclosed above.

13 Earnings per share continued

Reconciliation of basic earnings per share from continuing operations:

	2020	2019

Profit for the year attributable to equity holders of the Company	$m	**506.4**	501.4
Less: profit for discontinued operations attributable to equity holders of the Company	$m	**(7.3)**	–
Profit from continuing operations	$m	**499.1**	501.4
Ordinary shares	Number	**985,856,695**	985,856,695
Basic earnings per share from continuing operations	cents	**50.6**	50.9

14 Dividends

Amounts recognised as distributions to equity holders in the year:

	2020 $m	2019 $m	**2020 cents per share**	2019 cents per share
Final dividend paid in June (proposed in relation to the previous year)				
• ordinary	**70.0**	364.7	**7.1**	37.0
Interim dividend paid in October				
• ordinary	**61.1**	105.5	**6.2**	10.7
	131.1	470.2	**13.3**	47.7

The recommended final dividend for each year, which is subject to approval by shareholders at the Annual General Meeting and has therefore not been included as a liability in these financial statements, is as follows:

	2020 $m	2019 $m	**2020 cents per share**	2019 cents per share
Final dividend proposed in relation to the year				
• ordinary	**478.2**	70.0	**48.5**	7.1

This gives total dividends proposed in relation to 2020 (including the interim dividend) of 54.7 cents per share or $539.3 million (2019 – 17.8 cents per share or $175.5 million).

In accordance with IAS 32, preference dividends have been included within interest expense (see Note 10) and amounted to $0.1 million (2019 – $0.1 million).

Further details of the currency election timing and process (including the default currency of payment) are available on the Antofagasta plc website (www.antofagasta.co.uk) or from the Company's registrar, Computershare Investor Services PLC on +44 370 702 0159.

Further details relating to dividends for each year are given in the Directors' Report on page 153.

15 Intangible assets

	$m
Cost	
At 1 January 2019	150.1
Additions	–
Disposals	–
At 31 December 2019	**150.1**
Additions	**–**
Disposals	**–**
At 31 December 2020	**150.1**

The $150.1 million intangible asset reflects the value of Twin Metals' mining licences assets included within the corporate segment. These assets are classified as intangible assets as construction of the related mining operation has not yet commenced. When construction commences the licences will be transferred from intangible assets to the mining properties category within property, plant and equipment. Depreciation of these mining licences, along with the construction costs of the related mining operation, will commence when the operation is capable of commercial production.

16 Property, plant and equipment

	Land $m	Mining properties $m	Stripping cost $m	Buildings and infrastructure $m	Railway track $m	Wagons and rolling stock $m	Machinery, equipment and others $m	Assets under construction $m	Right-of-use assets $m	Total $m
Cost										
At 1 January 2019	55.8	662.3	1,471.4	5,321.1	84.1	146.1	6,845.5	955.2	409.3	15,950.8
Additions	4.8	–	346.5	0.5	–	–	–	777.4	45.2	1,174.4
Additions – capitalised depreciation	–	–	62.6	–	–	–	–	–	–	62.6
Adjustment to capitalised decommissioning provisions	–	–	–	24.8	–	–	–	–	–	24.8
Capitalisation of interest	–	–	–	–	–	–	8.9	–	–	8.9
Capitalisation of critical spare parts	–	–	–	–	–	–	11.5	–	–	11.5
Reclassifications	–	5.2	–	121.2	15.6	64.7	197.5	(385.1)	(23.0)	(3.9)
Asset disposals				(2.8)	–	(7.2)	(4.4)	(12.2)	(0.9)	(27.5)
At 31 December 2019	60.6	667.5	1,880.5	5,464.8	99.7	203.6	7,059.0	1,335.3	430.6	17,201.6
At 1 January 2020	60.6	667.5	1,880.5	5,464.8	99.7	203.6	7,059.0	1,335.3	430.6	17,201.6
Additions	**1.4**	**–**	**356.7**	**0.2**	**–**	**–**	**0.3**	**937.4**	**33.6**	**1,329.6**
Additions – capitalised depreciation	**–**	**–**	**67.8**	**–**	**–**	**–**	**–**	**–**	**–**	**67.8**
Adjustment to capitalised decommissioning provisions	**–**	**–**	**–**	**59.4**	**–**	**–**	**–**	**–**	**–**	**59.4**
Capitalisation of interest	**–**	**–**	**–**	**–**	**–**	**–**	**8.0**	**18.7**	**–**	**26.7**
Capitalisation of critical spare parts	**–**	**–**	**–**	**–**	**–**	**–**	**10.2**	**–**	**–**	**10.2**
Reclassifications	**–**	**–**	**–**	**403.7**	**9.7**	**14.6**	**192.5**	**(620.5)**	**–**	**–**
Asset disposals	**(0.1)**	**–**	**–**	**–**	**(1.1)**	**(10.2)**	**(3.1)**	**(4.3)**	**(5.3)**	**(24.1)**
At 31 December 2020	**61.9**	**667.5**	**2,305.0**	**5,928.1**	**108.3**	**208.0**	**7,266.9**	**1,666.6**	**458.9**	**18,671.2**
Accumulated depreciation and impairment										
At 1 January 2019	–	(490.3)	(441.9)	(2,140.1)	(30.5)	(84.3)	(3,348.3)	–	(99.9)	(6,635.3)
Charge for the year	–	(40.0)	(262.2)	(245.9)	(3.5)	(13.7)	(267.6)	–	(81.4)	(914.3)
Depreciation capitalised in inventories	–	–	–	–	–	–	(49.7)	–	–	(49.7)
Depreciation capitalised in property, plant and equipment	–	–	–	–	–	–	(62.6)	–	–	(62.6)
Reclassification	–	–	–	0.6	–	–	(6.7)	–	9.5	3.4
Asset disposals	–	–	–	2.2	–	6.8	3.7	–	0.9	13.6
At 31 December 2019	–	(530.3)	(704.1)	(2,383.2)	(34.0)	(91.2)	(3,731.2)	–	(170.9)	(7,644.9)
At 1 January 2020	–	(530.3)	(704.1)	(2,383.2)	(34.0)	(91.2)	(3,731.2)	–	(170.9)	(7,644.9)
Charge for the year	**–**	**(31.8)**	**(413.0)**	**(230.4)**	**(4.8)**	**(18.8)**	**(268.1)**	**–**	**(81.8)**	**(1,048.7)**
Depreciation capitalised in inventories	**–**	**–**	**–**	**–**		**–**	**(74.8)**	**–**	**–**	**(74.8)**
Depreciation capitalised in property, plant and equipment	**–**	**–**	**–**	**–**		**–**	**(67.8)**	**–**	**–**	**(67.8)**
Asset disposals	**–**	**–**	**–**	**–**	**0.3**	**9.2**	**2.1**	**–**	**5.3**	**16.9**
At 31 December 2020	**–**	**(562.1)**	**(1,117.1)**	**(2,613.6)**	**(38.5)**	**(100.8)**	**(4,139.8)**	**–**	**(247.4)**	**(8,819.3)**
Net book value										
At 31 December 2020	**61.9**	**105.4**	**1,187.9**	**3,314.5**	**69.8**	**107.2**	**3,127.1**	**1,666.6**	**211.5**	**9,851.9**
At 31 December 2019	60.6	137.2	1,176.4	3,081.6	65.7	112.4	3,327.8	1,335.3	259.7	9,556.7

The Group has no pledged assets (2019 – nil) as security against bank loans provided to the Group.

At 31 December 2020 the Group had entered into contractual commitments for the acquisition of property, plant and equipment amounting to $849.5 million (2019 – $863.3 million) of which $553.2 million was related to Los Pelambres and $289.6 million to Centinela.

Compensation from insurance companies related to property, plant and equipment included in the consolidated income statement was nil in 2020 (2019 – nil).

The average interest rate for the amounts capitalised was 4.2% (2019 – 3.5%).

At 31 December 2020, assets capitalised relating to the decommissioning provision were $199.5 million (2019 – $140.1 million).

Depreciation capitalised in property, plant and equipment of $67.8 million related to the depreciation of assets used in mine development (operating stripping) at Centinela, Los Pelambres and Antucoya (2019 – $62.6 million).

17 Investments in subsidiaries

The subsidiaries of the Group, the percentage of equity owned and the main country of operation are set out below. These interests are consolidated within these financial statements.

	Country of incorporation	Country of operations	Registered office	Nature of business	Economic interest
Direct subsidiaries of the Parent Company					
Antofagasta Railway Company plc	UK	Chile	1	Railway	100%
Andes Trust Limited (The)	UK	UK	1	Investment	100%
Chilean Northern Mines Limited	UK	Chile	1	Investment	100%
Andes Re Limited	Bermuda	Bermuda	4	Insurance	100%
Indirect subsidiaries of the Parent Company					
Minera Los Pelambres SCM	Chile	Chile	2	Mining	60%
Minera Centinela SCM	Chile	Chile	2	Mining	70%
Minera Antucoya SCM	Chile	Chile	2	Mining	70%
Antofagasta Minerals SA	Chile	Chile	2	Mining	100%
Alfa Estates Limited	Jersey	Jersey	3	Investment	100%
Energía Andina Geothermal SpA	Chile	Chile	2	Energy	100%
Los Pelambres Transmisión	Chile	Chile	2	Energy	100%
Northern Minerals Investment (Jersey) Limited	Jersey	Jersey	3	Investment	100%
Northern Metals (UK) Limited	UK	UK	1	Investment	100%
Northern Minerals Holding Co	USA	USA	5	Investment	100%
Duluth Metals Limited	Canada	Canada	7	Investment	100%
Twin Metals (UK) Limited	UK	UK	1	Investment	100%
Twin Metals (USA) Inc	USA	USA	6	Investment	100%
Twin Metals Minnesota LLC	USA	USA	6	Mining	100%
Franconia Minerals (US) LLC	USA	USA	6	Mining	100%
Duluth Metals Holdings (USA) Inc	USA	USA	13	Investment	100%
Duluth Exploration (USA) Inc	USA	USA	14	Investment	100%
DMC LLC (Minnesota)	USA	USA	13	Investment	100%
DMC (USA) LLC (Delaware)	USA	USA	13	Investment	100%
DMC (USA) Corporation	USA	USA	13	Investment	100%
Antofagasta Investment Company Limited	UK	UK	1	Investment	100%
Minprop Limited	Jersey	Jersey	3	Mining	100%
Antomin 2 Limited	BVI	BVI	8	Mining	51%
Antomin Investors Limited	BVI	BVI	8	Mining	51%
Antofagasta Minerals Australia Pty Limited	Australia	Australia	9	Mining	100%
Minera Anaconda Peru	Peru	Peru	10	Mining	100%
Los Pelambres Holding Company Limited	UK	UK	1	Investment	100%
Los Pelambres Investment Company Limited	UK	UK	1	Investment	100%
Lambom Land Co	USA	USA	5	Investment	100%
Anaconda South America Inc	USA	USA	15	Investment	100%
El Tesoro (SPV Bermuda) Limited	Bermuda	Bermuda	4	Investment	100%
Morrisville Holdings Co	BVI	BVI	8	Investment	100%
Antofagasta Minerals Canada	Canada	Canada	9	Agency	100%
Antofagasta Minerals (Shanghai) Co. Limited	China	China	16	Agency	100%
Andes Investments Company (Jersey) Limited	Jersey	Jersey	3	Investment	100%
Bolivian Rail Investors Co Inc	USA	USA	5	Investment	100%
Inversiones Ferrobol Limitada	Bolivia	Bolivia	11	Investment	100%
Inversiones Los Pelambres Chile Limitada	Chile	Chile	2	Investment	100%
Equatorial Resources SpA	Chile	Chile	2	Investment	100%
Minera Santa Margarita de Astillas SCM	Chile	Chile	2	Mining	82.0%

	Country of incorporation	Country of operations	Registered office	Nature of business	Economic interest
Minera Penacho Blanco SA	Chile	Chile	2	Mining	66.6%
Michilla Costa SpA	Chile	Chile	2	Logistics	99.9%
Pampa Fenix SA	Chile	Chile	2	Investment	90.0%
Minera Mulpun Limitada	Chile	Chile	2	Mining	100%
Fundación Minera Los Pelambres	Chile	Chile	2	Community development	100%
Inversiones Punta de Rieles Limitada	Chile	Chile	12	Investment	100%
Ferrocarril Antofagasta a Bolivia (Permanent Establishment)	Chile	Chile	12	Railway	100%
Inversiones Chilean Northern Mines Limitada	Chile	Chile	12	Investment	100%
The Andes Trust Chile SA	Chile	Chile	12	Investment	100%
Forestal SA	Chile	Chile	12	Forestry	100%
Servicios de Transportes Integrados Limitada	Chile	Chile	12	Road transport	100%
Inversiones Train Limitada	Chile	Chile	12	Investment	100%
Servicios Logisticos Capricornio Limitada	Chile	Chile	12	Transport	100%
Embarcadores Limitada	Chile	Chile	12	Transport	100%
FCAB Ingenieria y Servicios 2 Limitada	Chile	Chile	12	Transport	100%
Emisa Antofagasta SA	Chile	Chile	12	Transport	100%

Registered offices:

1 Cleveland House, 33 King Street, London, SW1Y 6RJ, UK
2 Avenida Apoquindo N° 4001, Piso 18, Las Condes, Santiago, Chile
3 22 Grenville Street, St Helier, Jersey, JE4 8PX3, Channel Islands
4 Crawford House, 50 Cedar Avenue, Hamilton HM 11, Bermuda
5 1209 Orange Street, Wilmington, DE 19801, USA
6 6040 Earle Brown Drive, 480 Brooklyn Center, MN 55430, USA
7 161 Bay Street, Suite 4320, Toronto, Ontario, M5J 2S1, Canada
8 PO Box 958, Road Town, Tortola VG1110, British Virgin Islands
9 Riparian Plaza, Level 28, 71 Eagle Street, Brisbane, Qld 4001, Australia
10 Avenida Paseo de la Republica Nº 3245 Piso 3, Lima, Peru
11 Avenida 16 de Julio N° 1440, piso 19 oficina 1905, La Paz, Bolivia
12 Simon Bolivar 255, Antofagasta, Chile
13 6041 Earle Brown Drive, 480 Brooklyn Center, MN 55430, USA
14 1010 Dale Street N, St Paul, MN 55117-5603, USA
15 2711 Centerville Road, Suite 400, Wilmington, DE 19808, USA
16 Unit 3309, IFC 2, 8 Century Avenue, Shanghai, China

With the exception of the Antofagasta Railway Company plc, all of the above Group companies have only one class of ordinary share capital in issue. The Antofagasta Railway Company plc has ordinary and preference share capital in issue, with the ordinary share capital representing 76% of the Company's total share capital, and the preference share capital representing 24%. Antofagasta plc holds 100% of both the ordinary and preference shares.

The proportion of voting rights is proportional to the economic interest for the companies listed above.

18 Investment in associates and joint ventures

	Inversiones Hornitos 2020 $m	ATI [ii] 2020 $m	Minera Zaldívar [iii] 2020 $m	Tethyan Copper [iv] 2020 $m	Total 2020 $m
Balance at the beginning of the year	56.9	6.1	961.8	–	1,024.8
Obligations on behalf of JV and associates at the beginning of the year	–	–	–	(1.8)	(1.8)
Capital contribution	23.9	–	–	7.2	31.1
Impairment of investment in associate [i]	(80.8)	–	–	–	(80.8)
Share of net profit/(loss) before tax	–	(0.9)	19.8	(6.5)	12.4
Share of tax	–	0.4	(7.6)	–	(7.2)
Share of income/(loss) from JV and associates	–	(0.5)	12.2	(6.5)	5.2
Dividends receivable	–	–	(65.0)	–	(65.0)
Balance at the end of the year	–	5.6	909.0	–	914.6
Obligations on behalf of JV and associates at the end of the year	–	–	–	(1.1)	(1.1)

	Inversiones Hornitos 2019 $m	ATI 2019 $m	Minera Zaldívar 2019 $m	Tethyan Copper 2019 $m	Total 2019 $m
Balance at the beginning of the year	54.6	5.1	996.4	–	1,056.1
Obligations on behalf of JV and associates at the beginning of the year	–	–	–	(1.0)	(1.0)
Capital contribution	–	–	–	1.8	1.8
Share of net profit/(loss) before tax	13.8	1.5	23.8	(2.6)	36.5
Share of tax	(3.5)	(0.4)	(8.2)	–	(12.1)
Share of income/(loss) from JV and associates	10.3	1.1	15.6	(2.6)	24.4
Dividends receivable	(8.0)	–	(50.0)	–	(58.0)
Other comprehensive income	–	(0.1)	(0.2)	–	(0.3)
Balance at the end of the year	56.9	6.1	961.8	–	1,024.8
Obligations on behalf of JV and associates at the end of the year	–	–	–	(1.8)	(1.8)

The investments which are included in the $913.4 million balances at 31 December 2020 are set out below:

Investment in associates

(i) On 31 March 2020 the Group agreed to dispose of its 40% interest in Hornitos coal-fired power station to ENGIE Energía Chile S.A. ("ENGIE"), the owner of the remaining 60% interest. This was part of the value accretive renegotiation of Centinela's power purchase agreement which as a result will be wholly supplied from lower cost renewable sources from 2022. Under the terms of the agreement the Group will dispose of its investment to Engie
in 2021 for a nominal consideration, and will not be entitled to receive any further dividend income from Hornitos from the date of the agreement. Accordingly, the Group no longer has any effective economic interest in the results or assets of Hornitos from 31 March 2020 onwards, and has therefore recognised an impairment of $80.8 million in respect of its investment in associate balance, and will no longer recognise any share of Hornitos' results. The post-tax impact of the provision is $61.1 million, of which $40.2 million is attributable to the equity owners of the Company.

(ii) The Group's 30% interest in ATI, which operates a concession to manage installations in the port of Antofagasta.

Investment in joint ventures

(iii) The Group's 50% interest in Minera Zaldívar SpA ("Zaldívar").

(iv) The Group's 50% interest in Tethyan Copper Company Limited ("Tethyan"), which is a joint venture with Barrick Gold Corporation in respect of the Reko Diq project in Pakistan. Tethyan has been pursuing arbitration claims against the Islamic Republic of Pakistan ("Pakistan") following the unlawful denial of a mining lease for the project in 2011. Details in respect of the arbitration are set out in Note 35.

As the net carrying value of the interest in Tethyan is negative it is included within non-current liabilities, as the Group is liable for its share of the joint venture's obligations.

Summarised financial information for the associates is as follows:

	ATI 2020 $m	Total 2020 $m
Cash and cash equivalents	**0.2**	**0.2**
Current assets	**11.3**	**11.3**
Non-current assets	**108.2**	**108.2**
Current liabilities	**(19.9)**	**(19.9)**
Non-current liabilities	**(83.5)**	**(83.5)**
Revenue	**40.4**	**40.4**
Profit/(loss) from continuing operations	**(1.9)**	**(1.9)**
Other comprehensive expense	**–**	**–**
Total comprehensive income	**(1.9)**	**(1.9)**

	Inversiones Hornitos 2019 $m	ATI 2019 $m	Total 2019 $m
Cash and cash equivalents	29.3	0.8	30.1
Current assets	26.0	13.2	39.2
Non-current assets	265.1	112.5	377.6
Current liabilities	(43.8)	(18.3)	(62.1)
Non-current liabilities	(153.9)	(90.0)	(243.9)
Revenue	139.9	52.2	192.1
Profit/(loss) from continuing operations	25.8	3.6	29.4
Other comprehensive expense	–	(0.3)	(0.3)
Total comprehensive income	25.8	3.3	29.1

Summarised financial information for the joint ventures is as follows:

	Minera Zaldívar 2020 $m	Tethyan Copper 2020 $m	Total 2020 $m
Cash and cash equivalents	**281.0**	**4.2**	**285.2**
Current assets	**677.2**	**–**	**677.2**
Non-current assets	**1,856.3**	**–**	**1,856.3**
Current liabilities	**(290.0)**	**(6.2)**	**(296.2)**
Non-current liabilities	**(670.4)**	**(0.1)**	**(670.5)**
Revenue	**599.3**	**–**	**599.3**
Profit/(loss) after tax from continuing and discontinued operations	**24.3**	**(12.9)**	**11.4**
Other comprehensive expense	**–**	**–**	**–**
Total comprehensive income/(expense)	**24.3**	**(12.9)**	**11.4**

	Minera Zaldívar 2019 $m	Tethyan Copper 2019 $m	Total 2019 $m
Cash and cash equivalents	138.7	1.7	140.4
Current assets	631.3	–	631.3
Non-current assets	1,846.8	–	1,846.8
Current liabilities	(118.7)	(5.1)	(123.8)
Non-current liabilities	(517.9)	(0.1)	(518.0)
Revenue	687.6	–	687.6
Profit/(loss) after tax from continuing and discontinued operations	53.0	(5.1)	47.9
Other comprehensive expense	(0.4)	–	(0.4)
Total comprehensive income/(expense)	52.6	(5.1)	47.5

The above summarised financial information is based on the amounts included in the IFRS financial statements of the associate or joint venture (ie 100% of the results or balances of the associate or joint venture, rather than the Group's proportionate share), after the Group's fair value adjustments.

19 Equity investments

	2020 $m	2019 $m
Balance at the beginning of the year	**5.1**	4.7
Movement in fair value	**5.5**	0.3
Foreign currency exchange differences	**0.5**	0.1
Balance at the end of the year	**11.1**	5.1

Equity investments represent those investments which are not subsidiaries, associates or joint ventures and are not held for trading purposes. The fair value of all equity investments is based on quoted market prices.

20 Inventories

	2020 $m	2019 $m
Current		
Raw materials and consumables	**178.2**	219.9
Work-in-progress	**339.3**	276.7
Finished goods	**75.2**	89.8
	592.7	586.4
Non-current		
Work-in-progress	**278.1**	208.0
Total	**870.8**	794.4

During 2020 a net realisable value ("NRV") adjustment of $1.5 million has been recognised (2019 $18.5 million). Non-current work-in-progress represents inventory expected to be processed more than 12 months after the balance sheet date.

The carrying value of the Group's inventory balances has been reassessed with consideration of the effects of the COVID-19 pandemic. No material adjustments have been made to the carrying values of the inventory balances for the year ended 31 December 2020 as a result of the COVID-19 pandemic.

21 Trade and other receivables

Trade and other receivables do not generally carry any interest, are principally short-term in nature and are normally stated at their nominal value less any impairment.

	Due in one year		Due after one year		Total	
	2020 $m	2019 $m	2020 $m	2019 $m	2020 $m	2019 $m
Trade debtors	**832.6**	570.9	**–**	–	**832.6**	570.9
Other debtors	**184.3**	111.5	**55.9**	48.2	**240.2**	159.7
	1,016.9	682.4	**55.9**	48.2	**1,072.8**	730.6

The largest balances of trade receivables are with equity participants in the key mining projects. Many other significant trade receivables are secured by letters of credit or other forms of security. There is no material element which is interest-bearing. Trade debtors include mark-to-market adjustments in respect of provisionally priced sales of copper and molybdenum concentrates which remain open as to final pricing. Further details of such adjustments are given in Note 7.

Movements in the provision for doubtful debts were as follows:

	2020 $m	2019 $m
Balance at the beginning of the year	**(3.1)**	(4.6)
Utilised in year	**1.8**	1.6
Foreign currency exchange difference	**(0.2)**	(0.1)
Balance at the end of the year	**(1.5)**	(3.1)

The ageing analysis of the trade and other receivables balance is as follows:

		Past due but not impaired			
	Neither past due nor impaired $m	Up to 3 months past due $m	3-6 months past due $m	More than 6 months past due $m	Total $m
2020	**1,064.3**	**8.0**	**0.2**	**0.3**	**1,072.8**
2019	724.1	4.0	0.1	2.4	730.6

With respect to the trade receivables that are neither past due nor impaired, there are no indications that the debtors will not meet their payment obligations. The carrying value of the trade receivables recorded in the financial statements represents the Group's maximum exposure to credit risk.

The recoverability of the Group's trade receivables has been reassessed with consideration of the effects of the COVID-19 pandemic. No material adjustments have been made to the carrying values of trade receivables for the year ended 31 December 2020 as a result of the COVID-19 pandemic.

22 Cash and cash equivalents, and liquid investments

The fair value of cash and cash equivalents, and liquid investments is not materially different from the carrying values presented. The credit risk on cash and cash equivalents is limited because the counterparties are banks with high credit ratings assigned by international credit rating agencies.

Cash and cash equivalents, and liquid investments comprised:

	2020 $m	2019 $m
Cash and cash equivalents	**1,246.8**	653.7
Liquid investments	**2,426.0**	1,539.7
	3,672.8	2,193.4

At 31 December 2020 and 2019 there is no cash which is subject to restriction.

The denomination of cash, cash equivalents and liquid investments was as follows:

	2020 $m	2019 $m
US dollars	**3,558.9**	2,145.7
Chilean pesos	**112.8**	45.7
Sterling	**–**	0.3
Other	**1.1**	1.7
	3,672.8	2,193.4

The credit quality of cash, cash equivalents and liquid investments are as follow:

Current account bank deposits and cash at bank	2020 $m	2019 $m
AAA	**2,007.1**	1,602.5
AA+	**–**	6.0
AA	**46.0**	4.8
AA-	**279.5**	36.7
A+	**553.3**	125.7
A	**741.5**	369.7
A-	**33.9**	–
BBB+	**2.1**	–
BBB-	**–**	–
Subtotal	**3,663.4**	2,145.4
Cash at bank[1]	**9.4**	48.0
Total cash, cash equivalents and liquid investments	**3,672.8**	2,193.4

1. Cash at bank is held with investment grade financial institutions.

There have been no impairments recognised in respect of cash or cash equivalents as at 31 December 2020 (31 December 2019 nil).

23 Borrowings

A) Analysis by type of borrowing

Borrowings may be analysed by business segment and type as follows:

	Note	2020 $m	2019 $m
Los Pelambres			
• Senior loan	(i)	**(1,288.1)**	(469.4)
• Leases	(ii)	**(91.4)**	(115.0)
Centinela			
• Senior loan	(iii)	**(496.5)**	(298.8)
• Subordinated debt	(iv)	**(203.0)**	(205.9)
• Short-term loan		**–**	(200.0)
• Leases	(v)	**(78.0)**	(81.0)
Antucoya			
• Senior loan	(vi)	**(261.1)**	(325.4)
• Subordinated debt	(vii)	**(191.5)**	(391.9)
• Short-term loan	(viii)	**(75.0)**	(75.0)
• Leases	(ix)	**(19.9)**	(27.7)
Corporate and other items			
• Senior loan	(x)	**(496.6)**	(499.2)
• Bond	(xi)	**(495.6)**	–
• Leases	(xii)	**(18.6)**	(19.3)
Transport division			
• Senior loan	(xiii)	**(36.5)**	(44.6)
• Leases	(xiv)	**(0.3)**	(1.0)
Preference shares	(xv)	**(2.7)**	(2.6)
Total		**(3,754.8)**	(2,756.8)

(i) The senior loan at Los Pelambres represents a $1,300 million US dollar denominated syndicated loan divided in two tranches. The first tranche has a remaining duration of 5 years and an interest rate of LIBOR six-month rate plus 1.2%. The second tranche has a remaining duration of 8 years and an interest rate of LIBOR six-month rate plus 0.85%. As at 31 December 2020 the loan facility had been fully drawn-down. The loan is subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained.

(ii) Leases at Los Pelambres are denominated in a mixture of US dollars and Chilean pesos, with a weighted average interest rate of 5.0% and a remaining duration of 1.5 years.

(iii) The previous Centinela senior loan was repaid in February 2020. A new $500 million senior loan was put in place at that time, with a remaining duration of 4.2 years and an interest rate of LIBOR six-month rate plus 0.95%. The loan is subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained.

(iv) The subordinated debt at Centinela is provided by Marubeni Corporation and is US dollar denominated with a remaining duration of 5.5 years and a weighted average interest rate of LIBOR six-month rate plus 4.5%. Subordinated debt provided by Group companies to Centinela has been eliminated on consolidation.

(v) Leases at Centinela are mainly Chilean peso denominated, with a weighted average interest rate of 5.1% and a remaining duration of 3 years.

(vi) The senior loan at Antucoya represents a US dollar denominated syndicated loan, with a remaining duration of 3.9 years and an interest rate of LIBOR six-month rate plus 1.3%. The loan is subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained.

(vii) The subordinated debt at Antucoya is provided by Marubeni Corporation and is US dollar denominated with a remaining duration of 4.5 years and an interest rate of LIBOR six-month rate plus 3.65%. Subordinated debt provided by Group companies to Antucoya has been eliminated on consolidation.

During the year ended 31 December 2020 Antucoya made a $210 million repayment of the subordinated debt due to Marubeni which was replaced with equity.

(viii) The short-duration loan at Antucoya is US dollar denominated, comprising a working capital loan for an average period of 1 year and has an interest rate of LIBOR six-month rate plus a weighted average spread of 0.53%.

(ix) Leases at Antucoya are denominated in a mixture of US dollars and Chilean pesos, with a weighted average interest rate of 4.6% and a remaining duration of 3 years.

(x) The previous Corporate (Antofagasta plc) senior loan was repaid in August 2020. A new $500 million senior loan was put in place at that time, with an interest rate of LIBOR six-month rate plus 2.25% and has a remaining duration of 4.7 years.

(xi) Antofagasta plc issued a $500 million corporate bond in October 2020 with a 10 year tenor and a yield of 2.415%.

(xii) Leases at Corporate and other items are denominated in Unidades de Fomento (ie inflation-linked Chilean pesos) and have a remaining duration of 7.2 years and are at fixed rates with an average interest rate of 5.3%.

(xiii) The senior loan at the Transport division is US dollar denominated, with a remaining duration of 4 years and an interest rate of LIBOR six-month rate plus 1.06%.

(xiv) Leases at the Transport division are mainly in Unidades de Fomento (ie inflation-linked Chilean pesos), with a weighted average interest rate of 2.13% and a remaining duration of 1 year.

(xv) The preference shares are Sterling-denominated and issued by Antofagasta plc. There were 2 million shares of £1 each authorised, issued and fully paid at 31 December 2020. The preference shares are non-redeemable and are entitled to a fixed cumulative dividend of 5% per annum. On winding up they are entitled to repayment and any arrears of dividend in priority to ordinary shareholders, but are not entitled to participate further in any surplus. Each preference share carries 100 votes in any general meeting of the Company.

B) Leases

Information in respect of the Group's leases is contained in the following notes:

- Note 16 – depreciation charges, additions and disposals in respect of the right of use assets relating to the leases
- Note 32(b) – repayments of the lease balances and new lease liabilities arising during the period
- Note 10 – interest expense in respect of the lease balances

C) Analysis of borrowings by currency

The exposure of the Group's borrowings to currency risk is as follows:

At 31 December 2020	Chilean pesos $m	Sterling $m	US dollars $m	2020 Total $m
Corporate loans	–	–	**(2,578.8)**	**(2,578.8)**
Bond	–	–	**(495.6)**	**(495.6)**
Other loans (including short-term loans)	–	–	**(469.5)**	**(469.5)**
Leases	**(169.5)**	–	**(38.7)**	**(208.2)**
Preference shares	–	**(2.7)**	–	**(2.7)**
	(169.5)	**(2.7)**	**(3,582.6)**	**(3,754.8)**

At 31 December 2019	Chilean pesos $m	Sterling $m	US dollars $m	2019 Total $m
Corporate loans	–	–	(1,637.4)	(1,637.4)
Other loans (including short-term loans)	–	–	(872.8)	(872.8)
Leases	(195.7)	–	(48.3)	(244.0)
Preference shares	–	(2.6)	–	(2.6)
	(195.7)	(2.6)	(2,558.5)	(2,756.8)

D) Analysis of borrowings by type of interest rate

The exposure of the Group's borrowings to interest rate risk is as follows:

At 31 December 2020	Fixed $m	Floating $m	2020 Total $m
Corporate loans	–	**(2,578.8)**	**(2,578.8)**
Bond	**(495.6)**	–	**(495.6)**
Other loans (including short-term loans)	–	**(469.5)**	**(469.5)**
Leases	**(177.6)**	**(30.6)**	**(208.2)**
Preference shares	**(2.7)**	–	**(2.7)**
	(675.9)	**(3,078.9)**	**(3,754.8)**

At 31 December 2019	Fixed $m	Floating $m	2019 Total $m
Corporate loans	–	(1,637.4)	(1,637.4)
Other loans (including short-term loans)	–	(872.8)	(872.8)
Leases	(199.3)	(44.7)	(244.0)
Preference shares	(2.6)	–	(2.6)
	(201.9)	(2,554.9)	(2,756.8)

23 Borrowings continued

E) Maturity profile

The maturity profile of the Group's borrowings is as follows:

At 31 December 2020	Within 1 year $m	Between 1-2 years $m	Between 2-5 years $m	After 5 years $m	2020 Total $m
Corporate loans	**(454.3)**	**(471.3)**	**(941.0)**	**(712.2)**	**(2,578.8)**
Bond	**–**	**–**	**–**	**(495.6)**	**(495.6)**
Other loans	**(75.0)**	**–**	**–**	**(394.5)**	**(469.5)**
Leases	**(74 .1)**	**(62.6)**	**(67.4)**	**(4.1)**	**(208.2)**
Preference shares	**–**	**–**	**–**	**(2.7)**	**(2.7)**
	(603.4)	**(533.9)**	**(1,008.4)**	**(1,609.1)**	**(3,754.8)**

At 31 December 2019	Within 1 year $m	Between 1-2 years $m	Between 2-5 years $m	After 5 years $m	2019 Total $m
Corporate loans	(373.3)	(135.2)	(1,128.9)	–	(1,637.4)
Other loans	(275.0)	–	–	(597.8)	(872.8)
Leases	(75.6)	(59.7)	(92.9)	(15.8)	(244.0)
Preference shares	–	–	–	(2.6)	(2.6)
	(723.9)	(194.9)	(1,221.8)	(616.2)	(2,756.8)

The amounts included above for leases are based on the present value of minimum lease payments.

The total minimum lease payments for these leases may be analysed as follows:

	2020 $m	2019 $m
Within 1 year	**(81.3)**	(82.4)
Between 1 – 2 years	**(66.7)**	(68.4)
Between 2 – 5 years	**(71.9)**	(99.6)
After 5 years	**(4.3)**	(16.7)
Total minimum lease payments	**(224.2)**	(267.1)
Less amounts representing finance charges	**16.0**	23.1
Present value of minimum lease payments	**(208.2)**	(244.0)

All leases are on a fixed payment basis and no arrangements have been entered into for contingent rental payments.

24 Trade and other payables

	Due in one year		Due after one year		Total	
	2020 $m	2019 $m	2020 $m	2019 $m	2020 $m	2019 $m
Trade creditors	**(536.5)**	(513.5)	**–**	–	**(536.5)**	(513.5)
Other creditors and accruals	**(272.3)**	(237.1)	**(11.0)**	(8.2)	**(283.3)**	(245.3)
	(808.8)	(750.6)	**(11.0)**	(8.2)	**(819.8)**	(758.8)

Trade creditors and accruals principally comprise amounts outstanding for trade purchases and ongoing costs. Other creditors are mainly related to property plant and equipment payables, finance interest and employee retentions.

The average credit period taken for trade purchases is 21 days (2019 – 26 days).

At 31 December 2020, the other creditors and accruals include $3.8million (2019 – $6.8 million) relating to prepayments. Prepayments are offset against payables to the same suppliers.

25 Financial instruments and financial risk management

A) Categories of financial instruments

The carrying value of financial assets and financial liabilities is shown below:

	At fair value through profit and loss	At fair value through other comprehensive income	Held at amortised cost	Total 2020 $m
Financial assets				
Derivative financial assets	**1.4**	**–**	**–**	**1.4**
Equity investments	**–**	**11.1**	**–**	**11.1**
Loans and receivables	**808.0**	**–**	**184.6**	**992.6**
Cash and cash equivalents	**–**	**–**	**1,246.8**	**1,246.8**
Liquid investments	**2,426.0**	**–**	**–**	**2,426.0**
	3,235.4	**11.1**	**1,431.4**	**4,677.9**
Financial liabilities				
Derivative financial liabilities	**(37.4)**	**–**	**–**	**(37.4)**
Trade and other payables	**(0.3)**	**–**	**(815.8)**	**(816.1)**
Borrowings and leases	**–**	**–**	**(3,754.8)**	**(3,754.8)**
	(37.7)	**–**	**(4,570.6)**	**(4,608.3)**

	At fair value through profit and loss	At fair value through other comprehensive income	Held at amortised cost	Total 2019 $m
Financial assets				
Derivative financial assets	4.8	–	–	4.8
Equity investments	–	5.1	–	5.1
Loans and receivables (restated[1])	571.3	–	97.1	668.4
Cash and cash equivalents	–	–	653.7	653.7
Liquid investments	1,539.7	–	–	1,539.7
	2,115.8	5.1	750.8	2,871.7
Financial liabilities				
Derivative financial liabilities	(12.1)	–	–	(12.1)
Trade and other payables	(0.4)	–	(755.9)	(756.3)
Borrowings and leases	–	–	(2,756.8)	(2,756.8)
	(12.5)	–	(3,512.7)	(3,525.2)

The fair value of the fixed rate bond included within the "Borrowings and leases" category was $503.5 million at 31 December 2020 compared with its carrying value of $495.6 million. The fair value of all other financial assets and financial liabilities carried at amortised cost is not materially different from the carrying value presented above.

1. The "Loans and receivables" balances for the comparative periods have been restated to exclude certain amounts which are outside the scope of the definition of "financial assets" per IAS 32 Financial Instruments: Presentation, resulting in a $62.2 million reduction in the balance as at 31 December 2019.

B) Fair value of financial instruments

	Level 1 $m	Level 2 $m	Level 3 $m	Total 2020 $m
Financial assets				
Derivative financial assets [(a)]	**–**	**1.4**	**–**	**1.4**
Equity investments [(b)]	**11.1**	**–**	**–**	**11.1**
Loans and receivables [(c)]	**–**	**808.0**	**–**	**808.0**
Liquid investment [(d)]	**2,426.0**	**–**	**–**	**2,426.0**
	2,437.1	**809.4**	**–**	**3,246.5**
Financial liabilities				
Derivative financial liabilities [(a)]	**–**	**(37.4)**	**–**	**(37.4)**
Trade and other payables	**–**	**(0.3)**	**–**	**(0.3)**
	–	**(37.7)**	**–**	**(37.7)**

25 Financial instruments and financial risk management continued

	Level 1 $m	Level 2 $m	Level 3 $m	Total 2019 $m
Financial assets				
Derivative financial assets [(a)]	–	4.8	–	4.8
Equity investments [(b)]	5.1	–	–	5.1
Loans and receivables [(c)]	–	571.3	–	571.3
Liquid investment [(d)]	1,539.7	–	–	1,539.7
	1,544.8	576.1	–	2,120.9
Financial liabilities				
Derivative financial liabilities [(a)]	–	(12.1)	–	(12.1)
Trade and other payables	–	(0.4)	–	(0.4)
	–	(12.5)	–	(12.5)

Recurring fair value measurements are those that are required in the balance sheet at the end of each reporting year.

a) Derivatives in designated hedge accounting relationships are valued using a discounted cash flow analysis valuation model, which includes observable credit spreads and using the applicable yield curve for the duration of the instruments for non-optional derivatives, and option pricing models for optional derivatives. These are level 2 inputs as described below. Hedging instruments at 31 December 2020 relate to foreign exchange and commodity options.

b) Equity investments are investments in shares on active markets and are valued using unadjusted quoted market values of the shares at the financial reporting date. These are level 1 inputs as described below.

c) Provisionally priced metal sales for the period are marked-to-market at the end of the period. Gains and losses from the marking-to-market of open sales are recognised through adjustments to revenue in the income statement and trade receivables in the balance sheet. Forward prices at the end of the period are used for copper sales while period-end average prices are used for molybdenum concentrate sales. These are level 2 inputs as described below.

d) Liquid investments are highly liquid current asset investments that are valued using market prices at the period end. These are level 1 inputs as described below.

The inputs to the valuation techniques described above are categorised into three levels, giving the highest priority to unadjusted quoted prices in active markets (level 1) and the lowest priority to unobservable inputs (level 3 inputs):

- Level 1 fair value measurement inputs are unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2 fair value measurement inputs are derived from inputs other than quoted market prices included in level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 fair value measurement inputs are unobservable inputs for the asset or liability.

The degree to which inputs into the valuation techniques used to measure the financial assets and liabilities are observable and the significance of these inputs in the valuation are considered in determining whether any transfers between levels have occurred. In the year ended 31 December 2020, there were no transfers between levels in the hierarchy.

C) Financial risk management

The Group's activities expose it to a variety of financial risks: market risk (including commodity price risk, currency risk, interest rate risk and other price risk), credit risk and liquidity risk. The Group periodically uses derivative financial instruments, to reduce its exposure to commodity price, foreign exchange and interest rate movements. The Group does not use such derivative instruments for speculative trading purposes.

The Board of Directors is responsible for overseeing the Group's risk management framework. The Audit and Risk Committee assists the Board with its review of the effectiveness of the risk management process, and monitoring of key risks and mitigations. The Internal Audit department undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the Audit and Risk Committee.

(I) Commodity price risk

The Group generally sells its copper and molybdenum concentrate and copper cathode output at prevailing market prices, subject to final pricing adjustments which normally range from one to four months after delivery to the customer, and it is therefore exposed to changes in market prices for copper and molybdenum both in respect of future sales and previous sales, which remain open as to final pricing. In 2020, sales of copper and molybdenum concentrate and copper cathodes represented 88.9% of Group revenue and therefore revenues and earnings depend significantly on LME and realised copper prices.

The Group periodically uses futures and min-max options to manage its exposure to copper prices. These instruments may give rise to accounting volatility due to fluctuations in their fair value prior to the maturity of the instruments. Details of those copper and molybdenum concentrate sales and copper cathode sales, which remain open as to final pricing, are given in Note 7. Details of commodity rate derivatives entered into by the Group are given in Note 23(E).

Commodity price sensitivity

The sensitivity analysis below shows the impact of a movement in the copper price on the financial instruments held as at the reporting date. A movement in the copper market price as at the reporting date will affect the final pricing adjustment to sales that remain open at that date, impacting the trade receivables balance and consequently the income statement. A movement in the copper market price will also affect the valuation of commodity derivatives, impacting the hedging reserve in equity if the fair value movement relates to an effective designated cash flow hedge, and impacting the income statement if it does not. The calculation assumes that all other variables, such as currency rates, remain constant.

- If the copper market price as at the reporting date had increased by 10 c/lb, profit attributable to the owners of the parent would have increased by $16.8 million (2019 – increase by $16.5 million).
- If the copper market price as at the reporting date had decreased by 10 c/lb, profit attributable to the owners of the parent would have decreased by $16.8 million (2019 – decrease by $16.5 million). In addition, a movement in the average copper price during the year would impact revenue and earnings. A 10 c/lb change in the average copper price during the year would have affected profit attributable to the owners of the parent by $73.5 million (2019 – $77.3 million) and earnings per share by 7.5

cents (2019 – 7.8 cents), based on production volumes in 2020, without taking into account the effects of provisional pricing and hedging activity. A $1 /lb change in the average molybdenum price for the year would have affected profit attributable to the owners of the parent by $11.8 million (2019 – $10.7 million), and earnings per share by 1.2 cents (2019 – 1.0 cents), based on production volumes in 2020, and without taking into account the effects of provisional pricing. A $100 /oz change in the average gold price for the year would have affected profit attributable to the owners of the parent by $10.1 million (2019 – $14.5 million), and earnings per share by 1.0 cents (2019 – 1.5 cents), based on production volumes in 2020, and without taking into account the effects of provisional pricing.

(II) Currency risk

The Group is exposed to a variety of currencies. The US dollar, however, is the currency in which the majority of the Group's sales are denominated. Operating costs are influenced by the countries in which the Group's operations are based (principally in Chile) as well as those currencies in which the costs of imported goods and services are determined. After the US dollar, the Chilean peso is the most important currency influencing costs and to a lesser extent sales.

Given the significance of the US dollar to the Group's operations, this is the presentational currency of the Group for internal and external reporting. The US dollar is also the currency for borrowing and holding surplus cash, although a portion of this may be held in other currencies, notably Chilean pesos and Sterling, to meet short-term operating and capital commitments and dividend payments.

When considered appropriate, the Group uses forward exchange contracts and currency swaps to limit the effects of movements in exchange rates in foreign currency denominated assets and liabilities. The Group may also use these instruments to reduce currency exposure on future transactions and cash flows. Details of any exchange rate derivatives entered by the Group in the year are given in Note 25(D).

The currency exposure of the Group's cash, cash equivalents and liquid investments is given in Note 22, and the currency exposure of the Group's borrowings is given in Note 23(C). The effects of exchange gains and losses included in the income statement are given in Note 10. Exchange differences on translation of the net assets of entities with a functional currency other than the US dollar are taken to the currency translation reserve and are disclosed in the Consolidated Statement of Changes in Equity on page 166.

Currency sensitivity

The sensitivity analysis below shows the impact of a movement in the US dollar/Chilean peso exchange rate on the financial instruments held as at the reporting date.

The impact on profit or loss is as a result of the retranslation of monetary financial instruments (including cash, cash equivalents, liquid investments, trade receivables, trade payables and borrowings). The impact on equity is as a result of changes in the fair value of derivative instruments which are effective designated cash flow hedges, and changes in the fair value of equity investments. The calculation assumes that all other variables, such as interest rates, remain constant.

If the US dollar had strengthened by 10% increase against the Chilean peso as at the reporting date, profit attributable to the owners of the parent would have increased by $15.8 million (2019 – increase of $10.2 million). If the US dollar had weakened by 10% against the Chilean peso as at the reporting date, profit attributable to the owners of the parent would have decreased by $19.3 million (2019 – decrease of $12.5 million).

(III) Interest rate risk

The Group's policy is generally to borrow and invest cash at floating rates. Fluctuations in interest rates may impact the Group's net finance income or cost, and to a lesser extent the value of financial assets and liabilities. The Group occasionally uses interest rate swaps and collars to manage interest rate exposures on a portion of its existing borrowings. Details of any interest rate derivatives entered into by the Group are given in Note 25(D).

The Interest rate exposure of the Group's borrowings is given in Note 23.

Interest rate sensitivity

The sensitivity analysis below shows the impact of a movement in interest rates in relation to the financial instruments held as at the reporting date. The impact on profit or loss reflects the impact on annual interest expense in respect of the floating rate borrowings held as at the reporting date, and the impact on annual interest income in respect of cash and cash equivalents held as at the reporting date. The impact on equity is as a result of changes in the fair value of derivative instruments which are effective designated cash flow hedges. The calculation assumes that all other variables, such as currency rates, remain constant.

If the interest rate increased by 1%, based on the financial instruments held as at the reporting date, profit attributable to the owners of the parent would have decreased by $1.7 million (2019 – decrease of $1.5 million). This does not include the effect on the income statement of changes in the fair value of the Group's liquid investments relating to the underlying investments in fixed income instruments.

(IV) Other price risk

The Group is exposed to equity price risk on its equity investments.

Equity price sensitivity

The sensitivity analysis below shows the impact of a movement in the equity values of the equity investment financial assets held as at the reporting date.

If the value of the equity investments had increased by 10% as at the reporting date, equity would have increased by $1.1 million (2019 – increase of $0.5 million). There would have been no impact on the income statement.

25 Financial instruments and financial risk management continued

(V) Cash flow risk

The Group's future cash flows depend on a number of factors, including commodity prices, production and sales levels, operating costs, capital expenditure levels, and financial income and costs. Its cash flows are therefore subject to the exchange, interest rate and commodity price risks described above as well as operating factors and input costs. To reduce the risk of potential short-term disruptions to the supply of key inputs such as electricity and sulphuric acid, the Group enters into medium- and long-term supply contracts to help ensure continuity of supply. Long-term electricity supply contracts are in place at each of the Group's mines, in most cases linking the cost of electricity under the contract to the current cost of electricity on the Chilean grid or the generation cost of the supplier. The Group seeks to lock in supply of sulphuric acid for future periods of a year or longer, with contract prices agreed in the latter part
of the year, to be applied to purchases of acid in the following year. Further information on production and sales levels and operating costs are given in the Operating review on pages 64-83.

(VI) Credit risk

Credit risk arises from trade and other receivables, cash, cash equivalents, liquid investments and derivative financial instruments. The Group's credit risk
is primarily to trade receivables. The credit risk on cash, cash equivalents and liquid investments and on derivative financial instruments is limited as the counterparties are financial institutions with high credit ratings assigned by international credit agencies.

The largest balances of trade receivables are with equity participants in the key mining projects. Many other significant trade receivables are secured by letters of credit or other forms of security. All customers are subject to credit review procedures, including the use of external credit ratings where available. Credit is provided only within set limits, which are regularly reviewed. The main customers are recurrent with a good credit history during the years they have been customers.

Outstanding receivable balances are monitored on an ongoing basis.

The carrying value of financial assets recorded in the financial statements represents the maximum exposure to credit risk. The amounts presented in the balance sheet are net of allowances for any doubtful receivables (Note 21).

The Group has recognised an expected credit loss provision for its employee receivables, with the main inputs into the provision calculation being the average level of staff turnover and the average level of recovery of receivables from former employees. For the reasons set out above, the expected credit loss risk for other trade and other receivable balances is considered to be immaterial to the Group.

(VII) Liquidity risk

The Group manages liquidity risk by maintaining adequate cash reserves and financing facilities, through the review of forecast and actual cash flows.

The Group typically holds surplus cash in demand or term deposits or highly liquid investments, which typically can be accessed or liquidated within
24 hours.

At the end of 2020 the Group was in a net debt position (2019 – net debt position), as disclosed in Note 32(C). Details of cash, cash equivalents and liquid investments are given in Note 22, while details of borrowings including the maturity profile are given in Note 23(E). Details of undrawn committed borrowing facilities are also given in Note 23.

The following table analyses the maturity of the Group's contractual commitments in respect of its financial liabilities and derivative financial instruments.
The table has been drawn up based on the undiscounted cash flows on the earliest date on which the Group can be required to pay. The table includes
both interest and principal cash flows.

At 31 December 2020	Less than 6 months $m	Between 6 months to 1 year $m	Between 1-2 years $m	After 2 years $m	2020 Total $m
Corporate loans	**(223.4)**	**(221.1)**	**(462.6)**	**(1,838.5)**	**(2,745.6)**
Other loans (including short-term loans)	**(82.3)**	**(6.0)**	**(24.1)**	**(1,011.7)**	**(1,124.1)**
Leases	**(42.1)**	**(39.1)**	**(66.7)**	**(76.2)**	**(224.1)**
Preference shares[1]	**–**	**–**	**(2.7)**	**–**	**(2.7)**
Trade and other payables	**(808.8)**	**–**	**(11.0)**	**–**	**(819.8)**
Derivative financial instruments	**(36.0)**	**–**	**–**	**–**	**(36.0)**
	(1,192.6)	**(266.2)**	**(567.1)**	**(2,926.4)**	**(4,952.3)**

At 31 December 2019	Less than 6 months $m	Between 6 months to 1 year $m	Between 1-2 years $m	After 2 years $m	2019 Total $m
Corporate loans	(206.6)	(204.3)	(1,062.7)	(234.3)	(1,707.9)
Other loans (including short-term loans)	(391.9)	(202.3)	(76.0)	(205.9)	(876.1)
Leases	(37.2)	(35.3)	(64.4)	(100.4)	(237.3)
Preference shares[1]	–	–	(2.6)	–	(2.6)
Trade and other payables (restated[2])	(750.6)	–	(8.2)	–	(758.8)
Derivatives financial instruments	(6.3)	–	(1.0)	–	(7.3)
	(1,392.6)	(441.9)	(1,214.9)	(540.6)	(3,590.0)

1. The preference shares pay an annual dividend of £100,000 in perpetuity, and accordingly it is not possible to determine total amounts payable for periods without a fixed end date.
2. The "Trade and other payables" balance for the comparative period has been restated to exclude certain amounts which are outside the scope of the definition of "financial liabilities" per IAS 32 Financial Instruments: Presentation, resulting in a $22.0 million reduction in the balance as at 31 December 2019.

(VIII)Capital risk management

The Group's objectives are to return capital to shareholders while leaving the Group with sufficient funds to progress its short, medium and long-term growth plans as well as preserving the financial flexibility to take advantage of opportunities as they may arise. This policy remains unchanged.

The Group monitors capital on the basis of net cash/debt (defined as cash, cash equivalents and liquid investments less borrowings) which was a net debt of $82.0 million at 31 December 2020 (2019 – net debt $563.4 million), as well as gross cash (defined as cash, cash equivalents and liquid investments) which was $3.672.8 million at 31 December 2020 (2019 – $2,193.4 million). The Group's total cash is held in a combination of on demand and term deposits and managed funds investing in high quality, fixed income instruments. Some of the managed funds have been instructed to invest in instruments with average maturities greater than 90 days. These amounts are presented as liquid investments but are included in net cash for monitoring and decision-making purposes. The Group has a risk averse investment strategy. The Group's borrowings are detailed in Note 23. Additional project finance or shareholder loans are taken out by the operating subsidiaries to fund projects on a case-by-case basis.

Under the terms of the major borrowing facilities, the Group is required to comply with the following financial covenants:

1) Net Financial Debt / EBITDA
2) EBITDA / Interest Expense
3) Total Indebtedness / Tangible Net Worth

The Group has complied with these covenants throughout the reporting period.

D) Derivative financial instruments

The Group periodically uses derivative financial instruments, to reduce its exposure to commodity price, foreign exchange and interest rate movements. The Group does not use such derivative instruments for speculative trading purposes.

The Group has applied the hedge accounting provisions of IFRS 9 "Financial Instruments". Changes in the fair value of derivative financial instruments that are designated and effective as hedges of future cash flows have been recognised directly in equity, with such amounts subsequently recognised in the income statement in the period when the hedged item affects profit or loss. Any ineffective portion is recognised immediately in the income statement. Realised gains and losses on commodity derivatives recognised in the income statement have been recorded within revenue. The time value element of changes in the fair value of derivative options is recognised within other comprehensive income. Realised gains and losses and changes in the fair value of exchange and interest derivatives are recognised within other finance items for those derivatives where hedge accounting has not been applied. When hedge accounting has been applied the realised gains and losses on exchange and interest derivatives are recognised within other finance items and interest expense respectively.

Hedges for future cash flows at the 2020 year-end relate to provisionally priced trade receivables and foreign exchange and commodity options, and are immaterial to the Group.

26 Long-term incentive plan

The long-term incentive plan (the "Plan") forms part of the remuneration of senior managers in the Group. Directors are not eligible to participate in the Plan.

Details of the Awards

Under the Plan, the Group may grant awards based on the price of ordinary shares in the Company and cannot grant awards over actual shares.

- Restricted Awards: These awards are conditional rights to receive cash payment by reference to a specified number of the Company's ordinary shares, subject to the relevant employee remaining employed by the Group when the Restricted Award vests; and
- Performance Awards: These awards are conditional rights to receive cash payment by reference to a specified number of the Company's ordinary shares subject to both the satisfaction of a performance condition and the relevant employee remaining employed by the Group when the Performance Award vests.

When awards vest under the Plan, participants become entitled to receive a cash payment by reference to the number and portion of awards that have vested and the market value of the Company's ordinary shares on the date of vesting. There is no exercise price payable by participants in respect of the awards.

Restricted Awards can only vest in full if participants remain employed by the Group for three years from the date that Restricted Awards are granted. In ordinary circumstances, the first one-third of a Restricted Award will vest after one year, the second one-third will vest after two years and the remaining one-third will vest after three years. There are no performance criteria attached to Restricted Awards. The fair value of Restricted Awards granted under the Plan is recorded as a compensation expense over the vesting periods, with a corresponding liability recognised for the fair value of the liability at the end of each period until settled.

Performance Awards only vest if certain performance criteria are met. The performance criteria reflect a number of factors including total shareholder return, earnings levels, growth in the Group's reserves and resources and project delivery targets. The fair value of Performance Awards under the Plan is recorded as a compensation expense over the vesting period, with a corresponding liability at the end of each period until settled.

26 Long-term incentive plan continued

Valuation process and accounting for the awards

The fair value of the awards is determined using a Monte Carlo simulation model. The inputs into the Monte Carlo simulation model are as follows:

	2020	2019
Weighted average forecast share price at vesting date	**$19.2**	$11.2
Expected volatility	**49.56%**	38.50%
Expected life of awards	**3 years**	3 years
Expected dividend yields	**0.73%**	4.18%
Discount rate	**0.08%**	1.71%

Expected volatility was determined by calculating the historical volatility of the Group's share price over the previous five years. The expected life of awards used in the model has been adjusted based on management's best estimate for the effects of non-transferability and compliance of the objectives determined according to the characteristic of each plan.

The number of awards outstanding at the end of the year is as follows:

	Restricted Awards	Performance Awards
Outstanding at 1 January 2020	**548,543**	**1,403,917**
Granted during the year	**474,969**	**760,352**
Cancelled during the year	**(30,356)**	**(61,847)**
Payments during the year	**(254,421)**	**(472,896)**
Outstanding at 31 December 2020	**738,735**	**1,629,526**
Number of awards that have vested	**286,058**	

The Group has recorded a liability for $22.3 million at 31 December 2020, of which $11.0 million is due after more than one year (31 December 2019 – $10.2 million of which $6.5 million was due after more than one year) and total expenses of $17.2 million for the year (2019 – expense of $7.7 million).

27 Post-employment benefit obligations

A) Defined contribution schemes

The Group operates defined contribution schemes for a limited number of employees. The amount charged to the income statement in 2020 was $0.1 million (2019 – $0.1 million), representing the amount paid in the year. There were no outstanding amounts which remain payable at the end of either year.

B) Severance provisions

Employment terms at some of the Group's operations provide for payment of a severance payment when an employment contract comes to an end. This is typically at the rate of one month for each year of service (subject in most cases to a cap as to the number of qualifying years of service) and based on final salary level. The severance payment obligation is treated as an unfunded defined benefit plan, and the obligation recognised is based on valuations performed by an independent actuary using the projected unit credit method, which are regularly updated. The obligation recognised in the balance sheet represents the present value of the severance payment obligation. Actuarial gains and losses are immediately recognised in other comprehensive income.

The most recent valuation was carried out in 2020 by Ernst & Young, a qualified actuary in Santiago, Chile who is not connected with the Group.

The main assumptions used to determine the actuarial present value of benefit obligations were as follows:

	2020	2019
Average nominal discount rate	**3.5%**	5.0%
Average rate of increase in salaries	**2.0%**	1.5%
Average staff turnover	**5.7%**	7.5%

Amounts included in the income statement in respect of severance provisions are as follows:

	2020 $m	2019 $m
Current service cost (charge to operating profit)	**(17.9)**	(24.8)
Interest cost (charge to interest expenses)	**(4.9)**	(4.9)
Foreign exchange charge to other finance items	**(6.2)**	7.8
Total charge to income statement	**(29.0)**	(21.9)

Movements in the present value of severance provisions were as follows:

	2020 $m	2019 $m
Balance at the beginning of the year	**(118.7)**	(107.4)
Current service cost	**(17.9)**	(24.8)
Actuarial gains/(losses)	**9.8**	(4.7)
Interest cost	**(4.9)**	(4.9)
Paid in the year	**14.5**	15.3
Foreign currency exchange difference	**(6.0)**	7.8
Balance at the end of the year	**(123.2)**	(118.7)

Assumptions description

Discount rate

	31 December 2020	31 December 2019
Nominal discount rate	**3.64%**	4.01%
Reference rate name	**20-year Chilean Central Bank Bonds**	20-year Chilean Central Bank Bonds
Governmental or corporate rate	**Governmental**	Governmental
Reference rating	**AA-/AA+**	AA-/AA+
Corresponds to an Issuance market (primary) or secondary market	**Secondary**	Secondary
Issuance currency associated to the reference rate	**Chilean peso**	Chilean peso
Date of determination of the reference interest rate	**15 November 2020**	15 November 2019
Source of the reference interest rate	**Bloomberg**	Bloomberg

The discount rate is the interest rate used to discount the estimated future severance payments to their present value. The table above shows the principal instruments and assumptions utilised in determining the discount rate.

Rate of increase in salaries

This represents the estimated average rates of future salary increases, reflecting likely future promotions and other changes. This has been based on historical information for the Group for the period from 2016 to 2020.

Turnover rate

This represents the estimated average level of future employee turnover. This has been based on historical information for the Group for the period from 2015 to 2019.

Sensitivity analysis

Significant actuarial assumptions for the determination of the defined obligation are discount rate, expected salary increase and staff turnover. The sensitivity analysis below has been determined based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period, while holding all other assumptions constant.

- If the discount rate is 100 basis points higher the defined benefit obligation would decrease by $7.1 million. If the discount rate is 100 basis points lower the defined benefit obligation would increase by $8.0 million.
- If the expected salary growth increases by 1% the defined benefit obligation would increase by $6.4 million. If the expected salary growth decreases by 1% the defined benefit obligation would decrease by $5.9 million.
- If the staff turnover increases by 1% the defined benefit obligation would decrease by $2.7 million. If the staff turnover decreases by 1% the defined benefit obligation would increase by $4.1 million.

28 Deferred tax and liabilities

	Accelerated capital allowances $m	Temporary differences on provisions $m	Withholding tax $m	Short-term differences $m	Mining tax (Royalty) $m	Tax losses $m	Disposal $m	Total $m
At 1 January 2019	(1,057.3)	190.2	(11.3)	40.0	(108.2)	0.3	–	(946.3)
(Charge)/credit to income	(87.2)	(34.8)	(27.2)	(4.6)	0.7	1.4	–	(151.7)
Charge deferred in equity	–	0.8	–	–	0.1	–	–	0.9
Reclassification	32.7	(36.2)	–	0.1	–	3.5	–	0.1
At 1 January 2020	**(1,111.8)**	**120.0**	**(38.5)**	**35.5**	**(107.4)**	**5.2**	**–**	**(1.097.0)**
(Charge)/credit to income	**(10.3)**	**2.9**	**(14.3)**	**6.5**	**4.2**	**(0.2)**	**–**	**(11.2)**
Disposal of subsidiary	**–**	**–**	**–**	**–**	**–**	**–**	**0.1**	**0.1**
Charge deferred in equity	**–**	**2.0**	**–**	**–**	**(0.3)**	**–**		**1.7**
Reclassifications	**–**	**(0.3)**	**–**	**–**	**–**	**0.3**	**–**	**–**
At 31 December 2020	**(1,122.1)**	**124.6**	**(52.8)**	**42.0**	**(103.5)**	**5.3**	**0.1**	**(1,106.4)**

The charge to the income statement of $11.2 million (2019 – $151.7 million) includes a credit for foreign exchange differences of $0.1 million (2019 – includes a credit of $0.1 million).

Certain deferred tax assets and liabilities have been offset. Deferred tax assets and liabilities are offset where the Group has a legally enforceable right to do so. The following is the analysis of the deferred tax balance (after offset):

	2020 $m	2019 $m
Deferred tax assets	**6.4**	8.2
Deferred tax liabilities	**(1,112.8)**	(1,105.2)
Net deferred tax balances	**(1,106.4)**	(1,097.0)

At 31 December 2020, the Group had unused tax losses of $599.4 million (2019 – $438.1 million) available for offset against future profits. A deferred tax asset of $5.3 million has been recognised in respect of $19.6 million of these losses as at 31 December 2020 (31 December 2019 – $5.7 million in respect of $20.7 million of the losses). No deferred tax asset has been recognised in respect of the remaining $579.8 million of tax losses (2019 – $417.4 million of tax losses). These losses may be carried forward indefinitely.

At 31 December 2020 deferred withholding tax liabilities of $52.8 million have been recognised (31 December 2019 $38.5 million) which relate to undistributed earnings of subsidiaries where it is considered likely that the corresponding profits will be distributed in the foreseeable future. The value of the remaining undistributed earnings of subsidiaries, for which deferred tax liabilities have not been recognised, because the Group is in a position to control the timing of the distributions and it is likely that distributions will not be made in the foreseeable future, was $4,810 million (31 December 2019 – $5,065 million).

Temporary differences arising in connection with interests in associates are insignificant.

The deferred tax balance of $1,106.4 million (2019 – $1,097.0 million) includes $1,053.4 million (2019 – $1,039.0 million) due in more than one year. All amounts are shown as non-current on the face of the balance sheet as required by IAS 12 Income Taxes.

29 Decommissioning and restoration provisions

	2020 $m	2019 $m
Balance at the beginning of the year	**(413.2)**	(409.8)
Charge to operating profit in the year	**(45.2)**	2.8
Unwind of discount to net interest in the year	**(11.8)**	(17.8)
Capitalised adjustment to provision	**(59.4)**	(24.8)
Utilised in year	**22.2**	30.9
Foreign currency exchange difference	**(12.8)**	5.5
Balance at the end of the year	**(520.2)**	(413.2)
Short-term provisions	**(22.2)**	(22.0)
Long-term provisions	**(498.0)**	(391.2)
Total	**(520.2)**	(413.2)

Decommissioning and restoration costs relate to the Group's mining operations. Costs are estimated on the basis of a formal closure plan and are subject to regular independent formal review by Sernageomin, the Chilean government agency which regulates the mining industry in Chile. There have not been any significant updates to the mining operations closure plans approved by Sernageomin during the year. During 2019 the Pelambres, Centinela and Zaldivar balances were updated to reflect new plans approved by Sernageomin during that year. The provision balance reflects the present value of the forecast future cash flows expected to be incurred in line with the closure plans, discounted using Chilean real interest rates with durations corresponding with the timings of the closure activities. At 31 December 2020 the real discount rates ranged from 0.5% to 0.9%. It is estimated that the provision will be utilised from 2021 until 2068 based on current mine plans, with approximately 22% of the total provision balance expected to be utilised between 2021 and 2030, approximately 46% between 2031 and 2040, approximately 9% between 2041 and 2050 and approximately 23% between 2051 and 2068.

30 Share capital and other reserves

(I) Share capital

The ordinary share capital of the Company is as follows:

	2020 Number	2019 Number	2020 $m	2019 $m
Authorised				
Ordinary shares of 5p each	**1,300,000,000**	1,300,000,000	**118.9**	118.9

	2020 Number	2019 Number	2020 $m	2019 $m
Issued and fully paid				
Ordinary shares of 5p each	**985,856,695**	985,856,695	**89.8**	89.8

The Company has one class of ordinary shares which carry no right to fixed income. Each ordinary share carries one vote at any general meeting.

There were no changes in the authorised or issued share capital of the Company in either 2019 or 2020. Details of the Company's preference share capital, which is included within borrowings in accordance with IAS 32 Financial Instruments, are given in Note 23A(xiv).

(II) Other reserves and retained earnings

Details of the share premium account, hedging, fair value and translation reserves and retained earnings for both 2020 and 2019 are included within the consolidated statement of changes in equity on page 166.

	2020 $m	2019 $m
Hedging reserves[1]		
At 1 January	**(5.0)**	(1.1)
Parent and subsidiaries net cash flow hedge fair value losses	**(24.2)**	(4.5)
Parent and subsidiaries net cash flow hedge losses/(gains) transferred to the income statement	**3.4**	(0.6)
Tax on the above	**1.9**	1.2
At 31 December	**(23.9)**	(5.0)
Equity investment revaluation reserve[2]		
At 1 January	**(10.8)**	(11.1)
Gains on equity investment	**5.5**	0.3
At 31 December	**(5.3)**	(10.8)
Foreign currency translation reserves[3]		
At 1 January	**(2.3)**	(2.3)
Currency translation adjustment	**0.9**	–
At 31 December	**(1.4)**	(2.3)
Total other reserves per balance sheet	**(30.6)**	(18.1)
Retained earnings		
At 1 January	**7,112.8**	7,084.9
Parent and subsidiaries' profit for the period	**582.1**	477.0
Equity accounted units' (loss)/profit after tax for the period	**(75.7)**	24.4
Actuarial gains/(losses) [4]	**4.1**	(3.2)
Total comprehensive income for the year	**7,623.3**	7,583.1
Dividends paid	**(131.1)**	(470.3)
At 31 December	**7,492.2**	7,112.8

1. The hedging reserve records gains or losses on cash flow hedges that are recognised initially in equity (through other comprehensive income), as described in Note 25.
2. The equity investments revaluation reserves record fair value gains or losses relating to equity investments, as described in Note 19.
3. Exchange differences arising on the translation of the Group's net investment in foreign-controlled companies are taken to the foreign currency translation reserve. The cumulative differences relating to an investment are transferred to the income statement when the investment is disposed of.
4. Actuarial gains or losses relating to long–term employee benefits, as described in Note 27.

31 Non-controlling interests

The non-controlling interests of the Group during 2020 and 2019 are as follows:

	Non-controlling Interest %	Country	At 1 January 2020 $m	Share of profit/(losses) for the financial year $m	Capital Increase[1] $m	Share of dividends $m	Hedging and actuarial gains/(losses) $m	At 31 December 2020 $m
Los Pelambres	**40.0**	**Chile**	**1,012.4**	**371.5**	**–**	**(280.0)**	**3.4**	**1,107.3**
Centinela	**30.0**	**Chile**	**1,103.2**	**12.9**	**–**	**–**	**(2.4)**	**1,113.7**
Antucoya	**30.0**	**Chile**	**(98.3)**	**3.1**	**210.0**	**–**	**(5.3)**	**109.5**
Total			**2,017.3**	**387.5**	**210.0**	**(280.0)**	**(4.3)**	**2,330.5**

1. A capital contribution of $210 million was received from Marubeni, the minority partner at Antucoya, in order to replace part of Antucoya's subordinated debt financing with equity.

	Non-controlling Interest %	Country	At 1 January 2019 $m	Share of profit/(losses) for the financial year $m	Share of dividends $m	Hedging and actuarial gains/(losses) $m	At 31 December 2019 $m
Los Pelambres	40.0	Chile	1,105.9	309.0	(400.0)	(2.5)	1,012.4
Centinela	30.0	Chile	1,034.4	69.4	–	(0.6)	1,103.2
Antucoya	30.0	Chile	(61.6)	(36.7)	–	–	(98.3)
Total			2,078.7	341.7	(400.0)	(3.1)	2,017.3

The proportion of the voting rights is proportional with the economic interest for each of the companies listed above.

Summarised financial position and cash flow information for the years ended 2020 and 2019 is set out below:

	Los Pelambres 2020 $m	Centinela 2020 $m	Antucoya 2020 $m
Non-controlling interest (%)	**40.0%**	**30.0%**	**30.0%**
Cash and cash equivalents	**904.8**	**736.3**	**143.6**
Current assets	**1,466.5**	**1,490.8**	**324.5**
Non-current assets	**4,009.4**	**4,408.0**	**1,317.0**
Current liabilities	**(764.6)**	**(495.5)**	**(246.4)**
Non-current liabilities	**(1,935.5)**	**(1,327.7)**	**(456.1)**
Accumulated non-controlling interest			
Net cash from operating activities	**1,196.9**	**790.8**	**147.3**
Net cash used in investing activities	**(776.6)**	**(460.4)**	**(41.3)**
Net cash used in financing activities	**74.8**	**(88.0)**	**(75.8)**

	Los Pelambres 2019 $m	Centinela 2019 $m	Antucoya 2019 $m
Non-controlling interest (%)	40.0%	30.0%	30.0%
Cash and cash equivalents	405.5	491.6	113.4
Current assets	847.4	1,188.6	288.3
Non-current assets	3,403.8	4,603.6	1,358.8
Current liabilities	(372.7)	(820.1)	(212.4)
Non-current liabilities	(1,324.0)	(969.5)	(720.9)
Accumulated non-controlling interest			
Net cash from operating activities	1,426.6	1,157.7	73.8
Net cash used in investing activities	(490.9)	(510.4)	(49.5)
Net cash used in financing activities	(669.1)	(231.0)	(37.0)

Notes to the summarised financial position and cash flow

(i) The amounts disclosed for each subsidiary are based on the amounts included in the consolidated financial statements (100% of the results and balances of the subsidiary rather than the non-controlling interest proportionate share) before inter-company eliminations.

(ii) Summarised income statement information is shown in the segment information in Note 6.

(iii) There are some subsidiaries with a non controlling interest portion not included in this note where those portions are not material to the Group.

32 Notes to the consolidated cash flow statement

A) Reconciliation of profit before tax to cash flow from continuing operations

	2020 $m	2019 $m
Profit before tax	**1,413.1**	1,349.2
Depreciation and amortisation	**1,048.7**	914.3
Net loss on disposals	**6.3**	12.6
Net finance expense	**103.4**	51.1
Net share of results from associates and joint ventures (exc. exceptional items)	**(5.1)**	(24.3)
Impairment of investment in associate	**80.8**	–
Increase in inventories	**(13.6)**	(7.6)
(Increase)/decrease in debtors	**(259.9)**	211.5
Increase in creditors	**31.0**	88.0
Increase/(decrease) in provisions	**26.4**	(24.1)
Cash flow generated from continuing operations	**2,431.1**	2,570.7

B) Analysis of changes in net debt

	At 1 January 2020 $m	Cash flow $m	Fair value gains $m	New leases $m	Amortisation of finance costs $m	Capitalisation of interest $m	Movement between maturity categories $m	Other $m	Exchange $m	At 31 December 2020 $m
Cash and cash equivalents	**653.7**	**588.3**	**–**	**–**	**–**	**–**	**–**	**–**	**4.8**	**1,246.8**
Liquid investments	**1,539.7**	**887.9**	**(1.6)**	**–**	**–**	**–**	**–**	**–**	**–**	**2,426.0**
Total cash and cash equivalents and liquid investments	**2,193.4**	**1,476.2**	**(1.6)**	**–**	**–**	**–**	**–**	**–**	**4.8**	**3,672.8**
Borrowings due within one year	**(648.4)**	**200.1**	**–**	**–**	**–**	**–**	**(88.8)**	**4.7**	**2.6**	**(529.8)**
Borrowings due after one year	**(1,861.8)**	**(1,204.9)**	**–**	**–**	**(12.5)**	**(23.4)**	**88.8**	**–**	**–**	**(3,013.8)**
Leases due within one year	**(75.6)**	**18.2**	**–**	**–**	**–**	**–**	**(14.1)**	**(2.1)**	**–**	**(73.6)**
Leases due after one year	**(168.4)**	**68.3**	**–**	**(33.5)**	**–**	**–**	**14.1**	**0.3**	**(15.7)**	**(134.9)**
Preference shares	**(2.6)**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**(0.1)**	**(2.7)**
Total borrowings	**(2,756.8)**	**(918.3)**	**–**	**(33.5)**	**(12.5)**	**(23.4)**	**–**	**2.9**	**(13.2)**	**(3,754.8)**
Net (debt)/cash	**(563.4)**	**557.9**	**(1.6)**	**(33.5)**	**(12.5)**	**(23.4)**	**–**	**2.9**	**(8.4)**	**(82.0)**

	Adoption of new accounting standards $m	At 1 January 2019 $m	Cash flow $m	Fair value gains $m	New leases $m	Amortisation of finance costs $m	Capitalisation of interest $m	Movement between maturity categories $m	Other $m	Exchange $m	At 31 December 2019 $m
Cash and cash equivalents	–	1,034.4	(375.0)	–	–	–	–	–	–	(5.7)	653.7
Liquid investments	–	863.2	676.5	–	–	–	–	–	–	–	1,539.7
Total cash and cash equivalents and liquid investments	–	1,897.6	301.5	–	–	–	–	–	–	(5.7)	2,193.4
Borrowings due within one year	–	(607.2)	100.0	–	–	–	–	(145.5)	4.3	–	(648.4)
Borrowings due after one year	–	(1,711.9)	(253.3)	–	–	(4.5)	(37.6)	145.5	–	–	(1,861.8)
Leases due within one year	–	(38.8)	30.0	–	–	–	–	(63.5)	(3.3)	–	(75.6)
Leases due after one year	(131.7)	(133.0)	62.5	–	(45.0)	–	–	63.5	3.5	11.8	(168.4)
Preference shares	–	(3.0)	–	–	–	–	–	–	0.1	0.3	(2.6)
Total borrowings	(131.7)	(2,493.9)	(60.8)	–	(45.0)	(4.5)	(37.6)	–	4.6	12.1	(2,756.8)
Net (debt)/cash	(131.7)	(596.3)	240.7	–	(45.0)	(4.5)	(37.6)	–	4.6	6.4	(563.4)

32 Notes to the consolidated cash flow statement continued

C) Net debt

	2020 $m	2019 $m
Cash, cash equivalents and liquid investments	**3.672.8**	2,193.4
Total borrowings	**(3,754.8)**	(2,756.8)
	(82.0)	(563.4)

33 Exchange rates

Assets and liabilities denominated in foreign currencies are translated into US dollars and Sterling at the period-end rates of exchange.

Results denominated in foreign currencies have been translated into US dollars at the average rate for each period.

	2020	2019
Year-end rates	**\$1.3600=£1; \$1 = Ch\$710.95**	\$1.2860=£1; \$1 = Ch\$748.74
Average rates	**\$1.2820=£1; \$1 = Ch\$792.07**	\$1.2760=£1; \$1 = Ch\$702.82

34 Related party transactions

Transactions between the Company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note. Transactions between the Group and its associates and joint ventures are disclosed below.

The transactions which Group companies entered into with related parties who are not members of the Group are set out below. There are no guarantees given or received and no provisions for doubtful debts related to the amount of outstanding balances.

A) Quiñenco SA

Quiñenco SA ("Quiñenco") is a Chilean financial and industrial conglomerate, the shares of which are traded on the Santiago Stock Exchange, and in which members of the Luksic family are interested. Two Directors of the Company, Jean-Paul Luksic and Andrónico Luksic, are also directors of Quiñenco.

The following transactions took place between the Group and the Quiñenco group of companies, all of which were on normal commercial terms at market rates:

- the Group made purchases of fuel from ENEX SA, a subsidiary of Quiñenco, of $212.6 million (2019 – $159.3 million). The balance due to ENEX SA at the end of the year was nil (2019 – nil);
- the Group earned interest income of $1.7 million (2019 – $4.0 million) during the year on deposits with Banco de Chile SA, a subsidiary of Quiñenco. Deposit balances at the end of the year were $nil (2019 – $67.9 million);
- the Group earned interest income of $0.3 million (2019 – $0.2 million) during the year on investments with BanChile Administradora General de Fondos SA, a subsidiary of Quiñenco. Investment balances at the end of the year were nil (2019 – $6.0 million).
- the Group purchased shipping services from Hapag Lloyd, an associate of Quiñenco, of $7.0 million (2019 – $1.0 million). The balance due to Hapag Lloyd at the end of the year was nil (2019 – nil).

B) Compañía de Inversiones Adriático SA

In 2020, the Group leased office space on normal commercial terms from Compañía de Inversiones Adriático SA, a company in which members of the Luksic family are interested, at a cost of $0.7 million (2019 –$0.6 million).

C) Antomin 2 Limited and Antomin Investors Limited

The Group holds a 51% interest in Antomin 2 Limited ("Antomin 2") and Antomin Investors Limited ("Antomin Investors"), which own a number of copper exploration properties. The Group originally acquired its 51% interest in these properties for a nominal consideration from Mineralinvest Establishment, which continues to hold the remaining 49% of Antomin 2 and Antomin Investors. Mineralinvest is owned by the E. Abaroa Foundation, in which members of the Luksic family are interested. During the year ended 31 December 2020 the Group incurred $0.1 million (year ended 31 December 2019 – $0.1 million) of exploration expense at these properties.

D) Tethyan Copper Company Limited

As explained in Note 18 the Group has a 50% interest in Tethyan Copper Company Limited ("Tethyan"), which is a joint venture with Barrick Gold Corporation over Tethyan's mineral interests in Pakistan. During 2020 the Group contributed $7.2 million (2019 – $1.8 million) to Tethyan.

E) Compañia Minera Zaldívar SpA

The Group has a 50% interest in Zaldívar (see Note 18), which is a joint venture with Barrick Gold Corporation. Antofagasta is the operator of Zaldívar. The balance due from Zaldívar to Group companies at the end of the year was $0.5million (2019 – $6.0 million). During 2020 the Group has received dividends of $65.0 million from Minera Zaldívar (2019 – 50.0 million).

F) Inversiones Hornitos SA

As explained in Note 18, the Group has a 40% interest in Inversiones Hornitos SA, which is accounted for as an associate. The Group paid $128.2 million (year ended 31 December 2019 – $187.7 million) to Inversiones Hornitos in relation to the energy supply contract at Centinela. During 2020 the Group has not received dividends from Inversiones Hornitos SA (2019 – $8.0 million).

G) Directors and other key management personnel

Information relating to Directors' remuneration and interests is given in the Remuneration Report on page 139. Information relating to the remuneration of key management personnel including the Directors is given in Note 9.

35 Tethyan arbitration award

In July 2019 the World Bank Group's International Centre for Settlement of Investment Disputes ("ICSID") awarded $5.84 billion in damages (compensation and accumulated interest as at the date of the award) to Tethyan Copper Company Pty Limited ("Tethyan"), the joint venture held equally by the Company and Barrick Gold Corporation, in relation to an arbitration claim filed against the Islamic Republic of Pakistan ("Pakistan") following the unlawful denial of a mining lease for the Reko Diq project in Pakistan in 2011.

Damages include compensation of $4.087 billion by reference to the fair market value of the Reko Diq project at the time of the mining lease denial, and interest until the date of the award of $1.753 billion. The Tribunal also awarded Tethyan just under $62 million in costs incurred in enforcing its rights. Compound interest applies to the compensation and cost awards from 12 July 2019 at a rate of US Prime +1% per annum until the award is paid.

Later in 2019, Pakistan requested ICSID to annul the award, triggering a provisional stay of enforcement of the award under the ICSID Convention. In March 2020, ICSID appointed a committee to consider Pakistan's request for annulment and whether the provisional stay of enforcement should continue for the duration of the annulment proceedings. The Committee issued a decision partially terminating the stay of enforcement in October, permitting Tethyan to enforce 50% of the award plus accrued interest on the condition that any amounts collected through enforcement of the award must be put into escrow and returned if the award is annulled. Tethyan has resumed proceedings to enforce the award in accordance with the conditions set by the Committee. The Committee is expected to issue a decision on Pakistan's annulment application within the next one to two years.

It is expected that the proceeds of the award will only be recognised in Antofagasta's financial statements once they are received by the Company.

36 Litigation and contingent liabilities

The Group is subject from time to time to legal proceedings, claims, complaints and investigations arising out of the ordinary course of business. The Group cannot predict the outcome of individual legal actions or claims or complaints or investigations. As a result, the Group may become subject to liabilities that could affect our business, financial position and reputation. Litigation is inherently unpredictable and large judgments may at times occur. The Group may incur, in the future, judgments or enter into settlements of claims that could lead to material cash outflows. The Group considers that no material loss to the Group is expected to result from the legal proceedings, claims, complaints and investigations that the Group is currently subject to. Provision is made for all liabilities that are expected to materialise through legal claims against the Group.

37 Ultimate Parent Company

The immediate parent of the Group is Metalinvest Establishment, which is controlled by the E. Abaroa Foundation, in which members of the Luksic family are interested.

Both Metalinvest Establishment and the E. Abaroa Foundation are domiciled in Liechtenstein. Information relating to the interest of Metalinvest Establishment and the E. Abaroa Foundation is given in the Directors' Report.

38 Antofagasta plc – Balance sheet of the Parent Company and related notes

The Balance Sheet of the Parent Company as at 31 December 2020 and 2019 is as follow:

As at 31 December 2020	Note	2020 $m	2019 $m
Non-current assets			
Investment in subsidiaries	38E	**538.6**	538.6
Other receivables		**485.0**	485.0
Property, plant and equipment		**–**	0.1
		1,023.6	1,023.7
Current assets			
Other receivables	38E	**573.5**	233.0
Liquid investments		**447.2**	15.2
Cash and cash equivalents		**177.7**	39.4
		1,198.4	287.6
Total assets		**2,222.0**	1,311.3
Current liabilities			
Amounts payable to subsidiaries		**(303.8)**	(315.6)
Other payables		**(8.3)**	(7.2)
		(312.0)	(322.8)
Non-current liabilities			
Medium and long-term borrowings	38F	**(994.9)**	(501.8)
		(994.9)	(501.8)
Total liabilities		**(1,307.0)**	(824.6)
Net assets		**915.0**	486.7
Equity			
Share capital		**89.8**	89.8
Share premium		**199.2**	199.2
Retained earnings			
At 1 January		**197.7**	354.6
Profit for the year attributable to the owners		**559.4**	313.4
Other changes in retained earnings		**(131.1)**	(470.3)
At 31 December		**626.0**	197.7
Total equity		**915.0**	486.7

The financial statements on pages 212-215 were approved by the Board of Directors on 15 March 2021 and signed on its behalf by

Jean-Paul Luksic
Chairman

Ollie Oliveira
Senior Independent Director

Parent Company statement of changes in equity

	Share capital $m	Share premium $m	Retained earnings $m	Total equity $m
At 1 January 2019	89.8	199.2	354.6	643.6
Comprehensive income for the year	–	–	313.4	313.4
Dividends	–	–	(470.3)	(470.3)
At 31 December 2019	89.8	199.2	197.7	486.7
Comprehensive income for the year	**–**	**–**	**559.4**	**559.4**
Dividends	**–**	**–**	**(131.1)**	**(131.1)**
At 31 December 2020	**89.8**	**199.2**	**626.0**	**915.0**

The ordinary shares rank after the preference shares in entitlement to dividend and on a winding-up. Each ordinary share carries one vote at any general meeting.

Antofagasta plc is a company limited by shares, incorporated and domiciled in the United Kingdom at Cleveland House, 33 King Street, London.

38A Basis of preparation of the balance sheet and related notes of the Parent Company

The Antofagasta plc Parent Company balance sheet and related notes have been prepared in accordance with the Companies Act 2006 applicable to companies using FRS 101, which applies the recognition and measurement bases of IFRS with reduced disclosure requirements. The financial information has been prepared on an historical cost basis. The financial statements have been prepared on a going concern basis. The functional currency of the Company and the presentational currency adopted is US dollars.

The following exemptions from the requirements of IFRS have been applied in the preparation of these financial statements, in accordance with FRS 101:

- Paragraphs 45(b) and 46 to 52 of IFRS 2, 'Share-based payment' (details of the number and weighted-average exercise prices of share options and how the fair value of goods or services received was determined)
- IFRS 7, 'Financial Instruments: Disclosures'
- Paragraphs 91 to 99 of IFRS 13, 'Fair value measurement' (disclosure of valuation techniques and inputs used for fair value measurement of assets and liabilities)
- Paragraph 38 of IAS 1, 'Presentation of financial statements' comparative information requirements in respect of:
  (i) paragraph 79(a)(iv) of IAS 1, 'Presentation of financial statements'
  (ii) paragraph 73(e) of IAS 16, 'Property, plant, and equipment'
  (iii) paragraph 118(e) of IAS 38, 'Intangible assets' (reconciliations between the carrying amount at the beginning and end of the period)
- The following paragraphs of IAS 1, 'Presentation of financial statements':
  - 10(d), (statement of cash flows)
  - 10(f) (a statement of financial position as at the beginning of the preceding period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements)
  - 16 (statement of compliance with all IFRS)
  - 38A (requirement for minimum of two primary statements, including cash flow statements)
  - 38B-D (additional comparative information)
  - 40A-D (requirements for a third statement of financial position)
  - 111 (cash flow statement information), and
  - 134-136 (capital management disclosures)
- IAS 7, 'Statement of cash flows'
- Paragraph 30 and 31 of IAS 8 'Accounting policies, changes in accounting estimates and errors' (requirement for the disclosure of information when an entity has not applied a new IFRS that has been issued but is not yet effective)
- Paragraph 17 of IAS 24, 'Related party disclosures' (key management compensation)
- The requirements in IAS 24, 'Related party disclosures' to disclose related party transactions entered into between two or more members of a group.

As permitted by section 408 of the Companies Act 2006, the profit and loss account of the Parent Company is not presented as part of these financial statements. The profit after tax for the year of the Parent Company amounted to $559.4 million (2019 – $313.4 million).

38 Antofagasta plc – Balance sheet of the Parent Company and related notes continued

38B Significant accounting estimates and judgements

The most significant accounting estimate for the Antofagasta plc Parent Company balance sheet is the carrying value of the investment in subsidiaries and receivables balances, which have a total carrying value as at 31 December 2020 of $1,597.1 million. Over 99% of the value of these balances relates to intercompany balances, primarily with Group holding companies which hold the Group's investments in the operating companies. There is not considered to be any significant risk of a relevant overstatement of these carrying values. In assessing this the Group has considered the overall market capitalisation of the Group, which was $19.4 billion at 31 December 2020, the cash and other assets held by the relevant Group companies and the level of earnings generated by the Group's operations.

38C Principal accounting policies of the Parent Company

A summary of the principal accounting policies is set out below. These accounting policies have been applied consistently, other than where new policies have been adopted.

A) Currency translation

The Company's functional currency is the US dollar. Transactions in currencies other than the functional currency are translated at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities, including amounts due from or to subsidiaries, denominated in currencies other than the functional currency are retranslated at year-end exchange rates. Gains and losses on retranslation are included in net profit or loss for the year.

B) Revenue recognition

Dividends proposed by subsidiaries are recognised as income by the Company when they represent a present obligation of the subsidiaries, in the period in which they are formally approved for payment.

Interest income is accrued on a time basis, by reference to the principal outstanding and the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

C) Dividends payable

Dividends proposed are recognised when they represent a present obligation, in the period in which they are formally approved for payment. Accordingly, an interim dividend is recognised when paid and a final dividend is recognised when approved by shareholders.

D) Investments in subsidiaries

Investments in subsidiaries represent equity holdings in subsidiaries and long-term amounts owed by subsidiaries. Such investments are valued at cost less any impairment provisions. Investments are reviewed for impairment if events or changes in circumstances indicate that the carrying amount may not be recoverable. The recoverable amount of the investment is the higher of fair value less cost to disposal and value in use. As explained above, amounts owed by subsidiaries due in currencies other than the functional currency are translated at year-end rates of exchange with any exchange differences taken to the profit and loss account.

E) Current asset investments and cash at bank and in hand

Current asset investments comprise highly liquid investments that are readily convertible into known amounts of cash and which are subject to insignificant risk of changes in value, typically maturing within 12 months.

Cash at bank and in hand comprise cash in hand and deposits repayable on demand.

F) Borrowings

Interest-bearing loans and bank overdrafts are initially recorded at the proceeds received, net of direct issue costs. They are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis. The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis using the effective interest rate method.

G) Borrowings – preference shares

The Sterling-denominated preference shares issued by the Company carry a fixed rate of return without the right to participate in any surplus. They are accordingly classified as borrowings and translated into US dollars at year-end rates of exchange. Preference share dividends are included within finance costs.

H) Equity instruments – ordinary share capital and share premium

Equity instruments issued are recorded at the proceeds received, net of direct issue costs. Equity instruments of the Company comprise its Sterling-denominated issued ordinary share capital and related share premium.

As explained above, the presentational and the functional currency of the Company is US dollars, and ordinary share capital and share premium are translated into US dollars at historical rates of exchange based on dates of issue.

38D Employee Benefit Expense

A) Average number of employees

The average monthly number of employees was 4 (2019 – 5), engaged in management and administrative activities.

B) Aggregate remuneration

The aggregate remuneration of the employees mentioned above was as follows:

	2020 $m	2019 $m
Wages and salaries	**1.8**	1.7
Social security costs	**0.2**	0.2
Pension contributions	**0.1**	0.1
	2.1	2.0

The above employee figures exclude Directors who receive Directors' fees from Antofagasta plc. Details of fees payable to Directors are set out in the Remuneration Report.

38E Subsidiaries

A) Investment in subsidiaries

	2020 $m	2019 $m
Shares in subsidiaries at cost	**60.6**	60.6
Amounts owed by subsidiaries due after more than one year	**478.0**	478.0
	538.6	538.6

	Shares $m	Loans $m	Total $m
1 January 2020	60.6	478.0	538.6
31 December 2020	**60.6**	**478.0**	**538.6**

The above amount of $478.0 million (2019 – $478.0 million) in respect of amounts owed by subsidiaries due after more than one year relates to long-term funding balances which form an integral part of the Company's long-term investment in those subsidiary companies.

B) Trade and other receivables – amounts owed by subsidiaries due after one year

At 31 December 2020, an amount of $496.6 million was owed to the Company by an indirect subsidiary, pursuant to a 10-year loan agreement. There have been no impairments recognised in respect of subsidiary receivables as at 31 December 2020.

C) Trade and other receivables – amounts owed by subsidiaries due within one year

At 31 December 2020, amounts owed by subsidiaries due within one year were $568.4 million (2019 – $228.0 million). There have been no impairments recognised in respect of subsidiary receivables as at 31 December 2020.

38F Borrowings – preference shares

The authorised, issued and fully paid preference share capital of the Company comprised 2,000,000 5% cumulative preference shares of £1 each at both 31 December 2020 and 31 December 2019. As explained in Note 23C, the preference shares are recorded in the balance sheet in US dollars at period-end rates of exchange.

The preference shares are non-redeemable and are entitled to a fixed 5% cumulative dividend, payable in equal instalments in June and December of each year. On a winding-up, the preference shares are entitled to repayment and any arrears of dividend in priority to ordinary shareholders, but are not entitled to participate further in any surplus. Each preference share carries 100 votes (see Note 23A (xv)) at any general meeting.

2019 INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF ANTOFAGASTA PLC

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

Opinion

In our opinion:

- Antofagasta plc's Group financial statements and Parent Company financial statements (the "financial statements") give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 December 2019 and of the Group's profit and cash flows for the year then ended;
- the Group financial statements have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union;
- the Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law); and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation.

We have audited the financial statements, included within the Annual Report and Financial Statements 2019 (the "Annual Report"), which comprise: the consolidated and Parent Company balance sheets as at 31 December 2019; the consolidated income statement, the consolidated statement of comprehensive income, the consolidated cash flow statement, and the consolidated and Parent Company statements of changes in equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Our opinion is consistent with our reporting to the Audit Committee.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

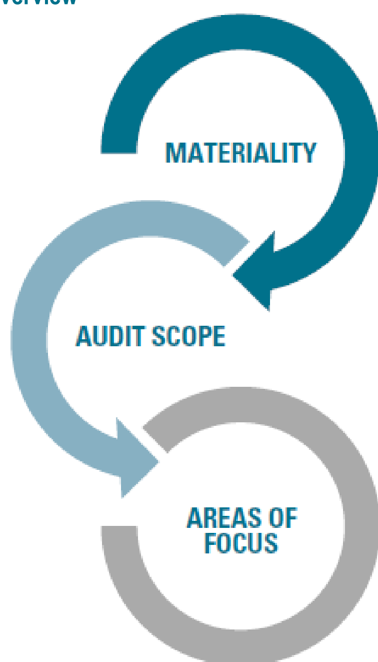
Independence

We remained independent of the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, as applicable to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, we declare that non-audit services prohibited by the FRC's Ethical Standard were not provided to the Group or the Parent Company.

Other than those disclosed in Note 7 to the financial statements, we have provided no non-audit services to the Group or the Parent Company in the period from 1 January 2019 to 31 December 2019.

Our audit approach
Overview



- Overall Group materiality: $70 million (2018: $64 million), based on 5% of three-year average profit before tax adjusted for one off items.
- Overall Parent Company materiality: $13.0 million (2018: $14.5 million), based on 1% of total assets.

- We identified the four mine sites, Los Pelambres, Centinela, Antucoya and Zaldivar, which in our view, required an audit of their complete financial information.
- Taken together, the locations and functions where we performed our audit work accounted for 97% of revenue and 91% of absolute adjusted profit before tax (i.e. the sum of the numerical values without regard to whether they were profits or losses for the relevant locations and functions.

- Assessment of indicators of impairment for the Antucoya and Centinela cash generating units.
- Provisions for decommissioning and restoration

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements.

Capability of the audit in detecting irregularities, including fraud

Based on our understanding of the Group and industry, we identified that the principal risks of non-compliance with laws and regulations related to breaches of safety and environmental regulations and unethical and prohibited business practices, and we considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the preparation of the financial statements such as the Companies Act 2006 and the UK Listing Rules. We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to posting of inappropriate journal entries to increase revenue or reduce expenditure, and management bias in accounting estimates. The Group engagement team shared this risk assessment with the component auditors so that they could include appropriate audit procedures in response to such risks in their work. Audit procedures performed by the Group engagement team and/or component auditors included:

- Discussions with management, internal audit and the Group's legal advisers, including consideration of known or suspected instances of noncompliance with laws and regulation and fraud;
- Evaluation of management's controls designed to prevent and detect irregularities, in particular their anti-bribery controls;
- Assessment of matters reported on the Group's whistleblowing helpline and the results of management's investigation of such matters;
- Challenging assumptions and judgements made by management in their significant accounting estimates, in particular in relation to impairment assessments at Antucoya and Centinela (see related key audit matter below); and
- Identifying and testing journal entries, in particular any journal entries posted with unusual account combinations.

There are inherent limitations in the audit procedures described above and the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we would become aware of it. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. This is not a complete list of all risks identified by our audit.

Key audit matter	How our audit addressed the key audit matter
Assessment of indicators of impairment for the Antucoya and Centinela cash generating units In accordance with IAS 36 'Impairment of assets' the Directors are required to perform a review for impairment of long-lived assets at any time an indicator of impairment exists. There is a heightened level of potential impairment risk at Antucoya from the perspective of its high cost base; and Centinela from the perspective of its sensitivity to changes in the long term copper price and that a significant portion of its value generation is tied up in capital projects that have not yet been formally approved. Based on the Directors' considerations of the results of their carrying value review, they concluded that no impairment indicators existed in respect of Antucoya and Centinela. This assessment included consideration of a valuation and sensitivity analysis. This analysis requires judgement on the part of the Directors in valuing the relevant CGUs. The Directors have applied assumptions that a market participant would use to determine fair value, including incorporating value from cash flows related to the planned construction of a second concentrator at Centinela. Refer to Note 4 Asset Sensitivities.	We considered the Directors' impairment indicator analysis and agree that no impairment or reversal indicators existed as at 31 December 2019. Our consideration is described below, and incorporates consideration of sensitivity disclosures. We evaluated the Directors' future cash flow forecasts, and the process by which they were drawn up, including verifying the mathematical accuracy of the cash flow models and agreeing future capital and operating expenditure to the latest Board approved budgets and the latest approved Life of Mine plans. We assessed the reasonableness of the Directors' future capital and operating expenses in light of their historical accuracy and the current operational results and concluded the forecasts had been appropriately prepared, based on updated assessments of future operational performance and cost saving initiatives. We evaluated the appropriateness of key market related assumptions in the Directors' valuation models, including the copper prices, discount rates and foreign currency exchange rates. For the discount rate, this included our valuations experts independently calculating a discount rate and comparing it with management's own calculation. We noted that the recoverable amount was particularly sensitive to changes in the long-term copper price and foreign exchange assumptions and in the case of Centinela, the expansion projects. We formed an independent view of the copper price that a market participant might use in a fair value less cost of disposal scenario. We found that the Directors' long-term copper price assumption of $3.10/lb was within a reasonable range. We independently calculated a weighted average cost of capital by making reference to market data, considering the CGU specific risks. The discount rate used by the Directors of 8% fell within a reasonable range. We performed sensitivity analysis around the key assumptions within the cash flow forecasts using a range of higher discount rates and lower long term copper prices. In light of the above, we reviewed the appropriateness of the related disclosures in Note 4 of the financial statements, including the sensitivities provided, and concluded they were appropriate.
Provisions for decommissioning and restoration The Group has provisions for decommissioning and restoration of US$413 million as at 31 December 2019. The calculation of these provisions requires management to estimate the quantum and timing of future costs, discounted to present value using an appropriate discount rate. Management reviews the decommissioning and restoration provisions on an annual basis, using experts to provide support in its assessment where appropriate. This review incorporates the effects of any changes in management's anticipated approach to restoration and rehabilitation, as well as the most recent plan approved by the Chilean regulator, Sernageomin. During the year, updated plans for decommissioning and restoration were approved by Sernageomin for Los Pelambres, Centinela and Zaldivar. Refer to Note 28 Decommissioning and Restoration Provisions.	We assessed management's process for the review of decommissioning and restoration provisions and performed detailed testing in respect of the cost estimates. As part of our detailed testing of the cost estimates, we validated the existence of legal and/or constructive obligations with respect to the provision and considered the intended method of restoration and rehabilitation as set out in the plans approved by Sernageomin. We read correspondence between Sernageomin and management, as well as management's experts. We considered the competence and objectivity of management's experts who produced the cost estimates and engaged our own internal expert to assess the work performed by management's experts. We checked the mathematical accuracy of management's calculations and assessed the appropriateness of the discount rate. We considered the appropriateness of the related disclosures in Notes 3 and 28 to the financial statements. Based on the procedures performed, we noted no material issues from our work.

We determined that there were no key audit matters applicable to the Parent Company to communicate in our report.

How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the Group and the Parent Company, the accounting processes and controls, and the industry in which they operate.

The core mining business comprises four mining operations: Los Pelambres; Centinela; Antucoya and Zaldívar, a joint venture with Barrick Gold Corporation operated by the Group. These mines produce copper cathodes, copper concentrates and significant volumes of by-products.

In addition to mining the Group has a transport division that provides rail and road cargo services in northern Chile, predominantly to mining customers including to the Group's own operations.

All of the above operations are located in Chile. In addition, the Group has corporate head offices located in both Santiago, Chile (Antofagasta Minerals S.A.) and London, UK (Antofagasta plc). The Group also has exploration projects in various countries.

In establishing the overall approach to the Group audit, we determined the type of work that needed to be performed at each of the four mine sites and the corporate offices in Chile, by us, as the Group engagement team and by component auditors from PwC Chile operating under our instruction. Los Pelambres and Centinela were considered to be financially significant components of the Group, due to their contribution towards Group profit before tax, and so required audits of their complete financial information. Antucoya and Zaldívar were also subject to an audit of their complete financial information. We also requested that component auditors perform specified audit procedures over the corporate offices in Chile, and specific line items of other entities within the Group to ensure that we had sufficient coverage from our audit work for each line of the Group's financial statements. For all other components, the Group team performed analytical review procedures.

Where work was performed by component auditors, we determined the level of involvement we needed to have in the audit work to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the Group financial statements as a whole.

UK staff were seconded to PwC Chile to be an integral part of the team. In addition the Senior Statutory Auditor visited Chile three times, and attended key audit meetings with management, met with our component auditors and visited the Los Pelambres mine. The Group team also reviewed the component auditor working papers, attended local audit clearance meetings, and reviewed other forms of communications dealing with significant accounting and auditing issues.

Materiality

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Group financial statements	Parent Company financial statements
Overall materiality	$70 million (2018: $64 million).	$13.0 million (2018: $14.5 million).
How we determined it	5% of three-year average profit before tax adjusted for one off items.	1% of Total Assets.
Rationale for benchmark applied	For overall Group materiality, we chose to use an underlying earnings measure as the benchmark because an underlying measure removes the impact of material items which do not recur from year to year or otherwise significantly affect the underlying trend of performance from continuing operations. The adoption of a multi-year average benchmark for materiality responds to longer term trends in commodity markets and reduces volatility in the measure year-on-year. Using our professional judgement, we determined materiality for this year at US$70 million, which equates to approximately 5.2% of the current year's profit before tax.	For the Parent Company materiality, we determined our materiality based on total assets, which is more applicable than a performance-related measure as the company is an investment holding company for the Group.

For each component in the scope of our Group audit, we allocated a materiality that is less than our overall Group materiality. The range of materiality allocated across components was between $9 million and $60 million. Certain components were audited to a local statutory audit materiality that was also less than our overall Group materiality.

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above $3.5 million (Group audit) (2018: $1.5 million) and $650,000 (Parent Company audit) (2018: $728,000) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Going concern

In accordance with ISAs (UK) we report as follows:

Reporting obligation	Outcome
We are required to report if we have anything material to add or draw attention to in respect of the Directors' statement in the financial statements about whether the Directors considered it appropriate to adopt the going concern basis of accounting in preparing the financial statements and the Directors' identification of any material uncertainties to the Group's and the Parent Company's ability to continue as a going concern over a period of at least twelve months from the date of approval of the financial statements.	We have nothing material to add or to draw attention to. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the Group's and Parent Company's ability to continue as a going concern. For example, the terms of the United Kingdom's withdrawal from the European Union are not clear, and it is difficult to evaluate all of the potential implications on the Group's trade, customers, suppliers and the wider economy.
We are required to report if the Directors' statement relating to Going Concern in accordance with Listing Rule 9.8.6R(3) is materially inconsistent with our knowledge obtained in the audit.	We have nothing to report.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The Directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic Report and Directors' Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on the responsibilities described above and our work undertaken in the course of the audit, the Companies Act 2006 (CA06), ISAs (UK) and the Listing Rules of the Financial Conduct Authority (FCA) require us also to report certain opinions and matters as described below (required by ISAs (UK) unless otherwise stated).

Strategic Report and Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic Report and Directors' Report for the year ended 31 December 2019 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements. *(CA06)*

In light of the knowledge and understanding of the Group and Parent Company and their environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic Report and Directors' Report. *(CA06)*

The Directors' assessment of the prospects of the Group and of the principal risks that would threaten the solvency or liquidity of the Group

We have nothing material to add or draw attention to regarding:

- The Directors' confirmation on page 24 of the Annual Report that they have carried out a robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency or liquidity.
- The disclosures in the Annual Report that describe those risks and explain how they are being managed or mitigated.
- The Directors' explanation on page 30 of the Annual Report as to how they have assessed the prospects of the Group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

We have nothing to report having performed a review of the Directors' statement that they have carried out a robust assessment of the principal risks facing the Group and statement in relation to the longer-term viability of the Group. Our review was substantially less in scope than an audit and only consisted of making inquiries and considering the Directors' process supporting their statements; checking that the statements are in alignment with the relevant provisions of the UK Corporate Governance Code (the "Code"); and considering whether the statements are consistent with the knowledge and understanding of the Group and Parent Company and their environment obtained in the course of the audit. *(Listing Rules)*

Other Code Provisions

We have nothing to report in respect of our responsibility to report when:

- The statement given by the Directors, on page 140, that they consider the Annual Report taken as a whole to be fair, balanced and understandable, and provides the information necessary for the members to assess the Group's and Parent Company's position and performance, business model and strategy is materially inconsistent with our knowledge of the Group and Parent Company obtained in the course of performing our audit.
- The section of the Annual Report on page 107 describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee.
- The Directors' statement relating to the Parent Company's compliance with the Code does not properly disclose a departure from a relevant provision of the Code specified, under the Listing Rules, for review by the auditors.

Directors' Remuneration

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006. *(CA06)*

RESPONSIBILITIES FOR THE FINANCIAL STATEMENTS AND THE AUDIT

Responsibilities of the Directors for the financial statements

As explained more fully in the Statement of Directors' Responsibilities set out on page 140, the Directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The Directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Auditors' responsibilities for the audit of the financial statements

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

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report

This report, including the opinions, has been prepared for and only for the Parent Company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

OTHER REQUIRED REPORTING

Companies Act 2006 exception reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- certain disclosures of Directors' remuneration specified by law are not made; or
- the Parent Company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

Appointment

Following the recommendation of the audit committee, we were appointed by the members on 20 May 2015 to audit the financial statements for the year ended 31 December 2015 and subsequent financial periods. The period of total uninterrupted engagement is 5 years, covering the years ended 31 December 2015 to 31 December 2019.

Jason Burkitt (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
London
16 March 2020

2019 FINANCIAL STATEMENTS

CONSOLIDATED INCOME STATEMENT

For the year ended 31 December 2019

	Notes	2019 $m	2018 $m
Group revenue	5,6	**4,964.5**	4,733.1
Total operating costs		**(3,588.7)**	(3,388.1)
Operating profit from subsidiaries	5,7	**1,375.8**	1,345.0
Net share of results from associates and joint ventures	5,17	**24.4**	22.2
Total profit from operations, associates and joint ventures	7	**1,400.2**	1,367.2
Investment income		**47.1**	30.1
Interest expense		**(111.1)**	(113.5)
Other finance items		**13.0**	(31.1)
Net finance expense	9	**(51.0)**	(114.5)
Profit before tax	5	**1,349.2**	1.252.7
Income tax expense	10	**(506.1)**	(423.7)
Profit for the financial year from continuing operations	5	**843.1**	829.0
Profit for the financial year from discontinued operations	11	**–**	51.3
Profit for the year		**843.1**	880.3
Attributable to:			
Non-controlling interests	30	**341.7**	336.6
Profit for the year attributable to the owners of the parent	12	**501.4**	543.7

		US cents	US cents
Basic earnings per share	12		
From continuing operations		**50.9**	51.5
From discontinued operations		**–**	3.6
Total continuing and discontinued operations		**50.9**	55.1

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

For the year ended 31 December 2019

	Note	2019 $m	2018 $m
Profit for the year	5	**843.1**	880.3
Items that may be or were subsequently reclassified to profit or loss:			
Gains on cash flow hedges time value		**0.4**	6.8
(Losses)/gains on cash flow hedges intrinsic value	24	**(7.7)**	1.4
Losses in fair value of cash flow hedges transferred to the income statement	24	**(0.8)**	(0.6)
Current tax effects arising on amounts transferred to the income statement		**2.0**	–
Share of other comprehensive losses of equity accounted units, net of tax	17	**–**	(0.4)
Total items that may be subsequently reclassified to profit or loss		**(6.1)**	7.2
Items that will not be subsequently reclassified to profit or loss:			
Actuarial (losses)/gains on defined benefit plans	26	**(4.7)**	3.9
Tax on items recognised through Other Comprehensive Income which will not be reclassified to profit or loss in the future		**0.9**	–
Gains/(losses) in fair value of equity investments	18	**0.3**	(1.3)
Share of other comprehensive losses of equity accounted units, net of tax		**(0.3)**	–
Total items that will not be subsequently reclassified to profit or loss		**(3.8)**	2.6
Total other comprehensive (expense)/income		**(9.9)**	9.8
Total comprehensive income for the year		**833.2**	890.1
Attributable to:			
Non-controlling interests	30	**338.6**	339.3
Equity holders of the Company		**494.6**	550.8

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2019

	Share capital $m	Share premium $m	Other reserves (Note 29) $m	Retained earnings (Note 29) $m	Equity attributable to equity owners of the parent $m	Non-controlling interests $m	Total equity $m
At 31 December 2017	89.8	199.2	(12.5)	7,041.9	**7,318.4**	1,823.2	**9,141.6**
Adoption of new accounting standards	–	–	(5.8)	1.1	**(4.7)**	(2.0)	**(6.7)**
Balance at 1 January 2018	89.8	199.2	(18.3)	7,043.0	**7,313.7**	1,821.2	**9,134.9**
Profit for the year	–	–	–	543.7	**543.7**	336.6	**880.3**
Other comprehensive income for the year	–	–	3.8	3.3	**7.1**	2.7	**9.8**
Transfer to non-controlling interests	–	–	–	(38.2)	**(38.2)**	38.2	**–**
Dividends	–	–	–	(466.9)	**(466.9)**	(120.0)	**(586.9)**
At 31 December 2018	**89.8**	**199.2**	**(14.5)**	**7,084.9**	**7,359.4**	**2,078.7**	**9,438.1**
Profit for the year	–	–	–	501.4	**501.4**	341.7	**843.1**
Other comprehensive expense for the year	–	–	(3.6)	(3.2)	**(6.8)**	(3.1)	**(9.9)**
Dividends	–	–	–	(470.3)	**(470.3)**	(400.0)	**(870.3)**
At 31 December 2019	**89.8**	**199.2**	**(18.1)**	**7,112.8**	**7,383.7**	**2,017.3**	**9,401.0**

CONSOLIDATED BALANCE SHEET

As at 31 December 2019

	Note	2019 $m	2018 $m
Non-current assets			
Intangible assets	14	**150.1**	150.1
Property, plant and equipment	15	**9,556.7**	9,184.1
Other non-current assets		**2.1**	2.6
Inventories	19	**208.0**	172.7
Investment in associates and joint ventures	17	**1,024.8**	1,056.1
Trade and other receivables	20	**48.2**	56.1
Derivative financial instruments	24	**1.7**	–
Equity investments	18	**5.1**	4.7
Deferred tax assets	27	**8.2**	37.2
		11,004.9	10,663.6
Current assets			
Inventories	19	**586.4**	576.3
Trade and other receivables	20	**682.4**	873.5
Current tax assets		**140.2**	90.7
Derivative financial instruments	24	**3.1**	0.8
Liquid investments	21	**1,539.7**	863.2
Cash and cash equivalents	21	**653.7**	1,034.4
		3,605.5	3,438.9
Total assets		**14,610.4**	14,102.5
Current liabilities			
Short-term borrowings	22	**(723.9)**	(646.0)
Derivative financial instruments	24	**(9.6)**	–
Trade and other payables	23	**(750.6)**	(608.3)
Short-term decommissioning and restoration provisions	28	**(22.0)**	(30.9)
Current tax liabilities		**(42.8)**	(52.8)
		(1,548.9)	(1,338.0)
Non-current liabilities			
Medium and long-term borrowings	22	**(2,032.9)**	(1,847.9)
Derivative financial instruments	24	**(2.5)**	–
Trade and other payables	23	**(8.2)**	(7.7)
Liabilities in relation to joint venture	17	**(1.8)**	(1.0)
Post-employment benefit obligations	26	**(118.7)**	(107.4)
Decommissioning and restoration provisions	28	**(391.2)**	(378.9)
Deferred tax liabilities	27	**(1,105.2)**	(983.5)
		(3,660.5)	(3,326.4)
Total liabilities		**(5,209.4)**	(4,664.4)
Net assets		**9,401.0**	9,438.1
Equity			
Share capital	29	**89.8**	89.8
Share premium		**199.2**	199.2
Other reserves	29	**(18.1)**	(14.5)
Retained earnings	29	**7,112.8**	7,084.9
Equity attributable to equity owners of the parent		**7,383.7**	7,359.4
Non-controlling interests	30	**2,017.3**	2,078.7
Total equity		**9,401.0**	9,438.1

The financial statements on pages 149 to 201 were approved by the Board of Directors on 16 March 2020 and signed on its behalf by

Jean-Paul Luksic
Chairman

Ollie Oliveira
Senior Independent Director

CONSOLIDATED CASH FLOW STATEMENT

For the year ended 31 December 2019

	Notes	2019 $m	2018 $m
Cash flow from continuing operations	31	**2,570.7**	1,877.0
Interest paid		**(76.3)**	(68.2)
Income tax paid		**(403.6)**	(498.0)
Net cash from operating activities		**2,090.8**	1,310.8
Investing activities			
Capital contributions to joint ventures	17	**(1.8)**	(8.1)
Dividends from associates	17	**58.0**	16.6
Disposal of subsidiary and associate	17	**–**	145.2
Acquisition of mining properties		**(5.2)**	–
Cash derecognised due to loss of control of subsidiary	11	**–**	(13.2)
Proceeds from sale of property, plant and equipment		**1.9**	0.7
Purchases of property, plant and equipment		**(1,073.6)**	(872.9)
Net (increase)/decrease in liquid investments	21	**(676.5)**	305.5
Interest received		**41.0**	26.4
Net cash used in investing activities		**(1,656.2)**	(399.8)
Financing activities			
Dividends paid to equity holders of the Company	13	**(470.3)**	(466.9)
Dividends paid to preference shareholders of the Company	13	**(0.1)**	(0.1)
Dividends paid to non-controlling interests	30	**(400.0)**	(120.0)
Proceeds from issue of new borrowings	31	**741.4**	420.0
Repayments of borrowings	31	**(588.1)**	(733.8)
Principal elements of lease payments	31	**(92.5)**	(33.3)
Net cash used in financing activities		**(809.6)**	(934.1)
Net decrease in cash and cash equivalents		**(375.0)**	(23.1)
Cash and cash equivalents at beginning of the year		**1,034.4**	1,083.6
Net decrease in cash and cash equivalents	31	**(375.0)**	(23.1)
Effect of foreign exchange rate changes	31	**(5.7)**	(26.1)
Cash and cash equivalents at end of the year	21,31	**653.7**	1,034.4

NOTES TO THE FINANCIAL STATEMENTS

1 BASIS OF PREPARATION

The financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") and with those parts of the Companies Act 2006 applicable to companies reporting under IFRS. For these purposes, IFRS comprise the standards issued by the International Accounting Standards Board ("IASB") and IFRS Interpretations Committee ("IFRS IC") that have been endorsed by the European Union ("EU").

The financial statements have been prepared on the going concern basis. Details of the factors which have been taken into account in assessing the Group's going concern status are set out within the Risk Management Framework section of the Strategic Report.

Antofagasta plc is a company limited by shares, incorporated and domiciled in the United Kingdom at Cleveland House, 33 King Street, London SW1Y 6RJ.

The immediate parent of the Group is Metalinvest Establishment, which is controlled by E. Abaroa Foundation, in which members of the Luksic family are interested.

The nature of the Group entities' operations is mainly related to mining and exploration activities and the transport of rail and road cargo.

A) Adoption of new accounting standards

The Group has applied IFRS 16 Leases in the current period. IFRS 16 has resulted in most of the Group's operating leases being accounted for similarly to finance leases under the previous IAS 17 Leases, resulting in the recognition of additional assets within property, plant and equipment in respect of the right-of-use lease assets, and additional lease liabilities. The Group has applied the optional transitional provisions of IFRS 16 which resulted in the initial impact of the new standard being recognised as an adjustment to the balance sheet as at 1 January 2019, with no restatement of the comparative period. Leases are treated as explained in Note 2(V).

The implementation of IFRS 16 on 1 January 2019 resulted in the recognition of additional lease assets within property, plant and equipment and additional lease liabilities as at 1 January 2019 of
$132 million in each case.

The weighted average incremental borrowing rate applied to the Group's lease liabilities, recognised on the balance sheet at 1 January 2019 was 5.1%.

For the year ended 31 December 2018, operating lease costs of $107 million were recognised within operating expenses before depreciation (impacting EBITDA). The adoption of IFRS 16 has resulted in the following impact to the 2019 income statement: a decrease in operating expenses before depreciation (and therefore an increase in EBITDA) of $56 million, an increase in depreciation of $52 million, an increase in finance costs of $7 million and a reduction in profit before tax of $3 million.

The operating lease commitments as at 31 December 2018 disclosed the Group's 2018 Annual Report is reconciled to the lease liabilities recognised at 1 January 2019 in the table below:

	Total $m
Total operating lease commitments of the 2018 Annual Report	142.6
Impact of discounting operating lease commitments to present value	(12.5)
Other adjustments	1.6
Former operating leases recognised on the balance sheet at 1 January 2019	131.7
Finance leases previously recognised at 31 December 2018	171.8
IFRS 16 lease liabilities at 1 January 2019	303.5
New leases entered into in the year ended 31 December 2019	45.0
Repayments of lease liabilities	(92.4)
Effects of changes in foreign exchange rates	(12.0)
Other movements	(0.1)
IFRS 16 lease liabilities at 31 December 2019	244.0
Analysed between:	
Current liabilities	75.6
Non-current liabilities	168.4

The recognised right-of-use assets relate to the following types of assets:	31 December 2019 $m	1 January 2019 $m
Mining equipment and plant	146.8	169.0
Trucks	82.6	110.5
Facilities and infrastructure	2.7	0.3
Pick-up trucks	2.7	4.3
Office equipment	24.8	25.6
	259.6	309.7

1 BASIS OF PREPARATION CONTINUED

In respect of the presentation in the cash flow statement, repayments of lease liabilities are separated into a principal portion (within financing activities) and an interest portion (within operating activities). Until 2018 lease repayments were recognised within cash flows from operating activities.

Accounting policy for leases

Until 2018 leases were classified as operating leases or finance leases. Rental costs under operating leases were charged to the income statement account in equal annual amounts over the term of the lease. Assets under finance leases were recognised as assets of the Group at inception of the lease at the lower of fair value or the present value of the minimum lease payments, derived by discounting at the interest rate implicit in the lease. The interest element was charged within financing costs so as to produce a constant periodic rate of interest on the remaining balance of the liability.

From 1 January 2019, leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payments that are based on an index or a rate
- amounts expected to be payable by the lessee under residual value guarantees
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs

The following accounting standards, amendments and interpretations became effective in the current reporting period:

- Prepayment Features with Negative Compensation (Amendments to IFRS 9)
- Long-term Interests in Associates and Joint Ventures (Amendments to IAS 28)
- Annual Improvements to IFRS Standards 2015–2017 Cycle
- IFRIC 23, Uncertainty over Income Tax Treatments
- Plan Amendment, Curtailment or Settlement (Amendments to IAS 19)

The application of these standards and interpretations effective for the first time in the current year has had no significant impact on the amounts reported in these financial statements.

B) Accounting standards issued but not yet effective

At the date of authorisation of these financial statements, the following standards and interpretations, which have not been applied in these financial statements, were in issue but not yet effective:

- IFRS 17 Insurance Contracts
- Sale or Contribution of Assets between an Investor and its Associate
- Amendments to References to the Conceptual Framework in IFRS Standards
- Definition of a Business (Amendments to IFRS 3)
- Definition of Material (Amendments to IAS 1 and IAS 8)

The future application of these standards and interpretations is not expected to have significant impact in these financial statements.

2 PRINCIPAL ACCOUNTING POLICIES

A) Accounting convention

These financial statements have been prepared under the historical cost convention as modified by the use of fair values to measure certain financial instruments, principally provisionally priced sales as explained in Note 2(F) and financial derivative contracts as explained in Note 2(W).

B) Basis of consolidation

The financial statements comprise the consolidated financial statements of Antofagasta plc ("the Company") and its subsidiaries (collectively "the Group").

Subsidiaries – A subsidiary is an entity over which the Group has control, which is the case when the Group is exposed to, 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. The consolidated financial statements include all the assets, liabilities, revenues, expenses and cash flows of the Company and its subsidiaries after eliminating inter-company balances and transactions. For partly-owned subsidiaries, the net assets and profit attributable to non-controlling shareholders are presented as "Non-controlling interests" in the consolidated balance sheet and consolidated income statement.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on an acquisition-by-acquisition basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS. Subsequent to acquisition, the carrying amount of non-controlling interests is the amount of those interests at initial recognition plus the non-controlling interests' share of subsequent changes in equity. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Changes in the Group's ownership interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the Company.

When the Group loses control of a subsidiary, a gain or loss is recognised in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests. When assets of the subsidiary are carried at revalued amounts or fair values and the related cumulative gain or loss has been recognised in other comprehensive income and accumulated in equity, the amounts previously recognised in other comprehensive income and accumulated in equity are accounted for as if the Group had directly disposed of the relevant assets (ie reclassified to profit or loss or transferred directly to retained earnings as specified by applicable IFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IFRS 9 Financial Instruments: Recognition and Measurement or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

Acquisitions and disposals are treated as explained in Note 2(G) relating to business combinations and goodwill.

C) Investments in associates

An associate is an entity over which the Group is in a position to exercise significant influence, but not control or joint control, through the power to participate in the financial and operating policy decisions of that entity. The results and assets and liabilities of associates are incorporated in these consolidated financial statements using the equity method of accounting. This requires recording the investment initially at cost to the Group and then, in subsequent periods, adjusting the carrying amount of the investment to reflect the Group's share of the associate's results less any impairment and any other changes to the associate's net assets such as dividends. When the Group loses control of a former subsidiary but retains an investment in associate in that entity the initial carrying value of the investment in associate is recorded at its fair value at that point. When the Group's share of losses of an associate exceeds the Group's interest in that associate the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

D) Joint arrangements

A joint arrangement is an arrangement of which two or more parties have joint control. Joint arrangements are accounted depending on the nature of the arrangement.

i) Joint ventures – are accounted for using the equity method in accordance with IAS 28 Investment in Associates and Joint Ventures as described in Note 2I.

ii) Joint operations – are accounted for recognising directly the assets, obligations, revenues and expenses of the joint operator in the joint arrangement. The assets, liabilities, revenues and expenses are accounted for in accordance with the relevant IFRS.

When a Group entity transacts with its joint arrangements, profits and losses resulting from the transactions with the joint arrangements are recognised in the Group's consolidated financial statements only to the extent of interests in the joint arrangements that are not related to the Group.

E) Currency translation

The functional currency for each entity in the Group is determined as the currency of the primary economic environment in which it operates. Transactions in currencies other than the functional currency of the entity are translated at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in currencies other than the functional currency are retranslated at year end exchange rates. Gains and losses on retranslation are included in net profit or loss for the period within other finance items.

The presentational currency of the Group and the functional currency of the Company is the US dollar. On consolidation, income statement items for entities with a functional currency other than the US dollar are translated into US dollars at average rates of exchange. Balance sheet items are translated at period-end exchange rates. Exchange differences on translation of the net assets of such entities are taken to equity and recorded in a separate currency translation reserve. Cumulative translation differences arising after the transition date to IFRS are recognised as income or as expenses in the income statement in the period in which an operation is disposed of.

On consolidation, exchange gains and losses which arise on balances between Group entities are taken to reserves where that balance is, in substance, part of the net investment in a foreign operation, ie where settlement is neither planned nor likely to occur in the foreseeable future. All other exchange gains and losses on Group balances are dealt with in the income statement.

Fair value adjustments and any goodwill arising on the acquisition of a foreign entity are treated as assets of the foreign entity and translated at the period-end rate.

F) Revenue recognition

Revenue represents the value of goods and services supplied to third parties during the year. Revenue is measured at the fair value of consideration received or receivable, and excludes any applicable sales tax.

Revenue is recognised when the Group satisfies a performance obligation by transferring a promised good or service (ie an asset) to a customer. An asset is transferred when (or as) the customer obtains control of that asset.

For the Group's mining products the customer generally gains control over the material when it has been loaded at the port of loading, and so this is the point of revenue recognition. The Group sells a significant proportion of its products on Cost, Insurance & Freight (CIF) Incoterms, which means that the Group is responsible for shipping the product to a destination port specified by the customer. The shipping service represents a separate performance obligation, and is recognised separately from the sale of the material when the shipping service has been provided, along with the associated costs. Shipment revenue is recognised at the contracted price as this reflects the stand alone selling price.

Revenue from mining activities is recorded at the invoiced amounts with an adjustment for provisional pricing at each reporting date, as explained below. For copper and molybdenum concentrates, which are sold to smelters and roasting plants for further processing, the invoiced amount is the market value of the metal payable by the customer, net of deductions for tolling charges. Revenue includes amounts from the sale of by-products.

2 PRINCIPAL ACCOUNTING POLICIES CONTINUED

Copper and molybdenum concentrate sale agreements and copper cathode sale agreements generally provide for provisional pricing of sales at the time of shipment, with final pricing based on the monthly average London Metal Exchange ("LME") copper price or the monthly average market molybdenum price for specified future periods. This normally ranges from one to four months after delivery to the customer. For sales contracts, which contain provisional pricing mechanisms, the total receivable balance is measured at fair value through profit or loss. Gains and losses from the marking-to-market of open sales are recognised through adjustments to other income as part of revenues
in the income statement and to trade receivables in the balance sheet. The fair value calculations are based on forward prices at the period end for copper concentrate and cathode sales, and period-end average prices for molybdenum concentrate sales due to the absence of a futures market.

For the Transport division, revenue in respect of its transportation
and ancillary services is recognised in line with the performance of those services.

Interest income is accrued on a time basis, by reference to the principal outstanding and the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

Dividend income from equity investments, associates and joint ventures is recognised when the shareholders' right to receive payment has
been established. For associates and joint ventures, it is recorded as
a decrease of the investment.

G) Business combinations and goodwill

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. The results of businesses acquired during the year are brought into the consolidated financial statements from the effective date of acquisition. The identifiable assets, liabilities and contingent liabilities of a business, which can be measured reliably, are recorded
at their provisional fair values at the date of acquisition. Provisional
fair values are finalised within 12 months of the acquisition date. Acquisition-related costs are expensed as incurred.

When the consideration transferred by the Group in a business combination includes assets or liabilities resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Changes in the fair value
of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the "measurement period" (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as "measurement period" adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at subsequent reporting dates in accordance with IFRS 9.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date (ie the date when the Group obtains control) and the resulting gain or loss, if any, is recognised in profit
or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances which existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Goodwill arising in a business combination is measured as the excess
of the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net identifiable assets acquired and liabilities assumed. Any goodwill on the acquisition of subsidiaries is separately disclosed, while any goodwill
on the acquisition of associates and joint ventures is included within investments in equity accounted entities. Internally generated goodwill
is not recognised. Where the fair values of the identifiable net assets acquired exceed the sum of the consideration transferred, the surplus
is credited to the profit or loss in the period of acquisition as a bargain purchase gain.

The Group sometimes enters into earn-in arrangements whereby the Group acquires an interest in a project company in exchange for funding exploration and evaluation expenditure up to a specified level
of expenditure or a specified stage in the life of the project. Funding is usually conditional on the achievement of key milestones by the partner. Typically there is no consideration transferred or funding liability on the effective date of acquisition of the interest in the project company and no goodwill is recognised on this type of transaction.

The results of businesses sold during the year are included in the consolidated financial statements for the period up to the effective date
of disposal. Gains or losses on disposal are calculated as the difference between the sales proceeds (net of expenses) and the net assets attributable to the interest which has been sold. Where a disposal represents a separate major line of business or geographical area of operations, the net results attributable to the disposed entity are shown separately in the income statement as a discontinued operation.

H) Exploration and evaluation expenditure

Exploration and evaluation costs, other than those incurred in acquiring exploration licences, are expensed in the year in which they are incurred. When a mining project is considered to be commercially viable (normally when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved) all further directly attributable pre-production expenditure is capitalised. Capitalisation of pre-production expenditure ceases when commercial levels of production are achieved.

Costs incurred in acquiring exploration and mining licences are classified as intangible assets when construction of the related mining operation has not yet commenced. When construction commences the licences are transferred from intangible assets to the mining properties category within property, plant and equipment.

I) Stripping costs

Pre-stripping and operating stripping costs are incurred in the course of the development and operation of open-pit mining operations.

Pre-stripping costs relate to the removal of waste material as part of the initial development of an open-pit, in order to allow access to the ore body. The capitalised costs are depreciated once production commences on a unit of production basis, in proportion to the volume of ore extracted in the year compared with total proven and probable reserves for that pit at the beginning of the year.

Operating stripping costs relate to the costs of extracting waste material as part of the ongoing mining process. The ongoing mining and development of the Group's open-pit mines is generally performed via a succession of individual phases. The costs of extracting material from an open-pit mine are generally allocated between ore and waste stripping in proportion to the tonnes of material extracted. The waste stripping costs are generally absorbed into inventory and expensed as that inventory is processed and sold. Where the stripping costs relate to a significant stripping campaign which is expected to provide improved access to an identifiable component of the ore body (typically an individual phase within the overall mine plan), the costs of removing waste in order to improve access to that part of the ore body will be capitalised within property, plant and equipment. The capitalised costs will then be amortised on a unit of production basis, in proportion to the volume of ore extracted compared with the total ore contained in the component of the pit to which the stripping campaign relates.

J) Intangible assets

Intangible assets with finite useful lives that are acquired separately are carried at cost less accumulated amortisation and accumulated impairment losses. Exploration and mining licences are classified as intangible assets when construction of the related mining operation has not yet commenced. When construction commences the licences are transferred from intangible assets to the mining properties category within property, plant and equipment. Amortisation is recognised on a straight-line basis over the estimated useful lives of the intangible assets. The estimated useful life and amortisation method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Intangible assets acquired in a business combination and recognised separately from goodwill are initially recognised at their fair value at the acquisition date (which is regarded as their cost).

Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost less accumulated amortisation and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognised in profit or loss when the asset is derecognised.

K) Property, plant and equipment

The costs of mining properties and leases, which include the costs of acquiring and developing mining properties and mineral rights, are capitalised as property, plant and equipment in the year in which they are incurred, when a mining project is considered to be commercially viable (normally when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved). The cost of property, plant and equipment comprises the purchase price and any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended. Once a project has been established as commercially viable, related development expenditure is capitalised. This includes costs incurred in preparing the site for mining operations, including pre-stripping costs. Capitalisation ceases when the mine is capable of commercial production, with the exception of development costs which give rise to a future benefit.

Interest on borrowings related to construction or development of projects is capitalised, until such time as the assets are substantially ready for their intended use or sale which, in the case of mining properties, is when they are capable of commercial production.

L) Depreciation of property, plant and equipment

Depreciation of an asset begins when it is available for use, ie when it is in the location and condition necessary for it to be capable of operating in the manner intended.

Property, plant and equipment is depreciated over its useful life, or over the remaining life of the operation if shorter, to residual value. The major categories of property, plant and equipment are depreciated as follows:

(i) Land – freehold land is not depreciated unless the value of the land is considered to relate directly to a particular mining operation, in which case the land is depreciated on a straight-line basis over the expected mine life.

(ii) Mining properties – mining properties, including capitalised financing costs, are depreciated on a unit of production basis, in proportion to the volume of ore extracted in the year compared with total proven and probable reserves at the beginning of the year.

(iii) Buildings and infrastructure – straight-line basis over 10 to 25 years.

(iv) Railway track (including trackside equipment) – straight-line basis over 20 to 25 years.

(v) Wagons and rolling stock – straight-line basis over 10 to 20 years.

(vi) Machinery, equipment and other assets – are depreciated on a unit of production basis, in proportion to the volume of ore/material processed or on a straight-line basis over 5 to 20 years.

(vii) Assets under construction – no depreciation until asset is available for use.

(viii) Lease right-of-use assets – depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

(ix) Stripping cost – The capitalised costs will then be amortised on a unit of production basis, in proportion to the volume of ore extracted compared with the total ore contained in the component of the pit to which the stripping campaign relates (Note 2I).

Residual values and useful lives are reviewed, and adjusted if appropriate, at least annually, and changes to residual values and useful lives are accounted for prospectively.

M) Impairment of property, plant and equipment and intangible assets

Property, plant and equipment and finite life intangible assets are reviewed for impairment if there is any indication that the carrying amount may not be recoverable. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment (if any). Where the asset does not generate cash flows that are independent from other assets, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Any intangible asset with an indefinite useful life is tested for impairment annually and whenever there is an indication that the asset may be impaired.

2 PRINCIPAL ACCOUNTING POLICIES CONTINUED

Recoverable amount is the higher of fair value less costs of disposal
and value in use. Fair value less costs of disposal reflects the net amount the Group would receive from the sale of the asset in an orderly transaction between market participants. For mining assets this would generally be determined based on the present value of the estimated future cash flows arising from the continued use, further development or eventual disposal of the asset. The estimates used in determining
the present value of those cash flows are those that an independent market participant would consider appropriate. Value in use reflects
the expected present value of the future cash flows which the Group would generate through the operation of the asset in its current condition, without taking into account potential enhancements or
further development of the asset. The fair value less costs of disposal valuation will normally be higher than the value in use valuation, and accordingly the Group typically applies this valuation estimate in its impairment assessments.

If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount is reduced to the recoverable amount. An impairment charge is recognised in the income statement immediately. Where an impairment subsequently reverses, the carrying amount is increased to the revised estimate of recoverable amount, but so that the increased carrying amount does not exceed the carrying value that would have been determined if no impairment had previously been recognised. A reversal is recognised in the income statement immediately.

N) Inventory

Inventory consists of raw materials and consumables, work-in-progress and finished goods. Work-in-progress represents material that is in the process of being converted into finished goods. The conversion process for mining operations depends on the nature of the copper ore. For sulphide ores, processing includes milling and concentrating and results in the production of copper concentrate. For oxide ores, processing includes leaching of stockpiles, solvent extraction and electrowinning and results in the production of copper cathodes. Finished goods consist of copper concentrate containing gold and silver at Los Pelambres and Centinela and copper cathodes at Centinela and Antucoya. Los Pelambres and Centinela also produce molybdenum
as a by-product.

Inventory is valued at the lower of cost, on a weighted average basis, and net realisable value. Net realisable value represents estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution. Cost of finished goods and work-in-progress is production cost and for raw materials and consumables it is purchase price. Production cost includes:

- labour costs, raw material costs and other costs directly attributable to the extraction and processing of ore;
- depreciation of plant, equipment and mining properties directly involved in the production process; and
- an appropriate portion of production overheads.

Stockpiles represent ore that is extracted and is available for further processing. Costs directly attributable to the extraction of ore are generally allocated as part of production costs in proportion to the tonnes of material extracted. Operating stripping costs are generally absorbed into inventory, and therefore expensed as that inventory is processed and sold. If ore is not expected to be processed within 12 months of the statement of financial position date it is included within non-current assets. If there is significant uncertainty as to when any stockpiled ore will be processed it is expensed as incurred.

O) Taxation

Tax expense comprises the charges or credits for the year relating to both current and deferred tax.

Current tax is based on taxable profit for the year. Taxable profit may differ from net profit as reported in the income statement because it excludes items of income or expense that are taxable and deductible in different years and also excludes items that are not taxable or deductible. The liability for current tax is calculated using tax rates for each entity in the consolidated financial statements which have been enacted or substantively enacted at the balance sheet date.

Deferred tax is the tax expected to be payable or recoverable on temporary differences (ie differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax basis used in the computation of taxable profit). Deferred tax is accounted for using the balance sheet liability method and is provided on all temporary differences with certain limited exceptions as follows:

(i) tax payable on undistributed earnings of subsidiaries, associates and joint ventures is provided except where the Group is able to control the remittance of profits and it is probable that there will be no remittance of past profits earned in the foreseeable future;

(ii) deferred tax is not provided on the initial recognition of an asset or liability in a transaction that does not affect accounting profit or taxable profit and is not a business combination; nor is deferred tax provided on subsequent changes in the carrying value of such assets and liabilities, for example where they are depreciated; and

(iii) the initial recognition of any goodwill.

Deferred tax assets are recognised only to the extent that it is probable that they will be recovered through sufficient future taxable profit. The carrying amount of deferred tax assets is reviewed at each balance sheet date.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. Deferred tax is charged or credited in the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also taken directly to equity.

P) Provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (when the effect of the time value of money is material).

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

Q) Provisions for decommissioning and restoration costs

An obligation to incur decommissioning and restoration costs occurs when environmental disturbance is caused by the development or ongoing production of a mining property. Costs are estimated on the basis of a formal closure plan and are subject to regular formal review.

Such costs arising from the installation of plant and other site preparation work, discounted to their net present value, are provided and capitalised at the start of each project, as soon as the obligation to incur such costs arises. These decommissioning costs are charged against profit or loss over the life of the mine, through depreciation
of the asset and unwinding or amortisation of the discount on the provision. Depreciation is included in operating costs while the unwinding of the discount is included within other finance expenses. Changes in the measurement of a liability relating to the decommissioning of plant or other site preparation work are added to, or deducted from, the cost of the related asset in the current year.

The costs for restoration of site damage, which is created on an ongoing basis during production, are provided for at their net present values and charged against profit or loss as extraction progresses. Changes in the measurement of a liability relating to site damage created during production, which relate to changes in the estimate of the closure costs, are charged against operating profit, and changes relating to the discount rate and foreign exchange are recorded within other finance expenses.

R) Share-based payments

For cash-settled share-based payments, a liability is recognised for the goods or services acquired, measured initially at the fair value of the liability. At the end of each reporting period until the liability is settled, and at the date of settlement, the fair value of the liability is remeasured, with any changes in fair value recognised in profit or loss for the year. The Group currently does not have any equity settled share-based payments to employees or third parties.

S) Post-employment benefits

The Group operates defined contribution schemes for a limited number of employees. For such schemes, the amount charged to the income statement is the contributions paid or payable in the year.

Employment terms may also provide for payment of a severance indemnity when an employment contract comes to an end. This is typically at the rate of one month for each year of service (subject in most cases to a cap as to the number of qualifying years of service) and based on final salary level. The severance indemnity obligation is treated as an unfunded defined benefit plan, and the calculation is based on valuations performed by an independent actuary using the projected unit credit method, which are regularly updated.

The obligation recognised in the balance sheet represents the present value of the severance indemnity obligation. Actuarial gains and losses are immediately recognised in other comprehensive income.

T) Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, deposits held on call with banks, highly liquid investments that are readily convertible into known amounts of cash and which are subject to insignificant risk of changes in value, net of bank overdrafts which are repayable on demand. Cash and cash equivalents normally have a maturity period of 90 days or less.

U) Liquid investments

Liquid investments represent highly liquid current asset investments such as term deposits and managed funds invested in high quality fixed income instruments. They do not meet the IAS 7 definition of cash and cash equivalents, normally because even if readily accessible, the underlying investments have an average maturity profile greater than 90 days from the date first entered into. These assets are designated
as fair value through profit or loss.

V) Leases

Until 2018 leases were classified as operating leases or finance leases. Rental costs under operating leases were charged to the income statement account in equal annual amounts over the term of the lease. Assets under finance leases were recognised as assets of the Group at inception of the lease at the lower of fair value or the present value of the minimum lease payments derived by discounting at the interest rate implicit in the lease. The interest element was charged within financing costs so as to produce a constant periodic rate of interest on the remaining balance of the liability.

From 1 January 2019, leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payments that are based on an index or a rate
- amounts expected to be payable by the lessee under residual value guarantees
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs,

The following accounting standards, amendments and interpretations became effective in the current reporting period:

- Prepayment Features with Negative Compensation (Amendments to IFRS 9)
- Long-term Interests in Associates and Joint Ventures (Amendments to IAS 28)
- Annual Improvements to IFRS Standards 2015–2017 Cycle
- IFRIC 23, Uncertainty over Income Tax Treatments
- Plan Amendment, Curtailment or Settlement (Amendments to IAS 19)

2 PRINCIPAL ACCOUNTING POLICIES CONTINUED

The application of these standards and interpretations, effective for the first time in the current year, has had no significant impact on the amounts reported in these financial statements.

W) Other financial instruments

Financial assets and financial liabilities are recognised on the Group's balance sheet when the Group becomes a party to the contractual provisions of the instrument. Financial assets are derecognised when the contractual rights to the cash flows from the financial asset expire or the Group has transferred the asset to another party. Financial liabilities are removed from the Group's balance sheet when they are extinguished – ie when the obligation specified in the contract has been discharged, cancelled or expired.

(i) Investments – Equity investments which are not subsidiaries, associates or joint ventures are recognised at fair value. The Group generally applies an irrevocable election for each equity investment to designate them as Fair Value through Other Comprehensive Income (FVOCI). Dividends from equity investments are recognised in the income statement when the right to receive payment is established.

(ii) Trade and other receivables – As explained above, for sales contracts which contain provisional pricing mechanisms the total receivable balance is measured at fair value through profit or loss. Other receivable balances are recognised at amortised cost.

(iii) Trade and other payables – Trade and other payables are generally not interest-bearing and are normally stated at their nominal value.

(iv) Borrowings (loans and preference shares) – Interest-bearing loans and bank overdrafts are initially recorded at the proceeds received, net of direct issue costs. They are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis. The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis using the effective interest rate method. Amounts are either recorded as financing costs in profit or loss or capitalised in accordance with the accounting policy set out in Note 2(K). Finance charges are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

The Sterling-denominated preference shares issued by the Company carry a fixed rate of return without the right to participate in any surplus. They are accordingly classified within borrowings and translated into US dollars at period-end rates of exchange. Preference share dividends are included within finance costs.

(v) Equity instruments – Equity instruments issued are recorded at the proceeds received, net of direct issue costs. Equity instruments of the Company comprise its Sterling-denominated issued ordinary share capital and related share premium. As explained in Note 2(E), the presentational currency of the Group and the functional currency of the Company is US dollars, and ordinary share capital and share premium are translated into US dollars at historical rates of exchange based on dates of issue.

(vi) Derivative financial instruments – As explained in Note 24(D), the Group periodically uses derivative financial instruments to reduce exposure to foreign exchange, interest rate and commodity price movements. The Group does not use such derivative instruments for trading purposes. The Group has applied the hedge accounting provisions of IFRS 9 Financial Instruments. The effective portion of changes in the fair value of derivative financial instruments that are designated and qualify as hedges of future cash flows have been recognised directly in equity, with such amounts subsequently recognised in profit or loss in the period when the hedged item affects profit or loss. Any ineffective portion is recognised immediately in profit or loss. Realised gains and losses on commodity derivatives recognised in profit or loss are recorded within revenue. The time value element of changes in the fair value of derivative options is recognised within other comprehensive income.

Financial assets with embedded derivatives are considered in their entirety when determining the appropriate classification and measurement. The treatment of embedded derivatives arising from provisionally priced commodity sales contracts is set out in further detail in Note 2(F) relating to revenue. Derivatives embedded in financial liabilities are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contract and the host contract is not measured at fair value. Changes in fair value are reported in profit or loss for the year.

(vii) Impairment of financial assets – The Group applies the forward-looking expected credit loss model to its financial assets, other than those measured at fair value through profit or loss. The Group applies the IFRS 9 "simplified approach" to its trade receivables, measuring the loss allowance at the lifetime expected credit loss. For other financial assets, where the credit risk has not increased significantly since initial recognition, the loss allowance is measured at the 12 month expected credit loss. If there has been a significant increase in credit risk, the loss allowance is measured at the lifetime expected credit loss. Increases or decrease to the credit loss allowance are recognised immediately in profit or loss.

X) Exceptional items

Exceptional items are material items of income and expense which are non-regular or non-operating and typically non-cash movements. Profit excluding exceptional items is considered to be a useful performance measure as it provides an indication of the underlying earnings of the Group's operations, excluding these one-off items.

Y) Rounding

All amounts disclosed in the financial statements and notes have been rounded off to the nearest million dollars unless otherwise stated.

These policies have been consistently applied to all the years presented, unless otherwise stated.

3 CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

Determining many of the amounts included in the financial statements involves the use of judgement and/or estimation. These judgements and estimates are based on management's best knowledge of the relevant facts and circumstances having regard to prior experience, but actual results may differ from the amounts included in the financial statements. Information about such judgements and estimates is included in the principal accounting policies in Note 2 or the other notes to the financial statements, and the key areas are set out below.

A) Judgements

The following are the critical judgements, apart from those involving estimations (which are dealt with separately), that the Directors have made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognised in the financial statements.

(i) Capitalisation of property, plant and equipment of project costs

As explained in Note 2(K) the costs of developing mining properties are capitalised as property, plant and equipment when the mining project is considered to be commercially viable. Commercial viability is normally considered to be demonstrable when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved. Management reviews amounts capitalised to ensure that the treatment of that expenditure as capital rather than operating expenditure is reasonable, in particular in respect of the commercial viability of the project.

As at 31 December 2019 $38.0 million of feasibility study costs relating to projects which are still under evaluation and have not yet received final Board approval were capitalised within property, plant and equipment. Should the Group ultimately take the decision to abandon any of these projects, and not continue with their development, then it is likely that the corresponding element of
the capitalised feasibility study costs would need to be impaired.

The capitalisation of the construction and commissioning costs
for a new mining operation ceases, and depreciation commences, when the operation is in the condition necessary for it to be capable of operating in the manner intended (which is termed as achieving commercial production).

The determination of the commercial production date requires judgement which involves the consideration of a number of relevant factors, including the successful completion of commissioning tests and the processing and production levels achieved compared with expected design capacity.

(ii) Deferred taxation

As explained in Note 2(O), deferred tax assets are recognised only to the extent that it is probable that they will be recovered through sufficient future taxable profits. Generally under Chilean tax law most tax losses can be carried forward indefinitely, and so the expiry of tax losses is not generally an issue. The key assumptions to which the forecasts of the probable level of future taxable profits are most sensitive are future commodity prices, production levels and operating costs.

As set out in Note 27, the Group has recognised $8.2 million of deferred tax assets as at 31 December 2019, with the majority of these deferred tax assets relating to short-term timing differences and provisions. The Group had unused tax losses of $435.7 million available for offset against future profits. A deferred tax asset of $5.2 million has been recognised in respect of $19.2 million of these losses, with no deferred tax asset recognised in respect of the remaining $416.5 million of tax losses. If the Group's assessment as to the recoverability of those tax losses were to change, then potentially additional deferred tax assets of up to $112.0 million could be recognised.

No deferred tax liability is recognised in respect of the undistributed earnings of subsidiaries where it is not likely that those profits will be distributed in the foreseeable future. When determining whether it is likely that distributions will be made in the foreseeable future, and what is the appropriate foreseeable future period for this purpose, the Group considers factors such as the predictability of the likely future Group dividends, taking into account the Group's dividend policy and the level of potential volatility of the Group's future earnings, as well as the current level of distributable reserves at the Antofagasta plc entity level. As set out in Note 27, at 31 December 2019 deferred withholding tax liabilities of $36.6 million have been recognised, which relate to undistributed earnings of subsidiaries where it is considered likely that the corresponding profits will be distributed in the foreseeable future. The value of the remaining undistributed earnings of subsidiaries for which deferred tax liabilities have not been recognised was $5.065 million.

B) Estimates

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying
amounts of assets and liabilities within the next financial year are addressed below.

(i) Non-financial assets impairment

As explained in Note 2(M), the Group reviews the carrying value
of its intangible assets and property, plant and equipment to determine whether there is any indication that those assets are impaired. In making assessments for impairment, assets that do not generate independent cash flows are allocated to an appropriate cash generating unit ("CGU"). The recoverable amount of those assets, or CGU, is measured at the higher of their fair value less costs of disposal and value in use.

Details of the valuations and sensitivities of the Group's mining operations are included in Note 4, including quantitative sensitivity analyses.

Management necessarily applies its judgement in allocating assets to CGUs, in estimating the probability, timing and value of underlying cash flows and in selecting appropriate discount rates to be applied within the fair value less costs of disposal calculation. The key assumptions are set out in Note 2(M) and Note 4. Subsequent changes to CGU allocation, licensing status, reserves and resources, price assumptions or other estimates and assumptions in the fair value less cost to dispose calculation could impact the carrying value of the respective assets.

(ii) Inventory valuation

The valuation of work in progress inventories involves a number of estimates, including the average ore grade, volume and density of ore stockpiles, and the total recoveries and the speed of recovery in respect of material on the leach piles. Evaluating the net realisable value of the inventories also requires an estimate of the likely future copper price for the periods when it is expected that the inventories will be completed and sold. As set out in Note 19, the value of work in progress inventories at 31 December 2019 was $484.7 million.

If the copper spot price at 31 December 2019 (used for forecasting the likely sales price of short-term inventories) had been 5% lower, this would have resulted in a net realisable value provision and charge to the P&L of approximately $10 million.

(iii) Useful economic lives of property, plant and equipment and ore reserves estimates

As explained in Note 2(L), mining properties, including capitalised financing costs, are depreciated in proportion to the volume of ore extracted in the year compared with total proven and probable reserves at the beginning of the year.

There are numerous uncertainties inherent in estimating ore reserves, and assumptions that were valid at the time of estimation may change when new information becomes available. These include assumptions as to grade estimates and cut-off grades, recovery rates, commodity prices, exchange rates, production costs, capital costs, processing and reclamation costs and discount rates. The actual volume of ore extracted and any changes in these assumptions could affect prospective depreciation rates and carrying values.

The majority of other items of property, plant and equipment are depreciated on a straight-line basis over their useful economic lives. Management reviews the appropriateness of useful economic lives at least annually and, again, any changes could affect prospective depreciation rates and asset carrying values.

The total depreciation and amortisation charge for 2019 was $914.3 million, and so as a very simplistic sensitivity, a 10% adjustment and the useful economic lives of all of the Group's property, plant and equipment would result in an impact of approximately $90 million on the annual depreciation charge.

(iv) Provisions for decommissioning and site restoration costs

As explained in Note 2(Q), provision is made, based on net present values, for decommissioning and site rehabilitation costs as soon as the obligation arises following the development or ongoing production of a mining property. The provision is based on a closure plan prepared with the assistance of external consultants.

Management uses its judgement and experience to provide for and (in the case of capitalised decommissioning costs) amortise these estimated costs over the life of the mine. The ultimate cost of decommissioning and site rehabilitation is uncertain and cost estimates can vary in response to many factors including changes to relevant legal requirements, the emergence of new restoration techniques or experience at other mine sites.

The expected timing and extent of expenditure can also change, for example in response to changes in ore reserves or processing levels. As a result, there could be significant adjustments to the provisions established which would affect future financial results.

Details of the decommissioning and restoration provisions are set out in Note 28. The total value of these provisions as at 31 December 2019 was $413.2 million.

4 ASSET SENSITIVITIES

Other asset sensitivities

There were no indicators of potential impairment, or reversal of previous impairments, for the Group's operations at the 2019 year-end, and accordingly no impairment reviews have been performed. However, in order to provide an indication of the sensitivities of the recoverable amount of the Group's mining operations, a valuation and sensitivity analysis has been performed.

The recoverable amount is the higher of fair value less costs of disposal and value in use. Fair value less costs of disposal reflects the net amount the Group would receive from the sale of the asset in an orderly transaction between market participants. For mining assets this would generally be determined based on the present value of the estimated future cash flows arising from the continued use, further development or eventual disposal of the asset. Value in use reflects the expected present value of the future cash flows which the Group would generate through the operation of the asset in its current condition, without taking into account potential enhancements or further development of the asset. The fair value less costs of disposal valuation will normally be higher than the value in use valuation, and accordingly the Group typically applies this valuation estimate in its impairment or valuation assessments.

This valuation exercise demonstrated positive headroom for all of the Group's mining operations, with the recoverable amount of the assets in excess of their carrying value.

The assumption to which the value of the assets is most sensitive is the future copper price. The copper price forecasts (representing the Group's estimates of the assumptions that would be used by independent market participants in valuing the assets) are based on the forward curve for the short term and consensus analyst forecasts including both investment banks and commodity consultants for the longer term. A long-term copper price of $3.10/lb has been used in the base valuations. As an additional down-side sensitivity, a valuation was performed with a 5% reduction in the long-term copper price. Los Pelambres, Centinela and Zaldívar still showed positive headroom in this alternative down-side scenario. However the Antucoya valuation indicated a potential deficit of $80 million. This was a simple sensitivity exercise, looking at an illustrative change in the forecast long-term copper price in isolation. In reality, a deterioration in the long-term copper price environment is likely to result in corresponding improvements in a range of input cost factors. In particular, given that copper exports account for over 50% of Chile's exports, movements in the US dollar/Chilean peso exchange rate are highly correlated to the copper price, and a decrease in the copper price is likely to result in a weakening of the Chilean peso, with a resulting reduction in the Group's operating costs and capital expenditure. These likely cost reductions, as well as potential operational changes which could be made in a weaker copper price environment, could partly mitigate the impact of the lower copper price modelled in these estimated potential sensitivities.

In addition to the future copper price, the valuations are sensitive to the assumptions in respect of the discount rate used to determine the present value of the future cash flows, future operating costs, sustaining and development capital expenditure, and the US dollar/Chilean peso exchange rate. In the case of Centinela, a significant element of the valuation relates to the planned construction of the second concentrator, and a substantial change in the plans for that development could have a considerable impact on the valuation. A real post-tax discount rate of 8% has been used in determining the present value of the forecast future cash flow from the assets.

5 SEGMENT INFORMATION

The Group's reportable segments are as follows:

- Los Pelambres
- Centinela
- Antucoya
- Zaldívar
- Exploration and evaluation
- Corporate and other items
- Transport division

For management purposes, the Group is organised into two business divisions based on their products – Mining and Transport. The Mining division is split further for management reporting purposes to show results by mine and exploration activity. Los Pelambres produces primarily copper concentrate, molybdenum, gold and silver as a by-product. Centinela produces copper concentrate containing gold and silver as a by-product, molybdenum concentrates and copper cathodes. Antucoya and Zaldívar produce copper cathodes. The Transport division provides rail cargo and road cargo transport together with a number of ancillary services. All the operations are based in Chile. The Exploration and evaluation segment incurs exploration and evaluation expenses. "Corporate and other items" comprises costs incurred by the Company, Antofagasta Minerals SA, the Group's mining corporate centre and other entities, that are not allocated to any individual business segment. Consistent with its internal management reporting, the Group's corporate and other items are included within the Mining division.

The chief operating decision-maker monitors the operating results of the business segments separately for the purpose of making decisions about resources to be allocated and assesses performance. Segment performance is evaluated based on the operating profit of each of the segments.

5 SEGMENT INFORMATION CONTINUED
A) Segment revenues and results

For the year ended 31 December 2019

	Los Pelambres $m	Centinela $m	Antucoya $m	Zaldívar $m	Exploration and evaluation[2] $m	Corporate and other items $m	Mining $m	Transport division $m	Total $m
Revenue	2,363.9	2,007.9	432.2	–	–	–	4,804.0	160.5	4,964.5
Operating cost excluding depreciation	(979.8)	(1,048.4)	(345.9)	–	(111.1)	(70.8)	(2,556.0)	(105.7)	(2,661.7)
Depreciation and amortisation	(258.5)	(532.2)	(92.2)	–	–	(7.9)	(890.8)	(23.5)	(914.3)
Loss on disposals	(10.5)	(1.5)	–	–	–	–	(12.0)	(0.7)	(12.7)
Operating profit/(loss)	1,115.1	425.8	(5.9)	-	(111.1)	(78.7)	1,345.2	30.6	1,375.8
Equity accounting results	–	–	–	15.5	–	(2.5)	13.0	11.4	24.4
Investment income	11.1	7.9	1.4	–	–	26.2	46.6	0.5	47.1
Interest expense	(7.7)	(36.5)	(42.7)	–	–	(21.7)	(108.6)	(2.5)	(111.1)
Other finance items	8.8	3.4	(0.5)	–	–	1.8	13.5	(0.5)	13.0
Profit/(loss) before tax	1,127.3	400.6	(47.7)	15.5	(111.1)	(74.9)	1,309.7	39.5	1,349.2
Tax	(341.4)	(88.5)	(0.2)	–	–	(68.2)	(498.3)	(7.8)	(506.1)
Profit/(loss) for the year from continuing operations	785.9	312.1	(47.9)	15.5	(111.1)	(143.1)	811.4	31.7	843.1
Profit/(loss) for the year	785.9	312.1	(47.9)	15.5	(111.1)	(143.1)	811.4	31.7	843.1
Non-controlling interests	(309.0)	(69.4)	36.7	–	–	–	(341.7)	–	(341.7)
Profit/(losses) attributable to the owners of the parent	476.9	242.7	(11.2)	15.5	(111.1)	(143.1)	469.7	31.7	501.4
EBITDA[1]	1,384.1	959.5	86.3	112.6	(111.1)	(73.3)	2,358.1	80.8	2,438.9
Additions to non-current assets									
Capital expenditure	573.0	535.9	43.0	–	–	16.0	1,167.9	68.6	1,236.5
Segment assets and liabilities									
Segment assets	4,251.2	5,792.2	1,647.1	–	–	1,543.3	13,233.8	343.6	13,577.4
Deferred tax assets	–	–	–	–	–	5.5	5.5	2.7	8.2
Investment in associates and joint venture	–	–	–	961.8	–	–	961.8	63.0	1,024.8
Segment liabilities	(1,696.7)	(1,789.6)	(933.3)	–	–	(694.0)	(5,113.6)	(95.8)	(5,209.4)

1. EBITDA refers to Earnings Before Interest, Tax, Depreciation and Amortisation. EBITDA is calculated by adding back depreciation, amortisation, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group´s subsidiaries, and the Group´s proportional share of the EBITDA of its associates and joint ventures (refer to the Alternative Performance Measures section on page 206).

2. Operating cash outflow in the Exploration and evaluation segment was $43.0 million.

For the year ended 31 December 2018

	Los Pelambres $m	Centinela $m	Antucoya $m	Zaldívar $m	Exploration and evaluation[2] $m	Corporate and other items $m	Mining $m	Transport division $m	Total $m
Revenue	2,493.5	1,609.2	457.6	–	–	–	4,560.3	172.8	4,733.1
Operating cost excluding depreciation	(1,065.9)	(964.2)	(316.0)	–	(97.6)	(61.4)	(2,505.1)	(109.2)	(2,614.3)
Depreciation and amortisation	(243.3)	(415.4)	(78.7)	–	–	(7.2)	(744.6)	(15.9)	(760.5)
Loss on disposals	(10.5)	–	–	–	–	–	(10.5)	(2.8)	(13.3)
Operating profit/(loss)	1,173.8	229.6	62.9	–	(97.6)	(68.6)	1,300.1	44.9	1,345.0
Equity accounting results	–	–	–	14.2	–	(2.9)	11.3	10.9	22.2
Investment income	6.0	5.1	1.2	–	–	17.0	29.3	0.8	30.1
Interest expense	(5.8)	(35.5)	(49.6)	–	–	(20.5)	(111.4)	(2.1)	(113.5)
Other finance items	(13.2)	(7.8)	(3.1)	–	–	0.4	(23.7)	(7.4)	(31.1)
Profit/(loss) before tax	1,160.8	191.4	11.4	14.2	(97.6)	(74.6)	1,205.6	47.1	1,252.7
Tax	(371.8)	(18.7)	0.9	–	–	(20.1)	(409.7)	(14.0)	(423.7)
Profit/(loss) for the year from continuing operations	789.0	172.7	12.3	14.2	(97.6)	(94.7)	795.9	33.1	829.0
Profit for the year from discontinued operations	–	51.3	–	–	–	–	51.3	–	51.3
Profit/(loss) for the year	789.0	224.0	12.3	14.2	(97.6)	(94.7)	847.2	33.1	880.3
Non-controlling interests	(315.5)	(35.8)	14.7	–	–	–	(336.6)	–	(336.6)
Profit/(losses) attributable to the owners of the parent	473.5	188.2	27.0	14.2	(97.6)	(94.7)	510.6	33.1	543.7
EBITDA[1]	1,427.6	645.0	141.6	87.4	(97.6)	(64.6)	2,139.4	88.9	2,228.3
Additions to non-current assets									
Capital expenditure	364.8	535.2	65.7	–	–	4.5	970.2	67.7	1,037.9
Segment assets and liabilities									
Segment assets	4,003.7	5,283.8	1,942.0	–	–	1,439.2	12,668.7	340.5	13,009.2
Deferred tax assets	–	29.0	–	–	–	5.3	34.3	2.9	37.2
Investment in associates and joint venture	–	–	–	996.4	–	–	996.4	59.7	1,056.1
Segment liabilities	(1,218.0)	(1,746.1)	(948.8)	–	–	(632.2)	(4,545.1)	(119.3)	(4,664.4)

1. EBITDA refers to Earnings Before Interest, Tax, Depreciation and Amortisation. EBITDA is calculated by adding back depreciation, amortisation, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group´s subsidiaries, and the Group´s proportional share of the EBITDA of its associates and joint ventures (refer to the Alternative Performance Measures section on page 206).
2. Operating cash outflow in the Exploration and evaluation segment was $81.0 million.

Notes to segment revenues and results

(i) Inter-segment revenues are eliminated on consolidation. Revenue from the Transport division segment is stated after eliminating inter-segmental sales to the Mining division of $5.3 million (year ended 31 December 2018 – $nil million).

(ii) Revenue includes provisionally priced sales of copper, gold and molybdenum concentrates and copper cathodes. Further details of such adjustments are given in Note 6.

(iii) The copper and molybdenum concentrate sales are stated net of deductions for tolling charges. Tolling charges for copper and molybdenum concentrates are detailed in Note 6.

(iv) The effects of tax and non-controlling interests on the expenses within the Exploration and evaluation segment are allocated to the mine that the exploration work relates to.

(v) The assets of the Transport division segment include $56.9 million (31 December 2018 – $54.6 million) relating to the Group’s 40% interest in Inversiones Hornitos SA (“Inversiones Hornitos”), which owns the 165MW Hornitos thermoelectric power plant in Mejillones in Chile’s Antofagasta Region and $6.2 million (31 December 2018 – $5.1 million) relating to the Group’s 30% interest in Antofagasta Terminal International SA (“ATI”), which operates a concession to manage installations in the port of Antofagasta. Further details of these investments are set out in Note 17.

5 SEGMENT INFORMATION CONTINUED
B) Entity-wide disclosures

Revenue by product[1]

	2019 $m	2018 $m
Copper		
– Los Pelambres	**2,009.1**	2,040.3
– Centinela concentrate	**1,137.7**	827.9
– Centinela cathodes	**504.4**	589.4
– Antucoya	**432.2**	457.6
Gold		
– Los Pelambres	**75.2**	78.5
– Centinela	**332.5**	169.5
Molybdenum		
– Los Pelambres	**249.0**	340.2
– Centinela	**5.6**	7.8
Silver		
– Los Pelambres	**30.7**	34.4
– Centinela	**27.6**	14.7
Total	**4,804.0**	4,560.3
Transport division	**160.5**	172.8
	4,964.5	4,733.1

Revenue by location of customer[1]

	2019 $m	2018 $m
Europe		
– United Kingdom	**152.3**	125.3
– Switzerland	**612.4**	587.0
– Spain	**158.0**	152.9
– Germany	**102.7**	117.3
– Rest of Europe	**85.0**	131.7
Latin America		
– Chile	**213.8**	248.1
– Rest of Latin America	**95.3**	73.9
North America		
– United States	**88.9**	199.4
Asia		
– Japan	**1,561.5**	1,413.0
– China	**517.2**	481.2
– Singapore	**692.1**	633.9
– South Korea	**371.2**	322.0
– Hong Kong	**171.0**	117.1
– Rest of Asia	**143.1**	130.3
	4,964.5	4,733.1

Information about major customers

In the year ended 31 December 2019 the Group's mining revenue included $711.9 million related to one large customer that individually accounted for more than 10% of the Group's revenue (year ended 31 December 2018 – one large customer representing $678.1 million).

1. Figures include both revenue from the sale of products and the associated income from the provision of shipping services.

Non-current assets by location of assets

	2019 $m	2018 $m
Chile	**10,827.8**	10,449.0
USA	**176.8**	172.6
Other	**0.1**	0.1
	11,004.7	10,621.7

The above non-current assets disclosed by location of assets exclude financial instruments, equity investments and deferred tax assets.

6 REVENUE

Copper and molybdenum concentrate sale contracts and copper cathode sale contracts generally provide for provisional pricing of sales at the time of shipment, with final pricing being based on the monthly average London Metal Exchange copper price or monthly average molybdenum price for specified future periods. This normally ranges from one to four months after shipment to the customer. For sales contracts which contain provisional pricing mechanisms the total receivable balance is measured at fair value through profit or loss. Gains and losses from the mark-to-market of open sales are recognised through adjustments to revenue in the income statement and to trade receivables in the balance sheet. The Group determines mark-to-market prices using forward prices at each period-end for copper concentrate and cathode sales, and period-end month average prices for molybdenum concentrate sales due to the absence of a futures market in the market price references for that commodity in the majority of the Group's contracts.

An analysis of the Group's revenue is as follows:

	2019 $m	2018 $m
Revenue from contracts with customers		
Sale of products	**4,693.4**	4,660.5
Rendering of transport services	**160.5**	172.8
Shipping services	**92.9**	74.4
Provisional pricing adjustments in respect of copper, gold and molybdenum	**17.7**	(174.6)
Total revenue	**4,964.5**	4,733.1

The categories of revenue which are principally affected by different economic factors are the individual product types. A summary of revenue by product is set out in Note 5.

In addition to mark-to-market and final pricing adjustments, revenue also includes realised gains and losses relating to derivative commodity instruments. Details of these realised gains or losses are shown in the tables that follow.

Copper and molybdenum concentrate sales are stated net of deductions for tolling charges, as shown in the tables that follow.

6 REVENUE CONTINUED

For the year ended 31 December 2019[1]

	Los Pelambres Copper concentrate $m	Centinela Copper concentrate $m	Centinela Copper cathodes $m	Antucoya Copper cathodes $m	Los Pelambres Gold in concentrate $m	Centinela Gold in concentrate $m	Los Pelambres Molybdenum concentrate $m	Centinela Molybdenum concentrate $m
Provisionally invoiced gross sales	**2,144.9**	**1,222.3**	**506.1**	**434.8**	**76.2**	**325.3**	**298.1**	**7.4**
Effects of pricing adjustments to previous year invoices								
Reversal of mark-to-market adjustments at the end of the previous year	**23.6**	**9.5**	**0.7**	**0.7**	**–**	**(0.7)**	**(0.7)**	**–**
Settlement of sales invoiced in the previous year	**0.3**	**9.9**	**(1.0)**	**(0.9)**	**(1.3)**	**1.4**	**(8.4)**	**–**
Total effect of adjustments to previous year invoices in the current year	**23.9**	**19.4**	**(0.3)**	**(0.2)**	**(1.3)**	**0.7**	**(9.1)**	**–**
Effects of pricing adjustments to current year invoices								
Settlement of sales invoiced in the current year	**(41.3)**	**(14.6)**	**(1.8)**	**(2.9)**	**0.5**	**6.4**	**(7.0)**	**(0.8)**
Mark-to-market adjustments at the end of the current year	**29.1**	**15.2**	**0.4**	**0.4**	**–**	**1.2**	**(0.4)**	**–**
	(12.2)	**0.6**	**(1.4)**	**(2.5)**	**0.5**	**7.6**	**(7.4)**	**(0.8)**
Total effect of adjustments to current year invoices								
Total pricing adjustments	**11.7**	**20.0**	**(1.7)**	**(2.7)**	**(0.8)**	**8.3**	**(16.5)**	**(0.8)**
Realised losses on commodity derivatives	**–**	**–**	**–**	**0.1**	**–**	**–**	**–**	**–**
Revenue before deducting tolling charges	**2,156.6**	**1,242.3**	**504.4**	**432.2**	**75.4**	**333.6**	**281.6**	**6.6**
Tolling charges	**(147.5)**	**(104.6)**	**–**	**–**	**(0.2)**	**(1.1)**	**(32.6)**	**(1.0)**
Revenue net of tolling charges	**2,009.1**	**1,137.7**	**504.4**	**432.2**	**75.2**	**332.5**	**249.0**	**5.6**

For the year ended 31 December 2018[1]

	Los Pelambres Copper concentrate $m	Centinela Copper concentrate $m	Centinela Copper cathodes $m	Antucoya Copper cathodes $m	Los Pelambres Gold in concentrate $m	Centinela Gold in concentrate $m	Los Pelambres Molybdenum concentrate $m	Centinela Molybdenum concentrate $m
Provisionally invoiced gross sales	2,325.7	957.3	599.1	465.0	79.6	171.1	358.6	8.0
Effects of pricing adjustments to previous year invoices								
Reversal of mark-to-market adjustments at the end of the previous year	(54.1)	(20.0)	(1.7)	(2.7)	–	(0.2)	(4.6)	–
Settlement of sales invoiced in the previous year	14.2	8.8	0.6	1.6	0.4	(0.2)	18.9	–
Total effect of adjustments to previous year invoices in the current year	(39.9)	(11.2)	(1.1)	(1.1)	0.4	(0.4)	14.3	–
Effects of pricing adjustments to current year invoices								
Settlement of sales invoiced in the current year	(59.8)	(26.3)	(7.9)	(6.2)	(1.2)	(1.3)	0.2	0.6
Mark-to-market adjustments at the end of the current year	(23.6)	(9.5)	(0.7)	(0.7)	–	0.7	0.7	–
	(83.4)	(35.8)	(8.6)	(6.9)	(1.2)	(0.6)	0.9	0.6
Total effect of adjustments to current year invoices								
Total pricing adjustments	(123.3)	(47.0)	(9.7)	(8.0)	(0.8)	(1.0)	15.2	8.6
Realised losses on commodity derivatives	–	–	–	0.6	–	–	–	–
Revenue before deducting tolling charges	2,202.4	910.3	589.4	457.6	78.8	170.1	373.8	8.6
Tolling charges	(162.1)	(82.4)	–	–	(0.3)	(0.6)	(33.6)	(0.8)
Revenue net of tolling charges	2,040.3	827.9	589.4	457.6	78.5	169.5	340.2	7.8

1. Figures include both revenue from the sale of products and the associated income from the provision of shipping services.

(I) Copper concentrate

The typical period for which sales of copper concentrate remain open until settlement occurs is a range of approximately three to four months from shipment date.

		2019	2018
Sales provisionally priced at the balance sheet date	Tonnes	**158,600**	177,400
Average mark-to-market price	$/lb	**2.81**	2.71
Average provisional invoice price	$/lb	**2.68**	2.79

(II) Copper cathodes

The typical period for which sales of copper cathodes remain open until settlement occurs is approximately one month from shipment date.

		2019	2018
Sales provisionally priced at the balance sheet date	Tonnes	**12,000**	14,300
Average mark-to-market price	$/lb	**2.80**	2.70
Average provisional invoice price	$/lb	**2.77**	2.75

(III) Gold in concentrate

The typical period for which sales of gold in concentrate remain open until settlement occurs is approximately one month from shipment date.

		2019	2018
Sales provisionally priced at the balance sheet date	Ounces	**21,200**	22,100
Average mark-to-market price	$/oz	**1,542**	1,284
Average provisional invoice price	$/oz	**1,485**	1,253

(IV) Molybdenum concentrate

The typical period for which sales of molybdenum remain open until settlement occurs is approximately two months from shipment date.

		2019	2018
Sales provisionally priced at the balance sheet date	Tonnes	**1,900**	3,600
Average mark-to-market price	$/lb	**9.2**	12.1
Average provisional invoice price	$/lb	**9.3**	12.1

As detailed above, the effects of gains and losses from the marking-to-market of open sales are recognised through adjustments to revenue in the income statement and to trade debtors in the balance sheet. The effect of mark-to-market adjustments on the balance sheet at the end of each period are as follows:

	Effect on debtors of year end mark-to-market adjustments	
	2019 $m	2018 $m
Los Pelambres – copper concentrate	**29.1**	(23.6)
Los Pelambres – molybdenum concentrate	**(0.4)**	0.7
Centinela – copper concentrate	**15.2**	(9.5)
Centinela – gold in concentrate	**1.2**	0.7
Centinela – copper cathodes	**0.4**	(0.7)
Antucoya – copper cathodes	**0.4**	(0.7)
	45.9	(33.1)

7 PROFIT BEFORE TAX

Operating profit from subsidiaries and total profit from operations and associates and joint ventures is derived from Group revenue by deducting operating costs as follows:

	2019 $m	2018 $m
Group revenue	**4,964.5**	4,733.1
Cost of sales	**(2,963.6)**	(2,807.7)
Gross profit	**2,000.9**	1,925.4
Administrative and distribution expenses	**(445.9)**	(422.7)
Other operating income	**31.2**	26.9
Other operating expenses	**(210.4)**	(184.6)
Operating profit from subsidiaries	**1,375.8**	1,345.0
Net share of results from associates and joint ventures	**24.4**	22.2
Total profit from operations, associates and joint ventures	**1,400.2**	1,367.2

Other operating expenses comprise $111.0 million of exploration and evaluation expenditure (2018 – $97.6 million), $24.8 million in respect of the employee severance provision (2018 – $18.7 million) and $74.5 million of other expenses (2018 – $53.5 million). A credit of $2.8 million related to the closure provision cost is shown as part of other income (2018 – $14.8 million charge included within other expenses).

Profit before tax is stated after crediting/(charging):

	2019 $m	2018 $m
Foreign exchange gains/(losses)		
– included in net finance costs	**35.8**	(18.2)
– included in income tax expense	**0.7**	(0.7)
Depreciation of property, plant and equipment		
– owned assets	**(828.0)**	(731.5)
– assets held under finance leases	**–**	(29.0)
– leased assets	**(86.3)**	–
Loss on disposal of property, plant and equipment	**(12.7)**	(13.3)
Cost of inventories recognised as expense	**(1,970.1)**	(1,955.2)
Employee benefit expense	**(439.8)**	(447.8)
Decommissioning and restoration	**2.8**	(14.8)
Severance charges	**(24.8)**	(18.7)
Exploration and evaluation expense	**(111.1)**	(97.6)
Auditors´ remuneration	**(1.5)**	(1.7)

A more detailed analysis of auditors´ remuneration on a worldwide basis is provided below:

Group	2019 $000	2018 $000
Fees payable to the Company´s auditor and its associates for the audit of parent company and consolidated financial statements	**944**	1,020
Fees payable to the Company´s auditor and its associates for other services:		
– The audit of the Company's subsidiaries	**288**	374
– Audit-related assurance services	**219**	252
– Tax advisory services	**–**	76
– Other assurance services	**19**	–
– Corporate finance services not covered above	**–**	–
– Other non-audit services	**20**	12
	1,490	1,734

Details of the Company's policy on the use of auditors for non-audit services, the reason why the auditor was used rather than another supplier and how the auditor's independence and objectivity was safeguarded are set out in the Audit and Risk Committee report on page 109. No services were provided pursuant to contingent fee arrangements.

8 EMPLOYEES

A) Average monthly number of employees

	2019 Number	2018 Number
Los Pelambres	**926**	907
Centinela	**2,057**	2,047
Michilla	**2**	4
Antucoya	**787**	786
Exploration and evaluation	**62**	56
Corporate and other employees		
– Chile	**469**	433
– United Kingdom	**4**	4
– Other	**4**	3
Mining and Corporate	**4,311**	4,240
Transport division	**1,408**	1,371
	5,719	5,611

(i) The average number of employees for the year includes all the employees of subsidiaries. The average number of employees does not include contractors who are not directly employed by the Group.

(ii) The average number of employees does not include employees from associates and joint ventures.

(iii) The average number of employees includes Non-Executive Directors.

B) Aggregated remuneration

The aggregated remuneration of the employees included in the table above was as follows:

	2019 $m	2018 $m
Wages and salaries	**(416.1)**	(423.0)
Social security costs	**(23.7)**	(24.8)
	(439.8)	(447.8)

C) Key management personnel

In accordance with IAS 24, key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including any Directors (Executive and Non-Executive) of the Company. Key management personnel who are not Directors have been treated as responsible senior management at the Corporate Centre and those responsible for the running of the key business divisions of the Group.

Compensation for key management personnel (including Directors) was as follows:

	2019 $m	2018 $m
Salaries and short-term employee benefits	**(16.1)**	(18.4)
	(16.1)	(18.4)

Disclosures on Directors' remuneration required by Schedule 8 of the Large and Medium-sized Companies and Group (Financial Statement) Regulations 2008 including those specified for audit by that Schedule are included in the Remuneration report on page 116.

9 NET FINANCE EXPENSE

	2019 $m	2018 $m
Investment income		
Interest income	**9.8**	9.9
Fair value through profit or loss	**37.3**	20.2
	47.1	30.1
Interest expense		
Interest expense	**(111.1)**	(113.6)
	(111.1)	(113.6)
Other finance items		
Unwinding of discount on provisions	**(22.7)**	(12.7)
Preference dividends	**(0.1)**	(0.1)
Effects of changes in foreign exchange rates	**35.8**	(18.2)
	13.0	(31.0)
Net finance expense	**(51.0)**	(114.5)

During 2019, amounts capitalised and consequently not included within the above table were as follows: $3.0 million at Centinela (year ended 31 December 2018 – $4.5 million) and $6.0 million at Los Pelambres (year ended 31 December 2018 – $0.9 million).

The fair value through profit or loss line represents the fair value gains relating to liquid investments.

10 INCOME TAX EXPENSE

The tax charge for the year comprised the following:

	2019 $m	2018 $m
Current tax charge/credit		
– Corporate tax (principally first category tax in Chile)	**(255.5)**	(321.2)
– Mining tax (royalty)	**(67.2)**	(78.1)
– Withholding tax	**(32.4)**	(4.5)
– Exchange losses on corporate tax balances	**0.7**	(0.7)
	(354.4)	(404.5)
Deferred tax charge		
– Corporate tax (principally first category tax in Chile)	**(125.1)**	(14.6)
– Mining tax (royalty)	**0.6**	(4.6)
– Withholding tax	**(27.2)**	–
	(151.7)	(19.2)
Total tax charge	**(506.1)**	(423.7)

The rate of first category (ie corporate) tax in Chile is 27.0% (2018 – 27.0%).

In addition to first category tax and the mining tax, the Group incurs withholding taxes on any remittance of profits from Chile. Withholding tax is levied on remittances of profits from Chile at 35% less first category (ie corporation) tax already paid in respect of the profits to which the remittances relate.

The Group's mining operations are also subject to a mining tax (royalty). Production from Los Pelambres, Antucoya, Encuentro (oxides), the Tesoro North East pit and the Run-of-Mine processing at Centinela Cathodes is subject to a rate of between 5–14%, depending on the level of operating profit margin. Production from Centinela Concentrates and the Tesoro Central and Mirador pits is subject to a rate of 5% of taxable operating profit.

	2019		2018	
	$m	%	$m	%
Profit before tax	**1,349.2**		1,252.7	–
Tax at the Chilean corporate tax rate of 27%	**(364.3)**	**27.0**	(338.2)	27.0
Mining tax (royalty)	**(66.6)**	**4.9**	(82.5)	6.5
Deduction of mining tax (royalty) as an allowable expense in determination of first category tax	**19.1**	**(1.4)**	21.1	(1.7)
Items not deductible from first category tax	**(11.9)**	**0.9**	(10.8)	0.9
Adjustment in respect of prior years	**4.3**	**(0.3)**	2.6	(0.2)
Withholding tax	**(59.3)**	**4.4**	(4.5)	0.4
Tax effect of share of profit of associates and joint ventures	**4.7**	**(0.3)**	3.0	(0.2)
Unrecognised tax losses	**(33.0)**	**2.4**	(13.8)	1.1
Net other items	**0.9**	**(0.1)**	(0.6)	–
Tax expense and effective tax rate for the year	**(506.1)**	**37.5**	(423.7)	33.8

The effective tax rate varied from the statutory rate principally due to the mining tax (net impact of $47.5 million/3.5%), the withholding tax relating to the remittance of profits from Chile (impact of $59.3 million/4.4%), unrecognised tax losses (impact of $33.0 million/2.5%) and items not deductible for Chilean corporate tax purposes, principally the funding of expenses outside of Chile (impact of $11.9 million/0.9%), partly offset by adjustments in respect of prior years (impact of $4.3 million/0.3%) and the impact of the recognition of the Group's share of profit from associates and joint ventures, which are included in the Group's profit before tax net of their respective tax charges (impact of $4.7 million/0.4%).

The main factors which could impact the sustainability of the Group's existing effective tax rate are:

- the level of future distributions made by the Group's Chilean subsidiaries out of Chile, which could result in increased withholding tax charges,
- the impact of expenses which are not deductible for Chilean first category tax. Some of these expenses are relatively fixed costs, and so the relative impact of these expenses on the Group's effective tax rate will vary depending on the Group's total profit before tax in a particular year.

There are no significant tax uncertainties which would require critical judgements, estimates or potential provisions other than deferred tax estimates as explained in Note 3 A (ii).

11 DISCONTINUED OPERATIONS

On 11 September 2018 the Group completed the disposal of Centinela Transmisión, which holds the electricity transmission line supplying Centinela and other external parties, for a cash consideration of $117 million. The net results of Centinela Transmisión for the comparative 2018 year are shown in the income statement on the line "Profit for the period from discontinued operations".

	2019 $m	2018 $m
Proceeds on disposal, cash and cash equivalent	–	117.2
Assets of disposal group classified as held for sale		
Property, plant and equipment	–	33.9
Cash and cash equivalents	–	13.2
Deferred tax assets	–	0.3
Trade and other receivables	–	3.7
Trade and other payables	–	(2.4)
Current tax liabilities	–	(1.1)
Deferred tax assets	–	(7.4)
Total carrying amount disposed (Net asset)	–	40.2
Transaction cost	–	(1.0)
Profit on disposal of discontinued operations (Before tax)	–	76.0

The net results of Centinela Transmisión are shown as a discontinued operation in the income statement. The net results reflect the following elements:

	2019 $m	2018 $m
Revenue	–	4.8
Total operating costs	–	(1.6)
Net finance income	–	(0.3)
Profit after tax of discontinued operations	–	2.9
Tax	–	(0.8)
Profit from the year from discontinued operations	–	2.1
Profit on disposal of discontinued operations	–	76.0
Attributable tax expenses	–	(26.8)
Net profit attributable to discontinued operations	–	51.3
Cash and cash equivalents received as consideration for disposal	–	117.2
Net cash disposed of	–	(13.2)
Net cash inflow arising on disposal	–	104.0

12 EARNINGS PER SHARE

	2019 $m	2018 $m
Profit for the year attributable to equity holders of the Company	**501.4**	543.7

	2019 Number	2018 Number
Ordinary shares in issue throughout each year	**985,856,695**	985,856,695

	2019 cents	2018 cents
Basic earnings per share		
From continuing operations	**50.9**	51.5
From discontinued operations	**–**	3.6
Total continuing and discontinued operations	**50.9**	55.1

Basic earnings per share are calculated as profit after tax and non-controlling interests, based on 985,856,695 (2018 – 985,856,695) ordinary shares.

There was no potential dilution of earnings per share in either year set out above, and therefore diluted earnings per share did not differ from basic earnings per share as disclosed above.

Reconciliation of basic earnings per share from continuing operations:

		2019	2018
Profit for the year attributable to equity holders of the Company	$m	**501.4**	543.7
Less: profit for discontinued operations attributable to equity holders of the Company	$m	**–**	(35.9)
Profit from continuing operations	$m	**501.4**	507.8
Ordinary shares	Number	**985,856,695**	985,856,695
Basic earnings per share from continuing operations	cents	**50.9**	51.5

13 DIVIDENDS

Amounts recognised as distributions to equity holders in the year:

	2019 $m	2018 $m	2019 cents per share	2018 cents per share
Final dividend paid in June (proposed in relation to the previous year)				
– ordinary	**364.8**	399.9	**37.0**	40.6
Interim dividend paid in October				
– ordinary	**105.7**	67.0	**10.7**	6.8
	470.5	466.9	**47.7**	47.4

The proposed final dividend for each year, which is subject to approval by shareholders at the Annual General Meeting and has therefore not been included as a liability in these financial statements, is as follows:

	2019 $m	2018 $m	2019 cents per share	2018 cents per share
Final dividend proposed in relation to the year				
– ordinary	**230.7**	364.8	**23.4**	37.0
	230.7	364.8	**23.4**	37.0

This gives total dividends proposed in relation to 2019 (including the interim dividend) of 34.1 cents per share or $336.2 million (2018 – 43.8 cents per share or $431.8 million).

In accordance with IAS 32, preference dividends have been included within interest expense (see Note 9) and amounted to $0.1 million (2018 – $0.1 million).

Further details of the currency election timing and process (including the default currency of payment) are available on the Antofagasta plc website (www.antofagasta.co.uk) or from the Company's registrar, Computershare Investor Services PLC on +44 370 702 0159.

Further details relating to dividends for each year are given in the Directors' Report on page 138.

14 INTANGIBLE ASSETS

	$m
Cost	
At 1 January 2018	150.1
Additions	–
Disposals	–
Foreign currency exchange difference	–
At 31 December 2018	**150.1**
Additions	**–**
Disposals	**–**
Foreign currency exchange difference	**–**
At 31 December 2019	**150.1**

The $150.1 million intangible asset reflects the value of Twin Metals' mining licences assets included within the corporate segment. The mining licences will be amortised once production commences.

15 PROPERTY, PLANT AND EQUIPMENT

	Land $m	Mining properties $m	Stripping cost $m	Buildings and infrastructure $m	Railway track $m	Wagons and rolling stock $m	Machinery, equipment and others $m	Assets under construction $m	Right-of-use assets $m	Total $m
Cost										
At 1 January 2018	54.9	642.2	1,071.7	4,905.1	76.3	120.5	6,518.7	1,419.4	–	14,808.8
Additions	0.9	20.1	351.3	5.8	–	–	92.6	518.8	–	989.5
Additions – capitalised depreciation	–	–	48.4	–	–	–	–	–	–	48.4
Adjustment to capitalised decommissioning provisions	–	–	–	(24.0)	–	–	–	–	–	(24.0)
Capitalisation of interest	–	–	–	–	–	–	5.4	–	–	5.4
Capitalisation of critical spare parts	–	–	–	–	–	–	11.1	–	–	11.1
Reclassifications	–	–	–	434.2	8.2	29.5	501.2	(973.1)	–	–
Asset disposals	–	–	–	–	(0.4)	(3.9)	(5.6)	(8.6)	–	(18.5)
Assets transferred to disposal group classified as held for sale	–	–	–	–	–	–	–	(1.3)	–	(1.3)
At 31 December 2018	55.8	662.3	1,471.4	5,321.1	84.1	146.1	7,123.4	955.2	–	15,819.4
Adoption of new accounting standards	–	–	–	–	–	–	–	–	131.4	131.4
Finance lease transferred	–	–	–	–	–	–	(277.9)	–	277.9	–
At 1 January 2019	55.8	662.3	1,471.4	5,321.1	84.1	146.1	6,845.5	955.2	409.3	15,950.8
Additions	**4.8**	**–**	**346.5**	**0.5**	**–**	**–**	**–**	**777.4**	**45.2**	**1,174.4**
Additions – capitalised depreciation	**–**	**–**	**62.6**	**–**	**–**	**–**	**–**	**–**	**–**	**62.6**
Adjustment to capitalised decommissioning provisions	**–**	**–**	**–**	**24.8**	**–**	**–**	**–**	**–**	**–**	**24.8**
Capitalisation of interest	**–**	**–**	**–**	**–**	**–**	**–**	**8.9**	**–**	**–**	**8.9**
Capitalisation of critical spare parts	**–**	**–**	**–**	**–**	**–**	**–**	**11.5**	**–**	**–**	**11.5**
Reclassifications	**–**	**5.2**	**–**	**121.2**	**15.6**	**64.7**	**197.5**	**(385.1)**	**(23.0)**	**(3.9)**
Asset disposals	**–**	**–**	**–**	**(2.8)**	**–**	**(7.2)**	**(4.4)**	**(12.2)**	**(0.9)**	**(27.5)**
At 31 December 2019	**60.6**	**667.5**	**1,880.5**	**5,464.8**	**99.7**	**203.6**	**7,059.0**	**1,335.3**	**430.6**	**17,201.6**
Accumulated depreciation and impairment										
At 1 January 2018	–	(442.0)	(204.9)	(1,915.2)	(27.8)	(78.4)	(3,076.2)	–	–	(5,744.5)
Charge for the year	–	(48.3)	(237.0)	(230.3)	(2.9)	(7.5)	(235.1)	–	–	(761.1)
Depreciation capitalised in inventories	–	–	–	–	–	–	(86.4)	–	–	(86.4)
Depreciation capitalised in property, plant and equipment	–	–	–	–	–	–	(48.4)	–	–	(48.4)
Reclassification	–	–	–	4.9	–	–	(4.9)	–	–	–
Asset disposals	–	–	–	–	0.2	1.6	2.7	–	–	4.5
Assets transferred to disposal group classified as held for sale	–	–	–	0.5	–	–	0.1	–	–	0.6
At 31 December 2018	–	(490.3)	(441.9)	(2,140.1)	(30.5)	(84.3)	(3,448.2)	–	–	(6,635.3)
Finance lease transferred	–	–	–	–	–	–	99.9	–	(99.9)	–
At 1 January 2019		(490.3)	(441.9)	(2,140.1)	(30.5)	(84.3)	(3,348.3)	–	(99.9)	(6,635.3)
Charge for the year	**–**	**(40.0)**	**(262.2)**	**(245.9)**	**(3.5)**	**(13.7)**	**(267.6)**	**–**	**(81.4)**	**(914.3)**
Depreciation capitalised in inventories	**–**	**–**	**–**	**–**	**–**	**–**	**(49.7)**	**–**	**–**	**(49.7)**
Depreciation capitalised in property, plant and equipment	**–**	**–**	**–**	**–**	**–**	**–**	**(62.6)**	**–**	**–**	**(62.6)**
Reclassification	**–**	**–**	**–**	**0.6**	**–**	**–**	**(6.7)**	**–**	**9.5**	**3.4**
Asset disposals	**–**	**–**	**–**	**2.2**	**–**	**6.8**	**3.7**	**–**	**0.9**	**13.6**
At 31 December 2019	**–**	**(530.3)**	**(704.1)**	**(2,383.2)**	**(34.0)**	**(91.2)**	**(3,731.2)**	**–**	**(170.9)**	**(7,644.9)**
Net book value										
At 31 December 2019	**60.6**	**137.2**	**1,176.4**	**3,081.6**	**65.7**	**112.4**	**3,327.8**	**1,335.3**	**259.7**	**9,556.7**
At 31 December 2018	55.8	172.0	1,029.5	3,181.0	53.6	61.8	3,675.2	955.2	–	9,184.1

The Group has no pledged assets (2018 – $1,650.0 million) as security against bank loans provided to the Group.

At 31 December 2019 the Group had entered into contractual commitments for the acquisition of property, plant and equipment amounting to $863.3 million (2018 – $561.4 million) of which $780.4 million was related to Los Pelambres and $77.1 million to Centinela.

Compensation from insurance companies related to property, plant and equipment included in the consolidated income statement was nil in 2019 (2018 – $1.0 million).

The average interest rate for the amounts capitalised was 3.5% (2018 – 2.9%).

At 31 December 2019, assets capitalised relating to the decommissioning provision were $140.1 million (2018 – $115.3 million).

Depreciation capitalised in property, plant and equipment of $62.6 million related to the depreciation of assets used in mine development (operating stripping) at Centinela, Los Pelambres and Antucoya (2018 – $48.4 million).

16 INVESTMENTS IN SUBSIDIARIES

The subsidiaries of the Group, the percentage of equity owned and the main country of operation are set out below. These interests are consolidated within these financial statements.

	Country of incorporation	Country of operations	Registered office	Nature of business	Economic interest
Direct subsidiaries of the Parent Company					
Antofagasta Railway Company plc	UK	Chile	1	Railway	100%
Andes Trust Limited (The)	UK	UK	1	Investment	100%
Chilean Northern Mines Limited	UK	Chile	1	Investment	100%
Andes Re Limited	Bermuda	Bermuda	4	Insurance	100%
Indirect subsidiaries of the Parent Company					
Minera Los Pelambres SCM	Chile	Chile	2	Mining	60%
Minera Centinela SCM	Chile	Chile	2	Mining	70%
Minera Antucoya SCM	Chile	Chile	2	Mining	70%
Antofagasta Minerals SA	Chile	Chile	2	Mining	100%
Alfa Estates Limited	Jersey	Jersey	3	Investment	100%
Energía Andina Geothermal SpA	Chile	Chile	2	Energy	100%
Los Pelambres Transmisión	Chile	Chile	2	Energy	100%
Northern Minerals Investment (Jersey) Limited	Jersey	Jersey	3	Investment	100%
Northern Metals (UK) Limited	UK	UK	1	Investment	100%
Northern Minerals Holding Co	USA	USA	5	Investment	100%
Duluth Metals Limited	Canada	Canada	7	Investment	100%
Twin Metals (UK) Limited	UK	UK	1	Investment	100%
Twin Metals (USA) Inc	USA	USA	6	Investment	100%
Twin Metals Minnesota LLC	USA	USA	6	Mining	100%
Franconia Minerals (US) LLC	USA	USA	6	Mining	100%
Duluth Metals Holdings (USA) Inc	USA	USA	13	Investment	100%
Duluth Exploration (USA) Inc	USA	USA	14	Investment	100%
DMC LLC (Minnesota)	USA	USA	13	Investment	100%
DMC (USA) LLC (Delaware)	USA	USA	13	Investment	100%
DMC (USA) Corporation	USA	USA	13	Investment	100%
Antofagasta Investment Company Limited	UK	UK	1	Investment	100%
Minprop Limited	Jersey	Jersey	3	Mining	100%
Antomin 2 Limited	BVI	BVI	8	Mining	51%
Antomin Investors Limited	BVI	BVI	8	Mining	51%
Antofagasta Minerals Australia Pty Limited	Australia	Australia	9	Mining	100%
Minera Anaconda Peru	Peru	Peru	10	Mining	100%
Los Pelambres Holding Company Limited	UK	UK	1	Investment	100%
Los Pelambres Investment Company Limited	UK	UK	1	Investment	100%
Lamborn Land Co	USA	USA	5	Investment	100%
Anaconda South America Inc	USA	USA	15	Investment	100%
El Tesoro (SPV Bermuda) Limited	Bermuda	Bermuda	4	Investment	100%
Morrisville Holdings Co	BVI	BVI	8	Investment	100%
Antofagasta Minerals Canada	Canada	Canada	9	Agency	100%
Antofagasta Minerals (Shanghai) Co. Limited	China	China	16	Agency	100%
Andes Investments Company (Jersey) Limited	Jersey	Jersey	3	Investment	100%
Bolivian Rail Investors Co Inc	USA	USA	5	Investment	100%
Blue Ocean Overseas Inc	BVI	BVI	8	Investment	100%
Inversiones Ferrobol Limitada	Bolivia	Bolivia	11	Investment	100%
Inversiones Los Pelambres Chile Limitada	Chile	Chile	2	Investment	100%
Equatorial Resources SpA	Chile	Chile	2	Investment	100%
Minera Santa Margarita de Astillas SCM	Chile	Chile	2	Mining	82.0%

	Country of incorporation	Country of operations	Registered office	Nature of business	Economic interest
Minera Penacho Blanco SA	Chile	Chile	2	Mining	66.6%
Michilla Costa SpA	Chile	Chile	2	Logistics	99.9%
Pampa Fenix SA	Chile	Chile	2	Investment	90.0%
Minera Mulpun Limitada	Chile	Chile	2	Mining	100%
Fundación Minera Los Pelambres	Chile	Chile	2	Community development	100%
Inversiones Punta de Rieles Limitada	Chile	Chile	12	Investment	100%
Ferrocarril Antofagasta a Bolivia (Permanent Establishment)	Chile	Chile	12	Railway	100%
Inversiones Chilean Northern Mines Limitada	Chile	Chile	12	Investment	100%
The Andes Trust Chile SA	Chile	Chile	12	Investment	100%
Forestal SA	Chile	Chile	12	Forestry	100%
Servicios de Transportes Integrados Limitada	Chile	Chile	12	Road transport	100%
Inversiones Train Limitada	Chile	Chile	12	Investment	100%
Servicios Logisticos Capricornio Limitada	Chile	Chile	12	Transport	100%
Embarcadores Limitada	Chile	Chile	12	Transport	100%
FCAB Ingenieria y Servicios Limitada	Chile	Chile	12	Transport	100%
Emisa Antofagasta SA	Chile	Chile	12	Transport	100%

Registered offices:

1 Cleveland House, 33 King Street, London, SW1Y 6RJ, UK
2 Avenida Apoquindo N° 4001, Piso 18, Las Condes, Santiago, Chile
3 22 Grenville Street, St Helier, Jersey, JE4 8PX3, Channel Islands
4 Crawford House, 50 Cedar Avenue, Hamilton HM 11, Bermuda
5 1209 Orange Street, Wilmington, DE 19801, USA
6 6040 Earle Brown Drive, 480 Brooklyn Center, MN 55430, USA
7 161 Bay Street, Suite 4320, Toronto, Ontario, M5J 2S1, Canada
8 PO Box 958, Road Town, Tortola VG1110, British Virgin Islands
9 Riparian Plaza, Level 28, 71 Eagle Street, Brisbane, Qld 4001, Australia
10 Avenida Paseo de la Republica Nº 3245 Piso 3, Lima, Peru
11 Avenida 16 de Julio N° 1440, piso 19 oficina 1905, La Paz, Bolivia
12 Simon Bolivar 255, Antofagasta, Chile
13 6041 Earle Brown Drive, 480 Brooklyn Center, MN 55430, USA
14 1010 Dale Street N, St Paul, MN 55117-5603, USA
15 2711 Centerville Road, Suite 400, Wilmington, DE 19808, USA
16 Unit 3309, IFC 2, 8 Century Avenue, Shanghai, China

With the exception of the Antofagasta Railway Company plc, all of the above Group companies have only one class of ordinary share capital in issue. The Antofagasta Railway Company plc has ordinary and preference share capital in issue, with the ordinary share capital representing 76% of the Company's total share capital, and the preference share capital representing 24%. Antofagasta plc holds 100% of both the ordinary and preference shares.

The proportion of voting rights is proportional to the economic interest for the companies listed above.

17 INVESTMENT IN ASSOCIATES AND JOINT VENTURES

	Inversiones Hornitos 2019 $m	ATI 2019 $m	Minera Zaldívar 2019 $m	Tethyan Copper 2019 $m	Total 2019 $m
Balance at the beginning of the year	54.6	5.1	996.4	–	1,056.1
Obligations on behalf of JV and associates	–	–	–	(1.0)	(1.0)
Capital contribution	–	–	–	1.8	1.8
Share of net profit/(loss) before tax	13.8	1.5	23.8	(2.6)	36.5
Share of tax	(3.5)	(0.4)	(8.2)	–	(12.1)
Share of income/(loss) from JV and associates	10.3	1.1	15.6	(2.6)	24.4
Dividends received	(8.0)	–	(50.0)	–	(58.0)
Other comprehensive income	–	(0.1)	(0.2)	–	(0.3)
Balance at the end of the year	56.9	6.1	961.8	–	1,024.8
Obligations on behalf of JV and associates	–	–	–	(1.8)	(1.8)

Share of income/(loss) after tax	10.3	1.1	15.6	(2.6)	24.4
Net share of results from associates and joint ventures	10.3	1.1	15.6	(2.6)	24.4

	Inversiones Hornitos 2018 $m	ATI 2018 $m	El Arrayan 2018 $m	Minera Zaldívar 2018 $m	Energía Andina 2018 $m	Tethyan Copper 2018 $m	Total 2018 $m
Balance at the beginning of the year	60.1	5.3	22.0	982.1	0.2	–	1,069.7
Obligations on behalf of JV and associates	–	–	–	–	–	(2.0)	(2.0)
Capital contribution	–	–	–	–	–	8.1	8.1
Disposal	–	–	(20.3)	–	–	–	(20.3)
Losses in fair value of cash flow hedges deferred in reserves of associates	–	–	(0.4)	–	–	–	(0.4)
Derecognition of investment in associate upon reclassification to subsidiary	–	–	–	–	(0.2)	–	(0.2)
Share of net profit/(loss) before tax	15.4	(0.2)	(0.7)	26.3	–	(7.1)	33.7
Share of tax	(4.3)	–	(0.6)	(12.0)	–	–	(16.9)
Share of income/(loss) from JV and associates	11.1	(0.2)	(1.3)	14.3	–	(7.1)	16.8
Dividends received	(16.6)	–	–	–	–	–	(16.6)
Balance at the end of the year	54.6	5.1	–	996.4	–	–	1,056.1
Obligations on behalf of JV and associates	–	–	–	–	–	(1.0)	(1.0)

Share of income/(loss) after tax	11.1	(0.2)	(1.3)	14.3	–	(7.1)	16.8
Profit on disposal	–	–	5.8	–	–	–	5.8
Purchase price adjustment	–	–	–	(0.4)	–	–	(0.4)
Net share of results from associates and joint ventures	11.1	(0.2)	4.5	13.9	–	(7.1)	22.2

The investments which are included in the $1,024.8 million balances at 31 December 2019 are set out below:

Investment in associates

(i) The Group's 40% interest in Inversiones Hornitos SA, which owns the 165MW Hornitos thermoelectric power plant operating in Mejillones, in Chile's Antofagasta Region. The Group has a 7-year power purchase agreement with Inversiones Hornitos SA for the provision of up to 180MW of electricity for Centinela.

(ii) The Group's 30% interest in ATI, which operates a concession to manage installations in the port of Antofagasta.

(iii) The Group ´s former 30% interest in El Arrayan, which operates an 115MW wind-farm project. The Group has a 20-year power purchase agreement with El Arrayan for the provision of up to 40MW of electricity for Los Pelambres. In August 2018, the Group disposed of its interest in El Arrayan for cash consideration of $28.0 million, resulting in a profit on disposal of $5.8 million.

Investment in joint ventures

(iv) The Group's 50% interest in Minera Zaldívar SpA ("Zaldívar") which is a joint venture with Barrick Gold Corporation, is an open-pit, heap-leach copper mine located in Northern Chile, which produces approximately 100,000 tonnes of copper cathodes annually.

(v) The Group's 50% interest in Tethyan Copper Company Limited ("Tethyan"), which is a joint venture with Barrick Gold Corporation in respect of the Reko Diq project in Pakistan. Tethyan has been pursuing arbitration claims against the Islamic Republic of Pakistan ("Pakistan") following the unlawful denial of a mining lease for the project in 2011. Details in respect of the arbitration are set out in Note 34.

As the net carrying value of the interest in Tethyan is negative it is included within non-current liabilities, as the Group is liable for its share of the joint venture's obligations.

(vi) During 2018 the Group acquired the remaining 49.9% interest in Energia Andina from Origin Geothermal Chile Limitada and accordingly Energia Andina became a subsidiary of the Group during the year.

Summarised financial information for the associates is as follows:

	Inversiones Hornitos 2019 $m	ATI 2019 $m	Total 2019 $m
Cash and cash equivalents	**29.3**	**0.8**	**30.1**
Current assets	**26.0**	**13.2**	**39.2**
Non-current assets	**265.1**	**112.5**	**377.6**
Current liabilities	**(43.8)**	**(18.3)**	**(62.1)**
Non-current liabilities	**(153.9)**	**(90.0)**	**(243.9)**
Revenue	**139.9**	**52.2**	**192.1**
Profit/(loss) from continuing operations	**25.8**	**3.6**	**29.4**
Other comprehensive expense	**–**	**(0.3)**	**(0.3)**
Total comprehensive income	**25.8**	**3.3**	**29.1**

	Inversiones Hornitos 2018 $m	ATI 2018 $m	Total 2018 $m
Cash and cash equivalents	0.7	0.3	1.0
Current assets	38.6	11.3	49.9
Non-current assets	274.8	119.7	394.5
Current liabilities	(31.2)	(34.2)	(65.4)
Non-current liabilities	(156.6)	(82.2)	(238.8)
Revenue	151.1	46.2	197.3
Profit/(loss) from continuing operations	27.6	(0.5)	27.1
Total comprehensive income/(expense)	27.6	(0.5)	27.1

17 INVESTMENT IN ASSOCIATES AND JOINT VENTURES CONTINUED

Summarised financial information for the joint ventures is as follows:

	Minera Zaldívar 2019 $m	Tethyan Copper 2019 $m	Total 2019 $m
Cash and cash equivalents	**138.7**	**1.7**	**140.4**
Current assets	**631.3**	**–**	**631.3**
Non-current assets	**1,846.8**	**–**	**1,846.8**
Current liabilities	**(118.7)**	**(5.1)**	**(123.8)**
Non-current liabilities	**(517.9)**	**(0.1)**	**(518.0)**
Revenue	**687.6**	**–**	**687.6**
Profit/(loss) after tax from continuing and discontinued operations	**53.0**	**(5.1)**	**47.9**
Other comprehensive expense	**(0.4)**	**–**	**(0.4)**
Total comprehensive income/(expense)	**52.6**	**(5.1)**	**47.5**

	Minera Zaldívar 2018 $m	Tethyan Copper 2018 $m	Total 2018 $m
Cash and cash equivalents	124.0	3.2	127.2
Current assets	602.6	–	602.6
Non-current assets	1,921.0	0.2	1,921.2
Current liabilities	(102.5)	(5.1)	(107.6)
Non-current liabilities	(547.6)	(0.1)	(547.7)
Revenue	599.5	–	599.5
Profit/(loss) after tax from continuing and discontinued operations	28.4	(14.1)	14.3
Total comprehensive income/(expense)	28.4	(14.1)	14.3

The above summarised financial information is based on the amounts included in the IFRS financial statements of the associate or joint venture (ie 100% of the results or balances of the associate or joint venture, rather than the Group's proportionate share), after the Group's fair value adjustments.

18 EQUITY INVESTMENTS

	2019 $m	2018 $m
Balance at the beginning of the year	**4.7**	6.5
Movement in fair value	**0.3**	(1.3)
Foreign currency exchange differences	**0.1**	(0.5)
Balance at the end of the year	**5.1**	4.7

Equity investments represent those investments which are not subsidiaries, associates or joint ventures and are not held for trading purposes. The fair value of all equity investments is based on quoted market prices.

19 INVENTORIES

	2019 $m	2018 $m
Current		
Raw materials and consumables	**219.9**	227.0
Work-in-progress	**276.7**	262.8
Finished goods	**89.8**	86.5
	586.4	576.3
Non-current		
Work-in-progress	**208.0**	172.7
Total	**794.4**	749.0

During 2019 a net realisable value ("NRV") adjustment of $15.8 million has been recognised (2018 – $1.1 million). Non-current work-in-progress represents inventory expected to be processed more than 12 months after the balance sheet date.

20 TRADE AND OTHER RECEIVABLES

Trade and other receivables do not generally carry any interest, are principally short term in nature and are normally stated at their nominal value less any impairment.

	Due in one year		Due after one year		Total	
	2019 $m	2018 $m	2019 $m	2018 $m	2019 $m	2018 $m
Trade debtors	**570.9**	475.5	**–**	–	**570.9**	475.5
Other debtors	**111.5**	398.0	**48.2**	56.1	**159.7**	454.1
	682.4	873.5	**48.2**	56.1	**730.6**	929.6

The largest balances of trade receivables are held with equity participants in the key mining projects. Many other significant trade receivables are secured by letters of credit or other forms of security. The average credit period given on sale of goods and rendering of service is 41 days (2018 – 36 days). There is no material element which is interest-bearing. Trade debtors include mark-to-market adjustments in respect of provisionally priced sales of copper and molybdenum concentrates which remain open as to final pricing. Further details of such adjustments are given in Note 6.

Movements in the provision for doubtful debts were as follows:

	2019 $m	2018 $m
Balance at the beginning of the year	**(4.6)**	(2.3)
Adoption of new accounting standards	**–**	(0.7)
Expected credit loss	**1.6**	(1.7)
Foreign currency exchange difference	**(0.1)**	0.1
Balance at the end of the year	**(3.1)**	(4.6)

The ageing analysis of the trade and other receivables balance is as follows:

		Past due but not impaired			
	Neither past due nor impaired $m	Up to 3 months past due $m	3-6 months past due $m	More than 6 months past due $m	Total $m
2019	**724.1**	**4.0**	**0.1**	**2.4**	**730.6**
2018	907.4	16.9	0.2	5.1	929.6

With respect to the trade receivables that are neither past due nor impaired, there are no indications that the debtors will not meet their payment obligations. The carrying value of the trade receivables recorded in the financial statements represents the Group's maximum exposure to credit risk.

21 CASH AND CASH EQUIVALENTS, AND LIQUID INVESTMENTS

The fair value of cash and cash equivalents, and liquid investments is not materially different from the carrying values presented. The credit risk on cash and cash equivalents is limited because the counterparties are banks with high credit ratings assigned by international credit rating agencies.

Cash and cash equivalents, and liquid investments comprised:

	2019 $m	2018 $m
Cash and cash equivalents	**653.7**	1,034.4
Liquid investments	**1,539.7**	863.2
	2,193.4	1,897.6

At 31 December 2019 and 2018 there is no cash which is subject to restriction.

The denomination of cash, cash equivalents and liquid investments was as follows:

	2019 $m	2018 $m
US dollars	**2,145.7**	1,861.9
Chilean pesos	**45.7**	29.3
Sterling	**0.3**	1.2
Other	**1.7**	5.2
	2,193.4	1,897.6

The credit quality of cash, cash equivalents and liquid investments are as follows:

Current account bank deposits and cash at bank	2019 $m	2018 $m
AAA	**1,602.5**	1,326.8
AA+	**6.0**	22.8
AA	**4.8**	9.7
AA-	**36.7**	19.5
A+	**125.7**	15.6
A	**369.7**	128.8
A-	**–**	29.0
BBB+	**–**	4.6
BBB-	**–**	7.0
Subtotal	**2,145.4**	1,563.8
Cash at bank[1]	**48.0**	333.8
Total cash, cash equivalents and liquid investments	**2,193.4**	1,897.6

1. Cash at bank is held with investment grade financial institutions.

There have been no impairments recognised in respect of cash or cash equivalents as at 31 December 2019 (31 December 2018 – nil).

22 BORROWINGS

A) Analysis by type of borrowing

Borrowings may be analysed by business segment and type as follows:

	Notes	2019 $m	2018 $m
Los Pelambres			
– Senior loan	(i)	**(469.4)**	–
– Short-term loan		**–**	(100.0)
– Leases	(ii)	**(115.0)**	(114.1)
Centinela			
– Senior loan	(iii)	**(298.8)**	(445.1)
– Subordinated debt	(iv)	**(205.9)**	(207.1)
– Short-term loan	(v)	**(200.0)**	(200.0)
– Leases	(vi)	**(81.0)**	–
Antucoya			
– Senior loan	(vii)	**(325.4)**	(349.3)
– Subordinated debt	(viii)	**(391.9)**	(368.3)
– Short-term loan	(ix)	**(75.0)**	(75.0)
– Leases	(x)	**(27.7)**	(35.2)
Corporate and other items			
– Senior loan	(xi)	**(499.2)**	(500.1)
– Leases	(xii)	**(19.3)**	(22.1)
Transport division			
– Senior loan	(xiii)	**(44.6)**	(74.2)
– Leases	(xiv)	**(1.0)**	(0.4)
Preference shares	(xv)	**(2.6)**	(3.0)
Total		**(2,756.8)**	(2,493.9)

(i) Senior loan at Los Pelambres represents a $1,300 million US dollar denominated syndicated loan divided in two tranches. The first tranche has a remaining duration of 6.1 years and has an interest rate of LIBOR six-month rate plus 1.2%. The second tranche has a remaining duration of 9.1 years and has an interest rate of LIBOR six-month rate plus 0.85%. As at 31 December 2019 $482 million of the loan facility had been drawn-down, with the remaining $818 million of the total facility remaining undrawn and available at that date. The loans are subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained.

(ii) Leases at Los Pelambres are denominated in a mixture of US dollars and Chilean pesos, with a weighted average interest rate of 5.0% and a remaining duration of 4 years.

(iii) Senior loan at Centinela represents a US dollar denominated syndicated loan. This loan has a remaining duration of 0.6 years and has an interest rate of LIBOR six-month rate plus 1.0%. The loan is subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained. Subsequent to the year-end in February 2020 the senior loan was repaid, and replaced with a new $500 million senior loan with a duration of 5 years and an interest rate of LIBOR six-month rate plus 0.95%.

(iv) Subordinated debt at Centinela is US dollar denominated, provided to Centinela by Marubeni Corporation with a remaining duration of 1.1 years and a weighted average interest rate of LIBOR six-month rate plus 4.5%. Subordinated debt provided by Group companies to Centinela has been eliminated on consolidation.

(v) The short-term loan (PAE) at Centinela is US dollar denominated, comprising a working capital loan for a period of 1 year and with an interest rate of LIBOR six-month plus a weighted average spread of 0.33%.

(vi) Leases at Centinela are mainly Chilean peso denominated, with a weighted average interest rate of 5.1% and a remaining duration of 4 years.

(vii) Antucoya repaid its previous senior loan during the year, and put in place a new senior loan. The senior loan at Antucoya represents a US dollar denominated syndicated loan. This loan has a remaining duration of 4.9 years and has an interest rate of LIBOR six-month rate plus 1.3%. The loan is subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained.

(viii) Subordinated debt at Antucoya is US dollar denominated, provided to Antucoya by Marubeni Corporate with a remaining duration of 6.5 years and an interest rate of LIBOR six-month rate plus 3.65%. Subordinated debt provided by Group companies to Antucoya has been eliminated on consolidation.

(ix) The short-duration loan at Antucoya is US dollar denominated, comprising a working capital loan for an average period of 1 year and has an interest rate of LIBOR six-month rate plus a weighted average spread of 0.53%.

(x) Leases at Antucoya are denominated in a mixture of US dollars and Chilean pesos, with a weighted average interest rate of 4.6% and a remaining duration of 4 years.

(xi) Senior loan at Corporate (Antofagasta plc) of $500.0 million has an interest rate of LIBOR six-month rate plus 1.5% and has a remaining duration of 1.1 years.

(xii) Leases at Corporate and other items are denominated in Unidades de Fomento (ie inflation-linked Chilean pesos) and have a remaining duration of 8.2 years and are at fixed rates with an average interest rate of 5.3%.

(xiii) Long-term loans at the Transport division are US dollar denominated, with a remaining duration of 4 years and an interest rate of LIBOR six-month rate plus 1.06%.

(xiv) Leases at the Transport division are mainly in Unidades de Fomento (ie inflation-linked Chilean pesos), with a weighted average interest rate of 2.13% and a remaining duration of 2 years.

(xv) The preference shares are Sterling-denominated and issued by Antofagasta plc. There were 2 million shares of £1 each, authorised, issued and fully paid at 31 December 2018. The preference shares are non-redeemable and are entitled to a fixed cumulative dividend of 5% per annum. On winding up they are entitled to repayment and any arrears of dividend in priority to ordinary shareholders, but are not entitled to participate further in any surplus. Each preference share carries 100 votes in any general meeting of the Company.

22 BORROWINGS CONTINUED

B) Analysis of borrowings by currency

The exposure of the Group's borrowings to currency risk is as follows:

At 31 December 2019	Chilean pesos $m	Sterling $m	US dollars $m	2019 Total $m
Corporate loans	**–**	**–**	**(1,637.4)**	**(1,637.4)**
Other loans (including short-term loans)	**–**	**–**	**(872.8)**	**(872.8)**
Leases	**(195.7)**	**–**	**(48.3)**	**(244.0)**
Preference shares	**–**	**(2.6)**	**–**	**(2.6)**
	(195.7)	**(2.6)**	**(2,558.5)**	**(2,756.8)**

At 31 December 2018	Chilean pesos $m	Sterling $m	US dollars $m	2018 Total $m
Corporate loans	–	–	(1,368.7)	(1,368.7)
Other loans (including short-term loans)	–	–	(950.4)	(950.4)
Finance leases	(114.8)	–	(57.0)	(171.8)
Preference shares	–	(3.0)	–	(3.0)
	(114.8)	(3.0)	(2,376.1)	(2,493.9)

C) Analysis of borrowings by type of interest rate

The exposure of the Group's borrowings to interest rate risk is as follows:

At 31 December 2019	Fixed $m	Floating $m	2019 Total $m
Corporate loans	**–**	**(1,637.4)**	**(1,637.4)**
Other loans (including short-term loans)	**–**	**(872.8)**	**(872.8)**
Leases	**(199.3)**	**(44.7)**	**(244.0)**
Preference shares	**(2.6)**	**–**	**(2.6)**
	(201.9)	**(2,554.9)**	**(2,756.8)**

At 31 December 2018	Fixed $m	Floating $m	2018 Total $m
Corporate loans	–	(1,368.7)	(1,368.7)
Other loans (including short-term loans)	–	(950.4)	(950.4)
Finance leases	(103.1)	(68.7)	(171.8)
Preference shares	(3.0)	–	(3.0)
	(106.1)	(2,387.8)	(2,493.9)

The above floating rate corporate loans include the long-term loans at the Transport division segment, where the Group has used interest rate swaps to swap the floating rate interest for fixed rate interest.

D) Maturity profile

The maturity profile of the Group's borrowings is as follows:

At 31 December 2019	Within 1 year $m	Between 1-2 years $m	Between 2-5 years $m	After 5 years $m	2019 Total $m
Corporate loans	(373.4)	(135.1)	(1,128.9)	–	(1,637.4)
Other loans	(275.0)	–	–	(597.8)	(872.8)
Leases	(75.6)	(59.7)	(92.9)	(15.8)	(244.0)
Preference shares	–	–	–	(2.6)	(2.6)
	(724.0)	(194.8)	(1,221.8)	(616.2)	(2,756.8)

At 31 December 2018	Within 1 year $m	Between 1-2 years $m	Between 2-5 years $m	After 5 years $m	2018 Total $m
Corporate loans	(232.2)	(225.5)	(833.9)	(77.1)	(1,368.7)
Other loans	(375.0)	–	–	(575.4)	(950.4)
Finance leases	(38.8)	(26.3)	(94.4)	(12.3)	(171.8)
Preference shares	–	–	–	(3.0)	(3.0)
	(646.0)	(251.8)	(928.3)	(667.8)	(2,493.9)

The amounts included above for finance leases are based on the present value of minimum lease payments.

The total minimum lease payments for these leases may be analysed as follows:

	2019 $m	2018 $m
Within 1 year	(82.4)	(44.3)
Between 1 – 2 years	(68.4)	(32.4)
Between 2 – 5 years	(99.6)	(103.5)
After 5 years	(16.7)	(13.6)
Total minimum lease payments	(267.1)	(193.8)
Less amounts representing finance charges	23.1	22.0
Present value of minimum lease payments	(244.0)	(171.8)

All leases are on a fixed payment basis and no arrangements have been entered into for contingent rental payments.

23 TRADE AND OTHER PAYABLES

	Due in one year		Due after one year		Total	
	2019 $m	2018 $m	2019 $m	2018 $m	2019 $m	2018 $m
Trade creditors	(513.5)	(463.7)	–	–	(513.5)	(463.7)
Other creditors and accruals	(237.1)	(144.6)	(8.2)	(7.7)	(245.3)	(152.3)
	(750.6)	(608.3)	(8.2)	(7.7)	(758.8)	(616.0)

Trade creditors and accruals principally comprise amounts outstanding for trade purchases and ongoing costs. Other creditors are mainly related to property, plant and equipment payables, finance interest and employee retentions.

The average credit period taken for trade purchases is 26 days (2018 – 26 days).

At 31 December 2019, the other creditors and accruals include $6.8 million (2018 – $24.0 million) relating to prepayments. Prepayments are offset against payables to the same suppliers.

24 FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT

A) Categories of financial instruments

The carrying value of financial assets and financial liabilities is shown below:

	At fair value through profit and loss	At fair value through other comprehensive income	Held at amortised cost	2019 $m Total
Financial assets				
Derivative financial assets	**4.8**	**–**	**–**	**4.8**
Equity investments	**–**	**5.1**	**–**	**5.1**
Loans and receivables	**571.3**	**–**	**159.3**	**730.6**
Cash and cash equivalents	**–**	**–**	**653.7**	**653.7**
Liquid investments	**1,539.7**	**–**	**–**	**1,539.7**
	2,115.8	**5.1**	**813.0**	**2,933.9**
Financial liabilities				
Derivative financial liabilities	**(12.1)**	**–**	**–**	**(12.1)**
Trade and other payables	**(0.4)**	**–**	**(758.4)**	**(758.8)**
Borrowings and leases	**–**	**–**	**(2,756.8)**	**(2,756.8)**
	(12.5)	**–**	**(3,515.2)**	**(3,527.7)**

	At fair value through profit and loss	At fair value through other comprehensive income	Held at amortised cost	2018 $m Total
Financial assets				
Derivative financial assets	0.8	–	–	0.8
Equity investments	–	4.7	–	4.7
Loans and receivables	510.2	–	19.4	929.6
Cash and cash equivalents	–	–	1,034.4	1,034.4
Liquid investments	863.2	–	–	863.2
	1,374.2	4.7	1,453.8	2,832.7
Financial liabilities				
Derivative financial liabilities	–	–	–	–
Trade and other payables	(34.5)	–	(581.5)	(616.0)
Borrowings and leases	–	–	(2,493.9)	(2,493.9)
	(34.5)	–	(3,075.4)	(3,109.9)

B) Fair value of financial instruments

	Level 1 $m	Level 2 $m	Level 3 $m	Total 2019 $m
Financial assets				
Derivative financial assets (a)	–	4.9	–	4.9
Equity investments (b)	5.1	–	–	5.1
Loans and receivables (c)	–	571.3	–	571.3
Liquid investment (d)	1,539.7	–	–	1,539.7
	1,544.8	576.2	–	2,121.0
Financial liabilities				
Derivative financial liabilities (a)	–	(12.1)	–	(12.1)
Trade and other payables	–	(0.4)	–	(0.4)
	–	(12.5)	–	(12.5)

	Level 1 $m	Level 2 $m	Level 3 $m	Total 2018 $m
Financial assets				
Derivative financial assets (a)	–	0.8	–	0.8
Equity investments (b)	4.7	–	–	4.7
Loans and receivables (c)	–	510.2	–	510.2
Liquid investment (d)	863.2	–	–	863.2
	867.9	511.0	–	1,378.9
Financial liabilities				
Derivative financial liabilities (a)	–	–	–	–
Trade and other payables	–	(34.5)	–	(34.5)
	–	(34.5)	–	(34.5)

Recurring fair value measurements are those that are required in the balance sheet at the end of each reporting year.

a) Derivatives in designated hedge accounting relationships are valued using a discounted cash flow analysis valuation model, which includes observable credit spreads and using the applicable yield curve for the duration of the instruments for non-optional derivatives, and option pricing models for optional derivatives. These are level 2 inputs as described below. Hedging instruments at 31 December 2019 relate to foreign exchange forex options with a nominal value of $280 million.

b) Equity investments are investments in shares on active markets and are valued using unadjusted quoted market values of the shares at the financial reporting date. These are level 1 inputs as described below.

c) Provisionally priced metal sales for the period are marked-to-market at the end of the period. Gains and losses from the marking-to-market of open sales are recognised through adjustments to revenue in the income statement and trade receivables in the balance sheet. Forward prices at the end of the period are used for copper sales while period-end average prices are used for molybdenum concentrate sales. These are level 2 inputs as described below.

d) Liquid investments are highly liquid current asset investments that are valued using market prices at the period end. These are level 1 inputs as described below.

The inputs to the valuation techniques described above are categorised into three levels, giving the highest priority to unadjusted quoted prices in active markets (level 1) and the lowest priority to unobservable inputs (level 3 inputs):

- Level 1 fair value measurement inputs are unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2 fair value measurement inputs are derived from inputs other than quoted market prices included in level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 fair value measurement inputs are unobservable inputs for the asset or liability.

The degree to which inputs into the valuation techniques used to measure the financial assets and liabilities are observable and the significance of these inputs in the valuation are considered in determining whether any transfers between levels have occurred. In the year ended 31 December 2019, there were no transfers between levels in the hierarchy.

C) Financial risk management

The Group's activities expose it to a variety of financial risks: market risk (including commodity price risk, currency risk, interest rate risk and other price risk), credit risk and liquidity risk. The Group periodically uses derivative financial instruments, to reduce its exposure to commodity price, foreign exchange and interest rate movements. The Group does not use such derivative instruments for speculative trading purposes.

The Board of Directors is responsible for overseeing the Group's risk management framework. The Audit and Risk Committee assists the Board with its review of the effectiveness of the risk management process, and monitoring of key risks and mitigations. The Internal Audit department undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the Audit and
Risk Committee.

24 FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT CONTINUED

(I) Commodity price risk

The Group generally sells its copper and molybdenum concentrate and copper cathode output at prevailing market prices, subject to final pricing adjustments which normally range from one to four months after delivery to the customer, and it is therefore exposed to changes in market prices for copper and molybdenum both in respect of future sales and previous sales, which remain open as to final pricing. In 2019, sales of copper and molybdenum concentrate and copper cathodes represented 90.5% of Group revenue and therefore revenues and earnings depend significantly on LME and realised copper prices.

The Group periodically uses futures and min-max options to manage its exposure to copper prices. These instruments may give rise to accounting volatility due to fluctuations in their fair value prior to the maturity of the instruments. Details of those copper and molybdenum concentrate sales and copper cathode sales, which remain open as to final pricing, are given in Note 6. Details of commodity rate derivatives entered into by the Group are given in Note 24(D).

Commodity price sensitivity

The sensitivity analysis below shows the impact of a movement in the copper price on the financial instruments held as at the reporting date. A movement in the copper market price as at the reporting date will affect the final pricing adjustment to sales that remain open at that date, impacting the trade receivables balance and consequently the income statement. A movement in the copper market price will also affect the valuation of commodity derivatives, impacting the hedging reserve in equity if the fair value movement relates to an effective designated cash flow hedge, and impacting the income statement if it does not. The calculation assumes that all other variables, such as currency rates, remain constant.

- If the copper market price as at the reporting date had increased by 10 c/lb, profit attributable to the owners of the parent would have increased by $16.5 million (2018 – increase by $46.9 million).
- If the copper market price as at the reporting date had decreased by 10 c/lb, profit attributable to the owners of the parent would have decreased by $16.5 million (2018 – decrease by $47.0 million). In addition, a movement in the average copper price during the year would impact revenue and earnings. A 10 c/lb change in the average copper price during the year would have affected profit attributable to the owners of the parent by $77.3 million (2018 – $80.0 million) and earnings per share by 7.8 cents (2018 – 8.1 cents), based on production volumes in 2019, without taking into account the effects of provisional pricing and hedging activity. A $1 /lb change in the average molybdenum price for the year would have affected profit attributable to the owners of the parent by $10.7 million (2018 – $12.0 million), and earnings per share by 1.0 cents (2018 – 1.2 cents), based on production volumes in 2019, and without taking into account the effects of provisional pricing. A $100 /oz change in the average gold price for the year would have affected profit attributable to the owners of the parent by $14.5 million (2018 – $6.7 million), and earnings per share by 1.5 cents (2018 – 0.7 cents), based on production volumes in 2019, and without taking into account the effects of provisional pricing.

(II) Currency risk

The Group is exposed to a variety of currencies. The US dollar, however, is the currency in which the majority of the Group's sales are denominated. Operating costs are influenced by the countries in which the Group's operations are based (principally in Chile) as well as those currencies in which the costs of imported goods and services are determined. After the US dollar, the Chilean peso is the most important currency influencing costs and to a lesser extent sales.

Given the significance of the US dollar to the Group's operations, this is the presentational currency of the Group for internal and external reporting. The US dollar is also the currency for borrowing and holding surplus cash, although a portion of this may be held in other currencies, notably Chilean pesos and Sterling, to meet short-term operating and capital commitments and dividend payments.

When considered appropriate, the Group uses forward exchange contracts and currency swaps to limit the effects of movements in exchange rates in foreign currency denominated assets and liabilities. The Group may also use these instruments to reduce currency exposure on future transactions and cash flows. Details of any exchange rate derivatives entered by the Group in the year are given in Note 24(D).

The currency exposure of the Group's cash, cash equivalents and liquid investments is given in Note 21, and the currency exposure of the Group's borrowings is given in Note 22(B). The effects of exchange gains and losses included in the income statement are given in Note 9. Exchange differences on translation of the net assets of entities with a functional currency other than the US dollar are taken to the currency translation reserve and are disclosed in the consolidated statement of changes in equity on page 150.

Currency sensitivity

The sensitivity analysis below shows the impact of a movement in the US dollar/Chilean peso exchange rate on the financial instruments held as at the reporting date.

The impact on profit or loss is as a result of the retranslation of monetary financial instruments (including cash, cash equivalents, liquid investments, trade receivables, trade payables and borrowings). The impact on equity is as a result of changes in the fair value of derivative instruments which are effective designated cash flow hedges, and changes in the fair value of equity investments. The calculation assumes that all other variables, such as interest rates, remain constant.

If the US dollar had strengthened by 10% against the Chilean peso as at the reporting date, profit attributable to the owners of the parent would have increased by $10.2 million (2018 – decrease of $5.8 million). If the US dollar had weakened by 10% against the Chilean peso as at the reporting date, profit attributable to the owners of the parent would have decreased by $12.5 million (2018 – decreased of $7.2 million).

(III) Interest rate risk

The Group's policy is generally to borrow and invest cash at floating rates. Fluctuations in interest rates may impact the Group's net finance income or cost, and to a lesser extent the value of financial assets and liabilities. The Group occasionally uses interest rate swaps and collars to manage interest rate exposures on a portion of its existing borrowings. Details of any interest rate derivatives entered into by the Group are given in Note 24(D).

The interest rate exposure of the Group's borrowings is given in Note 22.

Interest rate sensitivity

The sensitivity analysis below shows the impact of a movement in interest rates in relation to the financial instruments held as at the reporting date. The impact on profit or loss reflects the impact on annual interest expense in respect of the floating rate borrowings held as at the reporting date, and the impact on annual interest income in respect of cash and cash equivalents held as at the reporting date. The impact on equity is as a result of changes in the fair value of derivative instruments which are effective designated cash flow hedges. The calculation assumes that all other variables, such as currency rates, remain constant.

If the interest rate increased by 1%, based on the financial instruments held as at the reporting date, profit attributable to the owners of the parent would have decreased by $1.5 million (2018 – decrease of $2.1 million). This does not include the effect on the income statement of changes in the fair value of the Group's liquid investments relating to the underlying investments in fixed income instruments.

(IV) Other price risk

The Group is exposed to equity price risk on its equity investments.

Equity price sensitivity

The sensitivity analysis below shows the impact of a movement in the equity values of the equity investment financial assets held as at the reporting date.

If the value of the equity investments had increased by 10% as at the reporting date, equity would have increased by $0.5 million (2018 – increase of $0.5 million). There would have been no impact on the income statement.

(V) Cash flow risk

The Group's future cash flows depend on a number of factors, including commodity prices, production and sales levels, operating costs, capital expenditure levels, and financial income and costs. Its cash flows are therefore subject to the exchange, interest rate and commodity price risks described above as well as operating factors and input costs. To reduce the risk of potential short-term disruptions to the supply of key inputs such as electricity and sulphuric acid, the Group enters into medium and long-term supply contracts to help ensure continuity of supply. Long-term electricity supply contracts are in place at each of the Group's mines, in most cases linking the cost of electricity under the contract to the current cost of electricity on the Chilean grid or the generation cost of the supplier. The Group seeks to lock in supply of sulphuric acid for future periods of a year or longer, with contract prices agreed in the latter part of the year, to be applied to purchases of acid in the following year. Further information on production and sales levels and operating costs are given in the Operating review on pages 52 to 63.

(VI) Credit risk

Credit risk arises from trade and other receivables, cash, cash equivalents, liquid investments and derivative financial instruments. The Group's credit risk is primarily to trade receivables. The credit risk on cash, cash equivalents and liquid investments and on derivative financial instruments is limited as the counterparties are financial institutions with high credit ratings assigned by international credit agencies.

The largest balances of trade receivables are held with equity participants in the key mining projects. Many other significant trade receivables are secured by letters of credit or other forms of security. All customers are subject to credit review procedures, including the use of external credit ratings where available. Credit is provided only within set limits, which are regularly reviewed. The main customers are recurrent with a good credit history during the years they have been customers.

Outstanding receivable balances are monitored on an ongoing basis.

The carrying value of financial assets recorded in the financial statements represents the maximum exposure to credit risk. The amounts presented in the balance sheet are net of allowances for any doubtful receivables (Note 20).

The Group has recognised an expected credit loss provision for its employee receivables, with the main inputs into the provision calculation being the average level of staff turnover and the average level of recovery of receivables from former employees. For the reasons set out above, the expected credit loss risk for other trade and other receivable balances is considered to be immaterial to the Group.

(VII) Liquidity risk

The Group manages liquidity risk by maintaining adequate cash reserves and financing facilities, through the review of forecast and actual cash flows.

The Group typically holds surplus cash in demand or term deposits or highly liquid investments, which typically can be accessed or liquidated within 24 hours.

The majority of borrowings comprise a short-term loan at Los Pelambres, Centinela and Antucoya, repayable over a period of up to one year, project financing (senior debt) at Centinela, repayable over approximately one year, project financing (senior debt) at Antucoya repayable over approximately 5.5 years, long-term subordinated debt at Antucoya repayable over approximately 6 years, and a corporate loan at Antofagasta plc repayable over approximately 1.2 years. The loans are subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained.

24 FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT CONTINUED

At the end of 2019 the Group was in a net debt position (2018 – net debt position), as disclosed in Note 31(C). Details of cash, cash equivalents and liquid investments are given in Note 21, while details of borrowings including the maturity profile are given in Note 22(D). Details of undrawn committed borrowing facilities are also given in Note 22.

The following table analyses the maturity of the Group's contractual commitments in respect of its financial liabilities and derivative financial instruments. The table has been drawn up based on the undiscounted cash flows on the earliest date on which the Group can be required to pay. The table includes both interest and principal cash flows.

At 31 December 2019	Less than 6 months $m	Between 6 months to 1 year $m	Between 1-2 years $m	After 2 years $m	2019 Total $m
Corporate loans	**(206.6)**	**(204.3)**	**(1,062.7)**	**(234.3)**	**(1,707.9)**
Other loans (including short-term loans)	**(391.9)**	**(202.3)**	**(76.0)**	**(205.9)**	**(876.1)**
Finance leases	**(37.2)**	**(35.3)**	**(64.4)**	**(100.4)**	**(237.3)**
Preference shares*	**–**	**–**	**(2.6)**	**–**	**(2.6)**
Trade and other payables	**(772.6)**	**–**	**(8.2)**	**–**	**(780.8)**
Derivate financial instruments	**(6.3)**	**–**	**(1.0)**	**–**	**(7.3)**
	(1,414.6)	**(441.9)**	**(1,214.9)**	**(540.6)**	**(3,612.0)**

At 31 December 2018	Less than 6 months $m	Between 6 months to 1 year $m	Between 1-2 years $m	After 2 years $m	2018 Total $m
Corporate loans	(156.3)	(137.5)	(263.1)	(954.6)	(1,511.5)
Other loans (including short-term loans)	(158.4)	(220.8)	–	(575.4)	(954.6)
Finance leases	(27.7)	(16.1)	(32.4)	(117.1)	(193.3)
Preference shares*	–	–	(3.0)	–	(3.0)
Trade and other payables	(607.0)	(1.3)	(7.7)	–	(616.0)
	(949.4)	**(375.2)**	**(306.3)**	**(1,647.6)**	**(3,278.4)**

* The preference shares pay an annual dividend of £100,000 in perpetuity, and accordingly it is not possible to determine total amounts payable for periods without a fixed end date.

(VIII) Capital risk management

The Group's objectives are to return capital to shareholders while leaving the Group with sufficient funds to progress its short, medium and long-term growth plans as well as preserving the financial flexibility to take advantage of opportunities as they may arise. This policy remains unchanged.

The Group monitors capital on the basis of net cash (defined as cash, cash equivalents and liquid investments less borrowings) which was a net debt of $563.4 million at 31 December 2019 (2018 – net debt $596.3 million), as well as gross cash (defined as cash, cash equivalents and liquid investments) which was $2,193.4 million at 31 December 2019 (2018 – $1,897.6 million). The Group's total cash is held in a combination of on demand and term deposits and managed funds investing in high quality, fixed income instruments. Some of the managed funds have been instructed to invest in instruments with average maturities greater than 90 days. These amounts are presented as liquid investments but are included in net cash for monitoring and decision-making purposes. The Group has a risk averse investment strategy. The Group's borrowings
are detailed in Note 22. Additional project finance or shareholder loans are taken out by the operating subsidiaries to fund projects on a case-by-case basis.

Under the terms of the major borrowing facilities, the Group is required to comply with the following financial covenants:

1. Net Financial Debt / EBITDA
2. EBITDA / Interest Expense
3. Total Indebtedness / Tangible Net Worth

The Group has complied with these covenants throughout the reporting period.

D) Derivative financial instruments

The Group periodically uses derivative financial instruments, to reduce its exposure to commodity price, foreign exchange and interest rate movements. The Group does not use such derivative instruments for speculative trading purposes.

The Group has applied the hedge accounting provisions of IFRS 9 "Financial Instruments". Changes in the fair value of derivative financial instruments that are designated and effective as hedges of future cash flows have been recognised directly in equity, with such amounts subsequently recognised in the income statement in the period when the hedged item affects profit or loss. Any ineffective portion is recognised immediately in the income statement. Realised gains and losses on commodity derivatives recognised in the income statement have been recorded within revenue. The time value element of changes in the fair value of derivative options is recognised within other comprehensive income. Realised gains and losses and changes in the fair value of exchange and interest derivatives are recognised within other finance items for those derivatives where hedge accounting has not been applied. When hedge accounting has been applied the realised gains and losses on exchange and interest derivatives are recognised within other finance items and interest expense respectively.

Hedges for future cash flows at the 2019 year-end relate to provisionally priced trade receivables and foreign exchange options, and are immaterial to the Group.

25 LONG-TERM INCENTIVE PLAN

The long-term incentive plan (the "Plan") was introduced at the end of 2011. Awards granted pursuant to the Plan form part of the remuneration of senior managers in the Group. Directors are not eligible to participate in the Plan.

Details of the Awards

Under the Plan, the Group may grant awards based on the price of ordinary shares in the Company and cannot grant awards over actual shares.

- Restricted Awards: These awards are conditional rights to receive cash payment by reference to a specified number of the Company's ordinary shares, subject to the relevant employee remaining employed by the Group when the Restricted Award vests; and
- Performance Awards: These awards are conditional rights to receive cash payment by reference to a specified number of the Company's ordinary shares subject to both the satisfaction of a performance condition and the relevant employee remaining employed by the Group when the Performance Award vests.

When awards vest under the Plan, participants become entitled to receive a cash payment by reference to the number and portion of awards that have vested and the market value of the Company's ordinary shares on the date of vesting. There is no exercise price payable by participants in respect of the awards.

Restricted Awards can only vest in full if participants remain employed by the Group for three years from the date that Restricted Awards are granted. In ordinary circumstances, the first one-third of a Restricted Award will vest after one year, the second one-third will vest after two years and the remaining one-third will vest after three years. There are no performance criteria attached to Restricted Awards. The fair value of Restricted Awards granted under the Plan is recorded as a compensation expense over the vesting periods, with a corresponding liability recognised for the fair value of the liability at the end of each period until settled.

Performance Awards only vest if certain performance criteria are met. The performance criteria reflect a number of factors including total shareholder return, earnings levels, growth in the Group's reserves and resources and project delivery targets. The fair value of Performance Awards under the Plan is recorded as a compensation expense over the vesting period, with a corresponding liability at the end of each period
until settled.

Valuation process and accounting for the awards

The fair value of the awards is determined using a Monte Carlo simulation model. The inputs into the Monte Carlo simulation model are as follows:

	2019	2018
Weighted average forecast share price at vesting date	**$11.2**	$10.2
Expected volatility	**38.50%**	34.02%
Expected life of awards	**3 years**	3 years
Expected dividend yields	**4.18%**	4.38%
Discount rate	**1.71%**	2.18%

Expected volatility was determined by calculating the historical volatility of the Group's share price over the previous five years. The expected life of awards used in the model has been adjusted based on management's best estimate for the effects of non-transferability and compliance of the objectives determined according to the characteristics of each plan.

The number of awards outstanding at the end of the year is as follows:

	Restricted Awards	Performance Awards
Outstanding at 1 January 2019	**505,106**	**1,515,043**
Granted during the year	**331,221**	**523,883**
Cancelled during the year	**(50,121)**	**(113,803)**
Payments during the year	**(237,663)**	**(521,206)**
Outstanding at 31 December 2019	**548,543**	**1,403.917**
Number of awards that have vested	**329,929**	

The Group has recorded a liability for $10.2 million at 31 December 2019, of which $6.5 million is due after more than one year (31 December 2018 – $9.1 million of which $4.1 million was due after more than one year) and total expenses of $7.7 million for the year (2018 – expense of
$3.9 million).

26 POST-EMPLOYMENT BENEFIT OBLIGATIONS

A) Defined contribution schemes

The Group operates defined contribution schemes for a limited number of employees. The amount charged to the income statement in 2019 was $0.1 million (2018 – $0.5 million), representing the amount paid in the year. There were no outstanding amounts which remain payable at the end of either year.

B) Severance provisions

Employment terms at some of the Group's operations provide for payment of a severance payment when an employment contract comes to an end. This is typically at the rate of one month for each year of service (subject in most cases to a cap as to the number of qualifying years of service) and based on final salary level. The severance payment obligation is treated as an unfunded defined benefit plan, and the obligation recognised is based on valuations performed by an independent actuary using the projected unit credit method, which are regularly updated.

The obligation recognised in the balance sheet represents the present value of the severance payment obligation. Actuarial gains and losses are immediately recognised in other comprehensive income.

The most recent valuation was carried out in 2019 by Ernst & Young, a qualified actuary in Santiago, Chile who is not connected with the Group.

The main assumptions used to determine the actuarial present value of benefit obligations were as follows:

	2019 %	2018 %
Average nominal discount rate	**5.0%**	5.0%
Average rate of increase in salaries	**1.5%**	1.5%
Average staff turnover	**7.5%**	6.0%

Amounts included in the income statement in respect of severance provisions are as follows:

	2019 $m	2018 $m
Current service cost (charge to operating profit)	**(24.8)**	(18.7)
Interest cost (charge to interest expenses)	**(4.9)**	(5.0)
Foreign exchange charge to other finance items	**7.8**	13.0
Total charge to income statement	**(21.9)**	(10.7)

Movements in the present value of severance provisions were as follows:

	2019 $m	2018 $m
Balance at the beginning of the year	**(107.4)**	(114.0)
Current service cost	**(24.8)**	(18.7)
Actuarial gains	**(4.7)**	3.9
Interest cost	**(4.9)**	(5.0)
Paid in the year	**15.3**	13.4
Foreign currency exchange difference	**7.8**	13.0
Balance at the end of the year	**(118.7)**	(107.4)

Assumptions description

Discount rate

	31 December 2019	31 December 2018
Nominal discount rate	**4.01%**	4.99%
Reference rate name	**20-year Chilean Central Bank Bonds**	20-year Chilean Central Bank Bonds
Governmental or corporate rate	**Governmental**	Governmental
Reference rating	**AA-/AA+**	AA-/AA+
Corresponds to an Issuance market (primary) or secondary market	**Secondary**	Secondary
Issuance currency associated to the reference rate	**Chilean peso**	Chilean peso
Date of determination of the reference interest rate	**15 November 2019**	14 November 2018
Source of the reference interest rate	**Bloomberg**	Bloomberg

The discount rate is the interest rate used to discount the estimated future severance payments to their present value. The table above shows the principal instruments and assumptions utilised in determining the discount rate.

Rate of increase in salaries

This represents the estimated average rates of future salary increases, reflecting likely future promotions and other changes. This has been based on historical information for the Group for the period from 2015 to 2019.

Turnover rate

This represents the estimated average level of future employee turnover. This has been based on historical information for the Group for the period from 2015 to 2019.

Sensitivity analysis

Significant actuarial assumptions for the determination of the defined obligation are discount rate, expected salary increase and staff turnover. The sensitivity analysis below has been determined based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period, while holding all other assumptions constant.

- If the discount rate is 100 basis points higher the defined benefit obligation would decrease by $7.2 million. If the discount rate is 100 basis points lower the defined benefit obligation would increase by $8.3 million.
- If the expected salary growth increases by 1% the defined benefit obligation would increase by $6.0 million. If the expected salary growth decreases by 1% the defined benefit obligation would decrease by $5.7 million.
- If the staff turnover increases by 1% the defined benefit obligation would increase by less than $0.1 million. If the staff turnover decreases by 1% the defined benefit obligation would increase by $2.0 million.

27 DEFERRED TAX AND LIABILITIES

	Accelerated capital allowances $m	Temporary differences on provisions $m	Withholding tax $m	Short-term differences $m	Mining tax (royalty) $m	Tax losses $m	Total $m
At 1 January 2018	(987.3)	117.9	(11.3)	59.3	(104.3)	0.7	(925.0)
(Charge)/credit to income	(70.0)	71.4	–	(15.6)	(4.6)	(0.4)	(19.2)
Charge deferred in equity	–	–	–	(2.1)	–	–	(2.1)
Reclassification	–	0.9	–	(1.6)	0.7	–	–
At 1 January 2019	(1,057.3)	190.2	(11.3)	40.0	(108.2)	0.3	(946.3)
(Charge)/credit to income	**(87.2)**	**(34.8)**	**(27.2)**	**(4.6)**	**0.7**	**1.4**	**(151.7)**
Charge deferred in equity	**–**	**0.8**	**–**	**–**	**0.1**	**–**	**0.9**
Reclassifications	**32.7**	**(36.2)**	**–**	**0.1**	**–**	**3.5**	**0.1**
At 31 December 2019	**(1,111.8)**	**120.0**	**(38.5)**	**35.5**	**(107.4)**	**5.2**	**(1.097.0)**

The charge to the income statement of $151.7 million (2018 – $19.2 million) includes a credit for foreign exchange differences of $0.1 million (2018 – includes a credit of $0.1 million).

Certain deferred tax assets and liabilities have been offset. Deferred tax assets and liabilities are offset where the Group has a legally enforceable right to do so. The following is the analysis of the deferred tax balance (after offset):

	2019 $m	2018 $m
Deferred tax assets	**8.2**	37.2
Deferred tax liabilities	**(1,105.2)**	(983.5)
Net deferred tax balances	**(1,097.0)**	(946.3)

At 31 December 2019, the Group had unused tax losses of $435.7 million (2018 – $207.1 million) available for offset against future profits. A deferred tax asset of $5.2 million has been recognised in respect of $19.2 million of these losses as at 31 December 2019 (31 December 2018 – $0.3 million in respect of $1.1 million of the losses). No deferred tax asset has been recognised in respect of the remaining $416.5 million of tax losses (2018 – $206.0 million of tax losses). These losses may be carried forward indefinitely.

At 31 December 2019 deferred withholding tax liabilities of $36.6 million have been recognised (31 December 2018 – $11.3 million) which relate to undistributed earnings of subsidiaries where it is considered likely that the corresponding profits will be distributed in the foreseeable future. The value of the remaining undistributed earnings of subsidiaries, for which deferred tax liabilities have not been recognised, because the Group is in a position to control the timing of the distributions and it is likely that distributions will not be made in the foreseeable future, was $5,065 million (31 December 2018 – $5,080 million).

Temporary differences arising in connection with interests in associates are insignificant.

The deferred tax balance of $1,097.0 million (2018 – $946.3 million) includes $1,039.0 million (2018 – $967.1 million) due in more than one year. All amounts are shown as non-current on the face of the balance sheet as required by IAS 12 Income Taxes.

28 DECOMMISSIONING AND RESTORATION PROVISIONS

	2019 $m	2018 $m
Balance at the beginning of the year	**(409.8)**	(433.0)
Charge to operating profit in the year	**2.8**	(14.8)
Unwind of discount to net interest in the year	**(17.8)**	(7.6)
Capitalised adjustment to provision	**(24.8)**	24.0
Utilised in year	**30.9**	21.6
Foreign currency exchange difference	**5.5**	–
Balance at the end of the year	**(413.2)**	(409.8)
Short-term provisions	**(22.0)**	(30.9)
Long-term provisions	**(391.2)**	(378.9)
Total	**(413.2)**	(409.8)

Decommissioning and restoration costs relate to the Group's mining operations. Costs are estimated on the basis of a formal closure plan and are subject to regular independent formal review. It is estimated that the provision will be utilised from 2020 until 2064 based on current mine plans.

The Los Pelambres, Centinela and Zaldívar balances have been updated to reflect the new plans approved by Sernageomin during the year.

There have been a number of changes and updates to the closure provision balances, but the net impact of these is not significant.

29 SHARE CAPITAL AND OTHER RESERVES

(I) Share capital

The ordinary share capital of the Company is as follows:

	2019 Number	2018 Number	2019 $m	2018 $m
Authorised				
Ordinary shares of 5p each	**1,300,000,000**	1,300,000,000	**118.9**	118.9

	2019 Number	2018 Number	2019 $m	2018 $m
Issued and fully paid				
Ordinary shares of 5p each	**985,856,695**	985,856,695	**89.8**	89.8

The Company has one class of ordinary shares which carry no right to fixed income. Each ordinary share carries one vote at any general meeting.

There were no changes in the authorised or issued share capital of the Company in either 2018 or 2019. Details of the Company's preference share capital, which is included within borrowings in accordance with IAS 32 Financial Instruments, are given in Note 22A(xiv).

(II) Other reserves and retained earnings

Details of the share premium account, hedging, fair value and translation reserves and retained earnings for both 2019 and 2018 are included within the consolidated statement of changes in equity on page 150.

	2019 $m	2018 $m
Hedging reserves[1]		
At 31 December 2018/2017	**(1.1)**	(0.4)
Adoption of new accounting standards	**–**	(5.8)
At 1 January	**(1.1)**	(6.2)
Parent and subsidiaries' net cash flow hedge fair value (losses)/gains	**(4.5)**	5.5
Parent and subsidiaries' net cash flow hedge loses transferred to the income statement	**(0.6)**	(0.4)
Tax on the above	**1.2**	–
At 31 December	**(5.0)**	(1.1)
Equity investment revaluation reserve[2]		
At 1 January	**(11.1)**	(9.8)
Gains/(losses) on equity investment	**0.3**	(1.3)
At 31 December	**(10.8)**	(11.1)
Foreign currency translation reserves[3]		
At 1 January	**(2.3)**	(2.3)
At 31 December	**(2.3)**	(2.3)
Total other reserves per balance sheet	**(18.1)**	(14.5)
Retained earnings		
At 1 January	**7,084.9**	7,041.9
Adoption of new accounting standards	**–**	1.1
Parent and subsidiaries' profit for the period	**477.0**	521.5
Equity accounted units' profit after tax for the period	**24.4**	22.2
Actuarial (losses)/gains [4]	**(3.2)**	3.3
Transfer to non-controlling interest [5]	**–**	(38.2)
Total comprehensive income for the year	**7,583.1**	7,551.8
Dividends paid	**(470.3)**	(466.9)
At 31 December	**7,112.8**	7,084.9

1. The hedging reserve records gains or losses on cash flow hedges that are recognised initially in equity (through other comprehensive income), as described in Note 24.
2. The equity investments revaluation reserves record fair value gains or losses relating to equity investments, as described in Note 18.
3. Exchange differences arising on the translation of the Group's net investment in foreign-controlled companies are taken to the foreign currency translation reserve. The cumulative differences relating to an investment are transferred to the income statement when the investment is disposed of.
4. Actuarial gains or losses relating to long–term employee benefits, as described in Note 26.
5. Mainly reflects an increase in the net assets attributable to NCIs as a result of the Centinela and Encuentro merger.

30 NON-CONTROLLING INTERESTS

The non-controlling interests of the Group during 2019 and 2018 are as follows:

	Non-controlling interest %	Country	At 1 January 2019 $m	Share of profit/(losses) for the financial year $m	Share of dividends $m	Hedging and actuarial gains/(losses) $m	At 31 December 2019 $m
Los Pelambres	**40.0**	**Chile**	**1,105.9**	**309.0**	**(400.0)**	**(2.5)**	**1,012.4**
Centinela	**30.0**	**Chile**	**1,034.4**	**69.4**	**–**	**(0.6)**	**1,103.2**
Antucoya	**30.0**	**Chile**	**(61.6)**	**(36.7)**	**–**	**–**	**(98.3)**
Total			**2,078.7**	**341.7**	**(400.0)**	**(3.1)**	**2,017.3**

	Non-controlling interest %	Country	At 1 January 2018 $m	Adoption of new accounting standards $m	Share of profit/(losses) for the financial year $m	Share of dividends $m	Transfer from retained earnings $m	Hedging and actuarial gains/(losses) $m	At 31 December 2018 $m
Los Pelambres	40.0	Chile	925.1	–	315.4	(120.0)	(13.7)	(0.9)	1,105.9
Centinela	30.0	Chile	942.3	0.9	35.9	–	53.2	2.1	1,034.4
Antucoya	30.0	Chile	(44.2)	(2.9)	(14.7)	–	(1.3)	1.5	(61.6)
Total			1,823.2	(2.0)	336.6	(120.0)	38.2	2.7	2,078.7

The proportion of the voting rights is proportional with the economic interest for each of the companies listed above.

Summarised financial position and cash flow information for the years ended 2019 and 2018 is set out below:

	Los Pelambres 2019 $m	Centinela 2019 $m	Antucoya 2019 $m
Non-controlling interest (%)	**40.0%**	**30.0%**	**30.0%**
Cash and cash equivalents	**405.5**	**491.6**	**113.4**
Current assets	**847.4**	**1,188.6**	**288.3**
Non-current assets	**3,403.8**	**4,603.6**	**1,358.8**
Current liabilities	**(372.7)**	**(820.1)**	**(212.4)**
Non-current liabilities	**(1,324.0)**	**(969.5)**	**(720.9)**
Accumulated non-controlling interest			
Net cash from operating activities	**1,426.6**	**1,157.7**	**73.8**
Net cash used in investing activities	**(490.9)**	**(510.4)**	**(49.5)**
Net cash used in financing activities	**(669.1)**	**(231.0)**	**(37.0)**

	Los Pelambres 2018 $m	Centinela 2018 $m	Antucoya 2018 $m
Non-controlling interest (%)	40.0%	30.0%	30.0%
Cash and cash equivalents	459.9	179.7	148.3
Current assets	460.3	1,282.6	467.4
Non-current assets	3,478.8	5,452.6	1,857.0
Current liabilities	(379.3)	(955.0)	(459.0)
Non-current liabilities	(1,254.7)	(2,610.5)	(2,220.1)
Accumulated non-controlling interest			
Net cash from operating activities	940.2	207.5	80.8
Net cash used in investing activities	(345.4)	(399.8)	(42.1)
Net cash used in financing activities	(368.7)	(150.0)	(45.2)

Notes to the summarised financial position and cash flow

(i) The amounts disclosed for each subsidiary are based on the amounts included in the consolidated financial statements (100% of the results and balances of the subsidiary rather than the non-controlling interest proportionate share) before inter-company eliminations.

(ii) Summarised income statement information is shown in the segment information in Note 5.

(iii) There are some subsidiaries with a non-controlling interest portion not included in this note where those portions are not material to the Group.

31 NOTES TO THE CONSOLIDATED CASH FLOW STATEMENT

A) Reconciliation of profit before tax to cash flow from continuing operations

	2019 $m	2018 $m
Profit before tax	**1,349.2**	1,252.7
Depreciation and amortisation	**914.3**	760.5
Net loss on disposals	**12.6**	13.3
Net share of results from associates and joint ventures	**51.1**	(22.2)
Net finance expense	**(24.3)**	114.5
(Increase)/decrease in inventories	**(7.6)**	(81.7)
Decrease/(increase) in debtors	**211.5**	(151.5)
Increase/(decrease) in creditors	**88.0**	(7.0)
Increase in provisions	**(24.1)**	(1.6)
Cash flow from continuing operations	**2,570.7**	1,877.0

B) Analysis of changes in net debt

	Adoption of new accounting standards $m	At 1 January 2019 $m	Cash flow $m	Fair value gains $m	New leases $m	Amortisation of finance costs $m	Capitalisation of interest $m	Movement between maturity categories $m	Other $m	Exchange $m	At 31 December 2019 $m
Cash and cash equivalents	–	1,034.4	(375.0)	–	–	–	–	–	–	(5.7)	653.7
Liquid investments	–	863.2	676.5	–	–	–	–	–	–	–	1,539.7
Total cash and cash equivalents and liquid investments	–	1,897.6	301.5	–	–	–	–	–	–	(5.7)	2,193.4
Borrowings due within one year	–	(607.2)	100.0	–	–	–	–	(145.5)	4.3	–	(648.4)
Borrowings due after one year	–	(1,711.9)	(253.3)	–	–	(4.5)	(37.6)	145.5	–	–	(1,861.8)
Leases due within one year	–	(38.8)	30.0	–	–	–	–	(63.5)	(3.3)	–	(75.6)
Leases due after one year	(131.7)	(133.0)	62.5	–	(45.0)	–	–	63.5	3.5	11.8	(168.4)
Preference shares	–	(3.0)	–	–	–	–	–	–	0.1	0.3	(2.6)
Total borrowings	(131.7)	(2,493.9)	(60.8)	–	(45.0)	(4.5)	(37.6)	–	4.6	12.1	(2,756.8)
Net (debt)/cash	(131.7)	(596.3)	240.7	–	(45.0)	(4.5)	(37.6)	–	4.6	6.4	(563.4)

	Adoption of new accounting standards $m	At 1 January 2018 $m	Cash flow $m	Reclassification to disposal group $m	Fair value gains $m	New leases $m	Amortisation of finance costs $m	Capitalisation of interest $m	Movement between maturity categories $m	Other $m	Exchange $m	At 31 December 2018 $m
Cash and cash equivalents	–	1,083.6	(9.9)	(13.2)	–	–	–	–	–	–	(26.1)	1,034.4
Liquid investments	–	1,168.7	(306.3)	–	0.8	–	–	–	–	–	–	863.2
Total cash and cash equivalents and liquid investments	–	2,252.3	(316.2)	(13.2)	0.8	–	–	–	–	–	(26.1)	1,897.6
Borrowings due within one year	–	(732.2)	247.0	–	–	–	–	–	(122.0)	–	–	(607.2)
Borrowings due after one year	(2.5)	(1,858.6)	66.8	–	–	–	(5.9)	(33.7)	122.0	–	–	(1,711.9)
Finance leases due within one year	–	(21.5)	–	–	–	–	–	–	(17.3)	–	–	(38.8)
Finance leases due after one year	–	(93.4)	33.3	–	–	(94.6)	–	–	17.3	(5.3)	9.7	(133.0)
Preference shares	–	(3.0)	–	–	–	–	–	–	–	–	–	(3.0)
Total borrowings	(2.5)	(2,708.7)	347.1	–	–	(94.6)	(5.9)	(33.7)	–	(5.3)	9.7	(2,493.9)
Net (debt)/cash	(2.5)	(456.4)	30.9	(13.2)	0.8	(94.6)	(5.9)	(33.7)	–	(5.3)	(16.4)	(596.3)

C) Net debt

	2019 $m	2018 $m
Cash, cash equivalents and liquid investments	**2,193.4**	1,897.6
Total borrowings	**(2,756.8)**	(2,493.9)
	(563.4)	(596.3)

32 EXCHANGE RATES

Assets and liabilities denominated in foreign currencies are translated into US dollars and Sterling at the period-end rates of exchange.

Results denominated in foreign currencies have been translated into US dollars at the average rate for each period.

	2019	2018
Year-end rates	**$1.2860=£1; $1 = Ch$748.74**	$1.2700=£1; $1 = Ch$694.77
Average rates	**$1.2760=£1; $1 = Ch$702.82**	$1.2667=£1; $1 = Ch$640.62

33 RELATED PARTY TRANSACTIONS

Transactions between the Company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note. Transactions between the Group and its associates and joint ventures are disclosed below.

The transactions which Group companies entered into with related parties who are not members of the Group are set out below. There are no guarantees given or received and no provisions for doubtful debts related to the amount of outstanding balances.

A) Quiñenco SA

Quiñenco SA ("Quiñenco") is a Chilean financial and industrial conglomerate, the shares of which are traded on the Santiago Stock Exchange, and in which members of the Luksic family are interested. Two Directors of the Company, Jean-Paul Luksic and Andronico Luksic, are also directors of Quiñenco.

The following transactions took place between the Group and the Quiñenco group of companies, all of which were on normal commercial terms at market rates:

- the Group made purchases of fuel from ENEX SA, a subsidiary of Quiñenco, of $159.3 million (2018 – $221.6 million). The balance due to ENEX SA at the end of the year was nil (2018 – nil);
- the Group earned interest income of $4.0 million (2018 – $2.8 million) during the year on deposits with Banco de Chile SA, a subsidiary of Quiñenco. Deposit balances at the end of the year were $67.9 million (2018 – $47.0 million);
- the Group earned interest income of $0.2 million (2018 – $1.4 million) during the year on investments with BanChile Corredores de Bolsa SA, a subsidiary of Quiñenco. Investment balances at the end of the year were $6.0 million (2018 – $6.5 million).
- the Group purchased shipping services from Hapag Lloyd, an associate of Quiñenco, of $1.0 million (2018 – nil). The balance due to Hapag Lloyd at the end of the year was nil (2018 – nil).

B) Compañía de Inversiones Adriático SA

In 2019, the Group leased office space on normal commercial terms from Compañía de Inversiones Adriático SA, a company in which members of the Luksic family are interested, at a cost of $0.6 million (2018 – $1.2 million).

C) Antomin 2 Limited and Antomin Investors Limited

The Group holds a 51% interest in Antomin 2 Limited ("Antomin 2") and Antomin Investors Limited ("Antomin Investors"), which own a number of copper exploration properties. The Group originally acquired its 51% interest in these properties for a nominal consideration from Mineralinvest Establishment, which continues to hold the remaining 49% of Antomin 2 and Antomin Investors. Mineralinvest is owned by the E. Abaroa Foundation, in which members of the Luksic family are interested. During the year ended 31 December 2019 the Group incurred $0.1 million (year ended 31 December 2018 – $0.2 million) of exploration expense at these properties.

D) Tethyan Copper Company Limited

As explained in Note 17 the Group has a 50% interest in Tethyan Copper Company Limited ("Tethyan"), which is a joint venture with Barrick Gold Corporation over Tethyan's mineral interests in Pakistan. During 2019 the Group contributed $1.8 million (2018 – $8.1 million) to Tethyan.

E) Compañia Minera Zaldívar SpA

The Group has a 50% interest in Zaldívar (see Note 16), which is a joint venture with Barrick Gold Corporation. Antofagasta is the operator of Zaldívar. The balance due from Zaldívar to Group companies at the end of the year was $6.0 million (2018 – $3.6 million). During 2019 the Group has received dividends of $50.0 million from Minera Zaldívar (2018 – nil).

F) Inversiones Hornitos SA

As explained in Note 17, the Group has a 40% interest in Inversiones Hornitos SA, which is accounted for as an associate. The Group paid $187.7 million (year ended 31 December 2018 – $162.2 million) to Inversiones Hornitos in relation to the energy supply contract at Centinela. During 2019 the Group received dividends from Inversiones Hornitos SA of $8.0 million (2018 – $16.6 million).

G) SLM Rio Turbio Comuna Paihuano

During 2019 the Group sold certain property rights which were assessed as having no commercial value to the Group to SLM Rio Turbio Comuna Paihuano, a company controlled by Andronico Luksic, a Director of the Company, for a consideration of $30,000 reflecting the original cost and related fees in respect of those property rights.

H) Directors and other key management personnel

Information relating to Directors' remuneration and interests is given in the Remuneration Report on page 116. Information relating to the remuneration of key management personnel including the Directors is given in Note 8.

34 TETHYAN ARBITRATION AWARD

On 12 July 2019 an international arbitration tribunal of the World Bank's International Centre for Settlement of Investment Disputes ("ICSID") awarded $5.84 billion in damages to Tethyan Copper Company Pty Limited ("TCC"), the joint venture held equally by the Company and Barrick Gold Corporation, in relation to the arbitration claims filed against the Islamic Republic of Pakistan ("Pakistan") following the unlawful denial of a mining lease for the Reko Diq project in Pakistan in 2011.

Damages include compensation of $4.087 billion by reference to the fair market value of the Reko Diq project at the time of the mining lease denial, and interest until the date of the award of $1.753 billion. The Tribunal also awarded TCC just under $62 million in costs incurred in enforcing its rights. Compound interest applies to the compensation and cost awards from 12 July 2019 at a rate of US Prime +1% per annum until the award is paid.

On 8 November 2019, Pakistan applied to ICSID to annul the award and on 13 March 2020, ICSID appointed a committee to consider this application which is expected to reach a conclusion in the next one to two years. TCC is currently stayed from taking action to collect the award. Whether this stay remains in place will be an issue litigated before the ICSID appointed committee.

It is not expected that proceeds of the award will be recognised in Antofagasta's financial statements until received.

35 ULTIMATE PARENT COMPANY

The immediate parent of the Group is Metalinvest Establishment, which is controlled by the E. Abaroa Foundation, in which members of the Luksic family are interested.

Both Metalinvest Establishment and the E. Abaroa Foundation are domiciled in Liechtenstein. Information relating to the interest of Metalinvest Establishment and the E. Abaroa Foundation is given in the Directors' Report.

36 ANTOFAGASTA PLC – BALANCE SHEET OF THE PARENT COMPANY AND RELATED NOTES

The Balance Sheet of the Parent Company as at 31 December 2019 and 2018 is as follows:

	Note	2019 $m	2018 $m
Non-current assets			
Investment in subsidiaries	36D	**538.6**	538.6
Other receivables		**485.0**	500.0
Property, plant and equipment		**0.1**	0.3
		1,023.7	1,038.9
Current assets			
Other receivables	36D	**233.0**	59.0
Liquid investments		**15.2**	255.8
Cash and cash equivalents		**39.4**	106.2
		287.6	421.0
Total assets		**1,311.3**	1,459.9
Current liabilities			
Amounts payable to subsidiaries		**(315.6)**	(306.8)
Other payables		**(9.8)**	(9.4)
		(325.4)	(316.2)
Non-current liabilities			
Medium and long-term borrowings	36E	**(499.2)**	(500.1)
		(499.2)	(500.1)
Total liabilities		**(824.6)**	(816.3)
Net assets		**486.7**	643.6
Equity			
Share capital		**89.8**	89.8
Share premium		**199.2**	199.2
Retained earnings			
At 1 January		**354.6**	745.5
Profit for the year attributable to the owners		**313.4**	76.0
Other changes in retained earnings		**(470.3)**	(466.9)
		197.7	354.6
Total equity		**486.7**	643.6

The financial statements on pages 202 to 205 were approved by the Board of Directors on 16 March 2020 and signed on its behalf by

Jean-Paul Luksic
Chairman

Ollie Oliveira
Senior Independent Director

Parent Company statement of changes in equity

	Share capital $m	Share premium $m	Retained earnings $m	Total equity $m
At 1 January 2018	89.8	199.2	745.5	1,034.5
Comprehensive income for the year	–	–	76.0	76.0
Dividends	–	–	(466.9)	(466.9)
At 31 December 2018	89.8	199.2	354.6	643.6
Comprehensive income for the year	**–**	**–**	**313.4**	**313.4**
Dividends	**–**	**–**	**(470.3)**	**(470.3)**
At 31 December 2019	**89.8**	**199.2**	**197.7**	**486.7**

The ordinary shares rank after the preference shares in entitlement to dividend and on a winding-up. Each ordinary share carries one vote at any general meeting.

Antofagasta plc is a company limited by shares, incorporated and domiciled in the United Kingdom at Cleveland House, 33 King Street, London.

36A Basis of preparation of the balance sheet and related notes of the Parent Company

The Antofagasta plc Parent Company balance sheet and related notes have been prepared in accordance with the Companies Act 2006 applicable to companies using FRS 101, which applies the recognition and measurement bases of IFRS with reduced disclosure requirements. The financial information has been prepared on an historical cost basis. The financial statements have been prepared on a going concern basis. The functional currency of the Company and the presentational currency adopted is US dollars.

The following exemptions from the requirements of IFRS have been applied in the preparation of these financial statements, in accordance with FRS 101:

- Paragraphs 45(b) and 46 to 52 of IFRS 2, 'Share-based payment' (details of the number and weighted-average exercise prices of share options and how the fair value of goods or services received was determined)
- IFRS 7, 'Financial Instruments: Disclosures'
- Paragraphs 91 to 99 of IFRS 13, 'Fair value measurement' (disclosure of valuation techniques and inputs used for fair value measurement of assets and liabilities)
- Paragraph 38 of IAS 1, 'Presentation of financial statements' comparative information requirements in respect of:
  (i) paragraph 79(a)(iv) of IAS 1, 'Presentation of financial statements'

  (ii) paragraph 73(e) of IAS 16, 'Property, plant and equipment'

  (iii) paragraph 118(e) of IAS 38, 'Intangible assets' (reconciliations between the carrying amount at the beginning and end of the period)
- The following paragraphs of IAS 1, 'Presentation of financial statements':
  – 10(d), (statement of cash flows)
  – 10(f) (a statement of financial position as at the beginning of the preceding period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements)
  – 16 (statement of compliance with all IFRS)
  – 38A (requirement for minimum of two primary statements, including cash flow statements)
  – 38B-D (additional comparative information)
  – 40A-D (requirements for a third statement of financial position)
  – 111 (cash flow statement information), and
  – 134-136 (capital management disclosures)
- IAS 7, 'Statement of cash flows'
- Paragraphs 30 and 31 of IAS 8 'Accounting policies, changes in accounting estimates and errors' (requirement for the disclosure of information when an entity has not applied a new IFRS that has been issued but is not yet effective)
- Paragraph 17 of IAS 24, 'Related party disclosures' (key management compensation)
- The requirements in IAS 24, 'Related party disclosures' to disclose related party transactions entered into between two or more members of a group.

As permitted by section 408 of the Companies Act 2006, the profit and loss account of the Parent Company is not presented as part of these financial statements. The profit after tax for the year of the Parent Company amounted to $313.4 million (2018 – $76.0 million).

36 ANTOFAGASTA PLC – BALANCE SHEET OF THE PARENT COMPANY AND RELATED NOTES CONTINUED

A summary of the principal accounting policies is set out below. These accounting policies have been applied consistently, other than where new policies have been adopted.

36B Principal accounting policies of the Parent Company

A) Currency translation

The Company's functional currency is the US dollar. Transactions in currencies other than the functional currency are translated at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities, including amounts due from or to subsidiaries, denominated in currencies other than the functional currency are retranslated at year-end exchange rates. Gains and losses on retranslation are included in net profit or loss for the year.

B) Revenue recognition

Dividends proposed by subsidiaries are recognised as income by the Company when they represent a present obligation of the subsidiaries, in the period in which they are formally approved for payment.

Interest income is accrued on a time basis, by reference to the principal outstanding and the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

C) Dividends payable

Dividends proposed are recognised when they represent a present obligation, in the period in which they are formally approved for payment. Accordingly, an interim dividend is recognised when paid and a final dividend is recognised when approved by shareholders.

D) Investments in subsidiaries

Investments in subsidiaries represent equity holdings in subsidiaries and long-term amounts owed by subsidiaries. Such investments are valued at cost less any impairment provisions. Investments are reviewed for impairment if events or changes in circumstances indicate that the carrying amount may not be recoverable. The recoverable amount of the investment is the higher of fair value less cost to disposal and value in use. As explained in Note 36D, amounts owed by subsidiaries due in currencies other than the functional currency are translated at year-end rates of exchange with any exchange differences taken to the profit and loss account.

E) Current asset investments and cash at bank and in hand

Current asset investments comprise highly liquid investments that are readily convertible into known amounts of cash and which are subject to insignificant risk of changes in value, typically maturing within 12 months.

Cash at bank and in hand comprise cash in hand and deposits repayable on demand.

F) Borrowings

Interest-bearing loans and bank overdrafts are initially recorded at the proceeds received, net of direct issue costs. They are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis. The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis using the effective interest rate method.

G) Borrowings – preference shares

The sterling-denominated preference shares issued by the Company carry a fixed rate of return without the right to participate in any surplus. They are accordingly classified as borrowings and translated into US dollars at year-end rates of exchange. Preference share dividends are included within finance costs.

H) Equity instruments – ordinary share capital and share premium

Equity instruments issued are recorded at the proceeds received, net of direct issue costs. Equity instruments of the Company comprise its sterling-denominated issued ordinary share capital and related share premium.

As explained above, the presentational and the functional currency of the Company is US dollars, and ordinary share capital and share premium are translated into US dollars at historical rates of exchange based on dates of issue.

36C Employee benefit expense

A) Average number of employees

The average monthly number of employees was 5 (2018 – 5), engaged in management and administrative activities.

B) Aggregate remuneration

The aggregate remuneration of the employees mentioned above was as follows:

	2019 $m	2018 $m
Wages and salaries	**1.7**	1.9
Social security costs	**0.2**	0.3
Pension contributions	**0.1**	0.1
	2.0	2.3

The above employee figures exclude Directors who receive Directors' fees from Antofagasta plc. Details of fees payable to Directors are set out in the Remuneration Report.

36D Subsidiaries

A) Investment in subsidiaries

	2019 $m	2018 $m
Shares in subsidiaries at cost	**60.6**	60.6
Amounts owed by subsidiaries due after more than one year	**478.0**	478.0
	538.6	538.6

	Shares $m	Loans $m	Total $m
1 January 2019	60.6	478.0	538.6
31 December 2019	**60.6**	**478.0**	**538.6**

The above amount of $478.0 million (2018 – $478.0 million) in respect of amounts owed by subsidiaries due after more than one year relates to long-term funding balances which form an integral part of the Company's long-term investment in those subsidiary companies.

B) Trade and other receivables – amounts owed by subsidiaries due after one year

At 31 December 2019, an amount of $499.2 million was owed to the Company by an indirect subsidiary, pursuant to a 10-year loan agreement. There have been no impairments recognised in respect of subsidiary receivables as at 31 December 2019.

C) Trade and other receivables – amounts owed by subsidiaries due within one year

At 31 December 2019, amounts owed by subsidiaries due within one year were $228.0 million (2018 – $52.6 million). There have been no impairments recognised in respect of subsidiary receivables as at 31 December 2019.

36E Borrowings – preference shares

The authorised, issued and fully paid preference share capital of the Company comprised 2,000,000 5% cumulative preference shares of £1 each at both 31 December 2019 and 31 December 2018. As explained in Note 22B, the preference shares are recorded in the balance sheet in US dollars at period-end rates of exchange.

The preference shares are non-redeemable and are entitled to a fixed 5% cumulative dividend, payable in equal instalments in June and December of each year. On a winding-up, the preference shares are entitled to repayment and any arrears of dividend in priority to ordinary shareholders, but are not entitled to participate further in any surplus. Each preference share carries 100 votes (see Note 22A (xiv)) at any general meeting.

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Antofagasta plc

5.625% Senior Notes due 2032

LISTING MEMORANDUM

Global Coordinators and Joint Book-Running Managers

Citigroup **J.P. Morgan**

Joint Book-Running Managers

BofA Securities **Scotiabank** **SMBC Nikko**

May 30, 2022.