



ANTOFAGASTA PLC

# DEVELOPING MINING FOR A BETTER FUTURE

ANNUAL REPORT AND  
FINANCIAL STATEMENTS 2019



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In this Annual Report, the terms "Company", "Group", "we", "us", "our" and "ourselves" are used to refer to Antofagasta plc and, unless the context requires otherwise, its subsidiaries. These terms may be used as collective expressions where general reference is made to the companies in the Group and/or where no useful purpose is served by identifying any particular company or companies.

OUR PURPOSE

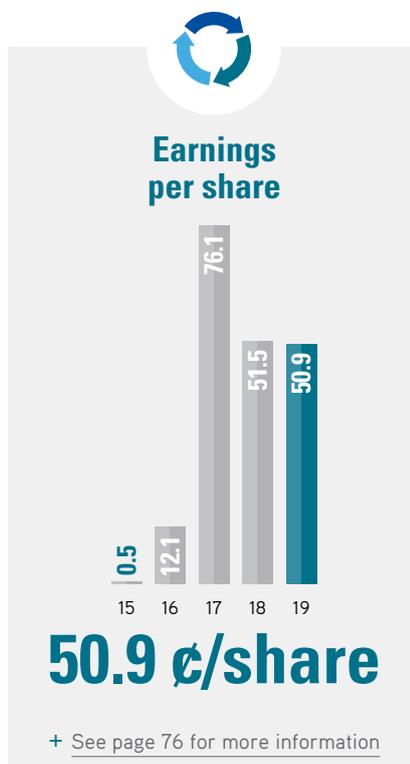
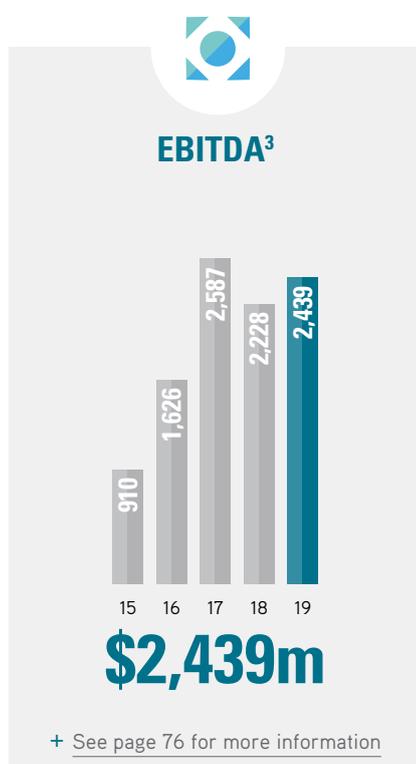
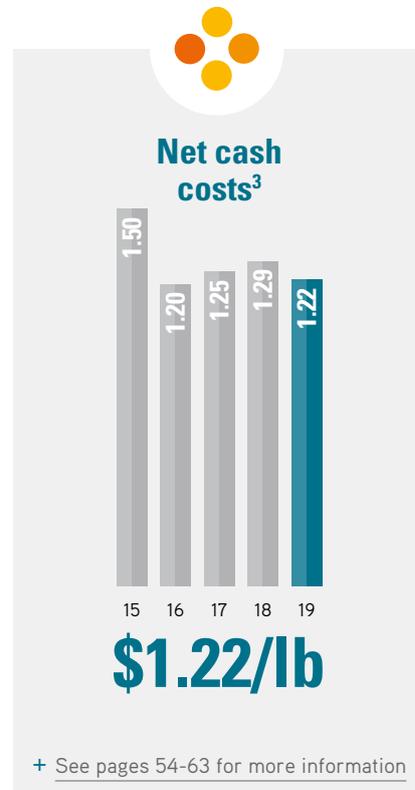
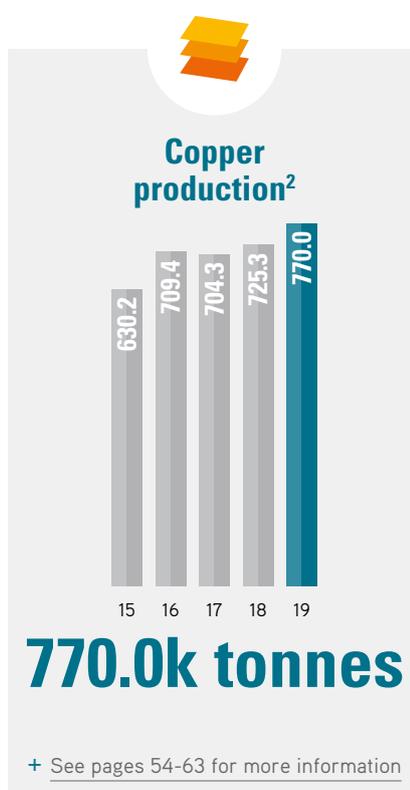
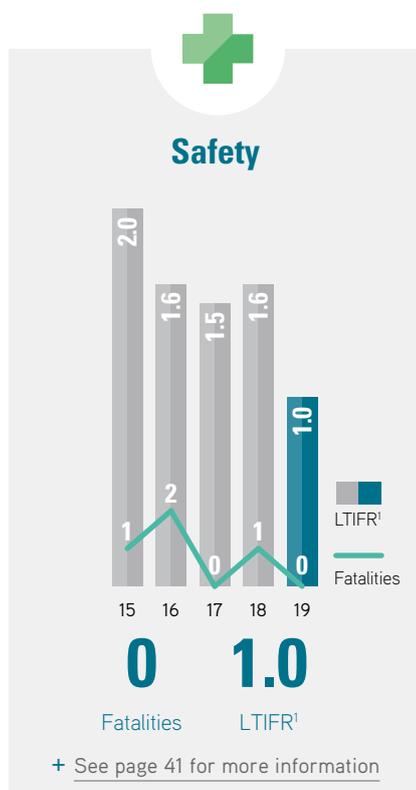
# DEVELOPING MINING FOR A BETTER FUTURE



OUR VISION

To be an international mining company based in Chile, focused on copper and its by-products, known for its operating efficiency, creation of sustainable value, high profitability and as a preferred partner in the global mining industry.

# RECORD SAFETY AND PRODUCTION PERFORMANCE



1. The Lost Time Injury Frequency Rate is the number of accidents with lost time per million hours worked.  
 2. 100% of production at Los Pelambres, Centinela and Antucoya, and 50% of Zaldívar's production.  
 3. Non-IFRS measure, refer to the alternative performance measures section on page 206.  
 4. Mineral resources (including ore reserves) held by the Group's subsidiaries on a 100% basis and at Zaldívar on a 50% basis.

# 2019 HIGHLIGHTS



## Safety

Record safety performance with no fatal accidents and a LTIFR of 1.0.



## Copper production

Record copper production of 770,000 tonnes. An increase of 6.2% on 2018 on higher production at Los Pelambres, Centinela and Zaldívar.



## Net cash costs

Net cash costs were \$1.22/lb, 5.4% lower than in 2018 due to higher production, tight cost control and the weaker Chilean peso.



## EBITDA

EBITDA increased by 9.5% to \$2,439 million and a margin of 49%, reflecting strong copper production and lower cash costs.



## Earnings per share

EPS from continuing operations of 50.9 cents per share, 1.2% lower than the previous year on higher EBITDA, offset by higher depreciation and amortisation, and tax.



## Dividend per share

Total dividend of 34.1 cents per share, equivalent to a 67% pay-out ratio.



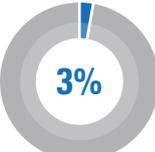
## Projects

Los Pelambres Expansion project under construction. Zaldívar Chloride Leach and Esperanza Sur pit projects approved.

# OUR BUSINESS TODAY

Mining is our core business, representing over 96% of our revenue and EBITDA. We operate four copper mines in Chile, two of which produce significant volumes of by-products. We also have a portfolio of growth opportunities located mainly in Chile.

In addition to mining, our Transport division provides rail and road cargo services in northern Chile predominantly to mining customers, which include some of our own operations.

	Products	Revenue	EBITDA <sup>1,2</sup>
<b>Antucoya</b> <ul style="list-style-type: none"> <li>• 70% owned</li> <li>• 20-year mine life</li> <li>• Produces copper cathodes</li> </ul>		 <b>9%</b> <b>\$432m</b>	 <b>4%</b> <b>\$86m</b>
<b>Centinela</b> <ul style="list-style-type: none"> <li>• 70% owned</li> <li>• 48-year mine life</li> <li>• Produces copper cathodes and copper concentrates containing gold and silver and a separate molybdenum concentrate</li> </ul>	    	 <b>40%</b> <b>\$2,008m</b>	 <b>39%</b> <b>\$960m</b>
<b>Los Pelambres</b> <ul style="list-style-type: none"> <li>• 60% owned</li> <li>• 15-year mine life</li> <li>• Produces copper concentrates containing gold and silver and a separate molybdenum concentrate</li> </ul>	   	 <b>48%</b> <b>\$2,364m</b>	 <b>57%</b> <b>\$1,384m</b>
<b>Zaldívar</b> <ul style="list-style-type: none"> <li>• 50% owned (and operated)</li> <li>• 11-year mine life</li> <li>• Produces copper cathodes</li> </ul>			 <b>5%</b> <b>\$113m</b>
<b>Transport</b> <ul style="list-style-type: none"> <li>• Cargo transport system in the Antofagasta Region of Chile</li> <li>• 900 km rail network</li> </ul>	 	 <b>3%</b> <b>\$161m</b>	 <b>3%</b> <b>\$81m</b>
<b>Group</b>		<b>\$4,965m</b>	<b>\$2,439m</b>

**KEY**  Cathodes  Concentrate  Road  Rail

1. Non-IFRS measure, refer to the alternative performance measure section on page 206.  
 2. Adds to more than 100% as excludes \$184 million of corporate costs, exploration and evaluation, and other non-operating income and expenses. See note 2 to the financial statements.

Copper production (tonnes) and net cash costs<sup>1</sup>

2019	2020 forecast	Growth potential
<b>71,900</b> <b>\$2.17/lb</b>	<b>80-85,000</b> <b>\$1.90/lb</b>	<b>Mine life extension</b> <ul style="list-style-type: none"> <li>• Potential to process satellite ore bodies</li> </ul>
<b>276,600</b> <b>\$1.26/lb</b>	<b>240-250,000</b> <b>\$1.50/lb</b>	<b>Centinela expansion</b> <ul style="list-style-type: none"> <li>• Opening Esperanza Sur pit</li> <li>• Building a second concentrator</li> </ul>
<b>363,400</b> <b>\$0.91/lb</b>	<b>350-360,000</b> <b>\$1.00/lb</b>	<b>Los Pelambres Incremental Expansion</b> <ul style="list-style-type: none"> <li>• Phase 1 will increase annual production by 60,000 tonnes. Project construction started in early 2019</li> <li>• Phase 2 will further increase production by 35,000 tonnes and extend the Life-of-Mine</li> </ul>
<b>58,100</b> <b>\$1.75/lb</b>	<b>55-60,000</b> <b>\$1.70/lb</b>	<b>Mine life extension</b> <ul style="list-style-type: none"> <li>• Assessing viability of leaching the primary sulphide ore body</li> <li>• Chloride Leach project approved. It will increase production by 10-15,000 tonnes</li> </ul>
<b>6.5m tonnes</b>		<b>Haulage capacity increase</b> <ul style="list-style-type: none"> <li>• Programme to increase the fleet's haulage capacity completes in 2020</li> </ul>
<b>770,000</b> <b>\$1.22/lb</b>	<b>725-755,000</b> <b>\$1.30/lb</b>	



# ANTOFAGASTA IS PART OF AN INDUSTRY THAT WORKS FOR EVERYONE

**“Mining is a vital part of Chile’s economy and when we are successful the whole country benefits, through higher tax revenues, better jobs and improved infrastructure.”**

## Dear shareholders,

I have written before about the cyclical nature of the copper industry and the need for Antofagasta to deliver what we call “considered growth”. This means focusing on those elements of our business that are within our control, whether that is costs, the pace of new developments, maintaining strong employee and community relations or ensuring safe and sustainable operations.

The importance of this approach was again apparent in 2019, as the copper price averaged \$2.72/lb, 8% lower than in 2018, and once again was affected by the uncertainty generated by the global trade dispute. Despite this, Antofagasta delivered another record year of production and at a lower cost than last year, reflecting the improved grades at all our operations and the continued hard work of our teams. As a result, Antofagasta continues to be in a strong position, generating solid cash flows.

Growth is not just about copper production, of course. In Antofagasta’s Transport division (FCAB) we are transforming the business by introducing new locomotives, improving the efficiency of the network and securing new contracts. As a result, we are seeing growth in total transport volumes and expect to see this translate into improved returns in due course.

## A framework for long-term success

I have always believed that for the copper industry to be sustainable in the future there is a need for long-term planning and a willingness to invest in new projects throughout the commodity cycle. This relies on the development of a strong corporate culture, a sense of organisational purpose and a clear strategy, and this is encompassed in our Purpose – Developing Mining for a Better Future.

In support of this approach, in 2019 the Board adopted a new strategic framework designed to underpin Antofagasta’s long-term success. The framework is built around five pillars: growth, our people, the safety and sustainability of our operations, innovation, and competitiveness. We have put in place a clear set of near- and medium-term goals for the organisation based on this framework.

## Green light for further growth

While production in 2019 was at record levels, a decline in ore grades at Centinela will lead to a fall in production in 2020. The Board has already approved the expansion of Los Pelambres, which will reverse this decline when it reaches full production in 2022.

In addition, during 2019 the Board approved two further projects to ensure that we continue to deliver new growth projects. The Chloride Leach project at Zaldívar will increase recoveries and will add



10-15,000 tonnes of copper per year and the new Esperanza Sur pit at Centinela is expected to add a similar amount for its first few years of full production from 2022 onwards. This is in addition to the 60,000 tonnes from the Los Pelambres expansion.

Looking further ahead, Antofagasta has substantial additional copper resources that can be brought into development over time. The construction of a second concentrator at Centinela and a further expansion of Los Pelambres are among a number of options for future growth projects in our portfolio.

### Improving diversity in the workforce

The mining industry has often been criticised for lacking diversity in its workforce. At Antofagasta, we continue to encourage more women into the workforce and to ensure that they are better represented at all levels. We now have two female Chairs of Board Committees, for Sustainability and Stakeholder Management and Remuneration and Talent Management, who serve on the Board alongside nine male Directors. In addition, some of our female senior executives have been appointed to each of the boards of our mining operating companies and we have two women in the Senior Management team, the General Manager of the Transport division and our Vice President of Human Resources, who are members of our 15-member Executive Committee. I would like to thank them and all members of the Board for their work and support during 2019.

We are determined to further improve diversity in our business. By doing so, we will continue to broaden the depth as well as the breadth of skills and perspectives within our talent pool. We believe that this will enable us to ensure that Antofagasta has the right people to help the Company navigate the many challenges facing mining today.

### Your Directors

It was with great sadness that we said goodbye to our Non-Executive Director Gonzalo Menendez, who passed away at the end of June following a period of illness. Gonzalo had been an important part of Antofagasta's development for nearly 40 years. He was responsible for transforming the Transport division into a profitable business in his role as General Manager in the early 1980s and later, in his role as a Director, he played a significant role in the Group's expansion and eventual transformation into the mining company that it is today. The Board will miss his wise counsel and advice.

In May we appointed Mike Anglin to the Board. Mike has over 30 years' experience in base metals, focused on South American and US operations and mine construction. His extensive experience in developing and constructing large-scale mines in the Americas will, I know, be of great benefit to Antofagasta in the coming years and I would like to welcome him to the Board.

In March this year, we also appointed Tony Jensen to the Board. Tony has over 35 years of mining experience in the United States and Chile in operating, financial, business development and management roles and will stand for election by shareholders at the 2020 Annual General Meeting.

Tim Baker will not be standing for re-election at the 2020 Annual General Meeting, having served for nine years on the Board. Tim has provided invaluable service during his time with us and has served as Chairman of the Remuneration and Talent Management Committee and as a member of all of the other Committees.

I would also like to take this opportunity to mark the passing of Viscount Montgomery of Alamein, David Montgomery, who was Chairman of the Company from 1980-82. He had a great love of Latin America and was decorated by the governments of Chile, Argentina, Mexico and Venezuela as well as those of Spain and Brazil. He lived in Antofagasta for a period during the 1970s and made a valuable contribution to the Company in its early days of transformation from a railway to a mining business.

### An industry that works for everyone

During the last two decades, the quality of life and the wellbeing of the population have improved significantly in Chile. Poverty levels have reduced markedly and all the indicators included in the Human Development Index of the United Nations Development Programme have improved.

However, since October 2019 Chile, like some other countries, has been experiencing a period of social tension with street demonstrations and demands for social improvements which have been followed by instances of violence by some small groups. We condemn violence and we strongly believe that the best way to achieve social advancement and cohesion is through dialogue. We also believe that this should include measures that help the country to reach higher social standards, and to grow and develop. In order to address these issues, the government and all major political parties have agreed to hold a referendum to determine whether a new constitution should be adopted.

We must all work together to resolve the country's challenges and mining will continue to be one of the main contributors to Chile's economy. When the mining industry is successful, the whole country benefits through higher tax revenues, higher levels of employment in better jobs and improved infrastructure.

As an industry, and as a business that plans for the long term, we value certainty and stability. We have worked hard to build strong community relations and we benefit from the country's educated workforce. Ensuring that our interests are properly aligned with those of our stakeholders is critical to the long-term sustainability of our operations.

That is why we are focused on ensuring that when we are successful as a company our stakeholders benefit as well. This includes our people, local communities, suppliers, customers, shareholders and the government and regulators. 2019 has been no exception and we have described the specific efforts we make to support these stakeholders throughout this Annual Report. I am particularly proud of the work the team has done over the year to strengthen our community relations; rolling out the successful community relations programme we have developed at Los Pelambres, to our mines in the north of Chile, at Centinela, Zaldívar and Antucoya.

### Outlook

Despite a strong finish, the copper price was flat for most of the year, impacted by the uncertainty around global trade. However, in the longer term we continue to believe that the fundamentals for copper are strong. The demand picture suggests that the world's appetite for copper as part of the greening of our global power and transportation systems will continue to grow at a time when new copper supply sources are becoming rarer.

In the short term, there is limited new supply coming on-stream in 2020. However, the outbreak of the COVID-19 virus at the beginning of the year is having an impact on copper demand in Asia. It is not clear at this stage how important the impact will be, but it is possible that it will be significant. In the meantime, the Chinese government has put in place rigorous controls to stop the spread of the virus and has announced several stimulatory economic measures that should reverse at least part of the negative impact on demand.

For me the commodity price volatility we have experienced over the past few years really highlights our strengths at Antofagasta. We plan for the long term, to deliver considered growth, manage our costs tightly, put the safety of our people and communities at the heart of all that we do and invest in the future. This approach will remain core to our strategy in the years ahead.

On a final note I would like to thank our shareholders for their support and our employees and contractors for all their work that made 2019 another record year for Antofagasta.

### Jean-Paul Luksic

Chairman

# RECORD YEAR OF SAFETY AND PRODUCTION PERFORMANCE

**“It was a good year operationally, marked by our best safety performance ever, a new copper production record and an above-target reduction in cash costs.”**

## Dear shareholders,

I am pleased to share with you this report on our performance in 2019. It was a good year operationally for Antofagasta, marked by the Group's best safety performance ever, a new copper production record and an above-target reduction in cash costs.

On safety, I am particularly pleased to report that we suffered no fatalities during the year, a target that is always our top priority. We also significantly improved other safety indicators such as our Lost Time Injury Frequency Rate (LTIFR). This progress was consistent across almost all our operations and is not a coincidence. It reflects the work we have been undertaking with great conviction over the five years since we implemented our safety management system.

These results are, of course, positive in themselves. However, we also believe that without a strong safety performance it is very difficult to achieve a well-managed operation and deliver good economic results and, in this sense, safety generally serves as a leading indicator of operating discipline and performance.

We are also proud to report that in 2019 we produced a record 770,000 tonnes of copper, 6.2% higher than in 2018, which was itself a record. This was at the top end of our revised guidance. As well as higher ore grades, particularly at Centinela, it reflected a very consistent operating performance at our plants, especially Los Pelambres and Centinela where we are very pleased with the throughput they achieved and the operating conditions that led to this higher production.

For 2020, we anticipate that the Group's copper production will drop to 725-755,000 tonnes. This is based on our mine plan, and it is primarily explained by lower grades at Centinela Concentrates. However, in addressing this more challenging year, we will be doing so from the platform of our performance in 2019 and the strong underlying operating conditions it reflects.

Our net cash costs in 2019, at \$1.22/lb, were 5.4% lower than in 2018. This reduction was largely thanks to our increased production and the Cost and Competitiveness Programme we launched in 2014, which continues to deliver important savings. Under this programme, we have set an annual target of \$100 million, having achieved \$132 million of savings and revenue enhancements in 2019.



## Water

For mining, water is a critical input and 2019 was yet another drought year in north-central Chile's Coquimbo Region, where Los Pelambres is located. This makes our focus on water efficiency and management ever more important. During the year, we also worked closely with communities in the operation's area of influence to secure water for human consumption and livestock.

I am pleased to say that, operationally, we were able to manage the situation without an impact on production or plant treatment capacity. However, this issue will persist in 2020 so we will remain very vigilant about our water balance. We will continue to look for opportunities for efficiency gains in our water use and recycling, particularly in the long-term context of climate change.

In addition, Los Pelambres is building a desalination plant so, as from the end of 2021, it will be using sea water. This is just one of the measures we are taking to adapt to climate change.

Our other three operations are in northern Chile's Atacama Desert, where water scarcity has always been acute. Here we have taken a lead in the use of sea water, which now accounts for some 50% of our consumption.

As part of our work on climate change we will continue to review its impact on our operations using scenario analysis and the TCFD (Task Force on Climate-related Financial Disclosures) framework, with a specific emphasis on water availability.

## Labour relations

In 2019 we completed four labour negotiations and a strike at Antucoya was the first for the Group. However, we have a very good record of relations with our unions and these remain very constructive, including those at Antucoya.

In our regular labour negotiations we seek to achieve an outcome that is beneficial to both parties while preserving the long-term viability of our operations and ensuring the sustainability of any agreement. This approach will continue to guide our labour relations.

## Projects

In 2019, we started construction of the Los Pelambres Expansion project, which involves an expansion of the operation's processing capacity and the construction of the desalination plant. By the end of the year, work on the project, which represents an investment of \$1.3 billion, was approximately 30% complete. This investment is very important for Los Pelambres because the capacity expansion will mitigate the increasing hardness of the ore and the desalination plant will ensure water availability in the event of a particularly acute shortage.

Zaldívar's Chloride Leach project was sanctioned in 2019 and is now beginning construction. This is a process improvement project that will increase copper recovery by using higher levels of chloride in the leaching solution. It represents an investment of \$190 million.

In 2019, we filed the Mine Plan of Operations for Twin Metals, our greenfield project in the United States. This is an important milestone for Twin Metals as it is the start of the formal permitting process. The lead times are long, but we have been able to consolidate our mining property and have a strong and motivated team and I am very positive about this project.

A very thorough review process will now take place over the next five or six years, during which we will be engaging with the corresponding government agencies, local communities and other stakeholders. The process also involves public consultation, giving us an opportunity to showcase our project and, of course, for scrutiny by the government and the public.

## Innovation

A key part of the way we are investing in our development is to analyse how the digital age will transform our business and how we can make the most of the changes it entails. In this, we are guided by our Roadmap for Innovation. One of its components is automation and in 2019 we started to use autonomous drills at Los Pelambres as a pilot for their gradual adoption at all our operations.

During the year, we also progressed in designing a fleet of autonomous trucks for use at Esperanza Sur, a new pit at Centinela. The trucks are expected to be delivered and start operation in 2021, once the pit's development stripping has been completed.

Remote working is another part of the Roadmap and our new integrated operations centre for Centinela is currently in the final stages of a feasibility study. We have decided to locate this centre in the city of Antofagasta, some 150 kilometres from the mine, and expect it to start operations during 2020.

An additional element is the digital transformation of support functions. We are working on a portfolio of 23 projects to automate or robotise functions in areas such as finance and human resources.

## Capital expenditure

In 2020, we expect to see a higher level of capital expenditure than in 2019. This is because we will be moving into the most capital-intensive year of the Los Pelambres Expansion project as it enters its busiest phase of construction. Our original guidance for the year was that capital expenditure would reach \$1.5 billion as compared to \$1.1 billion in 2019, but following the outbreak of COVID-19 we are reviewing this estimate to identify possible savings or deferrals.

## Events in Chile

Our operations have not been immune to the social unrest seen in Chile since October. However, we have been able to manage the effects in such a way that any production impact has been minimal and our operations have performed according to plan.

The unrest was triggered principally by social demands related to pensions, healthcare and education. Chile now has a unique opportunity to address these issues and positively affect people's wellbeing.

Another key issue is the proposal to rewrite the country's constitutional framework. It is important that this process, if it occurs, is carried out in an orderly fashion and results in a constitution supported by the majority of Chileans. From this point of view, the next 18-24 months will be important in determining whether changes are made for the better or whether there is further uncertainty and instability.

During this process, an impact on projects that have already been sanctioned is unlikely.

## Copper market

In 2019, there continued to be a small copper supply deficit. However, the average annual price, at \$2.72/lb, represented a drop from \$2.96/lb in 2018, and there was significant volatility related to factors that included the trade war between the United States and China.

We expect this volatility to persist in 2020, particularly following the COVID-19 outbreak in China. However, we believe that the mid to longer-term outlook, underpinned by an ongoing supply deficit, is positive for copper given its critical role as an enabler of a modern low carbon economy driven by growing electromobility and renewable energy usage.

## Iván Arriagada

Chief Executive Officer

# THE MINING LIFECYCLE



## Creating value through the mining lifecycle

Mining is a long-term business and timescales can run into decades. The period from initial exploration to the start of production can exceed 10 years and, depending on the nature of the project and the market conditions, it may take more than five years of operation to recoup the initial investment.

For geological reasons, copper deposits frequently have higher-grade material nearer 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. Large long-life mines will have several expansions during their lives. The current expansion at our 20-year-old Los Pelambres mine is its fourth.

### Inputs

**Energy**  
**Water**  
**Labour**  
**Service contracts and key supplies**  
**Fuel and lubricants**  
**Sulphuric acid**

Our mining operations depend on a range of key inputs such as energy, water, labour, sulphuric acid and fuel. The management of these inputs has a significant impact on operating costs and the sustainability of mining operations, and ensuring the long-term supply of key inputs is a vital part of the business.

+ See page 68 for [more information](#)

### Exploration

**Chile**  
**International**

To ensure the long-term sustainability of our mining business, we must focus on expanding our mineral resource base.

We undertake exploration activities in Chile and abroad, with particular focus outside Chile on the Americas. Our international exploration programmes are generally carried out in partnership with other companies, in order to benefit from their local knowledge and experience.

3-5 years

+ See page 67 for [more information](#)

### Evaluation

**Los Pelambres**  
**Expansion – Phase 2**  
**Centinela Second**  
**Concentrator**  
**Twin Metals Minnesota**

Effective project evaluation and design maximise value at this stage of the mining cycle. Antofagasta's wealth of experience in both areas helps to make the best use of mineral deposits. We integrate sustainability criteria into the design process and project evaluation phase, developing innovative solutions for challenges such as water availability, long-term energy supply and community relations.

5 years

+ See pages 64-66 for [more information](#)

### Construction

**Los Pelambres**  
**Expansion – Phase 1**  
**Esperanza Sur pit**  
**Zaldívar Chloride**  
**Leach project**

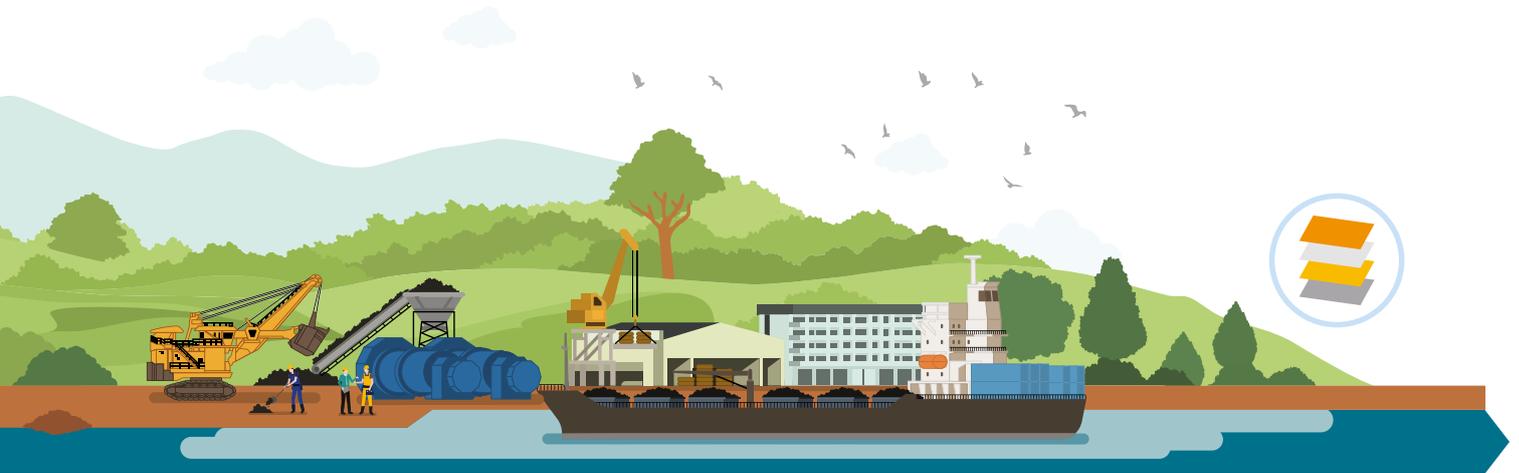
Once a project has been approved by the Board, construction begins.

This stage requires significant input of capital and resources as well as effective project management and cost control to maximise the project's return on investment.

We have a co-operative approach to developing projects. Typically, after the feasibility stage and before the construction phase, we seek a development partner to buy an interest in the project, generating an immediate cash return, diversifying risk and providing broader access to funding while we maintain operating control of the project.

3-5 years

+ See pages 64-66 for [more information](#)



## Core operations

### Extraction

Los Pelambres  
Centinela  
Antucoya  
Zaldívar

Antofagasta's four operations in Chile are Los Pelambres, Centinela, Antucoya and Zaldívar.

The world-class Los Pelambres and Centinela mining districts have sustainable long-life copper mining operations, with large mineral resources, and produce significant volumes of gold, silver and molybdenum as by-products. All of our mines are open pit operations.

Safety and health are key elements of operating efficiency and remain a top priority for the Board and management team.

20+ years

+ See pages 56-61 for [more information](#)

### Processing

Antofagasta mines both copper sulphide and copper oxide ores, which require different processing routes:

#### Los Pelambres and Centinela Concentrates

Mined sulphide ore is milled to reduce its size before passing to flotation cells where it is upgraded to a concentrate containing 25-35% copper. This concentrate is then shipped to a smelter operated by a third party and converted to copper metal.

#### Centinela Cathodes, Antucoya and Zaldívar

Mined oxide ore, sometimes combined with leachable sulphide ore, is crushed, piled into heaps and leached with sulphuric acid, producing a copper solution.

This solution is then put through a solvent extraction and electrowinning ("SX-EW") plant to produce nearly pure copper cathodes, which are sold to fabricators around the world.

+ See pages 56-61 for [more information](#)

### Marketing

The marketing team builds long-term relationships with the smelters and fabricators who purchase our products, with approximately 70% of output by value going to Asian markets.

As well as copper, Los Pelambres and Centinela produce significant volumes of gold, molybdenum and silver as by-products. Gold and silver are sold for industrial and electronic applications and for jewellery-making. Molybdenum is used to produce steel alloys.

Most copper and molybdenum sales are made under annual contracts or longer-term framework agreements. Sales volumes are agreed each year, which guarantees offtake.

+ See page 48 for [more information](#)

### Mine closure

During the operation of a mine, its impact on the environment and the neighbouring communities is carefully managed. At the end of its life, a mine must be closed, and its surroundings restored to their original state. A closure plan for each mine is maintained and updated throughout its life to ensure compliance with the latest regulations and provide for a sustainable closure.

+ See page 46 for [more information](#)

### Outputs

Copper  
Molybdenum  
Gold  
Silver

Our mining operations create significant economic and social value for a wide range of stakeholders. Local communities benefit from job creation and improved infrastructure, while the Chilean government and local municipalities receive tax payments and royalties.

There are also benefits to society in general, with the copper we produce being used across many sectors, from industrial to medical, and increasingly in renewable and green technologies.

The copper and by-products go on to be further processed for use in end markets, including property, power, electronics, transport and consumer products.

+ See pages 18-19 for [more information](#)

# INTRODUCING OUR STRATEGIC FRAMEWORK

We are committed to our Purpose of Developing Mining for a Better Future. This is what drives and motivates us.

While our Vision has not changed, we have re-evaluated our Strategic Framework to ensure it is aligned. At its centre is our Purpose, Developing Mining for a Better Future, which is supported by our Strategy, Organisation and Culture through which we seek our Vision.

In turn, our Strategy has five pillars, People, Safety and Sustainability, Competitiveness, Growth and Innovation.





## Our Vision

To be an international mining company based in Chile, focused on copper and its by-products, known for its operating efficiency, creation of sustainable value, high profitability and as a preferred partner in the global mining industry.



## Culture

Culture represents our shared values and the way we work. It is evident not only in our people but also in how we engage with local communities and our suppliers, partners and customers. We also understand the importance of diversity and inclusion as a driver of our competitive advantage.



## Organisation

The way we manage our activities is paramount in reaching our goals. Our structure is designed to deliver results and growth while also having the flexibility to adjust to challenges and opportunities as they arise.



## Strategy

Our strategy is built around five key pillars, each of which have defined long-term objectives with short and medium-term goals. These pillars are: People, Safety and Sustainability, Competitiveness, Growth and Innovation.



## Culture

Shared values and the way we work

The way we work and manage our risks is anchored in our shared values:

**Responsibility.** We are responsible for our actions, particularly our own safety and health and that of others.

**Respect.** We respect people, their opinions matter to us and we interact with them in an open and collaborative manner.

**Commitment to sustainability.**

We maximise the value of our assets while contributing to social development and minimising our impact on the environment.

**Excellence in our daily performance.**

We strive to achieve ever better results.

**We are forward-thinking** and seek to generate value in the long term. We learn from our mistakes and have the flexibility and confidence to address changing challenges.

**Innovation is a permanent practice** and is key to our long-term success.



## Organisation

Designed to deliver results and growth

Each area of the Group has an organisational structure and Operating Model to optimise asset performance.

This is achieved by standardising and strengthening production processes, improving collaboration between key areas, defining clear roles and responsibilities and seeking to reduce variability and deviation from production plans.





## Strategy

How we deliver

Our strategy is structured around five pillars, each of them with defined short- and medium-term goals to enable us to achieve our Purpose.



## People

[+ See pages 38-40 for more information](#)

People are the core of our business. We want our employees to feel recognised 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 programmes. 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.



## Safety and Sustainability

[+ See pages 41 and 44-46 for more information](#)

The safety and health of our employees 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, source 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 maximise the utilisation of renewable energy sources and to reduce our greenhouse gas (GHG) emissions.



## Competitiveness

[+ See pages 70-71 for more information](#)

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. Our Competitiveness and Cost Programme (CCP) has also produced significant savings.



## Growth

[+ See pages 64-66 for more information](#)

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 maximising 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.

Our focus is on the production of copper and by-products in the Americas (particularly Chile, Peru, Mexico, the United States and Canada).



## Innovation

[+ See pages 70-71 for more information](#)

We innovate as a means of improving social, environmental and economic conditions while, at the same time, delivering strong returns for our shareholders.

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.

# THE ROLE OF COPPER IN A GREENER SUSTAINABLE WORLD

Copper is essential to modern society and a greener future. It plays a vital role in addressing some of the world's major challenges such as the availability of affordable and clean energy, air and noise pollution, and sustainable urban development.

Today copper is a key component of everyday life from mobile telephones to the roofs, heating and electrical wiring in people's homes. It is needed for power generation and transmission, motor vehicles, domestic appliances – such as air conditioning and televisions – and industrial machinery.

Copper has a unique combination of properties which has made it central to mankind's development. It is corrosion resistant, extremely malleable and an exceptional conductor of heat and electricity, making it a key input for efficient energy use and green technologies.

Since early this century, demand for industrial metal has been driven by the urbanisation of western economies and more recently it has been propelled by China's growth.

Urbanisation and industrialisation in India and Southeast Asian countries are expected to dominate copper consumption growth beyond 2020 as the rate of Chinese demand growth begins to slow.

A growing middle class in emerging economies is also boosting sales of copper-rich consumer goods such as electronic devices and cars.

Going forward, copper demand growth will also be fuelled by renewable energy and electric vehicles pushed by the falling costs of these environmentally friendly technologies and the world's need to find cleaner solutions for modern life.

## Urbanisation

Rising urbanisation and industrialisation is a major stimulus for sustained and strong copper demand.

The metal is a key component of the wiring, plumbing, heating and cooling, lighting and roofing of homes, as well as the commercial services, transport, power and telecommunications systems needed for vibrant, modern cities.

Growing wealth will also boost copper intensity in homes and offices. Greater spending on electrical goods will lead to higher electricity consumption and an upgraded distribution system, all of which consume copper.

Copper demand will also be pushed by an increasingly digital economy. Society's need for high-speed internet services is expected to sharply increase demand for higher quality copper telecommunications cables in residential and business properties.

Meanwhile, tougher housing regulations are gradually imposing higher energy efficiency standards and lower emission rates on new buildings to reduce negative impacts on the climate and the environment. Copper's superior thermal and electrical conductivity will make it indispensable for the greener buildings of the future.

Copper stands to benefit from urbanisation and will contribute to smarter and cleaner cities.



## Renewable energy

Copper is used for high-voltage power distribution conductors, transformers and earthing in energy infrastructure as well as in coil windings in the stator and rotor of wind generators and the cell ribbons and cabling of solar photovoltaic systems.

Solar and wind technologies need four to six times as much copper as conventional energy mainly owing to the need to connect larger numbers of smaller units to the grid.

The next few decades will witness a shake-up of the energy sector. Electrification will charge ahead, led by India, dominated by new wind and solar projects and the globalisation of natural gas markets.

Solar photovoltaic and wind energy are now economically competitive with traditional power sources due to falling costs. This is driving the uptake of these green technologies over fossil fuels in advanced and developing economies alike.

The expansion of renewable energy sources also forms part of governments' efforts to tackle global warming by reducing carbon dioxide emissions, together with energy-related air pollution which causes millions of premature deaths each year. Many countries have established decarbonisation goals under the Paris Agreement.

This will not only benefit the environment but also copper. Growing electrification and especially new solar and wind projects will be key drivers behind copper demand growth.

## Electromobility

Faster than expected uptake of electric vehicles is also being driven by stricter environmental standards to restrict CO<sub>2</sub> emissions and combat harmful air pollution in cities. Governments are increasingly setting tougher and tougher targets to phase out or ban the sale of conventional cars and giving incentives to car buyers to go green. Electric bus fleets are being pioneered in China.

Electric vehicles have made rapid gains in recent years. Their sales have surged in China, the US and Europe and the question now is not if but when they will outnumber conventional petrol and diesel cars.

Cheaper and better batteries have made electric vehicles more affordable and increased the distance they can be driven before being recharged. Running costs are already attractive in countries with low electricity prices compared to fuel. Simpler engines mean less maintenance.

This is good news for copper. Electric vehicles contain on average up to almost four times the amount of copper as conventional ones owing to their use in batteries, high-voltage wiring, windings and rotors. Charging stations will also boost demand.



# WIDELY USED IN A GROWING WORLD

Globally, copper is used in a wide range of sectors. Consumption in 2018 was 23.5 million tonnes and this is expected to grow by some 1.7% per year over the next 20 years and will be 33.5 million tonnes by 2040. Although most of this growth will come from mined copper, an increasing proportion of it will be recycled material, as copper can be recycled again and again without any degradation of its physical properties.

Total consumption **2018**  
**23.5mt**

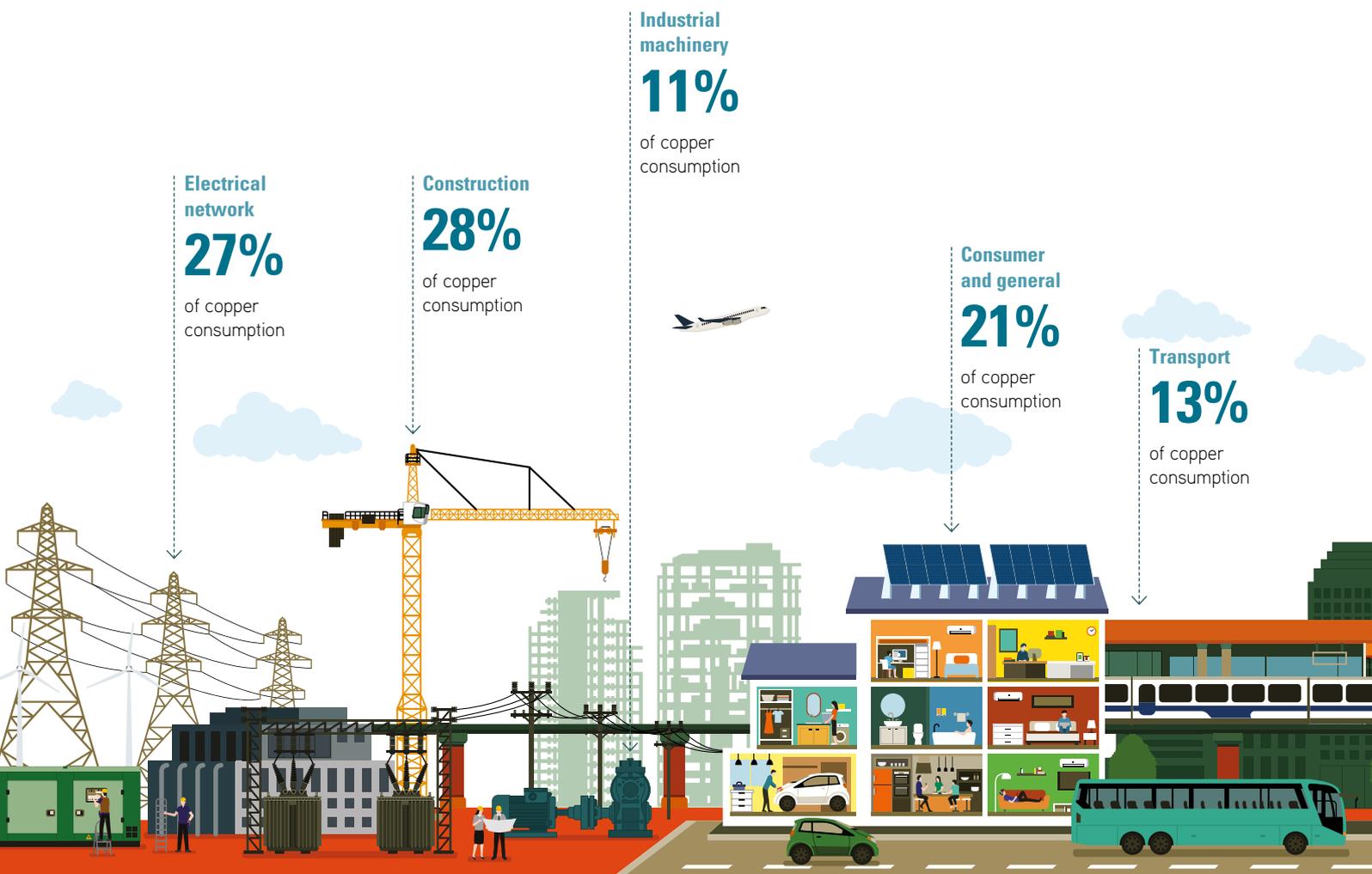
Electrical  
network  
**27%**  
of copper  
consumption

Construction  
**28%**  
of copper  
consumption

Industrial  
machinery  
**11%**  
of copper  
consumption

Consumer  
and general  
**21%**  
of copper  
consumption

Transport  
**13%**  
of copper  
consumption



# DELIVERING SUSTAINABLE ECONOMIC VALUE

More locally, we generate value for all our stakeholders. The economic value we generate is distributed directly to them in the form of wages, purchases, contributions, taxes and dividends. There are also indirect economic benefits arising from the expenditure by suppliers, employees, the government and others.

## Distribution of economic value generated

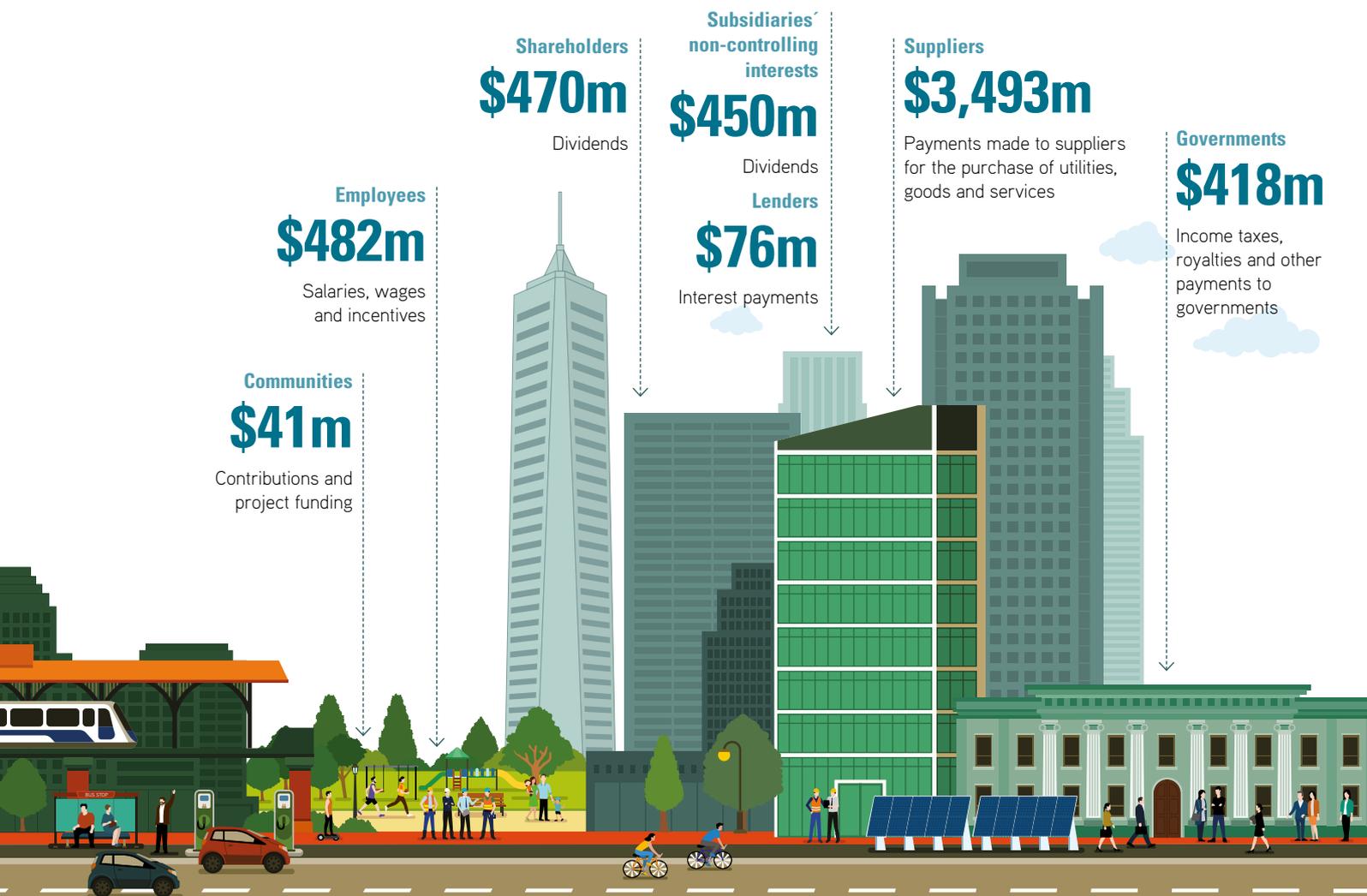
In 2019, we distributed \$5,430 million to our stakeholders or, in other words, our employees, communities, suppliers, shareholders, lenders and governments.

Our aim is to develop mining for a better future and we understand that generating economic value means more than making a profit.

For Antofagasta, creating economic value implies generating profits responsibly and with a long-term vision, incorporating unique and innovative solutions in business decisions to address challenges in the regions in which we operate, and working to tackle today's global challenges.

## Total economic contribution

# \$5,430m



# MEASURING OUR PERFORMANCE

We use Key Performance Indicators (KPIs) to assess performance in terms of meeting our strategic and operating objectives.

Performance is measured against the following financial, operating and sustainability KPIs:

Financial KPIs



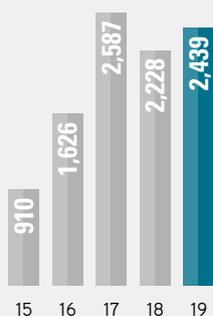
## EBITDA<sup>1</sup>

### Why it is important

This is a measure of our underlying profitability.

### Performance in 2019

EBITDA was \$2,439 million, 9.5% higher than the previous year on higher sales volumes and lower unit costs, partially offset by lower realised prices.



**\$2,439m**

+ See page 76 for more information



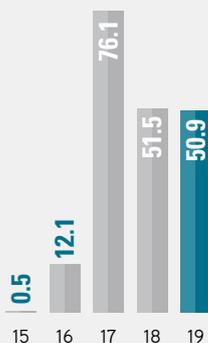
## Earnings per share

### Why it is important

This is a measure of the profit attributable to shareholders.

### Performance in 2019

Earnings per share from continuing operations of 50.9 cents per share, a 1.2% decrease on 2018, as higher EBITDA was offset by higher tax, and depreciation and amortisation.



**50.9¢/share**

+ See page 80 for more information



## Net debt<sup>1</sup>

### Why it is important

This measure reflects our financial liquidity.

### Performance in 2019

Net debt remained low and decreased by 5.5% in 2019 to \$563 million.



**\$563m**

+ See page 81 for more information

Remuneration performance criteria. See page 131 for more information

1. Non-IFRS measures, refer to the alternative performance measures section on page 206.
2. 100% of Los Pelambres, Centinela and Antucoya, and 50% of Zaldívar's production.
3. Mineral resources (including ore reserves) relating to the Group's subsidiaries on a 100% basis and Zaldívar on a 50% basis.
4. The Lost Time Injury Frequency Rate is the number of accidents with lost time during the year per million hours worked.
5. Mining division only.
6. Tonnes of CO<sub>2</sub> equivalent per tonne of copper produced.

Operating KPIs



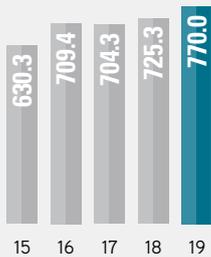
### Copper production<sup>2</sup>

**Why it is important**

Copper is our main product and largest source of revenue.

**Performance in 2019**

We had a record year of production, producing 770,000 tonnes. This was a 6.2% increase on 2018, with higher production at Los Pelambres, Centinela and Zaldívar.



**770.0k tonnes**

+ See page 55 for more information



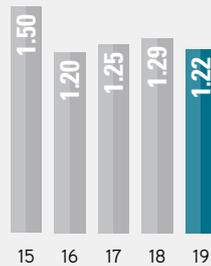
### Net cash costs<sup>1</sup>

**Why it is important**

This is a key indicator of operating efficiency and profitability.

**Performance in 2019**

Net cash costs of \$1.22/lb, 5.4% lower than in 2018 due to higher production, tight cost control and the weaker Chilean peso.



**\$1.22/lb**

+ See page 55 for more information



### Mineral resources<sup>3</sup>

**Why it is important**

Expansion of the Group's mineral resources base supports its strong organic growth pipeline.

**Performance in 2019**

Mineral resources at Zaldívar increased as its primary sulphides were included for the first time.



**19.1bn tonnes**

+ See page 212 for more information

Sustainability KPIs



### Safety

**Why it is important**

Safety is our top priority, with fatalities and the LTIFR<sup>4</sup> being two of the principal measures of performance.

**Performance in 2019**

Record safety performance with no fatal accidents and a LTIFR of 1.0.



**0** Fatalities

**1.0** LTIFR

+ See page 41 for more information



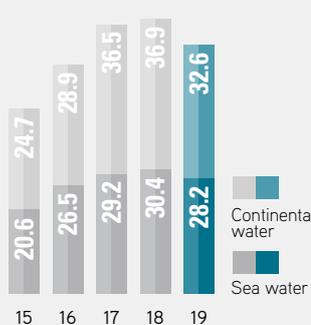
### Water consumption

**Why it is important**

Water is a precious resource and we are focused on using the most sustainable sources and maximising its efficient use.

**Performance in 2019**

Our consumption of continental water and sea water decreased by 12% and 7% respectively mainly due to a decrease in material processed.



**60.8m m<sup>3</sup>**

+ See page 44 for more information



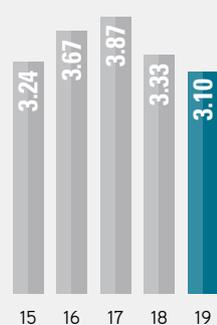
### CO<sub>2</sub> emissions intensity<sup>5</sup>

**Why it is important**

We recognise the risks and opportunities arising from climate change and the need to measure and mitigate greenhouse gas (GHG) emissions.

**Performance in 2019**

CO<sub>2</sub> emission intensity decreased by 7% compared to 2019 mainly because of higher copper production and energy efficiency improvements.



**3.10 tCO<sub>2</sub>e**  
per tCu produced<sup>6</sup>

+ See page 45 for more information

# RISK MANAGEMENT FRAMEWORK

Effective risk management is an essential part of our culture and strategy. Accurate and timely identification, assessment and management of key risks give us a clear understanding of the actions required throughout the organisation in order to achieve our objectives.

## Key elements of integrated risk management

### We recognise that risks are inherent to our business

Only through adequate risk management can internal stakeholders be effectively supported in making key strategic decisions and implementing our strategy

### Exposure to risks must be consistent with our risk appetite

The Board defines and regularly reviews the acceptable level of exposure to key risks. Risks are aligned with risk appetite, taking into consideration the balance between threats and opportunities

### We are all responsible for managing risks

Each business activity carries out risk evaluations to ensure the sound identification, management, monitoring and reporting of risks that could impact the achievement of our goals

### Risk is analysed through a consistent framework

Our risk management methodology is applied to all our operating companies, projects, exploration activities and support areas so that we have a comprehensive view of the uncertainties that could affect achieving our strategic goals

### We are committed to continuous improvement

Lessons learned and best practices are incorporated into our procedures to protect and unlock value sustainably

## Areas of focus and development during 2019

Our main focus in 2019 was to increase all employees' risk management awareness and accountability. Employees take ownership of their own risks and identify any issues of concern before a risk escalates. We have also developed risk procedures and protocols specific to different areas of the Company, to ensure all key activities are carried out within the defined levels of risk appetite. These are some of the actions that have taken place during the year:

- The Board reviewed and updated the Company's risk appetite and included two new risk areas, climate change and tailings storage. For both areas the Board defined the risk appetite as low
- A risk assessment update was carried out at all of our operating companies, projects, exploration activities and support areas. Key risks that threaten the achievement of our strategic goals were managed and, when necessary, updated according to external and internal assessments of how the risk is changing and our risk appetite. The outcome was presented to the Audit and Risk Committee and the Board for their review
- Critical controls and key risk indicator dashboards were updated and monitored
- New action plans to maintain risk exposure within acceptable limits were prepared
- Timely and comprehensive risk analysis was embedded into each relevant decision-making process
- Specific procedures to support timely and in-depth risk analysis were defined for major projects and to characterise critical assets
- Each operating company reviewed and updated its Business Continuity Plan, identifying and defining action plans for key risks which could interrupt operations
- Members of the Executive Committee and the Risk Management team conducted performance reviews to monitor key risks and the applicability and efficacy of critical on-site controls at each operation
- Best practices were shared across our operating companies
- Budgeting and planning processes related to risk monitoring were included in the monthly executive review, in order to identify and manage any deviation from expected performance in a timely fashion
- The importance of risk management was reinforced through regular communication and training, with over 95% of our executives and supervisors successfully completing an online risk management course

## Governance

The Board determines the nature and extent of the significant risks that we will accept in order to achieve our strategic objectives and maintains sound risk management systems.

The Board receives detailed analysis of key matters in advance of Board meetings. This includes reports on our operating performance, including safety and health, financial, environmental, legal and social matters, key developments in our exploration, project and business development activities, information on the commodity markets, updates on talent management and analysis of financial investments.

The provision of this information allows the early identification of potential issues and the assessment of any necessary preventive and mitigating actions.

The Audit and Risk Committee assists the Board by reviewing the effectiveness of the risk management process and monitoring key risks, preventive and mitigation procedures and action plans. The Chairman of the Committee reports to the Board following each Committee meeting and, if necessary, the Board discusses the matters raised in more detail.

These processes allow the Board to monitor effectively Antofagasta's major risks and preventive and mitigating procedures, and to assess whether the actual exposure is consistent with the defined risk appetite. If a gap is identified, additional action plans are prepared.

The Risk and Compliance Management Department is responsible for risk management systems across Antofagasta. It promotes the Company's risk management policy, vision and purpose to ensure a strong risk management culture at all levels of the organisation. The Department supports business areas in analysing their risks, identifying existing preventive and mitigating controls and defining

further action plans. It maintains and regularly updates the Company's risk register.

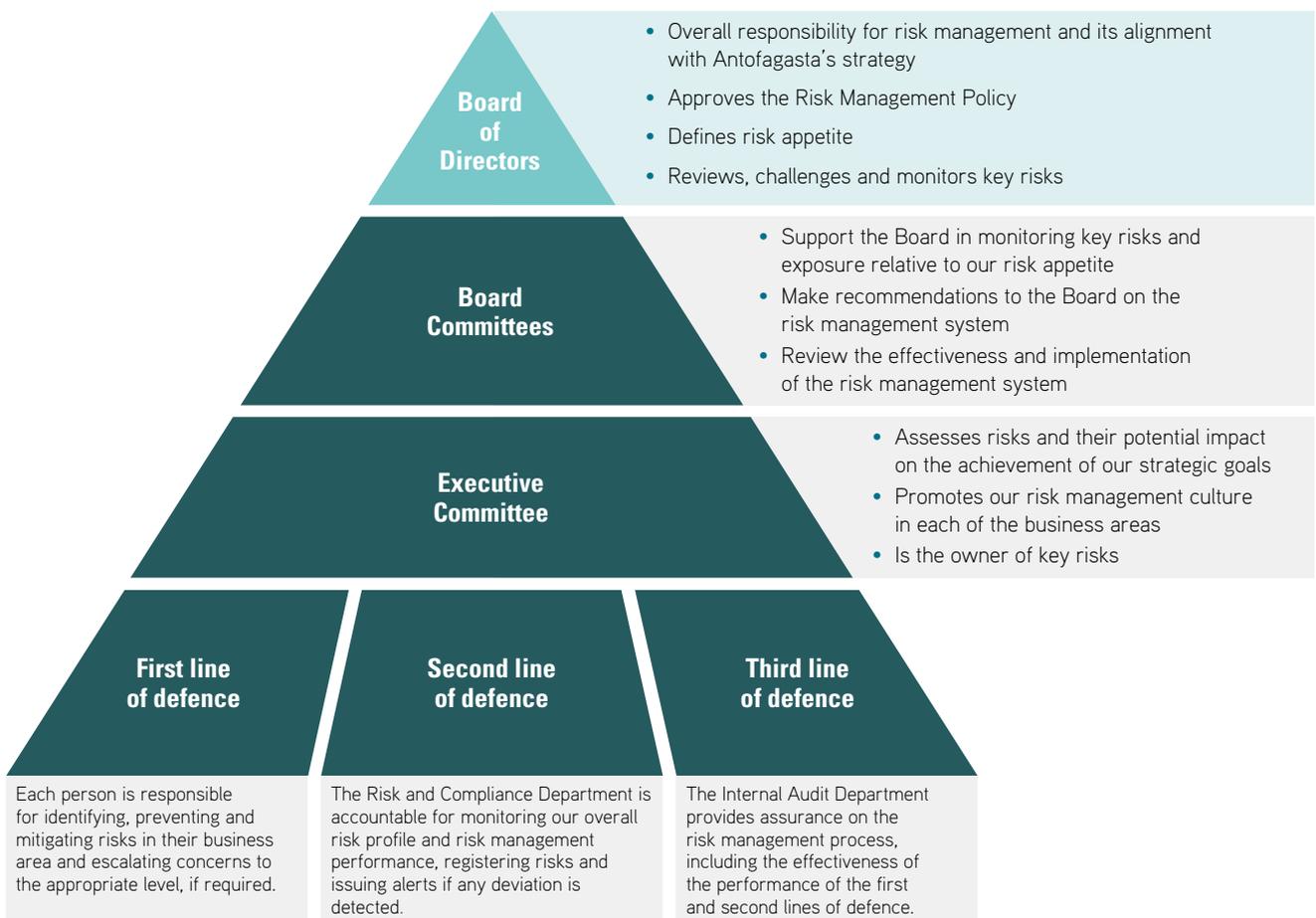
The Department reports several times a year to the Audit and Risk Committee on the overall risk management process, with detailed updates on key risks, mitigation activities and actions being taken.

The General Managers of each of the operations have overall responsibility for leading and supporting risk management. Risk owners within each operation have direct responsibility for the risk management processes and for regularly updating individual business risk registers, including relevant mitigation activities. The individual owners of the risks and controls at each business unit are identified, to provide effective and direct management of risk. Each operation holds its own annual risk workshop at which the business unit's risks and mitigation activities are reviewed in detail and updated as necessary. Workshops are also used to assess key risks that may affect relationships with stakeholders, limit resources, interrupt operations and/or negatively affect potential future growth.

Mitigation techniques for significant strategic and business unit risks are quarterly reviewed by the Risk and Compliance Management Department.

We promote a consistent risk management process across the Company's different business units, ensuring risk is considered at all levels of the organisation. Risk information flows from the business units to the centre and from the Board back to the business units.

+ [See pages 107-111 for more information](#)



# PRINCIPAL RISKS

We maintain a risk register through a robust assessment of the potential key risks that could affect the Company’s performance. This register is used to ensure key risks are identified in a comprehensive and systematic way and that agreed definitions of risk are used.

## Risk management

We are aware that not all risks can be completely eliminated and exposure to some risks is necessary in pursuit of our corporate objectives.

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 on the Company’s sustainability in the long run, even if there is limited information available at the time of the evaluation.

The main emerging risks that could impact long-term strategic objectives are included in the key risk analysis and are reviewed and monitored periodically. As new information based on research, expert analysis and internal investigations becomes available, suitable controls and action plans are defined and incorporated into the Company’s risk matrix.

We identify, assess and manage the risks critical to the Company’s success. Overseeing these risks benefits Antofagasta and protects our business, people and reputation. The risk management process provides reasonable assurance that the relevant risks are recognised and controlled, and the Company achieves its strategic objectives and creates value.

Because risks change and are periodically re-evaluated, the risk map shown here represents the position at a specific point in time and the changes since last year.

The Board carried out a robust assessment of the Company’s principal risks during the year, which are set out below, together with the related preventive and mitigation measures.

<b>KEY</b>	Low	Medium	High	Very high
Risk appetite	◆	◆	◆	
Risk level	●	●	●	●



Risk	Risk appetite	Risk level 2019	Risk level v. 2018
<b>People</b>			
1. Talent management and labour relations	◆	●	↗
<b>Safety and Sustainability</b>			
2. Safety and health	◆	●	≡
3. Environmental management	◆	●	≡
4. Climate change	◆	●	NEW
5. Community relations	◆	●	↗
6. Political, legal and regulatory	◆	●	↗
7. Corruption	◆	●	≡
<b>Competitiveness</b>			
8. Operations	◆	●	≡
9. Tailings storage	◆	●	NEW
10. Strategic resources	◆	●	≡
11. Cyber security	◆	●	↘
12. Liquidity	◆	●	≡
13. Commodity prices and exchange rates	◆	●	≡
<b>Growth</b>			
14. Growth of mineral resource base and opportunities	◆	●	≡
15. Project execution	◆	●	↗
<b>Innovation</b>			
16. Innovation and digitisation	◆	●	≡

# KEY RISKS

Risk appetite is a key element in the process of embedding the risk management system into our organisational culture. The risk appetite statement helps to translate our strategy into the business units' objectives, clarifying which risk levels are, or are not, acceptable. It promotes consistent risk decision-making, aligned to the strategic focus and risk/reward balance approved by the Board.

The Board reviewed and updated Antofagasta's risk appetite, for the first time including two new risk areas, climate change and tailings storage.

We maintain a risk register through a robust assessment of the potential key risks that could affect the organisation's performance. This is used to ensure that key risks are identified in a comprehensive and systematic way and that the agreed definitions of risk are used.

The key risks, together with related mitigation techniques, have been presented to the Board and are in line with the organisation'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. The key risks are outlined in the risk chart and table, and in more detail below.

## People

### 1. Talent management and labour relations

Risk appetite  Risk level  Trend 

#### Description

Our highly skilled workforce and experienced management team are critical to maintaining our current operations, implementing development projects and achieving long-term growth without major disruption.

Managing talent and maintaining a high-quality labour force in a changing technological and cultural environment is a key priority for us. Any failures in this respect could have a negative impact on the performance of the existing operations and prospects for future growth.

#### Preventive and mitigation measures

We maintain good relations with our employees and unions founded on trust, regular dialogue and good working conditions. We are committed to safety, non-discrimination, diversity and inclusion, and compliance with Chile's strict labour regulations.

There are long-term labour agreements in place with all 19 unions at our operations, helping to ensure labour stability.

We seek to identify and address labour issues that may arise throughout the period covered by the labour agreements (usually three years) and to anticipate any potential issues in good time. Contractors are an important part of our workforce and under Chilean law are subject to the same duties and responsibilities as our own employees. We treat contractors as strategic associates and build long-term, mutually beneficial relationships.

We maintain constructive relationships with our employees and their unions through regular communication and consultation. Union representatives are regularly involved in discussions about the future of the workforce.

We develop the talents of our employees through training and career development, invest in initiatives to widen the talent pool and are committed to our diversity and inclusion policy. Through these actions we aim to increase the number of women, people with disabilities and employees with international experience in the workplace.

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.

#### Highlights

Four labour negotiations took place in 2019. In one case, at Antucoya, the Company and labour representatives could not reach an agreement within the prescribed negotiation period and the workers' union decided to execute their legal option to initiate a strike. The negotiation was successfully concluded after 18 days.

# Safety and Sustainability

## 2. Safety and health

Risk appetite  Risk level  Trend 

### Description

Safety and health incidents could result in harm to our employees, contractors and local communities. Ensuring their safety and wellbeing is our ethical obligation and first priority and is part of our core values. A poor safety record or serious accidents could have a long-term impact on Antofagasta's morale, reputation and production.

### Preventive and mitigation measures

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.

The Corporate Safety and Health Department provides a common strategy for our operations and co-ordinates all safety and health matters. We have a Significant Incident Report system, which is an important part of the overall approach to safety.

Our goal of zero serious accidents and fatalities and minimising the number of accidents requires all contractors to comply with our Occupational Safety and Health Plan. This plan is monitored through monthly audits 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.

Critical controls and verification tools are regularly strengthened through the verification programme and regular audits of critical controls for potentially high-risk activities.

We continuously seek to incorporate technology and innovation to reduce workers' exposure to safety and health risks.

### Highlights

In 2019 there were no fatal accidents. Our focus remained on preventing accidents to our employees and contractors by regularly revisiting and improving safety and health standards. Risks were re-evaluated, focusing on the risk of fatality and analysing high potential accidents identified during the year.

## 3. Environmental management

Risk appetite  Risk level  Trend 

### Description

An operating incident that damages the environment could affect both our relationship with local stakeholders and our reputation, undermining our social licence to operate and grow.

We operate in challenging environments, including the largely agricultural Choapa Valley and the Atacama Desert, where water scarcity is a key issue.

### Preventive and mitigation measures

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 prioritise the efficient use of natural renewable resources by using sea water, favouring the use of renewable power sources, achieving higher rates of reuse and recovery of water through thickened tailings technology and reducing greenhouse gas emissions through energy efficiency and other measures.

We recognise that environmental sustainability is key to our licence to operate and perform regular risk assessments to identify potential impacts and develop preventive and mitigating strategies.

Each site maintains an updated environmental emergency preparedness plan and a detailed closure plan with appropriate financial provisions to ensure physical and chemical stability once operations have ceased.

### Highlights

We had no incidents with significant environmental impact during 2019. We also monitored and reinforced our critical controls in line with our low appetite for environmental risk.

## 4. Climate change

Risk appetite  Risk level  Trend NEW

### Description

The effects of climate change have had an increasing impact on our operations. The drought in the central area of Chile is affecting water availability, while higher than expected rainfall in the northern part of the country is impacting the infrastructure in the region and the increasing severity of sea swells are leading to delays in the delivery of key supply materials.

We are committed to contributing to the reduction of the global problem of growing greenhouse gas emissions and water scarcity by reducing our own emissions. We can do this by increasing the amount of power and water we obtain from renewable and sustainable sources.

### Preventive and mitigation measures

We recognise that climate change is a threat to human life and the planet as we know it today.

We measure and report our greenhouse gas emissions and have committed to reduction targets based on realistic plans.

As regards water scarcity, we are reducing our dependence on continental water through improved water use efficiency and the increased use of sea water as a total proportion of our water consumption. On completion of the Los Pelambres desalination plant the proportion of continental water used will decrease further.

We constantly seek to identify risks associated with climate change and to implement actions to mitigate and adapt to their potential impact. For each risk evaluated as "High" or "Extreme" we define specific action plans and strategies.

As part of our regular communication with local stakeholders we discuss the material risks and our controls, action plans and related strategies.

### Highlights

The climate change risk area was included in the key risks analysis for the first time in 2019, in recognition of the increasing impact it could have on our operations and business sustainability. We are committed to contributing to the reduction of greenhouse gas emissions and support local communities in preparing for the effects of increasing emissions.

## 5. Community relations

Risk appetite  Risk level  Trend 

### Description

Failure to identify and manage local concerns and expectations could negatively impact Antofagasta. Relations with local communities and stakeholders affect our reputation and social licence to operate and grow.

### Preventive and mitigation measures

We have a dedicated team that establishes and maintains relations with local communities. These relationships are based on trust and mutual benefit throughout the mining lifecycle, from exploration to final remediation on closure. We seek to identify early any potentially negative operating impacts and minimise these through responsible behaviour. This means acting transparently and ethically, prioritising the safety and health of our employees and contractors, avoiding environmental incidents, promoting dialogue, complying with our commitments to stakeholders and establishing mechanisms to prevent or address a crisis. These steps are undertaken in the early stages of each project and continue throughout the life of each operation.

We contribute to the development of communities in the areas in which we operate, starting with an 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 are also focused on developing the potential of members of local communities through education, training and employment.

We work to communicate clearly and transparently with local communities, in line with our Community Relations Plan. This includes a grievance management process, local perception surveys, and local media and community engagement.

### Highlights

In 2019, during a period of nationwide social unrest, a blockade of the access road to Los Pelambres affected its operations. Transparency and open dialogue with stakeholders led to a return to normal operations after a short period of disruption.

## 6. Political, legal and regulatory

Risk appetite  Risk level  Trend 

### Description

Political instability may affect our operations, projects and exploration activities in the countries in which we operate. Issues regarding the granting of permits, or amendments to permits already granted, and changes to the legal environment or regulations, could also adversely affect our operations and development projects.

### Preventive and mitigation measures

Political, legal and regulatory developments affecting our operations and projects are constantly monitored. We comply fully with the existing laws, regulations, licences, permits and rights in each country in which we operate.

We assess political risk as part of our evaluation of potential projects, including the nature of any foreign investment agreements.

We monitor proposed changes in government policies and regulations, particularly in Chile, and belong to several associations that engage with governments on these changes. This helps to improve our internal processes and better prepare to meet any new regulatory requirements.

As we have no operations or material exposure to the UK, Brexit is not expected to have any appreciable impact on the Company. This position is kept under review as Brexit discussions continue.

### Highlights

Following nationwide social unrest in Chile several legal and regulatory changes have been proposed, including labour, tax and environmental reforms. We will evaluate the impact of these changes on our activities and will seek to mitigate any negative impacts.

## 7. Corruption

Risk appetite  Risk level  Trend 

### Description

Our operations or projects around the world could be affected by risks related to corruption or bribery, including operating disruptions or delays resulting from a refusal to make "facilitation payments". Such risks depend on the economic or political stability of the country in which we are operating.

### Preventive and mitigation measures

We have a "zero tolerance" regime for any activity that would result in contravening anti-bribery and corruption legislation. A robust governance regime, including an Ethics Committee, open channels of communication, training and multiple layers of controls, are maintained at all of our operations and exploration activities, and in our third-party relationships.

Our compliance model seeks to prevent any activity which may involve us directly or indirectly in any irregular situation, to detect any potential risk in good time and to act accordingly. There are control procedures in place that help to prevent corruption, covering such issues as conflicts of interest, suitability of suppliers, the receiving and giving of gifts and hospitality, and facilitation payments.

All our employees receive training on our Compliance Model, which is subject to external certification.

### Highlights

New offences were included in the Chilean anti-bribery law in late 2018 and early 2019. Accordingly, our crime prevention model was updated, and related risks re-evaluated. The main risk identified is the severe transgression of the law, which has been evaluated as being very unlikely, yet with a potentially severe impact.



## Competitiveness

### 8. Operations

Risk appetite Risk level Trend

#### Description

Our operations are subject to a number of circumstances not wholly within our control. These include damage to or breakdown of equipment or infrastructure, unexpected geological variations or technical issues, extreme weather conditions and natural disasters, any of which could adversely affect production and/or costs.

#### Preventive and mitigation measures

Key risks relating to each operation are identified as part of the regular risk review process undertaken by the individual operations. This process also identifies appropriate mitigation measures for such risks. Monthly reports to the Board provide variance analysis of operating and financial performance, allowing potential issues to be identified in good time and any necessary monitoring or control activities to be implemented to prevent unplanned downtime.

Our focus is on maximising the availability of equipment and infrastructure and ensuring the effective utilisation of our assets, in line with their nameplate design and technical limits. We keep the variation of processes within defined tolerance limits.

We have Business Continuity Plans and Disaster Recovery Plans for all key processes within our operations in order to mitigate the consequences of a crisis or natural disaster. We also have property damage and business interruption insurance to provide protection from some, although not all, of the costs that may arise from such events.

#### Highlights

In 2019 all operational risks were continually and consistently monitored at all of our operations. Common operating models, preventive maintenance and cost control supported our strong operating performance during the year, despite the materialisation of social and labour risks.

### 9. Tailings storage

Risk appetite Risk level Trend

#### Description

Ensuring the stability of our tailings storage facilities (TSFs) during their entire lifecycles is central to our operations. A failure or collapse of any of our TSFs could result in fatalities, damage to the environment, regulatory violations, reputational damage and the disruption of the quality of life of neighbouring communities as well as our operations.

#### Preventive and mitigation measures

We manage our TSFs in a manner that allows the effectiveness of their design, operation and closure to be monitored at the highest level of the Company.

Catastrophic failures of TSFs are unacceptable and their potential for failure will be evaluated and addressed throughout the entire life of each facility. The facilities are constantly monitored and all relevant information is provided to the authorities, regulating bodies and the communities that could be affected.

We manage our TSFs based on data, modelling, and construction and operating methods validated by highly qualified independent international experts, whose recommendations we implement in order to strengthen the control environment. Risk management includes timely risk identification, and control definition and verification. Controls are based on the consequences of the potential failure of the tailings facilities.

#### Highlights

The tailings storage risk area was included as a specific risk in the key risks analysis in 2019 for the first time. It was previously included as part of Operations risks.

### 10. Strategic resources

Risk appetite Risk level Trend

#### Description

Disruption or restrictions to the supply of any of our key strategic inputs such as electricity, water, fuel, sulphuric acid or mining equipment could negatively impact production. In the longer term, restrictions to the availability of key strategic resources such as water and electricity could also affect our growth opportunities.

A significant portion of our input costs are influenced by external market factors.

#### Preventive and mitigation measures

In order to achieve 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 supply 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 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.

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 necessary controls to ensure the traceability of all supplies (including avoiding any conduct related to modern slavery).

#### Highlights

In 2019 Antucoya's power supply contract was renegotiated, achieving cost reductions and supply from renewable energy sources, which will reduce the Company's greenhouse gas emissions from 2022.

### 11. Cyber security

Risk appetite Risk level Trend

#### Description

Breaches in, or failures of, our information security management could adversely impact our business activities. Malicious interventions (hacking) of our information or operations' networks could affect our reputation and/or operational continuity.

#### Preventive and mitigation measures

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.

#### Highlights

In 2019, in addition to periodic IT systems assessments, operating control systems hacking tests were performed, following which the probability of this risk was re-evaluated downwards.

## 12. Liquidity

Risk appetite  Risk level  Trend 

### Description

Restrictions in financing sources for future growth could prevent us from taking advantage of growth or other opportunities available in the market.

### Preventive and mitigation measures

Security, liquidity and return represent the order of priorities for our investment strategy. 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.

### Highlights

In 2019 we successfully financed the Los Pelambres Expansion project with 100% debt and refinanced the Antucoya project financing with a long-term unsecured corporate loan.

## 13. Commodity prices and exchange rates

Risk appetite  Risk level  Trend 

### Description

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 world economic growth, inventory balances, industry demand and supply, possible substitution, etc.

Our sales are mainly denominated in US dollars, although some of our operating costs are in Chilean pesos. As a result, the strengthening of the Chilean peso may negatively affect our financial results.

### Preventive and mitigation measures

We consider exposure to commodity price fluctuations to be an integral part of our business and our usual policy is to sell our products at prevailing market prices. 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 fluctuations.

We run our business plans through various commodity price scenarios and develop contingency plans as required.

As copper exports account for over 50% of Chile's exports, there is a correlation between the copper price and the US dollar/Chilean peso exchange rate. This natural hedge partly mitigates our foreign exchange exposure. However, we monitor the foreign exchange markets and the macroeconomic variables that affect them and on occasion we implement a focused currency hedging programme to reduce short-term exposure to fluctuations in the US dollar against the Chilean peso.

### Highlights

In 2019 copper price and exchange rates risks remained high, unchanged compared to 2018.

## Growth

## 14. Growth of mineral resource base and opportunities

Risk appetite  Risk level  Trend 

### Description

We need to identify new mineral resources to ensure continued future growth, and we do this through exploration and acquisition.

We may fail to identify attractive acquisition opportunities or select inappropriate targets. The long-term commodity price forecast, and other assumptions used when assessing potential projects and other investment opportunities, have a significant influence on the forecast return of investments. If incorrectly estimated, these could result in poor decision-making.

As regards exploration, there is a risk that we may not identify sufficient viable mineral resources.

### Preventive and mitigation measures

Our exploration and investment strategy prioritises exploration and investment in the Americas. We focus on growth opportunities in stable and secure countries in order to reduce our risk exposure.

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.

At the very least, all joint ventures must operate in line with, or to the equivalent level of, our policies and technical standards.

Our Business Development Committee reviews potential growth opportunities and transactions, and approves or recommends them within authority levels set by the Board.

### Highlights

During 2019 our exploration activities focused mostly on the Americas and our risk exposure level remained at the same level as in 2018.

## 15. Project execution

Risk appetite  Risk level  Trend 

### Description

Failure to effectively manage our development projects could result in delays to the start of production and cost overruns.

### Preventive and mitigation measures

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.

During the project development lifecycle, quality checks for each of the standards applied are carried out by a panel of experts from within the Company. This panel reviews each completed feasibility study to assess the technical and commercial viability of the project. It also assesses how the project can be developed safely and considers any relevant risks or opportunities that could potentially impact the schedule, cost or future performance of the project.

Detailed progress reports on ongoing projects are regularly reviewed and include assessments of progress against key project milestones and performance against budget.

Project robustness is stress-tested against a range of copper price scenarios. Joint project/operation teams are established early in the development project in order to ensure smooth transition of the project into operating mode once construction is completed.

### Highlights

The Los Pelambres Expansion project started construction at the beginning of the year, increasing the Company's exposure to project execution risks. These risks are being proactively managed and frequently evaluated by the project team according to a specific project risk management procedure.



## Innovation

## 16. Innovation and digitisation

Risk appetite  Risk level  Trend 

### Description

Our ability to deliver on our strategy and performance targets may be undermined by missed opportunities or delays in adopting new technologies and our ability to innovate.

### Preventive and mitigation measures

We seek value-capturing innovations that realise cost savings and/or improve the efficiency, reliability and safety of our processes while supporting our corporate strategic pillars. We evaluate the potential of all ideas using our stage-gate approval process and Innovation Board.

We maintain partnerships with academic institutions and companies specialising in technology and engineering, including peers where there is no competitive barrier to doing so, in order to maximise the potential for improvements in our processes and systems. A dedicated team monitors, identifies and analyses external innovation trends with potential application to our business, including in non-operational areas such as product sales and purchasing. The team also maintains and manages a portfolio of ongoing innovation projects.

We have a recognition and incentives programme to encourage all staff to suggest innovations to our day-to-day operating systems. We also dedicate resources to testing and, if successful, escalating innovations with potential positive impact on our business and growth options.

### Highlights

In 2019 we launched our digital transformation programme, focused on increasing the integration of technology into our operating and administrative processes.

### Viability statement

To address the requirements of provision 31 of the 2018 UK Corporate Governance Code, the Directors have assessed the prospects of the Group over a period of five years.

Mining is a long-term business and timescales can run into decades. The Group maintains Life-of-Mine plans covering the full remaining mine life for each of the mining operations. More detailed medium-term planning is performed for a five-year time horizon (as well as very detailed annual budgets). Accordingly, a period of five years has been selected as the appropriate period over which to assess the prospects of the Group.

When taking account of the impact of the Group's current position on this viability assessment, 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.

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, capital expenditure and financing plans. 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 Directors have assessed the principal risks which could impact the prospects of the Group over this 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 five-year period
- No additional borrowing facilities being available to the Group over the review period
- The occurrence of several of the Group's most significant potential risks, including operational stoppages due to labour strikes or other factors, within a single year

The stress tests 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 confirm that 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 next five years.

# COMPLIANCE AND INTERNAL CONTROLS

The way in which we achieve our objectives is crucial to the long-term sustainable development of the Company. We have zero tolerance for bribery and corruption and we are committed to working with integrity and transparency. We comply with all applicable anti-corruption and anti-bribery legislation and ensure the necessary controls are in place to prevent any unethical behaviour.

## Areas of focus and development during 2019

- In-depth training and briefings in ethics and compliance, particularly in the higher-risk areas
- A Compliance Week was held for our employees in December as a refresher programme for our Compliance Model. Examples of ethical dilemmas were discussed, with presentations of real cases of misconduct. The importance of taking the right actions was emphasised and the role of the leadership team in preventing irregular situations was reinforced
- New employees were trained in the Compliance Model as part of their induction programme
- Controls in the Procurement Department were reinforced and the supply chain due diligence process was strengthened, particularly in respect of working conditions and modern slavery
- All employees updated their conflict of interest disclosures
- We improved and updated our whistleblowing channel for employees and third parties to submit questions and complaints
- We updated our Crime Prevention Model

## Code of Ethics

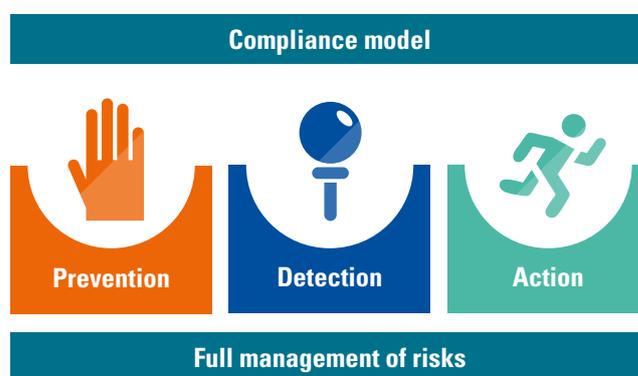
The Code of Ethics sets out Antofagasta's commitment to undertaking business in a responsible and transparent manner. The Code requires honesty, integrity and accountability from all employees and contractors and includes guidelines for identifying and managing potential conflicts of interest. It is the basis for the Compliance Model and supports the implementation of all other related activities.

## Compliance Model

Antofagasta's Compliance Model applies to both employees and contractors. It is clearly defined and is communicated regularly through internal channels, as well as being available on our website. All contracts include clauses relating to ethics, modern slavery and crime prevention to ensure contractors' adherence to our Compliance Model.

We actively promote open communication with all our employees, contractors and local communities. This helps ensure that our corporate and value creation objectives are achieved in an ethical and honest way.

The Compliance Model is reviewed regularly, both internally and by third parties, and on matters relating to corruption it has been certified under Chilean anti-corruption legislation.



**Prevention:** The main focus of the Compliance Model is to prevent any irregular situations arising. We provide a series of tools and training opportunities to all employees and contractors to support appropriate behaviour through:

- Internal procedures
- Anti-trust guidelines (Politically Exposed Persons, facilitation fees, etc)
- Due diligence, review of conflicts of interest and of potential business partners
- Inclusion of anti-corruption clauses in contracts
- Training and communication

**Detection:** We have several tools to detect any potentially irregular situations, including:

- Whistleblowing channels
- Data analysis
- Regular due diligence
- Internal controls
- Internal audit

**Action:** If an irregular situation is detected, it is investigated according to Antofagasta's allegation investigation procedures. Each operating company has an internal Ethics Committee which reviews the conclusions of investigations and suggests action plans to the corporate Ethics Committee. The performance of the compliance programme is reported quarterly to the Audit and Risk Committee and every six months to the Board. The anonymity of employees using the whistleblowing channels is guaranteed, which safeguards individuals and achieves greater transparency.

Our Crime Prevention Model ensures compliance with the anti-bribery and anti-corruption laws in the United Kingdom and Chile and is certified by an external entity.



# STAKEHOLDER REVIEW

Mining is a long-term activity which has an even longer-term impact and we seek to ensure that our business develops on a sustainable basis.

## Antofagasta during 2019

### Safety and health

Both our Mining and Transport divisions exceeded their safety targets, achieving record results for the year.

We expanded our Standards to cover wider occupational health issues as well as safety risks.

### Our people

A pilot flexitime system was introduced at the Centinela mine and will gradually be rolled out to other areas.

New work/life balance guidelines focus on facilitating a healthy balance between employees' working and personal lives, as well as the integration of women and people with disabilities.

Four labour negotiations took place in 2019, one of which was only settled after an 18-day strike, the first in our history.

### Suppliers

In December we raised the Ethical Minimum Wage, which our Mining division's on-site contractors must pay employees, to two-thirds above the legal minimum wage in Chile.

Our new Guidelines on Regional Procurement and Recruitment make it easier for local companies to obtain contracts with our mining operations.

Through the Antofagasta Mining Cluster, a public-private alliance, we have continued to contribute to the development of local human capital and businesses.

### Communities

We have rolled out our new Social Management Model, designed to ensure consistency in community engagement and relations.

We carried out a human rights due diligence process as a prior step to drawing up a corporate Human Rights Policy.

The Transport division submitted an Environmental Impact Assessment for the first stage of a project in the centre of the city of Antofagasta to prepare its railway yard for urban development.

### Environment

In 2019, no significant environmental incidents occurred at our operations.

We are strengthening our Climate Change Strategy, which includes water and CO<sub>2</sub> emissions.

Los Pelambres obtained Chile's first certified green loan, for the construction of its expansion project, which includes a desalination plant.

At Los Pelambres, we are piloting a public-private initiative to provide public access to online data about the condition of tailings deposits.

Currently, 22% of our energy consumption is supplied from renewable sources, 65% is contracted to be renewable by 2022, and we expect that further contracts will be signed by then, making 100% of our energy renewable.

### Sustainable governance

We updated our risk matrix, specifically incorporating climate change and tailings storage.

We published our fourth Payment to Governments Report in June.

### Stakeholder review

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# CREATING SUSTAINABLE VALUE FOR OUR STAKEHOLDERS

**“A commitment to sustainability is one of our six core values. As well as seeking to maximise the value of our assets, we aim to contribute to the social and economic development of the areas in which we operate and to minimise our environmental impact, while always being open and transparent with all our stakeholders.”**

**René Aguilar**

Vice President of Corporate Affairs and Sustainability

## Board involvement

The Board is responsible for leading and monitoring sustainable practices. The Sustainability and Stakeholder Management Committee assists the Board in the stewardship of the Group’s sustainability programmes and makes recommendations to ensure that ethical, safety and health, environmental, social and community considerations are included in the Board’s deliberations.

The Committee reviews and updates the Group’s strategy and policy framework, including safety and health, environment, climate change, human rights, communities and other stakeholder issues. It also establishes targets and monitors the Group’s performance in these areas.

One way sustainability and performance goals are embedded in employees’ practices is by incorporating sustainability targets in annual performance bonus agreements. This helps mobilise and align the whole organisation behind strong sustainability practices, clearly signalling the Board’s commitment to creating value in a sustainable manner. Targets associated with safety, people, environment and social performance account for 20% of these.

## A year of important progress and achievements

On various fronts we have reason to be proud of our achievements during 2019. Our safety and health performance was the best in the Group’s history and once again we had no serious environmental incidents.

Beyond these and other indicators, there is, however, a broader story to tell that is crucial for the ongoing creation of value for us and all our stakeholders.

As well as continuing to consolidate our Environmental Management Model, which is now in its second year, we have drawn up a specific Climate Change Strategy that includes water – a key concern in the areas where we operate – as well as GHG emissions. In line with this, we have taken important strides in modifying our electricity matrix, shifting towards renewable sources which will, we anticipate, account for all our electricity consumption at our Los Pelambres, Antucoya and Zaldívar operations by 2022.

Another focus has been tailings which, following the recent accidents in Brazil, have become a matter of international concern. Partly because it is earthquake-prone, Chile has extremely strict standards and we believe we can contribute in this field, mainly through collaborative alliances at both industry and local levels. An example of this is our participation in the local Programa Tranque (Tailings Programme), a public-private alliance whose work to develop an online monitoring system is being piloted at Los Pelambres.

Through the Antofagasta Mining Cluster, another public-private alliance, and our own social investment programmes, as well as the jobs we create, we continually seek to make a sustainable contribution to the development of local communities.

We believe that in this way we can build the successful relationships that are key to the long-term success of the Group, the areas in which we operate and the country as a whole.

 <p>Antofagasta is a constituent of the FTSE4Good Index series and the STOXX Global ESG Leaders Index</p>	 <p>Antofagasta has been included in the 2020 SAM Sustainability Yearbook</p>	 <p>Member of the International Council on Mining and Metals (ICMM)</p>	 <p>Antofagasta publicly discloses its Climate Change and Water Management through the Carbon Disclosure Project (CDP)</p>	 <p>Los Pelambres is a signatory to the United Nations Global Compact</p>	
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### Identifying our impact

We seek to develop mining for a better future, creating value for our stakeholders in an innovative and sustainable way, with a lasting positive impact for our host communities and Chile's mining regions.

We believe that mining for a better future implies addressing significant challenges and assuming leadership in devising solutions that deliver value to our different stakeholders.

### Challenges and solutions

We are seeking solutions to technical, operational and socio-environmental challenges, harnessing our experience, the lessons we have learned, our capacity for innovation and the diversity and knowledge of our workforce.

Our key challenges include:

#### Providing a safe workplace

This is our principal challenge because mining necessarily involves activities that can be hazardous and have serious consequences.

As a Group, we have continued to strengthen the implementation of our Safety and Health Strategy, manage safety and health risks efficiently, improve incident reporting and foster visible safety leadership at our operations.

+ See page 41 for more information

#### Adapting to climate change

In 2019, we incorporated climate change as a specific risk into our risk matrix and are working internally to address its implications, including water scarcity, which is the single largest challenge.

We use sea water at our most northern operations and at Los Pelambres we are building a desalination plant, which will be operational from 2021.

+ See page 44 for more information



We have set ourselves the target of reducing our direct and indirect annual CO<sub>2</sub> emissions by 300,000 tonnes by 2022. The use of renewable energy is key to us achieving this target and we have so far signed supply contracts of this type for three of our four operations.

+ See page 45 for more information

#### Implementing a respectful, diverse and inclusive work culture

In 2019, we carried out a human rights due diligence process across all our operations as a prior step to drawing up a corporate Human Rights Policy and associated action plan. We have also continued to implement our Diversity and Inclusion Strategy, focusing in 2019 on creating more flexible and inclusive working environments that foster improvements in employees' work/life balance.

+ See page 42 and 38 for more information



### Resistance to new projects and greater societal demands regarding the real contribution of mining to local development

These are undoubtedly the challenges that have gained most prominence in recent years. Our collaborative, trackable, comprehensive and transparent dialogue with our host communities has been critical in moving the relationship from one of competition to one of coexistence. This has allowed the Company and local people to jointly prepare long-term development plans that have a positive impact for all parties. As part of this process, we continued to implement our Social Management Model in 2019 as a vehicle for addressing stakeholders' principal concerns and social demands.

In addition, we seek to align our environmental and social commitments with the UN Sustainable Development Goals (SDGs) and address local problems in ways that contribute in a tangible way to achieving these goals.

These challenges are compounded by economic and operating challenges, such as the volatility of the copper market, uncertainty about the world economy and international trade, and the increase in costs as the operations age and grades decline.

+ See page 42 for more information

### Sustainability priorities

Our Sustainability Policy is structured around five pillars: People, Financial Performance, Environmental Management, Social Development, and Transparency and Corporate Governance. The Policy provides the framework for our constant effort to develop mining for a better future.

Our sustainability priorities are anchored in both our values and our main risks and opportunities, and our stakeholders' key concerns and expectations. All of these are reviewed frequently by the Board and its Sustainability and Stakeholder Management Committee.



### Sustainable Development Goals

In 2019, we continued to map our contribution to the Sustainable Development Goals that we have identified as relevant to the Choapa Province where Los Pelambres is located. Through this exercise, we seek to detect gaps and opportunities for improvement.

Our challenge in 2020 will be to identify those SDGs which will impact in the Province the most, and incorporate the corresponding actions into how Los Pelambres operates. Our aim is to contribute to the achievement of the SDGs in the area and in the country as a whole.

# HOW WE ENGAGE WITH OUR STAKEHOLDERS

Open and transparent engagement with our stakeholders is essential for the long-term success of our business. Engagement is based on mechanisms through which we provide information about our activities and learn about our stakeholders' interests and concerns.



## Our people

The Group has a workforce of approximately 25,100 people (direct employees and contractors' employees), including our operations, projects, exploration programmes and corporate offices. Almost all of our workforce is based in Chile and 51% is from communities near our operations. Contractors account for approximately 74% of the workforce at our operations.

### Why we engage

Constructive relationships anchored in mutual respect and transparency help us to retain employees and avoid labour disputes, making for higher productivity and efficiency. Contractors are essential to mining operations and operational continuity requires that they adhere to the same standards as those expected of Antofagasta's own employees, particularly regarding safety and health.

### How we engage

- Site visits
- Quarterly on-site CEO updates
- On-site reviews
- Engagement surveys
- Regular meetings with unions and contract managers
- Meetings on safety and health and other topics
- Performance evaluation

+ [See page 38 for more information](#)

## Communities

Our operations' neighbours include a range of communities in Chile's Antofagasta and Coquimbo Regions. We seek to grow together with our communities and to contribute to their long-term social and economic development. Our operations naturally affect local communities and we strive to prevent, mitigate and compensate for any adverse impact our activities may have.

### Why we engage

The wellbeing of local communities is directly related to our business success and we believe that mining activities bring unique opportunities for national and local development.

### How we engage

Engagement is one of the four pillars of our Social Management Model and much of it takes place through our flagship programmes: Somos Choapa (We are Choapa) in the Coquimbo Region and Diálogos para el Desarrollo (Dialogues for Development) in the Antofagasta Region. These programmes include mutual collaboration on the design of initiatives to foster local development, as well as other channels of contact such as mine site visits. Engagement with local communities is regularly reported to the Sustainability and Stakeholder Management Committee and to the Board.

+ [See page 42 for more information](#)

## Suppliers

We work with some 3,850 suppliers, of which 93% are based in Chile. Suppliers provide a wide range of products and services from large mining equipment to catering and transport services.

### Why we engage

Suppliers play a critical role in our ability to operate sustainably, safely and efficiently and therefore we seek to ensure that they comply with our standards and guidelines on sustainability matters. We prioritise the use of local suppliers and pay special attention to our largest suppliers in each category to ensure the most cost-effective, efficient and sustainable solutions.

### How we engage

The procurement team regularly meets with suppliers who are encouraged to raise any issues or concerns they may have. Tenders take place through an online platform, designed to guarantee fair and transparent processes, and in 2019 we developed software to automate the issue of invitations to tender, significantly extending our reach and particularly benefiting potential local suppliers.

+ [See page 47 for more information](#)

### S.172(1) Statement

Antofagasta's purpose is to develop mining for a better future – to achieve this and continue to deliver sustainably, we rely on the support of a range of different stakeholders. This means always putting the safety of our people first as we seek to deliver value to our customers, suppliers, shareholders and the communities in which we operate.

The Directors of Antofagasta plc have acted in accordance with their duties to operate in the way that they consider, in good faith, is most likely to promote the success of the Company for the benefit of its members as a whole, particularly with regard to the stakeholders and matters set out in section 172(1) of the Companies Act 2006, including amongst other matters:

- The likely consequences of any decision in the long term;
- The interests of the Company's employees;

- The need to foster the Company's business relationships with suppliers, customers and others;
- The impact of the Company's operations on the community and the environment;
- The desirability of the Company maintaining a reputation for high standards of business conduct; and
- The need to act fairly as between members of the Company.

Section 172 considerations are embedded in decision-making at Board level and throughout the Group. Throughout the Strategic Report we outline the way in which we engage with our stakeholders to create value throughout our operational activity. Within the Corporate governance report on page 94 we discuss, in respect of the key decisions that the Board has taken in the year, how stakeholders were considered and how we engaged with them.



## Customers

The majority of our sales are to industrial customers, who refine or further process the copper concentrate and cathodes we sell. Most sales are made under long-term framework agreements or annual contracts with sales volumes agreed for the following year.

### Why we engage

Our sales are based primarily on long-term customer relationships and commitments. 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.

### How we engage

- Some of our major customers are also equity holders in our mining operations
- An annual visit to Japan by the Chairman and several Directors in order to meet our partners
- Regular meetings with customers around the world
- Through our marketing office in Shanghai

+ [See page 48 for more information](#)

## Shareholders

Shareholders are the companies, financial institutions and individuals that hold a stake in the Company. They are entitled to receive dividends and to vote at shareholder meetings on certain matters, including the election of the Company's Directors.

### Why we engage

Shareholders, and particularly institutional investors, are constantly evaluating their holdings in the Company and whether to buy, hold or sell shares. We provide insightful information about the Company's strategy, projects and performance to assist them in their assessment of the Company. We pay special attention to how we communicate with shareholders, maintaining fluent and transparent dialogue with them in order to ensure that they are treated well and informed of all relevant information.

### How we engage

We regularly meet with institutional investors and brokers' analysts at industry conferences and roadshows, as well as in one-on-one meetings. The Board attends the Company's Annual General Meeting, where its members are available to answer questions. The Company also provides regular production reports, financial reports and other ad-hoc information.

+ [See page 49 for more information](#)

## Governments and regulators

Governments and regulators, at national, regional and local levels, draft, implement and uphold legislation, rules and regulations, and set the framework within which we operate.

### Why we engage

Mining is a long-term business in which timescales can run into decades. Political cycles are typically far shorter and material developments and changes to policy, legislation or regulations can have a major impact on our business.

### How we engage

We work alongside mining associations and other industry-related bodies to engage with governments on public policy, legislation, regulations and procedures that may affect our business. Our relationship with governments and regulators takes place strictly within their engagement mechanisms, which in Chile are clearly defined in Law N° 20.730 on lobbying.

+ [See page 50 for more information](#)

# OUR PEOPLE

At Antofagasta, we understand that talent is key in addressing the challenge of developing mining for the future, and we therefore seek to foster our workforce’s wellbeing and diversity. In 2019, this was reflected in our review of the Group’s Leadership Model and the implementation of a new flexitime programme.

The Group’s People strategy is built around the four pillars of culture, talent management, organisational effectiveness, and labour relations and engagement, and is aligned with the charter of values that we have established as central to our organisation.



## Our people’s wellbeing

For Antofagasta, employee wellbeing is a core aspect of our effectiveness and sustainability as an organisation and in 2019 we took important steps to improve our employees’ work/life balance.

During the year a pilot flexitime system was introduced first at Centinela and then extended to our corporate headquarters in Santiago. The system allows employees to fit working hours around their individual needs, giving them more flexibility, particularly as regards shifts, and allows them to take up to a year off work for family or other reasons. It will be rolled out to the rest of the Group during 2020.

In mid-2019, we created a new area to lead our Digital Transformation project. As it is rolled out in 2020, the project will significantly change the way we work, including through the generation of synergies with the new flexitime system.

In 2019, we also worked with our operations and our Diversity and Inclusion Council to draw up a set of work/life balance guidelines, designed to foster both employees’ work/life balance and the integration of women and people with disabilities. As well as the flexitime system, it includes benefits that go beyond those required under Chilean law, such as longer paternity leave and facilities for employees undertaking further education.

During the year, over 800 employees at our operations participated in an update of our Leadership Model, which is built around five key leadership skills. Its aim is to ensure inclusive leadership and facilitate innovation.

## Inclusive culture

The Group’s Diversity and Inclusion (D&I) Strategy was launched in 2018, initially focusing on the inclusion of women, people with disabilities and employees with international experience, and in 2019 we embedded the conditions required for its full and sustainable success.

A survey of executives and supervisors during the year found that 71% of them identified the D&I Strategy as a priority for the organisation.

One example of initiatives to foster the inclusion of women is the Transport division’s Mujer Ferroviaria (Railway Woman) programme, which was launched in 2018 to incorporate women into maintenance roles, and now has been expanded to include other operational roles.

In the Mining division, Antucoya launched Relevos (Relief Workers), a programme under which residents of the town of María Elena, which is near to Antucoya, are employed to cover breaks during shifts, such

as lunch periods. This programme provides opportunities mainly for women, but also for other local residents who, for family reasons, are unable to work a full shift.

Under Chile’s Workplace Inclusion Law, people with disabilities must account for at least 1% of a company’s workforce from 1 April 2020 and in 2019 our Transport division achieved this target. Despite greater challenges, our mines have also made good progress and, through Chile’s Mining Council, we are leading an initiative to define the minimum standards required to permit the employment of people with disabilities at mine sites.

## Diversity and inclusion targets

- Double the percentage of women in the workforce by 2022, compared to the Q1 2018 baseline.
- Go beyond the 1% of employees with disabilities required under Chilean legislation.

## Women in business

In 2019, we sponsored the creation of a Chilean chapter of the 30% Club, a campaign launched in the UK in 2010 to foster gender balance on companies’ boards and in senior management positions.

	Executive Committee		Reports to the Executive Committee	
Male	9	90%	42	79%
Female	1	10%	11	21%

## Building human capital

At Antofagasta, we seek to develop human capital and talent, not only internally but also in our local communities.

In 2019, we invested \$3.3 million in employee training. This was equivalent to 44 hours of training per employee. This included training on safety and D&I topics such as inclusive leadership and unconscious bias.

As part of our involvement in the Antofagasta Mining Cluster, we continued to implement the Eleva programme. This public-private initiative brings together mining companies, the Mining Competencies Council (CCM), the Fundación Chile technology transfer institute and several government agencies, in order to improve young people’s job prospects and develop human capital for the mining industry of the future.

The Cluster’s activities include work experience for technical school pupils, and following a pilot programme implemented at Antucoya in 2018 this is now offered by all our mines. In 2019 a total of 58 young people completed the programme and many are now being recruited as full-time employees.

+ [See page 42 for more information](#)



**Labour relations**

At Antofagasta we have 19 unions; 11 in the Mining division and eight in the Transport division. Together, they represent 74% of our direct employees.

We recognise employees’ rights to union membership and collective bargaining, and in Chile freedom of association is protected by law.

We also have a consultation and complaints system that can be used by our employees and contractors.

In 2019, three-year labour agreements were successfully negotiated in the Mining division, at Los Pelambres, Zaldívar and Antucoya. However, in the case of the Antucoya workers’ union, agreement was reached only after an 18-day strike. This was the first strike in Antofagasta’s history. It took place in a framework of respect, without violence or damage to assets, and in full compliance with the agreed provision of minimum services.

In the Transport division there were no labour negotiations in 2019, but preparations were made for two important processes scheduled for 2020.

Chilean legislation prohibits forced and child labour.

**Aligning contractors**

Contractors perform key tasks in our businesses and account for 74% of our total workforce. They are contractually required to meet all our labour, environmental, social and ethical standards and apply our best practices on safety and other working conditions.

Contractors are required to pay employees at least an ethical minimum wage set by Antofagasta. As from 1 January 2020, this increased by 17% to Ch\$500,000<sup>1</sup> per month for the on-site contractors of our Mining division, benefiting some 3,200 families, many of whom live in the vicinity of our operations. This ethical minimum wage is currently two-thirds above Chile’s legal minimum wage.

Contractors and subcontractors are also required by the Group to provide their employees with health and life insurance and, in the case of Los Pelambres and Centinela, support for their children’s education.

Contractors at all our operations must also comply with the UK’s Modern Slavery Act or risk sanctions and even loss of contract.

1. As of 1 January 2020, this was equivalent to approximately \$667.

### Modern Slavery Act

In compliance with the UK's Modern Slavery Act 2015, the Group has published a statement setting out the steps taken to ensure that slavery and human trafficking are not occurring in its supply chain or in any part of its business. This statement is available at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

### Code of Ethics

The Code of Ethics stresses the commitment of the Board, employees and contractors to conduct business in a responsible and transparent manner. It includes the values that guide the Company's actions along with guidelines to identify and manage potential conflicts of interest and for the handling of privileged, confidential and financial information. It also sets out the role of the Ethics Committee.

In addition, it provides guidelines on issues such as respect for human rights, local culture and values and the rights of neighbouring communities.

### Training

We ensure that our Crime Prevention Model and our policies and procedures are implemented and understood throughout the organisation. This is achieved through induction training for all new employees, an e-training programme implemented every two years, special training for the most exposed areas and a training plan that is updated annually.

### Human rights

In 2019, we implemented a human rights due diligence process as a first step to drawing up a corporate Human Rights Policy and an associated plan of action. We respect and support human rights by:

- providing high safety and health standards, fair wages and good labour relations
- preventing discrimination, harassment and bullying
- complying with the UK's Modern Slavery Act
- providing high-standard accommodation, services and facilities and opportunities for training and development
- preventing corruption and malpractice
- preventing or mitigating adverse environmental and social impacts
- respecting communities' rights, culture and heritage
- engaging in dialogue throughout the mining lifecycle from exploration to closure
- responding to grievances
- supporting community development.

Our only operation whose area of influence includes an indigenous community is Zaldívar. Relations with this community, located in Peine, 100 km from the mine, are conducted in accordance with ILO Convention 169, the guidelines of the International Council on Mining and Metals (ICMM) and our Sustainability Policy.

Corporate due diligence of suppliers' legal compliance includes key human rights issues such as general working conditions, the prevention of child labour, discrimination, harassment and other abuses. These are regularly audited by each operation as well as by the corporate centre.



# SAFETY AND HEALTH

For Antofagasta, the safety and health of our employees, contractors and nearby communities is non-negotiable and takes precedence over results. In 2019 both our Mining and Transport divisions exceeded their safety targets, achieving record results for the year.



## Safety and occupational health strategy

The Group's Safety and Health Risk Strategy is based on four pillars: safety risk management, health risk management, standardised reporting and continuous improvement, and leadership. In turn, it has four goals: zero fatalities, zero occupational illnesses, the development of a resilient culture, and the automation of hazardous processes.

During the year we reviewed our Fatal Risk Standards, strengthening the corresponding critical controls and working with those responsible for their implementation in the field to ensure they are fully understood. We also expanded the Standards to cover occupational health as well as safety risks, incorporating silica dust, noise, acid mist, and fatigue and drowsiness, each with its corresponding control strategies.

## Safety risk management

In 2019, our efforts to achieve continuous improvement in safety risk management focused on learning from high potential incidents, in other words, incidents that could have caused fatalities. Using this dynamic approach, such incidents are investigated in order to identify any risk management gaps, which are then closed in order to prevent other similar incidents occurring in the future. Emphasis is also placed on sharing the lessons learned across our different mining operations.

In a bid to strengthen prevention, we plan to move towards the use of high potential incidents as a measure of our safety performance in addition to indicators such as the Total Recordable Injury Frequency Rate (TRIFR), which measures the accidents that did occur. The target for 2020 is to reduce high potential incidents by between 10% and 15%.

## Health risk management

Guided by our 10 Occupational Health Standards and four new Fatal Illness Risk Standards, we seek to minimise our workers' exposure to hazardous agents and other risk factors. Medical Surveillance Programmes, which were standardised in 2018, are used to detect early symptoms that can identify an incipient illness.

In 2019, we included health risks in our monthly Operational Performance Reviews, the results of which are reported to the Executive Committee, and in our six-monthly On-Site Reviews. Emphasis was placed on raising awareness of potential health risks, with senior management closely involved in this process.

## Performance in 2019

There were no fatalities related to the Group's activities among the employees of our Mining and Transport divisions, the employees of their contractors or related third parties such as communities. The last fatality was in October 2018.

In addition, the Mining division's Lost Time Injury Frequency Rate, at 0.8, was 32% better than the target for the year and marked a new record. The division's Total Recordable Injury Frequency Rate (TRIFR)<sup>1</sup>, at 0.5, was also a record and among the best performances of the members of the International Council on Mining and Metals.

The Transport division included its contractors in its safety indicators for the first time in 2018, posing a greater challenge for achievement of its targets. Nonetheless, its LTIFR, at 4.03, represented a drop from 6.7 in 2018 and compares with an average of over 14 for railway operations in Chile.

## Lost Time Injury Frequency Rate (LTIFR)<sup>2</sup>

	2019	2018	2017	2016	2015
Chilean mining industry	<b>1.54</b>	1.65	1.78	1.83	2.05
Mining division	<b>0.75</b>	1.10	0.99	1.21	1.17
Transport division	<b>4.03</b>	6.66	7.20	5.78	10.94
Group	<b>1.01</b>	1.59	1.53	1.61	2.00

## Number of fatalities

	2019	2018	2017	2016	2015
Chilean mining industry	<b>14</b>	16	14	18	16
Mining division	<b>0</b>	1	0	1	1
Transport division	<b>0</b>	0	0	1	0
Group	<b>0</b>	1	0	2	1

## Occupational Illness Frequency Rate (OIFR)<sup>3</sup>

	2019	2018	2017	2016	2015
Chilean mining industry	<b>N/A</b>	N/A	N/A	N/A	N/A
Mining division	<b>0.08</b>	0.09	0.00	0.03	0.09
Transport division	<b>0.47</b>	0.24	0.00	N.A	N.A
Group	<b>0.11</b>	0.10	0.00	0.02	0.09

1. Number of accidents with lost time and requiring medical treatment per million hours worked.
2. Number of accidents with lost time during the year per million hours worked.
3. Number of occupational illnesses during the year per million hours worked.

# COMMUNITIES

We seek to build sustainable long-term relations with the communities near our operations, anchored in proactive and transparent dialogue. We measure the benefits of this engagement for both the communities and the Group.



## Social Management Model

In 2019, we rolled out our new Social Management Model in the Mining division. It seeks to ensure that engagement principles, methodologies and practices, and the measurement of results are consistent across the Group.

The model has four components, each with its own standards: Socio-Territorial Risk Management, Engagement, Initiative Management and Impact Measurement.

## Flagship programmes

### Somos Choapa

Our Somos Choapa (We are Choapa) programme is the largest public-private alliance for community development in Chile's Coquimbo Region, where our Los Pelambres operation is located. Through it, we work with the municipal governments and communities of the Choapa Province – which stretches from the Andes to the coast – to implement projects for the area's sustainable economic, social and environmental development. Since the programme's launch in 2014, of the 135 initiatives that have been approved, 64 have been completed and 43 are underway, while the others are at the discussion or design stage. The projects range from job creation and economic diversification to water management and community building.

### Dialogues for Development

At our three mining operations in northern Chile, community engagement takes place within the framework of Diálogos para el Desarrollo (Dialogues for Development), which is based on the experience we have acquired in Choapa. In 2019, Antucoya implemented the second stage of the programme in the town of María Elena, in alliance with its municipal government. Working groups were set up to identify projects and two healthcare initiatives were approved.

Centinela has also successfully strengthened its ties with the nearby town of Sierra Gorda. Key initiatives include a volunteer programme in which our employees and contractors participate.

## Addressing social concerns

We consider a variety of aspects of the contributions we make to our host communities including:

### Combating drought

In the mainly agricultural Choapa Valley, 2019 was the driest year of a 10-year drought and local communities are concerned about the availability of water in the future. In response to these concerns, we are participating proactively in a Provincial Water Working Group, convened by the Regional Government. This multi-actor body, with representatives of the different water users and communities as well as government services, is working to identify collective solutions that can improve water availability in the valley in the short, medium and long term.

### Local jobs

In the Mining division we have new Guidelines on Regional Procurement and Hiring that make explicit our preference for suppliers and employees from the region where the operation is located. The guidelines also include measures to make it easier for local companies to win contracts by reducing barriers to their participation in tenders.

+ [See page 47 for more information](#)

## Engagement mechanisms

Dialogue is at the heart of our relations with neighbouring communities and, depending on the issue, can take many different forms. Key mechanisms include community meetings, round tables, community participation in environmental monitoring, and invitations to visit our operations. The results of this engagement are reported regularly to the Sustainability and Stakeholder Management Committee and, through it, to the Board.

Our only operation whose area of influence includes indigenous communities is Zaldívar. Its engagement with these communities is aligned with ILO Convention 169 and the guidelines of the International Council on Mining and Metals.

## Culture and heritage

Heritage is particularly important in the case of the Transport division, whose business and history are closely entwined with those of the city of Antofagasta. It owns some of the city's most historic buildings and its current plans include the restoration of the emblematic Valdivia Railway Station in the city centre.

In 2019, we updated our Tesoros del Choapa (Treasures of Choapa) audiovisual programme, producing a series of videos celebrating the identity and culture of the Choapa Valley, its landscapes and ways of life.



1. Includes community investment programmes (Somos Choapa, Dialogues for Development and the Transport division's social initiatives), social projects and programmes established as part of our legal obligations, as well as donations, sponsorships and contributions under the Caimanes, Salamanca and Cuncumén agreements and by Fundación Minera Los Pelambres.

### Human rights

In 2019, we carried out a human rights due diligence process as a prior step to drawing up a corporate Human Rights Policy and associated plan of action. Numerous interviews have been carried out with both internal and external stakeholders, including neighbouring communities. The Policy is expected to be approved by the Board during 2020.

### Complaint mechanisms

In the case of complaints or suggestions, a community's first point of contact is with our local communities teams. Depending on the nature and seriousness of a complaint, the team will report it to Public Affairs which will, if necessary, escalate the matter. Community members can also use our online Tu Voz (Your Voice) service, and such complaints are referred to the Company's Ethics Committee.

### Impact measurement

One of the four key components of our Social Management Model is impact measurement, which we do by calculating a project's social return on investment (SROI). In 2019, we measured the impact of three social programmes implemented by Fundación Minera Los Pelambres: Confluye, an initiative to increase water availability for small farmers; Cosecha, a programme to help rural entrepreneurs add value to their products and services; and an educational programme that includes scholarships and skill-development projects. The scholarship programme had the highest SROI and Cosecha the lowest.



### Open social innovation

In 2018, the Somos Choapa programme created a special initiative, Choapa i, to seek innovative approaches to the area's challenges. In alliance with local municipal governments and the communities themselves, it invites students from one of Chile's main universities to propose ideas that could contribute to local economic development and sustainability.

In the latest cycle of the programme, three projects have been selected to add value to agricultural products, to transport seafood produced along the coast and to reuse greywater.

### Building the region's future

In 2019, Fundación Minera Los Pelambres awarded 175 scholarships to higher education students from Choapa. One of those students is Valeria Mekes: "I'm the first in my family to go to university and I hope I won't be the last," says the future lawyer.

### Railway yard urban development

Our Transport division owns 48 hectares of land in an area that is now the centre of the city of Antofagasta. For the past 130 years the railway's maintenance workshops have been located there, and until 1998 it was used to stockpile products such as copper and lead concentrate. Now, however, the Transport division is planning to vacate the site and release it for urban development.

The Company conducted a rigorous community participation process, involving assemblies and working groups as well as door-to-door visits, before submitting its Environmental Impact Assessment during the year. The first stage of the Reconversion Plan will involve rehabilitating the land by removing heavy metals and other industrial waste from the soil.

### Antofagasta Mining Cluster

The Antofagasta Mining Cluster is a vehicle for fostering the development of northern Chile's Antofagasta Region, where three of our mining operations and our Transport division are located. We were the first mining company to join this public-private alliance, which brings together mining companies, government agencies and educational institutions. We are particularly committed to two of the initiative's strategic pillars: the creation of regional human capital and the development of innovative suppliers.

In 2019, we committed \$1.2 million to educational and training initiatives in the Region, benefiting over 600 people, from students at technical schools and universities to neighbours of our operations. For example, we are implementing 14 different programmes within the Region's two main universities, to support the teaching they provide and increase graduates' employability.

Through the Eleva programme, we provide work experience for pupils from technical secondary schools. Similarly, when we award apprenticeships and internships to support the writing of undergraduate theses, we give priority to students from the Region.

In the case of promoting innovation, we are implementing InnovaMinerals, an open collaboration platform through which we invite companies and entrepreneurs to propose innovative solutions to challenges faced by the mining industry.

# ENVIRONMENT

On environmental matters, we seek to go beyond compliance with our legal obligations, particularly in the case of shared resources such as water.

## Environmental management

In 2019, our Mining and Transport divisions further embedded the Environmental Management Model we introduced in 2017. It comprises four areas: leadership, incident reporting, operating risk management and regulatory risk management. Following important improvements on incident reporting in 2018, particular attention has been paid to management of the resulting information at Group level in order to put it to optimum use.

Environmental performance is reported monthly to the Executive Committee and half-yearly to the Sustainability and Stakeholder Management Committee. It is also one of the Group's annual performance bonus targets.

In 2019, three internal environmental audits took place, two performed by the Environmental Management team and one by Internal Audit. All of them were concluded successfully without any significant negative findings.

## Environmental compliance

In Chile, large-scale projects are subject to strict environmental and social impact assessments by the Environmental Evaluation Service (SEA) to obtain a Resolution of Environmental Approval (RCA) to proceed with the project. These RCAs include legally binding commitments on matters such as the prevention and mitigation of the impact of the project on the environment and any necessary compensation measures required. Compliance with commitments is enforced by the Superintendency for the Environment (SMA) and failure to comply with the commitments can result in fines or even the revocation of the RCA.

Antofagasta has a total of 75 RCAs, entailing some 10,556 commitments on matters that include water use, air quality and protection of biodiversity. In 2019, our operations focused on raising the standards of the evidence they use to demonstrate compliance.



## Water management

All four of our mines are in water-stressed areas and care for this resource is therefore a crucial part of our approach to adapting to climate change. Our Environmental Management Model includes a specific water management standard.

In 2019, we continued to apply the Water Stewardship Framework of the International Council on Mining and Metals and report our direct water extraction in accordance with the ICMM's Minimum Disclosure Standard. In addition, we report our water risk exposure in accordance with the requirements of the Water Programme of the Carbon Disclosure Project (CDP).

## Environmental incidents

In 2019, our operations suffered no significant environmental incidents. Similarly, no procedures were initiated by the authorities that could result in sanctions.

During the year, we drew up a corporate Water Management Standard, which is expected to be internally validated during 2020. This will be an integral part of our new Climate Change Strategy.

+ [See page 45 for more information](#)

In 2019, sea water accounted for 46% of our Mining division's water consumption. At Antucoya, it accounts for about 97%<sup>1</sup> of total water consumption and some 86% at Centinela. Centinela also uses pioneering thickened tailings technology to reduce its overall water consumption.

+ [See page 46 for more information](#)

Los Pelambres mainly uses continental water. However, the expansion project includes a desalination plant on which construction began in 2019. The plant is scheduled to start operation by the end of 2021 and will produce 400 l/s of industrial water for the expansion and will act as back-up for Los Pelambres in dry conditions.

The Choapa Valley is a water-stressed area, with agriculture as the prime user, and has suffered a drought for the last 10 years, of which 2019 was the worst. Among other actions, Los Pelambres is actively participating in a Provincial Water Working Group established by the Regional Government to identify and implement solutions that can improve the area's water security in the short, medium and long term. This includes working with the local farming community to help them manage their water needs.

+ [See page 42 for more information](#)

## Water consumption by source in 2019 (millions of m<sup>3</sup>)

Source	2019	2018	2017	2016
Surface water	13.9	16.5	18.2	14.2
Underground water	18.3	19.4	17.2	13.5
Third-party suppliers	0.4	0.9	1.2	1.2
Sea water	28.2	30.4	29.2	26.5
<b>Total</b>	<b>60.8</b>	<b>67.2</b>	<b>65.8</b>	<b>55.4</b>

## Chile's first certified green loan

In April 2019, Los Pelambres obtained debt financing of \$1.3 billion from a group of international banks for its expansion project. As well as being the largest such deal in our history, this marked another milestone in that an \$875 million tranche was certified as a "green loan" by Standard and Poor's (S&P), making Los Pelambres the first company in Chile and the first mining company in the world to obtain such certification.

Out of the loan, some \$500 million will be used to finance construction of the project's desalination plant and associated pipeline, which S&P certified as a green project on the grounds of its contribution to reducing freshwater consumption in a water-stressed area.

1. Difference between our calculated figure according to ICMM and the 100% of sea water effectively used in Antucoya.

### Water recovery at Centinela

An increase in water recovery from thickened tailings and pulp concentrate at Centinela has reduced the volume of sea water pumped up to the operation. This in turn reduced electricity consumption in the pumping process, which in 2019 meant the avoidance of 15,090 tCO<sub>2</sub>e of emissions.

Water withdrawals from each source are measured in terms of both the rate of flow and volume in order to predict the source's behaviour and provide the authorities with compliance reports. In 2019, our operations consumed a total of 60.8 million cubic metres of water, down from 67.2 million cubic metres in 2018 mainly because of lower throughput in 2019 and improved water efficiency.

The main loss of water is through evaporation and no water is discharged into continental water bodies. All our operations are working to increase their water reuse rate, which currently varies between 79% and 97%, depending on the operation.



### Climate change

At Antofagasta we understand that climate change poses risks for our operations, including water scarcity, sudden intense rainfall (as occurred in the Antofagasta Region in February 2019) and tidal surges. The sudden rainfall impacted both our mining operations and the Transport division's railway, and the tidal surges disrupted the loading of concentrate shipments.

In response, we have incorporated climate change as a specific risk, as distinct from environmental management, into our risk matrix and are drafting a comprehensive Climate Change Strategy. This will be completed during 2020 and will include our targets and metrics for water and CO<sub>2</sub> emissions. Using this strategy, we will strengthen co-ordination within the Group in order to take advantage of all available synergies.

### Energy management

Energy represents some 20% of the Mining division's total operating costs. Out of this, approximately 13% corresponds to electricity, purchased mainly from generators in Chile's national electricity system (SEN), and 7% to fuel.

Our Energy Management Strategy has four pillars: supply security, price, source and energy efficiency. We have applied this strategy in the renegotiation of supply contracts to decarbonise our electricity matrix, taking advantage of the price of renewable energy which, in Chile, is cheaper than more polluting technologies.

In February 2019, Antucoya signed a contract under which its annual consumption will be 100% renewable from the beginning of 2022. Following a tender in 2018, Zaldívar will become 100% renewable from July 2020. Combined with the recent renegotiation of one of the supply contracts at Los Pelambres, approximately 65% of our Mining division's consumption will be supplied under contracts for renewable energy from 2022, and we expect that further contracts will be signed by then, making 100% of our energy renewable.

In 2019, we modified our approach to energy efficiency, moving from a focus on individual energy-saving projects to a more structural concept under which energy efficiency is an integral part of each task we carry out. In line with this, energy efficiency is one of the Group's annual performance targets.

### Carbon footprint

In 2017, we embarked on a series of projects to reduce our direct and indirect annual CO<sub>2</sub> emissions (or Scope 1 and Scope 2 emissions) by 300,000 tonnes between 2018 and 2022. In 2019, we reduced our CO<sub>2</sub> emissions by 34,912 tCO<sub>2</sub>e compared to 2018. These reductions include those from our own direct (Scope 1) emissions, achieved through various energy saving projects, and reductions in indirect (Scope 2) emissions.

Our reduction of Scope 2 emissions in recent years came largely from the integration of Chile's formerly separate electricity systems – the Northern Interconnected System (SING) and the Central Interconnected System (SIC) – in 2017 to form a single national system (SEN). This integration allowed lower-carbon energy from central and southern Chile to be brought to northern Chile, where the Centinela, Antucoya and Zaldívar mines are located and thus significantly reduced their emissions.

### CO<sub>2</sub> emissions (tonnes of CO<sub>2</sub> equivalent)<sup>1</sup>

	Scope 1 Direct emissions		Scope 2 Indirect emissions		Total emissions		CO <sub>2</sub> emissions intensity tCO <sub>2</sub> e/tCu <sup>2</sup>	
	2019	2018	2019	2018	2019	2018	2019	2018
Los Pelambres	251,580	262,355	544,900	523,942	796,480	786,297	2.19	2.20
Centinela	448,890	453,898	539,300	563,101	988,190	1,016,999	3.57	4.10
Zaldívar	140,623	141,475	192,862	180,109	333,485	321,584	2.87	3.40
Antucoya	152,231	168,490	114,337	123,353	266,568	291,843	3.71	4.04
Transport division	96,854	99,400	1,118	1,224	97,972	100,624	N/A	N/A
Corporate offices	106	1	825	1,189	931	1,191	-	-
<b>Total</b>	<b>1,090,285</b>	<b>1,125,619</b>	<b>1,393,341</b>	<b>1,392,919</b>	<b>2,483,626</b>	<b>2,518,538</b>	<b>3.10</b>	<b>3.33</b>

1. Further information on our CO<sub>2</sub> emissions can be found on the Carbon Disclosure Project website [www.cdp.net](http://www.cdp.net).

2. Tonnes of CO<sub>2</sub> equivalent per tonne of copper produced.



### Mining waste

Our mining operations have three main tailings storage facilities (TSFs). The two at Los Pelambres are conventional tailings dams, El Mauro and Los Quillayes. The latter, the operation’s original TSF, is no longer in regular use and has limited remaining capacity, so now only serves as back-up for El Mauro.

Our third main TSF is a thickened tailings deposit at Centinela. By reducing the contained water in the tailings, this technology improves water recovery, increases the deposit’s stability, requires less surface than traditional TSFs, and reduces its environmental impact. In addition, at Zaldívar we have a very small TSF for the tailings from the flotation of some of its sulphides.

All our TSFs are built using the downstream construction method. El Mauro, our largest TSF, is designed to withstand severe earthquakes and extreme weather. Early warning and evacuation procedures are in place and its physical and chemical monitoring system provides real-time information.

All of our TSFs are visited twice a year by a panel of independent international experts, who review their performance and make suggestions for improvements, and whose findings are presented to the Board.

In 2019, we participated in the public consultation on new standards proposed under the Global Tailings Review. This was established by the ICMM, the United Nations Environment Programme (UNEP) and the Principles for Responsible Investment (PRI) in the wake of the Brumadinho and Mariana TSFs’ failures in Brazil and the concerns expressed by the Church of England Pensions Board and the Council on Ethics of the Swedish National Pension Funds.

As part of the process of drawing up the new standards, a group of experts visited Chile where, among other activities, they met representatives of the community closest to El Mauro.

Transparent information is also a key aspect of the Programa Tranque (Tailings Programme), a public-private and community initiative in which we are participating. Its aim is to establish an online monitoring system for TSFs and it is being piloted at El Mauro. The data produced are currently being reviewed by the authorities prior to deciding the best way of making it easily accessible to communities.

### Biodiversity

Our Biodiversity Standard is aligned with ICMM’s position statement on Mining and Protected Areas and has three goals: to prevent and minimise our impact on biodiversity, to appropriately restore or compensate for any impact, and to generate additional benefits for the areas where we operate.

The Choapa Valley, where Los Pelambres is located, is particularly rich in biodiversity. In this area, we manage four nature sanctuaries, including an important wetland. Together with areas of reforestation and other initiatives, these sanctuaries total 27,000 hectares, equivalent to seven times the area used for the operation. We are currently working on the development of a possible integrated management model to standardise the nature sanctuaries’ administration.

In the Antofagasta Region, Zaldívar is collaborating with a University of Chile research centre on the Desierto Verde (Green Desert) project. It is studying species of trees able to withstand arid and saline conditions in order to prevent erosion and absorb CO<sub>2</sub>. Other initiatives include Centinela’s participation in a foundation for the conservation of the gaviotín chico, a species of tern that is in danger of extinction.

### Air quality

We have no smelters, with their potential for air emissions. Dust (PM10) is the main emission from our mines and we implement robust dust-suppression programmes and monitor PM10 emissions closely with, in some cases, community participation. At Los Pelambres, representatives of the nearby town of Cuncumén participate in the monitoring of a total of 36 indicators related to air quality.

### Mine closure

Antofagasta has no mines close to closure but, as required under Chilean law, all our operations have closure plans approved by Chile’s National Geology and Mining Service (SERNAGEOMIN). These plans are updated every five years and in 2020 we will be working to align all our closure plans with the ICMM’s Integrated Mine Closure – Good Practice Guide.

### Task Force on Climate-related Financial Disclosures

At Antofagasta, we are addressing climate change and its associated risks from many different angles, and as a means of responding to the interest of investors and analysts on the subject we have decided to adopt the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).



### Responsible production

Antofagasta is participating in the Copper Mark initiative of the International Copper Association (ICA), of which it is a member. This proposed voluntary assurance system, based on the United Nations Sustainable Development Goals (SDGs), will allow investors and consumers to make informed decisions about responsibly-produced copper through verification of the copper producers’ environmental, social and governance (ESG) standards. This mark will also comply with the responsible sourcing requirements announced by the London Metal Exchange (LME).

### Twin Metals environmental review

In December, Twin Metals Minnesota (TMM), our copper, nickel, cobalt and PGM project in the United States, began its formal environmental review process by submitting its Mine Plan of Operations to the US Bureau of Land Management, and the Scoping Environmental Assessment Worksheet data to the Minnesota Department of Natural Resources.

This underground project is designed to minimise its potential impact on water, wetlands, noise, dust, light and visual pollution. The operation would have an overall footprint some 80-85% smaller than a similar-sized traditional open pit mine with conventional tailings. At TMM, 50% of tailings would be used as backfill in the underground mine while the rest would be dewatered and compressed, using the dry stacking method.

Construction of the mine would take two to three years and it would process 20,000 tonnes of ore per day.

# SUPPLIERS

As part of our bid to contribute to the development of the areas where we operate, we place particular emphasis on giving local companies opportunities to work with us.



## Responsible supply

As a Group, we have 3,843 suppliers of goods and services, including Chilean and international companies. They are managed by a central team that applies common procedures across our different operations and ensures compliance with our standards and practices.

Contracts with suppliers include clauses requiring compliance with Chilean Law N° 20.393 on bribery and asset laundering and the UK's Bribery Act and Modern Slavery Act. Our Suppliers' Code of Conduct covers matters such as ethical principles and sustainability, and forms part of our contracts with suppliers.

Tenders take place through an online platform designed to guarantee fair and transparent processes, with objective and auditable award procedures. This platform includes a channel for reporting complaints.

In 2019, we introduced a new clause into our contracts with suppliers, specifying their obligation to pay subcontractors, a situation over which we previously had no legal control. Under the new clause, we can discount any outstanding payments from a supplier's performance bond and, ultimately, terminate the contract.

As from 1 January 2020, we also raised the Ethical Minimum Wage which our Mining division's on-site contractors must pay their employees. Contractors must also provide complimentary health insurance for employees and their dependents.

+ [See page 38 for more information](#)



## Emphasis on local suppliers

During the year we reviewed our policy on local suppliers, with a view to increasing their access to opportunities to supply the Group. We also launched our new Guidelines on Regional Procurement and Recruitment under which, subject to availability, our mining operations must give preference to local suppliers, which are now defined more widely than before.

The new guidelines include measures to reduce administrative and financial barriers to local companies' participation in tenders. In addition, we have reduced the payment period for SMEs from 30 days to 15 days.

During the year, we developed Robotic Process Automation (RPA) solutions to automate repeated tasks, which allows our procurement team to focus on added value tasks such as a provider's evaluation

and selection, or negotiation. Thanks to this, our teams can dedicate more attention to local providers, and therefore improve their relationship with us.

## Supplier development

One of our undertakings as active members of the Antofagasta Mining Cluster, a public-private alliance to promote the Antofagasta Region's economic and social progress, is to foster the development of innovative local suppliers. A key initiative in this field is InnovaMinerals, an open collaboration platform through which we invite companies and entrepreneurs to propose innovative solutions to challenges faced by the mining industry.

+ [See page 42 for more information](#)

In 2019, we launched 11 challenges in the Antofagasta Region. The process involved workshops attended by over 300 people, as a result of which 18 solutions were pitched and a contract was signed for the development of one of them.

In addition, our new Guidelines on Regional Procurement and Recruitment anticipate the creation of an incubator for local suppliers, with a view to their participation not only in our tenders, but in those of other mining companies. Initial conversations about its implementation are taking place with the Antofagasta-based Integrated Centre for Pilot Testing of Mining Technologies (CIPTMIN), a public-private alliance that includes universities from around the country.

Our work with communities also involves the development of businesses to supply our local operations. In 2019, Antucoya and Centinela launched programmes that contributed to the development of 45 businesses in the local towns of María Elena and Sierra Gorda.

## Local alliances

We use alliances as a vehicle for establishing ties with potential local suppliers. For example, Los Pelambres has a collaboration agreement with the Association of Traders and Companies of Salamanca (ACESA) to foster opportunities for businesses in this nearby town. One result of this was that 11 companies joined together to bid for and win a contract to rent 30 pick-up trucks to the Los Pelambres Expansion project. This project has also undertaken to hire 30% of its workforce locally.

## Energy efficiency in suppliers

In line with our approach to climate change, we consider energy efficiency when selecting suppliers. In the case of energy-intensive goods and services, this is a parameter in the tender and we have also established energy efficiency KPIs for rented equipment.



# CUSTOMERS

Our business model is underpinned by relationships with local, regional, national and international stakeholders. Successful management of these relationships contributes to our long-term success.

## Customers

Most 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 is contained in the copper concentrates and is therefore part of copper concentrates sales.

Most sales are to industrial customers who further process the copper into more added value 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.

## Structure of sales contracts

Typically, our sales contracts set out the annual volumes to be supplied and the main terms for the sale of each payable metal, with the pricing of the contained copper in line with LME prices.

In the case of concentrates, a deduction is made from LME prices to reflect TC/RCs, the smelting and refining costs to process the concentrate into refined copper. These TC/RCs are typically determined annually in line with market developments and the parties' assessments of the copper concentrate market at the time of the negotiation of the terms.

In the case of 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 exchange's standard copper contract specifications.

Similarly, our molybdenum contracts are made under medium and long-term framework agreements, with pricing usually based on Platts' average prices for Technical Molybdenum Oxide with a deduction to reflect the cost of converting molybdenum sulphide concentrate into molybdenum oxide.

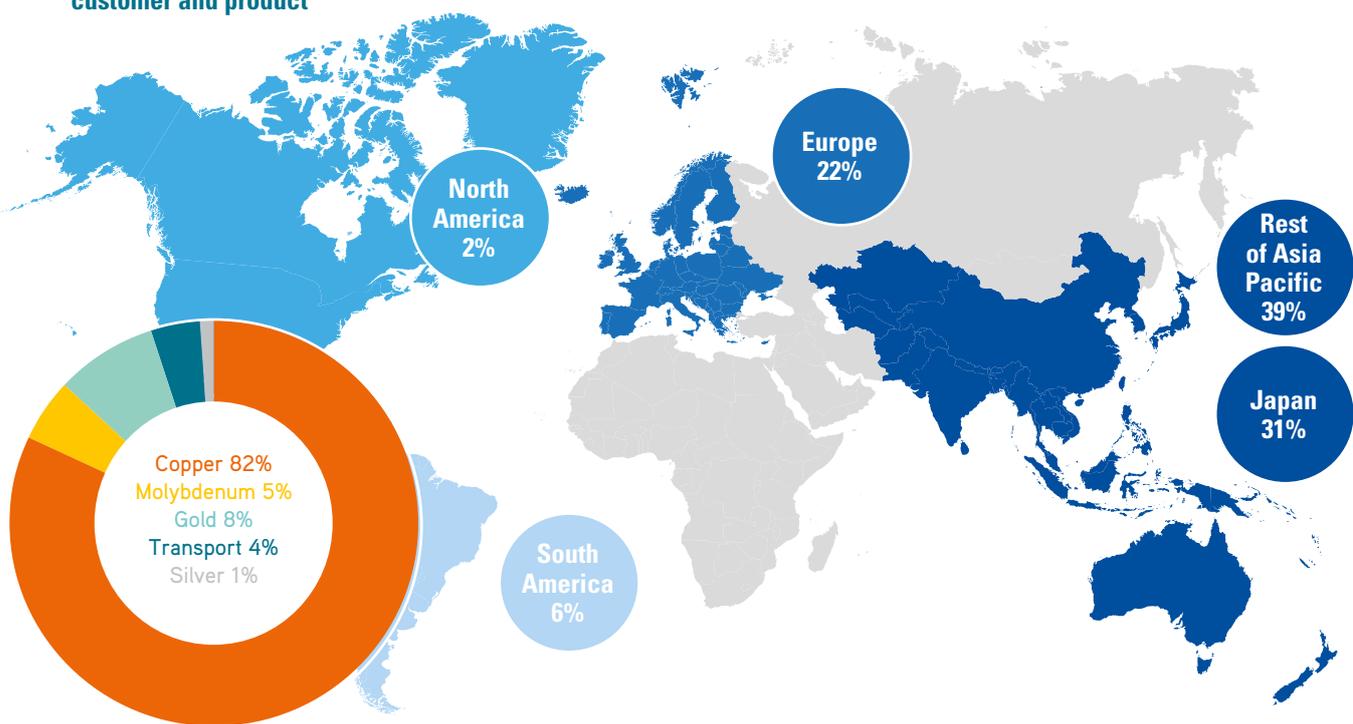
Across the industry, neither copper producers nor consumers tend to make annual commitments for 100% of their respective sales or purchases, and normally retain a portion to be sold or purchased on the spot market during the year.

In line with industry practice, our sales agreements generally provide for provisional pricing at the time of shipment, with final pricing based on the average market price in the month in which settlement takes place.

For copper concentrates, the final price remains open until settlement occurs, on average four months from the shipment month.

Settlement for the gold and silver contained in the copper concentrates occurs approximately one month after shipment. Copper cathode sales remain open for an average of one month from the month of shipment. Settlement for copper in concentrate sales is later than for copper cathode sales, as copper in concentrate requires more processing to produce refined copper for sale. Molybdenum sales generally remain open for two or three months after the month of shipment.

## Revenue by location of customer and product



# SHAREHOLDERS

The shares of Antofagasta plc are listed on the main market of the London Stock Exchange. As explained in the Directors' Report on page 138, the controlling shareholders of the Company hold approximately 65% of the Company's ordinary shares. The majority of the Company's remaining ordinary shares are held by institutional investors, mainly based in the UK and North America.

We maintain an active dialogue with institutional shareholders and sell-side analysts, as well as with potential shareholders. This communication is managed by the investor relations team in London and includes a formal programme of presentations and roadshows to update institutional shareholders and analysts on developments at Antofagasta.

Throughout 2019, we held regular meetings with institutional investors and sell-side analysts, including international investor roadshows, and presentations at industry conferences and to banks' equity sales forces. These were attended by the CEO and various members of the management team, including the CFO and the Vice President of Finance.

We publish quarterly production figures as well as half-year and full-year financial results. Copies of these production reports, financial results, presentations and press releases are available on our website. We also publish a separate Sustainability Report on our social and environmental performance during the year. The latest report is available on our website in both Spanish and English.

## What investors focused on most in 2019

- Our ability to achieve our full-year production and cost guidance
- Free cash flow generation and capital allocation
- Our capital expenditure programme and the potential of longer-term growth projects
- Progress on the Los Pelambres Expansion project
- Supply and demand factors in the world copper market
- Potential impact on our operations of the social unrest in Chile

## 2019 Shareholder engagement calendar

- 
- Q1**
- CEO presented at an industry conference for institutional investors in the US
  - One-on-one and small group meetings with some 160 investors, of which senior management participated in over 65%
  - Presentation of full-year 2018 results by the CEO and CFO
  - London and Paris roadshow – 4 days
  - US East Coast and Canada roadshow – 3 days
  - Investor relations team attended two investor conferences in the UK and one in Chile
- 
- Q2**
- CEO and CFO presented to institutional investors in Chile
  - CEO presented at an industry conference for institutional investors in Spain
  - One-on-one and small group meetings with some 200 investors, of which senior management participated in over 50%
  - Annual General Meeting in London
  - Buy-side analysts and institutional investors visited Los Pelambres
  - Investor relations team attended four investor conferences, two in the UK and two in the US
  - Madrid roadshow – 1 day
  - Corporate Governance roadshow with our Senior Independent Director – 2 days
- 
- Q3**
- Presentation of half-year 2019 results by the CEO and CFO
  - One-on-one and small group meetings with some 120 investors, of which senior management participated in over 40%
  - London, Paris and Frankfurt roadshow – 4 days
  - US East Coast and Canada roadshow – 3 days
  - CFO and Vice President of Finance attended one industry conference in the UK
  - Investor relations team attended three investor conferences in the UK
- 
- Q4**
- Asia Pacific and Australia roadshow – 5 days
  - One-on-one and small group meetings with some 80 investors
  - Governance roadshow in London with Remuneration and Talent Management Committee Chair – 3 days
  - Investor relations team attended three investor conferences in the UK
-

# GOVERNMENTS AND REGULATORS

Mining is a long-term business in which timescales can run into decades. Political cycles are typically far shorter and material developments and changes to policy, legislation or regulations can have a major impact on our business.

## Governments and regulators engagement

Our operations, projects and exploration are mainly located in Chile, where we interact with both the central government and the governments of the Antofagasta and Coquimbo Regions, as well as with the municipalities of the communes that are part of our areas of direct influence.

The relationship with governments and regulators is subject to their strict engagement mechanisms, which are clearly defined under the Chilean Lobby Law No. 20.730. This Law seeks to regulate the activity of lobbying, and other efforts that represent particular interests, in order to strengthen transparency and honesty. It applies to the officials of central and local administrations who regulate activities such as the issue, modification and repeal of administrative acts and laws, and decisions of the authorities and officials.

## Payments to governments

Antofagasta makes payments to governments relating to activities involving the exploration, discovery, development and extraction of minerals, and our Transport division.

These payments are primarily taxes paid to the Chilean government and mineral licence fees, which in 2019 totalled \$418 million of which 99.8% was paid in Chile.

Chilean law allows political donations to be made subject to certain requirements, but Antofagasta made no political donations in 2019. However, we often contribute towards the financing of projects benefiting local communities in alliance with local municipalities and the government. These contributions are regulated by specific laws and are reviewed by the Chilean Internal Revenue Service (SII).

## Public-private alliances

Since mining is a long-term business, we seek to contribute to Chile's development and prosperity, which is why we engage with the local government in public-private alliances. Some examples are our active participation in a workshop organised by the Mining and Women Ministries to encourage female participation in the mining industry, or our commitment to the Mining Cluster in northern Chile, which is a public-private alliance to promote local employment, technology and skills development.

Another example of a public-private alliance in which we actively participate is the Provincial Water Working Group. This is organised by the Coquimbo Region government to identify and implement collective solutions that can contribute to the area's water security in the short, medium and long term.

## Non-financial information statement

The table below sets out where stakeholders can find information in the Strategic Report on non-financial matters, as required under the Non-Financial Reporting Directive requirements. As described in this report, the effective application of these Policies and Standards underpins the Group's management of the risks in relation to these matters.

Reporting requirement	Relevant Policies and Standards	Content	Page
<b>Sustainability</b>	Value Chart	Letter from the Chairman	06
	Sustainability Policy	Letter from the CEO	08
	ICMM Guidelines	Value creation	34
		How we engage with our stakeholders	36
		Sustainability and Stakeholder Management Committee	112
<b>Safety and health</b>	Safety and Occupational Health Strategy	Safety and Occupational Health Strategy	41
	Special Corporate Safety and Health Regulation for Contractors and Subcontractors (RECCS)	Safety risk management	
	Fatal Risk Standard (ERFT)	Health risk management	
	Occupational Health Standard (ESO)	Performance	
<b>Environmental matters</b>	Environmental Management Model	Environmental management	44
	Integral closure of mining operations standard	Environmental compliance	
	Climate change standard	Water management	
	Water management standard	Mining waste	
	Biodiversity standard	Responsible production	
		Climate change	
		Carbon footprint	
		Energy management	
		Biodiversity	
		Air quality	
		Mine closure	
		TCFD	
	<b>Our people</b>	People Strategy	Inclusive culture
Diversity and Inclusion Strategy		Building human capital	
		Labour relations	
		Aligning contractors	
		Employee wellbeing	
<b>Social matters</b>	Social Management Model	Social Management Model	42
	Engagement Standard	Flagship programmes	
	Management of initiatives standard	Engagement mechanisms	
		Open social innovation	
		Culture and heritage	
		Local jobs	
		Addressing social concerns	
<b>Suppliers</b>	Code of Ethics	Responsible supply	47
	Purchase and contracts guideline	Local suppliers	
	Direct award procedure	Supplier development	
	Material management policy	Local alliances	
		Energy efficiency in suppliers	
<b>Human Rights</b>	Code of Ethics	Respectful, diverse and inclusive work culture	40
		Human Rights	
		Modern Slavery Act	
<b>Anti-corruption and anti-bribery</b>	Code of Ethics	Business integrity and compliance	31
	Compliance Model	Code of Ethics	
	Anti-Corruption Model	Management of Compliance Risks	
	Antitrust Protocol		
<b>Description of principal risks and impact on business activity</b>		Risk Management Framework	22
		Principal Risks	24
		Key Risks	25
<b>Description of the business model</b>		The Mining Lifecycle	10
<b>Non-financial Key Performance Indicators</b>		2019 highlights	03
		Total economic contribution	19
		Key Performance Indicators	20



# OPERATING REVIEW

The Group seeks to set realistic but demanding operating targets each year and achieves them year after year.



## Operating review

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# MINING DIVISION

Antofagasta owns and operates four mines. Los Pelambres is located in the Coquimbo Region of central Chile and Centinela, Antucoya and Zaldívar are located in the Antofagasta Region of northern Chile.

**“We have had good production performance this year, particularly at Los Pelambres, Centinela and Zaldívar. As expected, ore grades were higher at all of our operations and we achieved a year of record copper production.**

**“The safety performance of our workers and contractors at our mines was also particularly pleasing and was the result of our strong safety culture and discipline in how we operate. I look forward to continuing this positive momentum and further improving our operating performance in 2020.”**

**Hernán Menares**  
Vice President of Operations



Los Pelambres p56



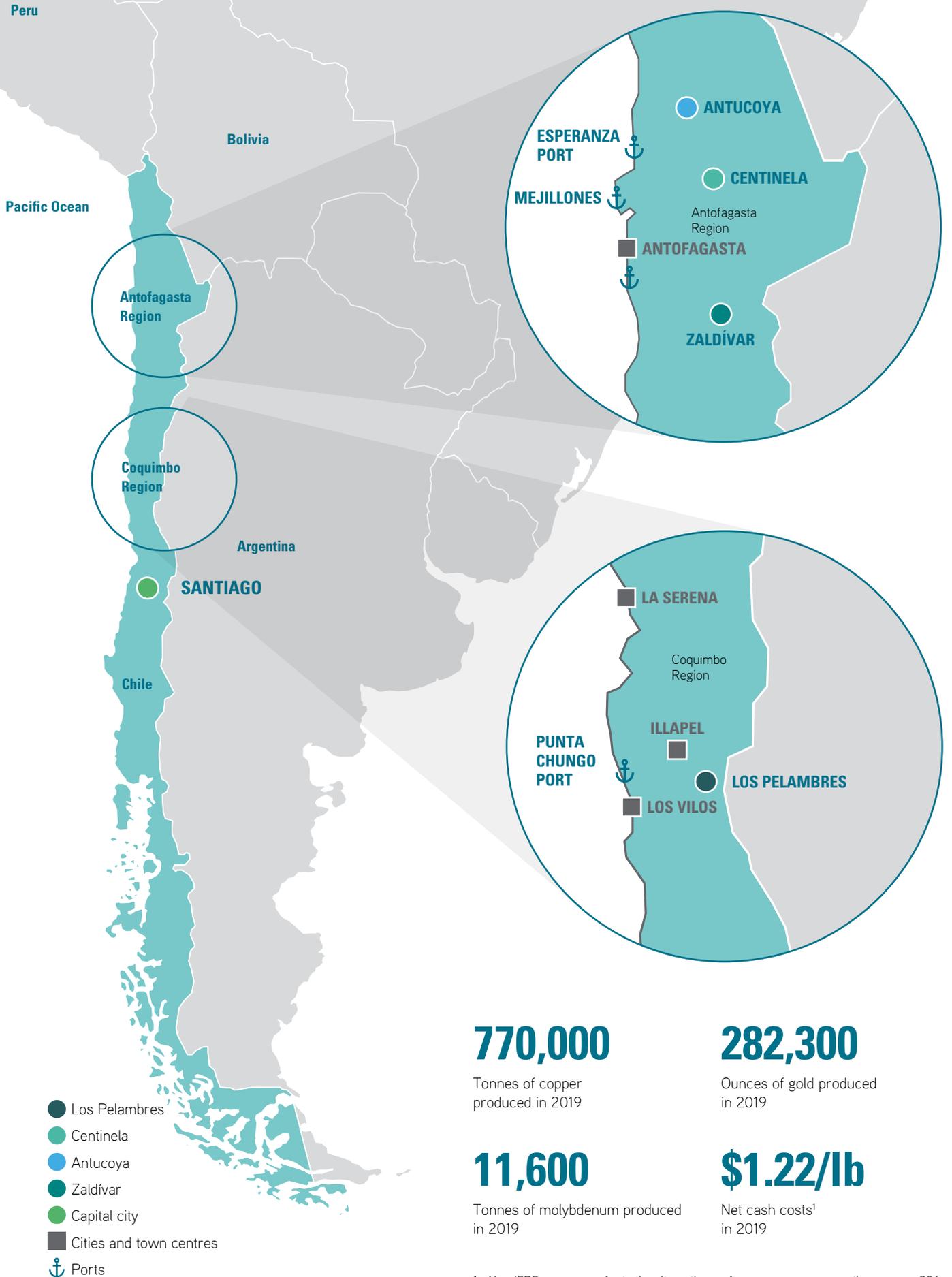
Centinela p58



Antucoya p60



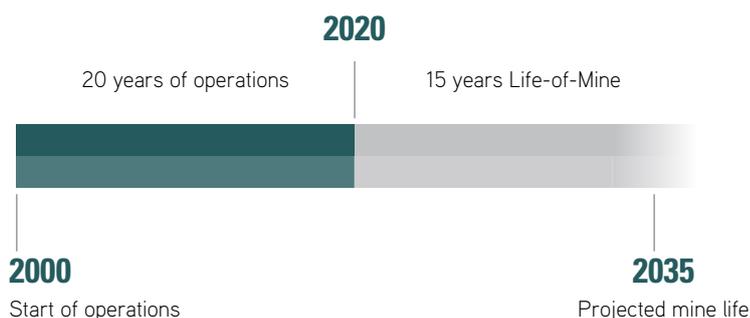
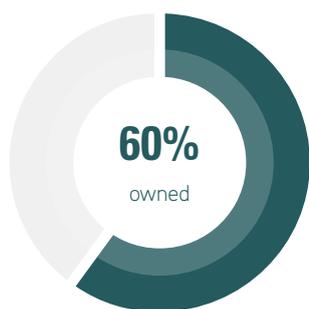
Zaldívar p61



Mining division

# LOS PELAMBRES

Los Pelambres is a sulphide deposit in Chile’s Coquimbo Region, 240 km north of Santiago. It produces copper concentrate (containing gold and silver) and molybdenum concentrate through a milling and flotation process.



**2019 Production**

Copper (tonnes)  
**363,400 +1.6%**

Molybdenum (tonnes)  
**11,200 (15.8%)**

Gold (ounces)  
**59,700 (5.5%)**

**2019 Financials**

EBITDA  
**\$1,384m (3.0%)**

Net cash costs  
**\$0.91/lb (unchanged)**

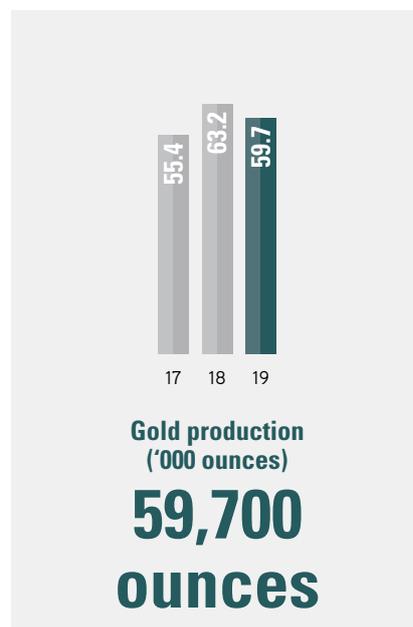
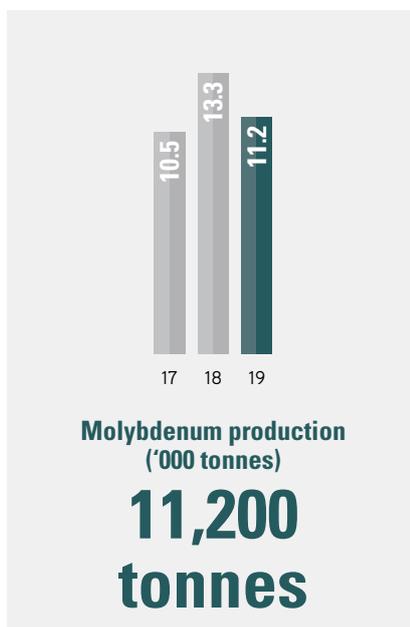
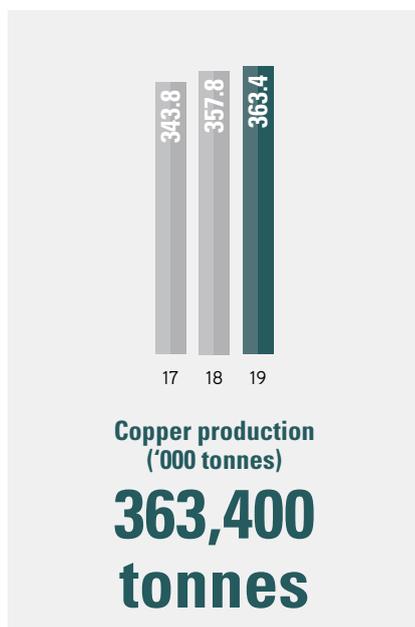
**2020 Forecast**

Copper (tonnes)  
**350–360,000**

Molybdenum (tonnes)  
**10–11,000**

Gold (ounces)  
**50–60,000**

Net cash costs  
**\$1.00/lb**



## 2019 Performance

### Operating performance

Los Pelambres had a strong 2019, meeting its production and outperforming its cost guidance for the full year despite disruptions to its mine supplies during the quarter. This again confirms its position as a stable and reliable world-class operation.

EBITDA at Los Pelambres was \$1,384 million, compared with \$1,428 million in 2018, reflecting slightly lower sales volumes and lower realised prices, partially offset by lower operating costs.

### Production

Copper production for the year increased by 1.6% to 363,400 tonnes due to higher copper grades.

Molybdenum production in 2019 was 11,200 tonnes, 15.8% lower than in 2018 due to lower grades.

Gold production was 59,700 ounces, 5.5% lower than the previous year.

### Cash costs

Cash costs before by-product credits at \$1.40/lb were 7.9% or 12c/lb lower than in 2018, reflecting strong cost performance during the year and the weaker Chilean peso.

Net cash costs for the full year were \$0.91/lb, the same as in 2018, despite lower by-product credits.

### CAPEX

Phase 1 of the Los Pelambres Expansion project started in early 2019.

The capital cost of the project is \$1.3 billion, which includes an additional SAG mill, ball mill and the corresponding flotation circuit with six additional cells and a 400 l/s desalination plant and water pipeline. Throughput at the plant will increase from the current capacity of 175,000 tonnes of ore per day to an average of 190,000 tonnes of ore per day and copper production will increase by 60,000 tonnes.

At the end of 2019, the Los Pelambres Expansion project (engineering, procurement and construction) was 31% complete.

Capital expenditure during 2019 was \$494 million, including \$129 million on mine development and \$235 million on development.

+ [See pages 64-66 for more information](#)

### Outlook for 2020

The forecast production for 2020 is 350–360,000 tonnes of copper, 10–11,000 tonnes of molybdenum and 50–60,000 ounces of gold.

Cash costs before by-product credits are forecast to be approximately \$1.45/lb and net cash costs of \$1.00/lb.



### Los Pelambres Autonomous Drilling Systems (ADS)

During 2019, we developed the ADS project to start operating the first autonomous mining equipment in Los Pelambres. The implementation is expected to decrease the operational risks and improve both operating and maintenance results using a more precise control system.

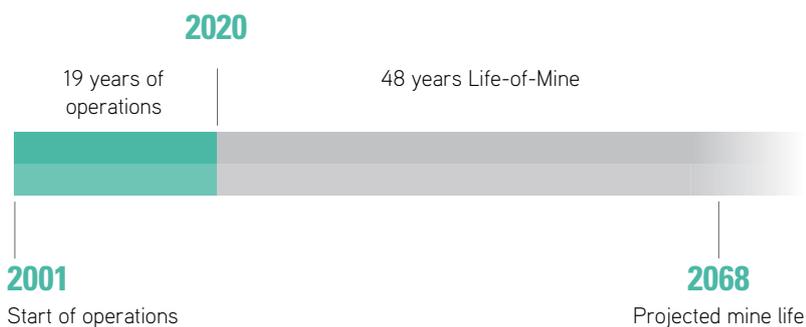
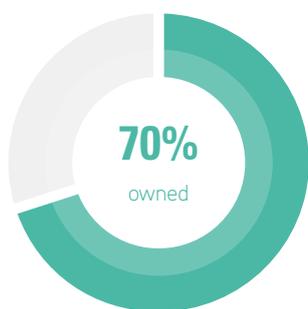
The first two retrofitted drills, equipped with ADS kits, were commissioned at the end of 2019 and are now in operation. Their performance is being evaluated and additional rigs are expected to be converted once the assessment period is successfully concluded.

Mining division

# CENTINELA

Centinela mines sulphide and oxide deposits 1,350 km north of Santiago in the Antofagasta Region, one of Chile’s most important mining areas.

Centinela produces copper concentrate (containing gold and silver) through a milling and flotation process, and molybdenum concentrate. It also produces copper cathodes, using the solvent extraction and electrowinning (SX-EW) process.



**2019 Production**

Copper (tonnes)  
**276,600 +11.5%**

Molybdenum (tonnes)  
**400 +33.3%**

Gold (ounces)  
**222,600 +51.5%**

**2019 Financials**

EBITDA  
**\$960m 48.8%**

Net cash costs  
**\$1.26/lb (16.6%)**

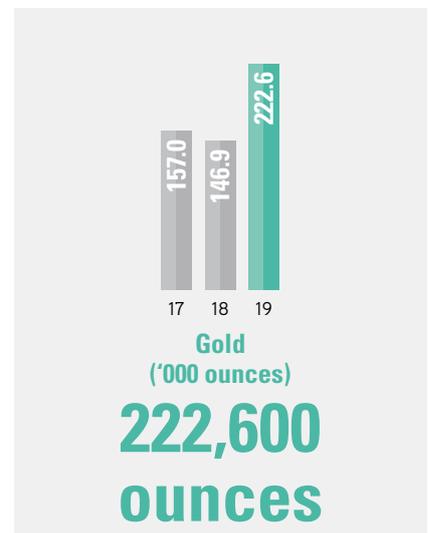
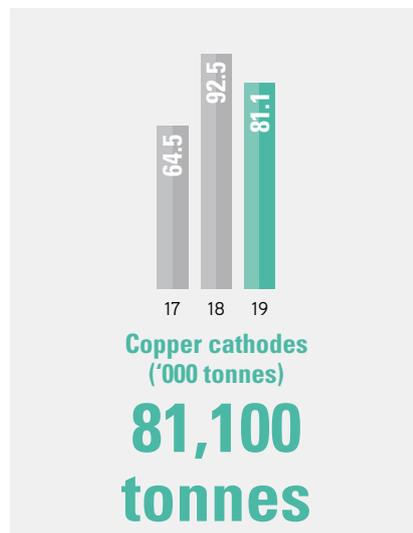
**2020 Forecast**

Copper (tonnes)  
**240–250,000**

Gold (ounces)  
**130–140,000**

Molybdenum (tonnes)  
**2.5–3,000**

Net cash costs  
**\$1.50/lb**



## 2019 Performance

### Operating performance

Centinela had a year of record copper production during 2019 as the sulphide ore grade increased by 21.1%.

EBITDA at Centinela was \$960 million, compared with \$645 million in 2018, on higher copper and gold sales volumes and lower unit costs.

### Production

Copper production for the full year was 276,600 tonnes, 11.5% higher than in 2018 primarily as a result of higher grades at Centinela Concentrates, partially offset by lower grades at Centinela Cathodes.

Production of copper in concentrates for the full year was 25.7% higher than in 2018 at 195,500 tonnes due to higher grades and recoveries.

Cathode production in 2019 was 81,100 tonnes, 12.3% lower than 2018 due to lower oxide grades, partially compensated for by higher throughput.

Gold production was 222,600 ounces, 51.5% higher than in 2018 as a result of expected higher grades and recoveries.

### Cash costs

Cash costs before by-product credits for the full year were \$1.83/lb, 3.2% lower than in 2018, mainly as a result of higher production and the weaker local currency, partially offset by higher input prices.

Net cash costs were \$1.26/lb, 16.6% lower than the previous year, reflecting the lower cash costs before by-product credits and \$0.19/lb higher by-product credits as gold production increased by over 50%.

### CAPEX

Capital expenditure was \$458 million, including \$213 million on mine development.

+ [See pages 64-66 for more information](#)

## Outlook for 2020

Production for 2020 is forecast at 240–250,000 tonnes of copper, 130–140,000 ounces of gold and 2,500–3,000 tonnes of molybdenum.

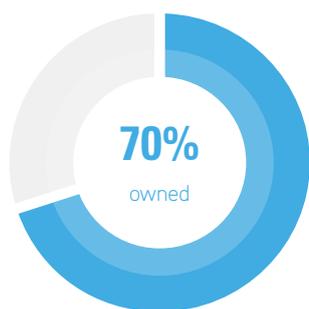
Cash costs before by-products are forecast to be approximately \$2.00/lb and net cash costs \$1.50/lb.



Mining division

# ANTUCOYA

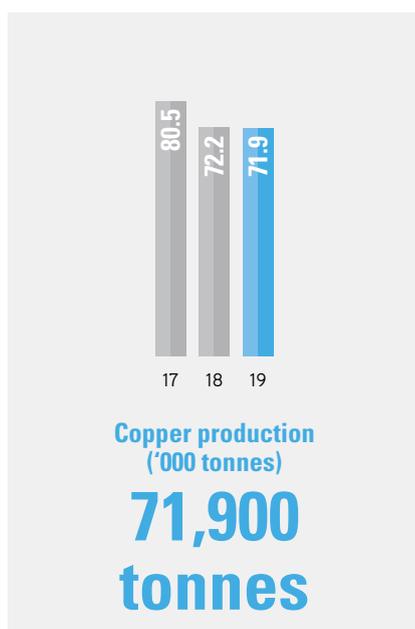
Antucoya is approximately 1,400 km north of Santiago and 125 km north-east of the city of Antofagasta. Antucoya mines and leaches oxide ore to produce copper cathodes using the solvent extraction and electrowinning (SX-EW) process.



**2019 Production**  
Copper (tonnes)  
**71,900 (0.4%)**

**2019 Financials**  
EBITDA  
**\$86m (39.1%)**  
  
Cash costs  
**\$2.17/lb +9.0%**

**2020 Forecast**  
Copper (tonnes)  
**80–85,000**  
  
Cash costs  
**\$1.90/lb**



## 2019 Performance

### Operating performance

Antucoya had a challenging 2019 due to lower than expected plant availability. Several measures have been implemented in the plant and the spent ore stacking process to improve continuity of the operation.

EBITDA was \$86 million compared with \$142 million in 2018, reflecting lower realised prices and higher operating costs.

### Production

Antucoya produced 71,900 tonnes of copper, similar to last year's production as lower throughput was offset by higher grades and recoveries.

### Cash costs

Cash costs for 2019 were \$2.17/lb, 9.0% higher than in 2018, mainly because of higher input prices, particularly acid and higher costs in the spent ore reclaiming and stacking process.

### CAPEX

Capital expenditure was \$50 million, including \$5 million on mine development.

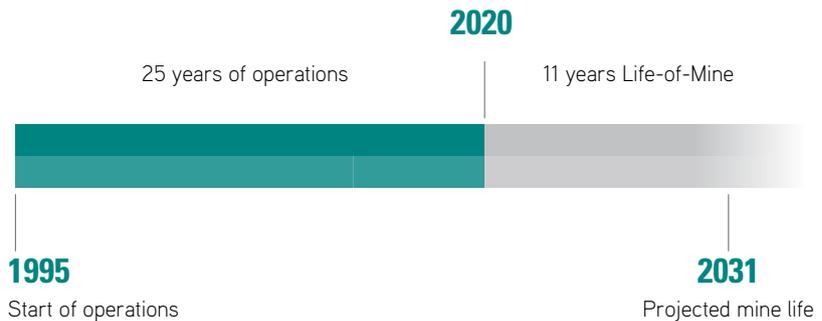
### Outlook for 2020

Production is forecast to be 80–85,000 tonnes of copper and cash costs are expected to be approximately \$1.90/lb.

Mining division

# ZALDIVAR

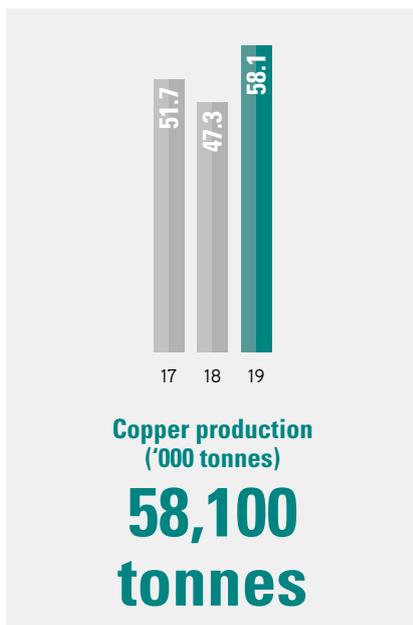
Zaldívar is an open-pit, heap-leach copper mine which produces copper cathodes using the solvent extraction and electrowinning (SX-EW) process. It is located at an elevation of 3,000 metres above sea level, approximately 1,400 km north of Santiago and 175 km south-east of the city of Antofagasta.



**2019 Production (50%)**  
Copper (tonnes)  
**58,100 +22.8%**

**2019 Financials**  
EBITDA  
**\$113m +28.8%**  
  
Cash costs  
**\$1.75/lb (9.8%)**

**2020 Forecast**  
Copper (tonnes)  
**55–60,000**  
  
Cash costs  
**\$1.70/lb**



## 2019 Performance

### Operating performance

Mining entered a high-grade zone of the deposit, improving production and unit costs.

Attributable EBITDA was \$113 million compared with \$87 million in 2018.

### Production

Copper production was 58,100 tonnes, 22.8% higher than 2018, mainly due to higher grades, which increased from 0.82% to 1.04%, and higher plant throughput.

### Cash costs

Cash costs were \$1.75/lb, 9.8% lower than the previous year, mainly because of the higher production and the weaker Chilean peso, partially offset by higher input prices.

### CAPEX

Attributable capital expenditure for 2019 was \$45 million, including approximately \$18 million of mine development.

## Outlook for 2020

Attributable copper production is forecast to be 55–60,000 tonnes at a cash cost of approximately \$1.70/lb.

## Other matters

An Environmental Impact Assessment (EIA) has been submitted for an extension of the mine life to 2031. A decision is expected in late 2020 or early 2021. This EIA includes the extension of the water permit for extraction rights from 2025 to 2031 and remediation.

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.

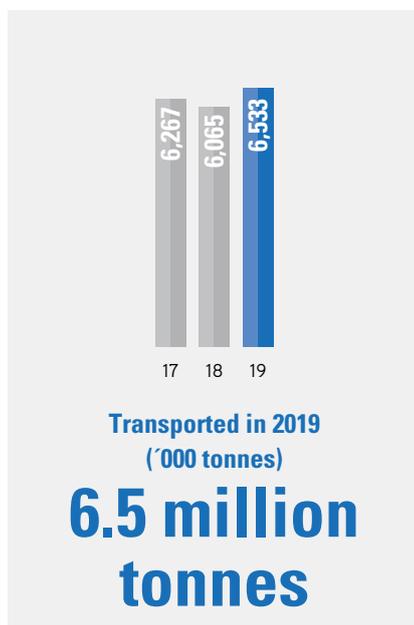
# TRANSPORT DIVISION

Our Transport division is known as Ferrocarril de Antofagasta a Bolivia (FCAB) and provides rail and truck services to the mining industry in the Antofagasta Region, including our own mining operations.

## 2019 Tonnage transported

('000 tonnes)

**6,533 +7.7%**



## 2019 Financials

Revenue

**\$161m (7.1%)**

EBITDA

**\$81m (9.1%)**

## 2019 Performance

Our Transport division continued to improve its operations through the implementation of its Management Model, which is based on five key pillars: operating continuity, growth, urban development, transformation and community affairs.

As production from existing customers has fallen it has become more important that the division expands its customer base, and two new contracts started during the year, which helped increase transport volumes by 7.7% to 6.5 million tonnes.

Transport volumes growth in 2019 was mainly driven by higher sulphuric acid volumes transported to mining customers.

During 2019, 12 new locomotives were commissioned, replacing older equipment and increasing the fleet's haulage capacity and efficiency. This new fleet will also be more fuel efficient than the fleet it replaces.

## Operating performance

The division's EBITDA was \$80.8 million in 2019, which was 9% lower than the previous year, mainly due to a lower sales mix margin, the impact of adverse weather and the effects of the civil unrest in the Antofagasta Region.

## Costs and operating efficiency

Management is focused on optimising the division's business processes to ensure its long-term competitiveness. The Group's Cost and Competitiveness Programme (CCP) has been applied at the division to improve its cost structure and operating standards and has achieved benefits of some \$3 million. The main areas of improvement were lower material and contract costs, and improved operating and maintenance management.

During the year, with more new locomotives, reliability and availability improved significantly. In addition, the old fleet is also performing better following some engine upgrades and the launch of the Sigma project which standardises and automates maintenance controls and has led to improved availability.



## Sustainability

The maturity of the safety processes applied at the division continued to show improvement with no fatalities or accidents with serious consequences to people reported in 2019. The Lost Time Injury Frequency Rate (LTIFR) fell 40% to 4.0 compared with 6.7 in 2018.

During the year, we successfully implemented the Environmental Management Model and launched the Occupational Health Standards for our contractors.

Also, in line with our Diversity and Inclusion Policy, the employment of women and people with disabilities increased to 11% and 1% of the total workforce respectively.

## Outlook

Over the coming years the Company will transport an increasing quantity of bulk materials and is currently working on a project to further increase transport volumes, particularly of copper concentrates.

In the shorter term, some of the division's facilities, trains and trucks are vulnerable to disruptions arising from unrest in the country, which could have a negative impact on the division's operations.

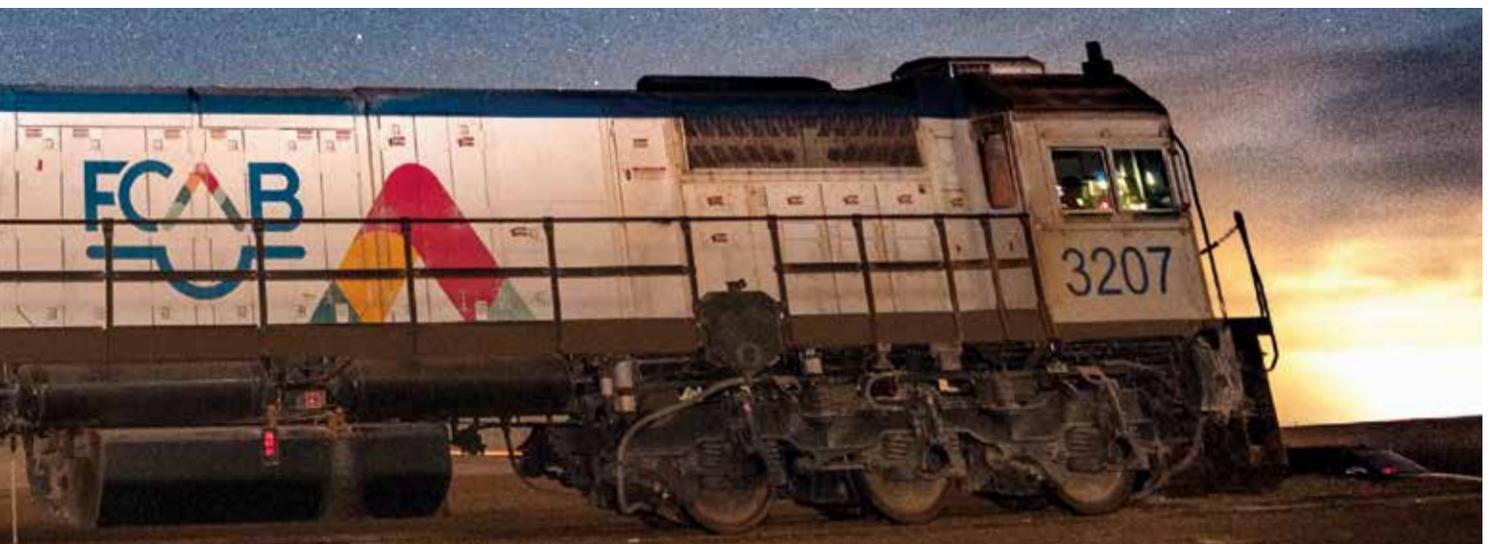
Sustainability practices are improving with the focus on consolidating various safety, environmental management and community affairs programmes.

The division is also advancing its plans to convert land it has in the centre of the city of Antofagasta from industrial to urban use. We have been consulting with communities and neighbours, and in September submitted the project's Environmental Impact Assessment.



## Customer map

- Road route
- Rail route
- FCAB customers



# GROWTH PROJECTS AND OPPORTUNITIES

Our approach to considered growth means that we focus on everything from controlling capital costs and optimising 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.



Construction of Phase 1 of the Los Pelambres Expansion project started at the beginning of the year and the Esperanza Sur project and the Zaldívar Chloride Leach project were approved by the Board during the year. Also, in December Twin Metals Minnesota presented its Mine Plan of Operations to the US authorities, the first stage of the required permitting process.

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 maximising 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.

## Los Pelambres Expansion

This expansion project is divided into two phases.

### Phase 1

This phase is designed to optimise throughput within the limits of the existing operating, environmental and water extraction permits. Construction started in early 2019 and by the end of the year the project progress to completion was 31%.

Throughput at the plant will increase from the current capacity of 175,000 tonnes of ore per day to an average of 190,000 tonnes of ore per day and first production is expected by the end of 2021. The plant expansion includes an additional SAG mill, ball mill and the corresponding flotation circuit with six additional cells.

Annual copper production will 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 realised.

The capital cost of the project is \$1.3 billion, which includes \$500 million for a 400-litres per second desalination plant and water pipeline. The desalination plant will supply water for the expansion and will act as a back-up for the existing operation in dry conditions such as those the region has been experiencing recently. Desalinated water will be pumped from the coast to the Mauro tailings storage facility, where it will connect with the existing recycling circuit returning water to the Los Pelambres concentrator plant.



## Phase 2

In the second phase of expansion, throughput will increase to 205,000 tonnes of ore per day increasing copper production by 35,000 tonnes per year. As part of this development the Group will submit a new EIA to increase the capacity of the Mauro tailings storage facility and the mine waste dumps, as well as extend certain operating permits. The granting of these permits will extend the mine's life by 15 years beyond the current 15 years, accessing a larger portion of Los Pelambres's 6 billion tonne mineral resources base.

Work began on the environmental baseline study for the new EIA in 2017, along with the early stages of community engagement activities.

Critical studies on tailings and waste storage capacity have been undertaken and are now progressing towards the feasibility study stage.

Capital expenditure for this phase was estimated in the pre-feasibility study in 2014 at approximately \$500 million, the majority of the expenditure being spent on mining equipment and increasing the capacity of the concentrator and the Mauro tailings facilities. The conveyors from the primary crusher in the pit to the concentrator plant will also have to be repowered to support the additional throughput.

## Phase 1

**+60,000 tonnes**

annual copper production

## Phase 2

**+15 years**

Life-of-Mine extension

**+35,000 tonnes**

annual copper production



### **Centinelá Second Concentrator**

We are currently evaluating the construction of a second concentrator and tailings deposit some 7 km from the existing concentrator in two phases. Phase 1 would have an ore throughput capacity of approximately 90,000 tonnes per day, producing copper, gold and molybdenum as by-products, with an annual production of approximately 180,000 tonnes of copper equivalent. Once Phase 1 has been completed and 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, maximising the potential of Centinelá's large resource base.

Ore for the second concentrator would be sourced initially from the Esperanza Sur deposit and later from Encuentro Sulphides. 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 completion of the feasibility study and review for Phase 1 is expected to be completed during 2020. The capital cost estimated in the 2015 pre-feasibility study for Phase 1 was \$2.7 billion, which included capitalised stripping, mining equipment, a concentrator plant, a new tailings deposit, water pipeline and other infrastructure, plus the owner's and other costs. The optimised feasibility study will update these estimates as well as including an evaluation of the potential disposal of Centinelá's existing water infrastructure and the evaluation of a new milling and crushing strategy using high pressure rolls rather than the more traditional SAG mills. In addition, a third party may be invited to provide water to the site and build the new pipeline.

### **Esperanza Sur pit**

The Board has approved a project to open the Esperanza Sur pit at Centinelá. Esperanza Sur is 4 km south of the Esperanza pit and is close to Centinelá'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.

Stripping is expected to start in 2020 and to be completed by the end of 2021 at a capital cost of \$175 million. The stripping will be capitalised and will be carried out by a contractor. The Company is currently evaluating whether to use autonomous mining equipment once the stripping is completed.

Opening the Esperanza Sur pit will improve Centinelá's flexibility to supply its concentrator and the higher grade material, over the initial years, will increase production by some 10–15,000 tonnes of copper per year, compared to how much would be produced if material was solely supplied from the Esperanza pit. This greater flexibility will allow Centinelá to smooth and optimise its year-on-year production profile, which has in the past been variable.

### **Zaldívar Chloride Leach**

The Board approved the Zaldívar Chloride Leach project during the second half of 2019.

The project is expected to increase copper recoveries by approximately 10 percentage points with further upside in recoveries possible, depending on the type of ore being processed. This will increase production at Zaldívar by approximately 10–15,000 tonnes per annum of copper over the remaining life of the mine. Work will begin early in 2020 and the first full year of production is expected to be 2022.

The project requires an upgrade of the Solvent Extraction (SX) plant and the construction of additional washing ponds at an estimated capital cost of \$190 million.

As the Group equity accounts its interest in Zaldívar, capital expenditure at the operation is not included in Group total capital expenditure amounts.

### **Twin Metals Minnesota**

In December 2019, Twin Metals Minnesota presented its Mine Plan of Operations (MPO), a prerequisite for permitting applications, to the US Bureau of Land Management and a Scoping Environmental Assessment Worksheet Data Submittal was also issued to the Minnesota Department of Natural Resources. These submissions start a multi-year scoping and environmental review process that will thoroughly evaluate the proposed project. The review process will include additional baseline data collection, impact analyses, and multiple opportunities for public input, and is expected to take some five years.

Twin Metals Minnesota is a wholly owned copper, nickel and platinum group metals (PGM) underground mining project, which holds the Maturi, Maturi Southwest, Birch Lake and Spruce Road copper-nickel PGM deposits in north-eastern Minnesota, US. In 2018 an update of the pre-feasibility study was completed on an 18,000 tonnes of ore per day project producing an average of 42,000 tonnes of copper per year plus nickel and PGM as by-products, the equivalent of some 65,000 tonnes of copper per year.

### **Reko Diq project**

In July 2019 the World Bank's International Center 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 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.

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.

The proceeds of the award will only be recognised in Antofagasta's financial statements once they are received.

# EXPLORATION ACTIVITIES

We seek to expand our mineral resource base to ensure our long-term future, undertaking exploration activities in Chile and abroad, focused on the Americas.



Exploration in Chile and internationally remains a key contributor to the sustainable long-term growth of our copper business. We have an active programme of early and intermediate-stage projects managed by our exploration teams in Santiago and Toronto. Exploration is managed using these in-house teams and includes a well-balanced portfolio of exploration properties in Chile and Peru. The teams manage their own programmes in Chile and look for opportunities with third parties in the Americas outside of Chile, with the aim of building a portfolio of long-term copper projects.

Exploration and evaluation expenditure, which includes expenditure on pre-feasibility studies, increased by 14% in 2019 to \$111 million compared with 2018, as expenditure at Twin Metals was increased and exploration activities in Chile progressed.

## Chile

Our exploration programmes in the copper belts of northern and central Chile continue, particularly in areas with high prospectivity for porphyry copper, as well as manto and IOCG (Iron Ore Copper Gold)-type deposits. During 2019 the early stage programmes drilled more than 100,000 metres, 10% more than in 2018, with most of the drilling on two properties.

Also, as part of the long-term development of the Centinela Mining District, we continued geological evaluation and drilling at several projects in the area to identify new high-quality projects, particularly leachable oxides.

## International

International exploration efforts remain concentrated on the key copper belts of North and South America, with a strong focus on Peru and western North America. South American activities were led from the Group's office in Santiago and North American efforts from the office in Toronto.

# KEY INPUTS AND COST BASE

Our mining operations depend on many inputs, ranging from energy and water to labour and fuel, the most important of which are reviewed below.

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

Our operations are on the country's main grid, the National Electrical System (SEN), which was created in 2017 when two regional grids were linked together, and provides users with access to a wide range of power generation sources.

The northern sector of the SEN supplies Centinela, Antucoya and Zaldívar, and the central sector supplies Los Pelambres.

Power in the northern sector is from coal-fired stations and, increasingly, renewable sources such as wind and solar, and in the central sector power is primarily from hydroelectric plants.

Each of our operations sources power under medium and long-term contracts, called Power Purchase Agreements (PPAs). Currently most of our power is sourced from thermal stations and prices are indexed to the coal price. However, this situation is changing.

In recent years renewable technologies have significantly reduced in cost and, with the nationwide access provided by the SEN, many new renewable power plants are being built. At the end of 2019, 47% of the SEN's installed capacity was from renewable sources and will increase over the coming years. We are benefiting from these changes and have contracted 65% of our power from renewable sources from 2022 onwards and expect that this will increase to 100% as we continue to transition our power contracts to renewables.

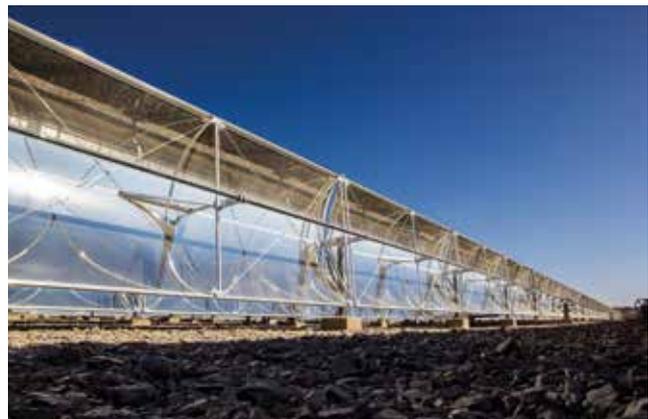
In 2019, Los Pelambres renegotiated one of its PPAs, increasing its use of renewable power, and by 2022 it expects to be supplied entirely from renewable sources.

During the year Antucoya also renegotiated its supply contract and will be 100% renewable from 2022. Zaldívar has already entered into a 100% renewable contract, which will start in July 2020.

Sourcing our energy from renewable sources not only reduces our carbon footprint, but also reduces our power costs and, as electricity makes up 13% of our operating costs, this will have a meaningful impact on our costs.

In addition to reducing the cost of our electricity, we are also improving our energy consumption efficiency. We have an Energy Management System based on international standard ISO 50.001 to manage energy efficiency from the design stage to the construction of mining and infrastructure projects, and in its use at our mining operations.

During 2019, we implemented improvements that reduced our energy consumption by approximately 180 GWh and more than 4 million litres of diesel, equivalent to emissions of 80,000 tonnes of CO<sub>2</sub>, a significant step towards achieving our target of reducing emissions by 300,000 tonnes by 2022.



## Water

Water is a strategic input for all mining operations. At Los Pelambres and Zaldívar water is supplied from continental sources while Centinela and Antucoya use sea water.

In 2019, sea water accounted for 46% of total Group water use and our efficiency metric (ICMM defined for reuse and recycling) ranges from 79–97%, depending on the characteristics of each operation.

Los Pelambres recycles approximately 85% of its water and the Los Pelambres Expansion project includes a desalination plant and pipeline to supply 400 l/s of sea water to the operation.

Centinela is a pioneer in efficient water management, becoming the world's first large-scale mining company to operate using raw sea water and thickened tailings, which allow more water to be recycled.

Antucoya also uses only raw sea water, as will the Centinela second concentrator project when it is built.

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.



We report our water consumption according to the ICMM's Minimum Disclosure Standard and the Carbon Disclosure Project's (CDP) water programme methodologies.

### Labour

We employ approximately 25,000 employees and contractors, and accessing a diverse and talented workforce is key to our success. Union labour agreements are in place at all of our mining operations and generally last for a period of three years.

We continue to foster good working relationships with our employees and unions. During 2019 labour negotiations were successfully concluded with the supervisors' unions at Los Pelambres, Zaldívar and Antucoya, and with the workers' union at Antucoya after an 18-day strike.

Contractors account for approximately 74% of our workforce and are responsible for labour negotiations with their own employees. We maintain strong relations with all contractors to ensure operating continuity and require all contractors to adhere to the same key standards as we have for our own employees, particularly in the areas of safety and health.

### Service contracts and key supplies

Corporate agreements for key supplies such as mining equipment, tyres, critical spares and reagents continue to deliver savings, while assuring operating continuity. Our operations have contracts in place for all critical services such as camp administration, employee transport and maintenance. A core team of experts defines product and service categories, and procurement policies and procedures are standardised across our sites.

Synergies and economies of scale are the main targets for all goods and services, where standardisation is possible and, when necessary, customised contracts are negotiated for specific operating or project requirements.

Depending on the strategic position of the supplier, we use a range of approaches, from pure price competition with e-auctions to long-term Group-wide agreements with mechanisms and incentives for bilateral benefits.

Major contracts for goods and services have price adjustment mechanisms in place that reflect the price influence of the associated key commodities such as oil, steel and ammonia, as well as foreign exchange rate variations.

The corporate procurement department works closely with each of the operations to achieve synergies and savings, and improves contractor output and productivity.

In total we have some 3,850 suppliers of goods and services of which 93% are based in Chile.

### Fuel and lubricants

Fuel and lubricants represent approximately 7% of operating costs and are used mainly by trucks for ore and waste haulage. Improving fuel efficiency is 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 fuel price 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 declined by approximately 7.5% during 2019.

Contracts are negotiated centrally by the Corporate Procurement Department to maximise leverage and benefits.

### Sulphuric acid

Sulphuric acid is one of the main inputs for the leaching process for cathode producers and accounts for approximately 5% of the Group's operating costs. Centinela, Antucoya and Zaldívar use approximately 1.5 million tonnes of sulphuric acid per year which is mainly contracted under one-year contracts to secure supply and prices.

During the first half of the year, scheduled smelter upgrades in Chile combined with the maintenance of the Ilo smelter in Peru led to a significant deficit of acid in the region. This pushed up the contracted acid price to around \$130 per tonne. From July onwards, the situation began to normalise and prices ended the year at around \$70 per tonne, similar to the levels agreed for 2020.

### Exchange rate

Approximately 35–40% of our operating costs are in Chilean pesos. The exchange rate with the US dollar is correlated to the copper price as copper exports generate some 50% of Chile's foreign exchange earnings, which provides a natural hedge for the Company. During 2019, the Chilean peso weakened by 7% from Ch\$695/\$1 at the beginning of the year to Ch\$745/\$1 at the end.

# OPERATING EXCELLENCE AND INNOVATION

Excellence, forward thinking and innovation are three of our core values and are central to how we achieve our production targets at competitive costs in a safe environment. We do this through three initiatives, which have different timescales and overlap to a degree. These are the promotion of operating excellence, the implementation of our Cost and Competitiveness Programme and the development of innovative solutions and ideas.



**21%**

through productivity improvements

**\$132m**

of savings achieved in 2019

**79%**

through more efficient contract and input negotiations, consumption rates and better use of maintenance resources

## Operating excellence

We have Operating Excellence departments centrally and at each operation to drive continuous improvement. They apply the “full potential” methodology to challenge existing operating practices, identify opportunities and create value.

The departments have standardised and strengthened production processes at the operations, improving collaboration between key areas, and defining clear roles and responsibilities. The operating areas themselves originate and lead any initiatives and are supported by the Operating Excellence departments. This structure and methodology has helped reduce the variability and deviation of actual results compared to planned production and also optimise asset performance.

During the year more than 60 initiatives were implemented at our operations and were a key contributor to the Cost and Competitiveness Programme savings.

## Cost and Competitiveness Programme

The Cost and Competitiveness Programme (CCP) was introduced in 2014 to reduce our costs base and improve our competitiveness within the industry. Five years later, the CCP’s scope has evolved to reflect the greater maturity level that has been achieved over this period.

During 2019, we have achieved savings of \$132 million, equivalent to \$7c/lb for the year.

The target for 2020 is a further \$100 million of savings, mainly as a result of productivity improvements achieved through applying our operating excellence methodology.

The programme focuses on five areas to deliver sustainable cost reductions and productivity increases:

### Streamlining goods and services procurement:

- Improving the efficiency and quality of purchase contracts while reducing costs
- Centralising procurement to create synergies for the operating companies

### Operating efficiency and asset reliability:

- Maximising plant and equipment availability and minimising variability through continuous improvement
- Ensuring the reliability and performance of assets through planned, proactive and predictive maintenance

### Energy efficiency:

- Optimising energy efficiency and lowering energy contract prices

### Corporate and organisational effectiveness:

- Restructuring the Group’s organisational framework to increase efficiency and reduce costs

### Working capital, capital expenditure and services efficiency:

- Optimising inventory levels, capital expenditure and services costs

## Innovation

Innovation is critical to our strategy of creating long-term value and is a key enabler for safer and sustainable mining development, and our long-term competitiveness and growth. Our innovation strategy is characterised by a focused, collaborative and multi-dimensional approach focused on value creation. We seek to promote a culture that fosters innovation, develops skills and enables transformation.

### Strategic objectives

Our innovation model considers developing or adopting new solutions to improve or transform our current operational practices to solve our main strategic challenges and build our future.

Our strategic objectives are to develop or implement effective solutions to the main operational challenges that limit our operations' ability to reach their full potential (Operational Innovation). We are also implementing our digital roadmap to significantly improve our operations' safety and productivity, and investigating the use of new technologies to address our main strategic challenges (Transformational Innovation).

At the heart of our innovation strategy is, first, to fully understand our challenges and then rethink how we sustainably resolve them.

### Operational Innovation

We are sharing our main operational challenges through an open platform, called Innovaminerals, to capture ideas from inside and outside the Group to resolve our challenges. Since 2016, over 540 ideas have been uploaded onto the platform, 53 of which have been presented to the Innovation Board and 35 have been approved for further evaluation.

We also have a system called PITCH through which suppliers can submit proposals to solve the challenges we have presented. Since 2018 we have considered over 300 proposals of which 15 were adopted by our operations or are being co-developed with us.

We are currently co-developing 24 projects, five of which moved into implementation during 2019. These included, better planning tools for scheduling mine development sequencing and slope stability at Centinela, improving fuel management at Los Pelambres and using drones to detect uncrushable material in stockpiles.

Our portfolio of projects includes both technical and non-technical initiatives across the entire value chain and also the reinforcement of critical safety controls and environmental protection.

### Transformational Innovation

Current transformational strategic initiatives include reducing the volume and improving the monitoring of tailings, transporting large volumes of material over long distances and developing a primary sulphide leach process. On the primary leach process in particular we are generating encouraging results and will be continuing our large-scale pilot programme during 2020.

Additionally, we continue with the implementation of our digital roadmap programmes. These include:

- The evaluation of the construction of a remote operating centre for Centinela in the city of Antofagasta
- Evaluating the use of autonomous trucks at Centinela's new Esperanza Sur pit
- Commissioning the first retrofitted autonomous production drill rigs at Los Pelambres

- Using remote operated auxiliary equipment on the leach dumps at Antucoya and the tailings at Centinela to improve safety and accessibility
- Developing advanced data analytics to better understand and predict the performance of our operations
- Launching a digital transformation programme in 2019 to simplify and streamline corporate support functions, such as accounting, procurement, and maintenance
- Installing robotic arms to fully automate the replacement of SAG mill liners at Los Pelambres

Critical to our success in value creation from the implementation of this roadmap is properly managing change for each of these projects to assure effective adoption. It is important to capture all the existing knowledge and best practices and develop the right skills and talents. To do this we are going to open our own Digital Academy in 2020 to reinforce the generation of adaptive and technical capabilities around digital tools, digital enablers and different work methodologies.

### Case study at Los Pelambres: Increased utilisation of mobile equipment

By improving operating practices, better sequencing co-ordination and improved planning, utilisation of the haulage fleet was improved by 15% over a two-year period, while drilling equipment utilisation increased by 10% during 2019.

### Case study at Centinela: Improving the operation of tailings thickeners

During 2019 we analysed the correlation between the different variables that affect the tailings thickeners' performance and then mapped the interdependence of the most relevant variables.

In 2020 we will use this information to create a digital model of the tailings thickeners using Machine Learning, which will allow us to predict instability under a matrix of scenarios and to provide recommendations on how to maintain a stable and efficient operation.

### Digital Transformation Programme

During 2019, a special team was assembled to implement a Digital Transformation Programme to capture opportunities for value creation by integrating new technologies into our business.

The Programme is expected to be implemented first in the areas of our support functions, such as accounting, human resources, procurement and maintenance.

Among the main technological enablers being considered are the automation of repetitive processes, the implementation of advanced analytics and the use of blockchain technology.

The first applications of digital technology under this programme are expected in 2020.

# THE COPPER MARKET: SUPPLYING METALS FOR A BETTER FUTURE

As the world develops and becomes ever more environmentally aware, the demand for copper increases. We are responding by supplying the copper needed for a more sustainable world.

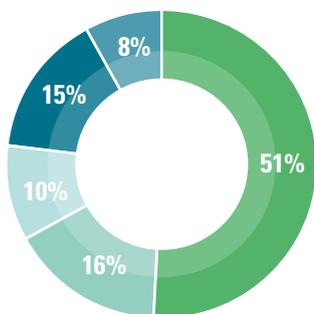
## Refined copper

The year started positively on strong fundamentals and with the threat of production disruptions pushing the copper price up from \$2.70/lb at the beginning of the year to over \$2.90/lb by April. However, sentiment deteriorated as the US-China trade negotiations continued and the threat of production disruptions receded leading to the price slipping to the \$2.60-2.70/lb range. Trading continued in this range until towards the end of the year when increasing optimism that Phase 1 of the trade agreement would be signed improved sentiment and the copper price rose to end the year at \$2.79/lb.

Although copper demand for the year was lower than had originally been expected so was production performance, leaving the market in balance. Visible exchange stocks were down 50,000 tonnes on the year and stocks in Chinese bonded warehouses were estimated to have decreased by 155,000 tonnes. However, total refined production is estimated to have marginally increased by 90,000 tonnes, representing less than 0.5% of the global refined supply with the extra refined production coming from scrap (secondary production).

Our average realised price in 2019 was \$2.75/lb, 2.3% lower than in 2018.

## Copper consumption by region in 2018



- China
- Other Asia
- North America
- Europe
- Rest of world

Source: Wood Mackenzie, Copper Outlook December 2019

## Market outlook

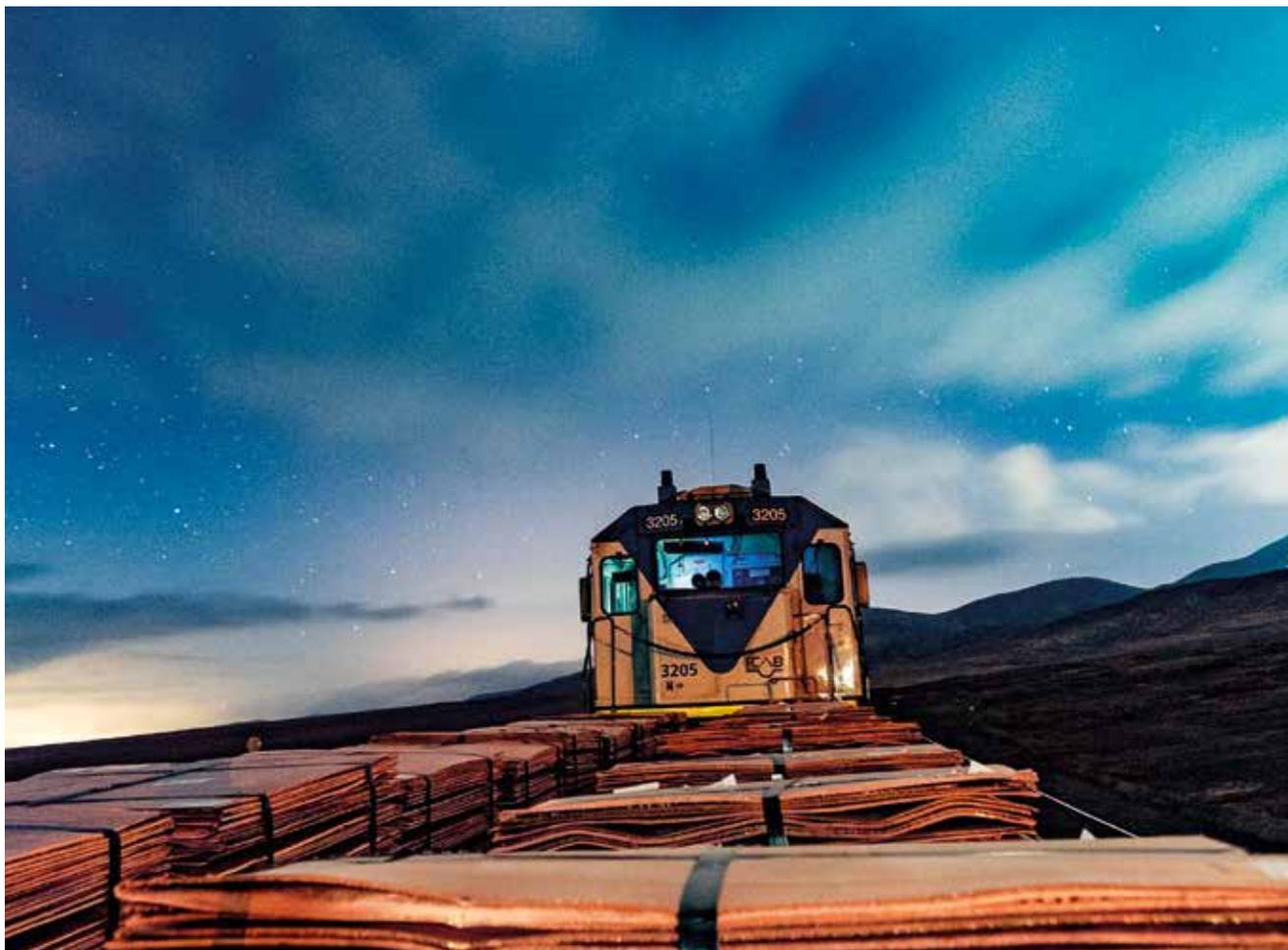
The outbreak of COVID-19 is impacting global GDP growth and the outlook for the year. This, together with the resulting uncertainty, depressed copper demand expectations and copper prices fell to a low of \$2.50/lb in January before recovering slightly. It is not clear how long copper will trade at these levels. This will depend on how quickly the spread of COVID-19 is controlled and how quickly the Chinese and other major economies return to normal.

Globally, demand growth over the coming years is largely driven by the rate of urbanisation, the adoption of electric vehicles and the use of power from renewable sources. These dominant trends are impacting demand growth at different rates in different countries, but the strongest growth is expected to be in China and southeast Asia.

+ [See pages 16-18 for more information](#)

On the supply side growth is expected to be limited in 2020. No major greenfield projects are planned to come on-stream during the year and it is estimated that the general industry decline in the copper grade will result in some 200-300,000 tonnes less copper being produced during the year from existing operations.

Further out, some new production is expected to come into production in 2021 and 2022 while the impact of grade decline will continue.



## Copper concentrate

Some 70% of our copper production is in the form of copper concentrates, so the dynamics of the concentrate market are important and affect the level of treatment and refining charges (“TC/RCs”) we pay. These charges account for some 10% of our costs before by-product credits.

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. The copper concentrate market was in deficit during 2019 and spot TC/RCs were significantly lower than the annual contract TC/RCs negotiated towards the end of 2018. Spot TC/RCs fell sharply during the year, reaching a low of about \$40 per dry tonne of concentrate and 4c/lb of refined copper in August.

Industry TC/RCs for 2020 were set in the fourth quarter of 2019 at \$62 per dry tonne of concentrate and 6.2c/lb of refined copper, a reduction of 23% on 2019’s annual terms.

Further increases in smelter capacity, in a period when the growth in concentrate production is expected to be limited, will keep the copper concentrate market in deficit and TC/RCs low, although the impact of the COVID-19 virus might change this.

## Gold

The gold price during 2019 increased by about 9.8%, peaking during the fourth quarter of the year at an average of \$1,482/oz. The trade tension between China and the US helped support the price of gold during the year and in early 2020 the price strengthened further following the outbreak of the coronavirus.

Gold averaged \$1,393/oz in 2019 compared with \$1,270/oz in 2018 and closed the year at \$1,523/oz. If global economic uncertainty continues in 2020 the gold price is expected to remain strong.

## Molybdenum

The molybdenum price performed strongly for the first nine months of 2019 averaging \$11.9/lb. It then weakened to \$8.9/lb in November and closed the year at \$9.2/lb. Molybdenum is mainly used in making specialist steel alloys and demand is linked to steel production, and particularly its use in the oil and gas industry. Production is mainly as a by-product of copper mining operations.

The price averaged \$11.4/lb for the year compared with \$11.9/lb in 2018. The consensus price for 2020 at the beginning of the year was about \$10.0/lb.



# FINANCIAL REVIEW

The Group maintains a strong financial position, to underpin its returns to shareholders and its investment in its future growth.



# STRONGER EBITDA AND CASH FLOWS

**“Our higher copper and gold sales together with improved unit costs EBITDA increased by 9.5% to \$2,439 million and our operating cash flow by 37%.”**

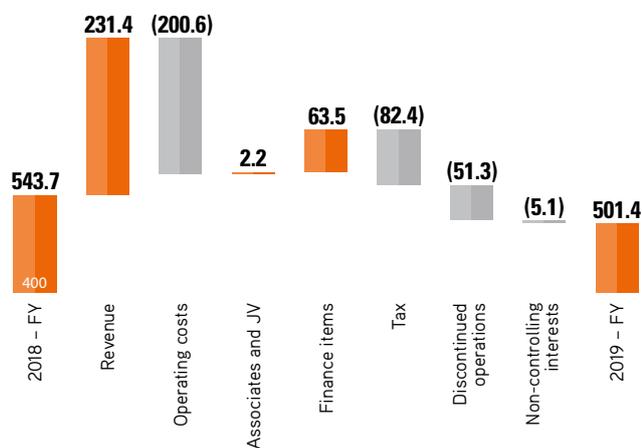
**Alfredo Atucha**  
Chief Financial Officer

## Financial review for the year ended 31 December 2019

	Year ended 31.12.2019 Total \$m	Year ended 31.12.2018 Total \$m
<b>Revenue</b>	<b>4,964.5</b>	4,733.1
EBITDA (including results from associates and joint ventures)	<b>2,438.9</b>	2,228.3
Total operating costs	<b>(3,588.7)</b>	(3,388.1)
<b>Operating profit from subsidiaries</b>	<b>1,375.8</b>	1,345.0
Net share of results from associates and joint ventures	<b>24.4</b>	22.2
<b>Total profit from operations, associates and joint ventures</b>	<b>1,400.2</b>	1,367.2
Net finance expense	<b>(51.0)</b>	(114.5)
<b>Profit before tax</b>	<b>1,349.2</b>	1,252.7
Income tax expense	<b>(506.1)</b>	(423.7)
<b>Profit from continuing operations</b>	<b>843.1</b>	829.0
<b>Discontinued operations</b>	<b>-</b>	51.3
<b>Profit for the year</b>	<b>843.1</b>	880.3
Attributable to:		
Non-controlling interests	<b>341.7</b>	336.6
<b>Profit for the financial year attributable to the owners of the parent</b>	<b>501.4</b>	543.7
<b>Basic earnings per share</b>	<b>US cents</b>	<b>US cents</b>
From continuing operations	<b>50.9</b>	51.5
From discontinued operations	<b>-</b>	3.6
<b>Total continuing and discontinued operations</b>	<b>50.9</b>	55.1

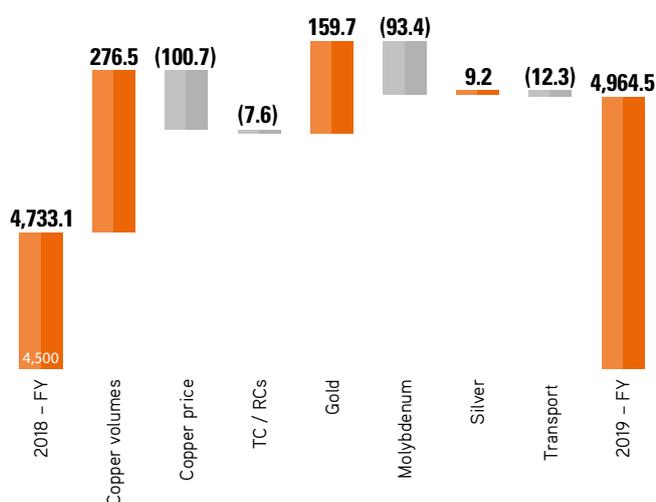
## Net earnings

The \$42.3 million decrease in the profit for the financial year attributable to the owners of the parent from \$543.7 million in 2018 to \$501.4 million in the current year was mainly due to the impact of the profit from discontinued operations in 2018. Excluding this one-off gain, the profit from continuing operations attributable to the owners of the parent in 2018 was \$507.8 million, and so the decrease in 2019 was \$6.4 million or 1.3%. The full reconciliation between 2018 and 2019 is as follows:



## Revenue

The \$231.4 million increase in revenue from \$4,733.1 million in 2018 to \$4,964.5 million in the current year reflected the following factors:



## Revenue from the Mining division

Revenue from the Mining division increased by \$243.7 million, or 5.3%, to \$4,804.0 million, compared with \$4,560.3 million in 2018. The increase reflected a \$168.2 million improvement in copper sales and a \$75.5 million increase in by-product revenues.

## Revenue from copper sales

Revenue from copper concentrate and copper cathode sales increased by \$168.2 million, or 3.9%, to \$4,083.4 million, compared with \$3,915.2 million in 2018. The increase reflected the impact of \$276.5 million of higher sales volumes, partly offset by \$100.7 million of lower realised prices and \$7.6 million of higher treatment and refining charges.

## (i) Copper volumes

Copper sales volumes reflected within revenue increased by 6.6% from 671,100 tonnes in 2018 to 715,500 tonnes in 2019, increasing revenue by \$276.5 million. This increase was due to higher copper sales volumes at Centinela (46,900 tonne increase) as a result of its increased production volumes and decrease in finished goods inventories, and at Antucoya (300 tonne increase), partly offset by lower sales volumes at Los Pelambres (2,800 tonne decrease).

## (ii) Realised copper price

The average realised price decreased by 2.1% to \$2.75/lb in 2019 (2018 – \$2.81/lb), resulting in a \$100.7 million decrease in revenue. While the LME average market price decreased by 8.1% to \$2.72/lb (2018 – \$2.96/lb), this was offset by a positive provisional pricing adjustment of \$27.3 million. The provisional pricing adjustment mainly reflected the increase in the period-end mark-to-market copper price to \$2.81/lb at 31 December 2019, compared with \$2.71/lb at 31 December 2018.

Realised copper prices are determined by comparing revenue (gross of treatment and refining charges for concentrate sales) with sales volumes in the period. Realised 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).

Further details of provisional pricing adjustments are given in Note 6 to the financial statements.

## (iii) Treatment and refining charges

Treatment and refining charges (TC/RCs) for copper concentrate increased by \$7.6 million to \$252.1 million in 2019 from \$244.5 million in 2018, mainly due to the increase in the concentrate sales volumes at Centinela, partly offset by lower average TC/RC rates. Treatment and refining charges are deducted from concentrate sales when reporting revenue and hence the increase in these charges has had a negative impact on revenue.

## Revenue from molybdenum, gold and other by-product sales

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 \$75.5 million or 27.7% to \$720.6 million in 2019, compared with \$645.1 million in 2018. This increase was mainly due to higher gold revenue partly offset by lower molybdenum sales.

Revenue from gold sales (net of treatment and refining charges) was \$407.7 million (2018 – \$248.0 million), an increase of \$159.7 million which mainly reflected an increase in volumes as well as a higher realised price. Gold sales volumes increased by 45.8% from 198,100 ounces in 2018 to 288,800 ounces in 2019, mainly due to higher grades and recoveries at Centinela. The realised gold price was \$1,416.0/oz in 2019 compared with \$1,256.3/oz in 2018, reflecting the average market price for 2019 of \$1,393.5/oz (2018 – \$1,269.6/oz), adjusted for a positive provisional pricing adjustment of \$7.4 million.

Revenue from molybdenum sales (net of roasting charges) was \$254.6 million (2018 – \$348.0 million), a decrease of \$93.4 million. The decrease was due to the lower realised price of \$10.8/lb (2018 – \$12.4/lb) and decreased sales volumes of 12,100 tonnes (2018 – 14,000 tonnes).

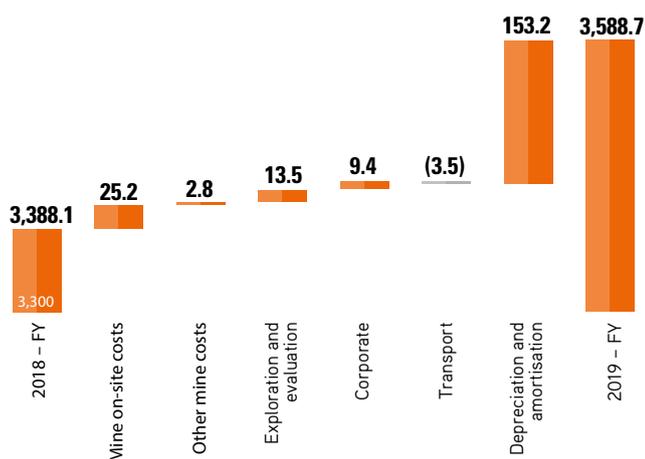
Revenue from silver sales increased by \$9.2 million to \$58.3 million (2018 – \$49.1 million). The increase was due to higher sales volumes of 3.6 million ounces (2018 – 3.3 million ounces) as well as an increase in the realised silver price to \$16.4/oz (2018 – \$15.3/oz).

### Revenue from the Transport division

Revenue from the Transport division (FCAB) decreased by \$12.3 million or 7.1% to \$160.5 million, mainly due to lower revenue from the sales volumes of industrial water (\$4.8 million impact), lower tonnages transported, relating to some Bolivian customers, and the impact of the weaker Chilean peso, partly offset by slightly higher tonnages transported, relating to Chilean customers.

### Operating costs

The \$200.6 million increase in total operating costs from \$3,388.1 million in 2018 to \$3,588.7 million in the current year reflected the following factors:



### Operating costs (excluding depreciation, amortisation and loss on disposals) at the Mining division

Operating costs (excluding depreciation, loss on disposals and impairments) at the Mining division increased by \$50.9 million to \$2,556.0 million in 2019, an increase of 2.0%. Of this increase, \$25.2 million is attributable to higher mine-site operating costs. This increase in mine-site costs reflected the higher production volumes and activity levels in the year, higher key input prices and higher administrative and commercial costs, partly offset by cost savings from the Group's Cost and Competitiveness Programme, the adoption of the new IFRS 16 Leases accounting standard and the weaker Chilean peso. However, 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 \$1.55/lb in 2018 to \$1.49/lb in 2019.

The Cost and Competitiveness Programme has been implemented to reduce the Group's cost base and improve its competitiveness within the industry. During 2019 the programme achieved benefits of \$132 million, of which \$104 million reflected cost savings and \$28 million reflected the value of productivity improvements. Of the \$104 million of cost savings, \$82 million related to Los Pelambres, Centinela and Antucoya, and therefore impacted the Group's operating costs, and \$22 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 \$2.8 million. Exploration and evaluation costs increased by \$13.5 million to \$111.1 million (2018 - \$97.6 million), with the most significant factor being the increased drilling work at Los Pelambres, Centinela and Antucoya in relation to the reserve and resource estimates. Corporate costs increased by \$9.4 million.

### Operating costs (excluding depreciation, amortisation and loss on disposals) at the Transport division

Operating costs (excluding depreciation, amortisation and loss on disposals) at the Transport division decreased by \$3.5 million to \$105.7 million, mainly due to lower fuel consumption and a slightly lower diesel price, and the impact of the weaker Chilean peso.

### Depreciation, amortisation and disposals

The depreciation and amortisation charge increased by \$153.8 million from \$760.5 million in 2018 to \$914.3 million. This mainly reflected increased depreciation of lease assets as a result of the implementation of IFRS 16 Leases, higher amortisation of IFRIC 20 stripping costs, decreased deferral of depreciation in inventories and increased depreciation of the Centinela concentrator plant due to the increased production volumes. The loss on disposal of property, plant and equipment was \$12.7 million, a decrease of \$0.6 million (2018 - \$13.3 million).

### Operating profit from subsidiaries

As a result of the above factors, operating profit from subsidiaries increased in 2019 by 2.3% to \$1,375.8 million (2018 - \$1,345.0 million).

### Share of results from associates and joint ventures

The Group's share of results from associates and joint ventures was a profit of \$24.4 million in 2019, compared with \$22.2 million in 2018, with the increase mainly reflecting higher profits from Zaldívar. 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, which is included within the total \$22.2 million share of results from associates and joint ventures for the prior year.

### EBITDA

EBITDA (earnings before interest, tax, depreciation and amortisation) increased by \$210.6 million or 9.5% to \$2,438.9 million (2018 - \$2,228.3 million). EBITDA includes the Group's proportional share of EBITDA from associates and joint ventures.

EBITDA from the Group's Mining division increased by 10.2% from \$2,139.4 million in 2018 to \$2,358.1 million this year. This reflected the higher revenue explained above, partly offset by slightly higher mine-site costs and increased exploration and evaluation expenditure.

EBITDA at the Transport division decreased by \$8.1 million to \$80.8 million in 2019, reflecting the decreased revenue explained above, partly offset by the lower operating costs.

### Commodity price and exchange rate sensitivities

The following sensitivities show the estimated approximate impact on EBITDA for 2019 of a 10% movement in the average copper, molybdenum and gold prices and a 10% movement in the average US dollar/Chilean peso exchange rate.

The impact of the movement in the average commodity prices reflects the estimated impact on the relevant revenues during 2019, 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 during the year ended 31.12.19	Impact of a 10% movement in the commodity price/exchange rate on EBITDA for the year ended 31.12.19 \$m
Copper price	\$2.72/lb	460
Molybdenum price	\$11.4/lb	30
Gold price	\$1,393/oz	40
US dollar/Chilean peso exchange rate	703	125

### Net finance expense

Net finance expense decreased by \$63.5 million to \$51.0 million, compared with \$114.5 million in 2018.

	Year ended 31.12.19 \$m	Year ended 31.12.18 \$m
Investment income	47.1	30.1
Interest expense	(111.1)	(113.5)
Other finance items	13.0	(31.1)
<b>Net finance expense</b>	<b>(51.0)</b>	<b>(114.5)</b>

Interest income increased from \$30.1 million in 2018 to \$47.1 million in 2019, mainly due to the increase in average interest rates as well as a higher average cash balance.

Interest expense decreased slightly from \$113.5 million in 2018 to \$111.1 million in 2019. This reflected a lower average borrowing balance due to loan repayments, which was largely offset by the increase in the average LIBOR rate and the adoption of the new accounting standard IFRS 16 Leases which resulted in an additional \$10 million of interest expenses in the year, as explained in Note 1 to the financial statements.

Other finance items were a net gain of \$13.0 million (2018 – net expense of \$31.1 million). This reflected an expense of \$22.7 million for the unwinding of the discounting of provisions (2018 – \$12.7 million) and a gain of \$35.8 million in respect of foreign exchange due to the weakening of the Chilean peso (2018 – expense of \$18.3 million).

### Profit before tax

As a result of the factors set out above, profit before tax increased by 7.7% to \$1,349.2 million (2018 – \$1,252.7 million).

### Income tax expense

The tax charge for 2019 was \$506.1 million (2018 – \$423.7 million) and the effective tax rate was 37.5% (2018 – 33.8%).

	Year ended 31.12.2019		Year ended 31.12.2018	
	\$m	%	\$m	%
<b>Profit before tax</b>	<b>1,349.2</b>		1,252.7	
Tax at the Chilean corporate tax (first category tax) rate of 27.0%	(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 taxes	(59.3)	4.4	(4.5)	0.4
Tax effect of share of results of associates and joint ventures	4.7	(0.4)	3.0	(0.2)
Unrecognised tax losses	(33.0)	2.5	(13.8)	1.1
Net other items	0.9	(0.1)	(0.6)	–
<b>Tax expense and effective tax rate for the year</b>	<b>(506.1)</b>	<b>37.5</b>	<b>(423.7)</b>	<b>33.8</b>

The effective tax rate varied from the statutory rate principally due to the mining tax (royalty) (net impact of \$47.5 million/3.5% 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 \$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%).

### Profit from discontinued operations

In 2019 there were no discontinued operations in the Group. On 11 September 2018 the Group completed the disposal of Centinela Transmisión SA, which holds the electricity transmission line supplying Centinela and other external parties, for a cash consideration of \$117.0 million. The profit on disposal was \$49.2 million, which along with the \$2.1 million profit from Centinela Transmisión for the period prior to the disposal, resulted in a total profit from discontinued operations of \$51.3 million in 2018.

### Non-controlling interests

Profit for 2019 attributable to non-controlling interests was \$341.7 million, compared with \$336.6 million in 2018, an increase of \$5.1 million.

## Earnings per share

	Year ended 31.12.19 \$ cents	Year ended 31.12.18 \$ cents
Earnings per share from continuing operations	50.9	51.5
Earnings per share from discontinued operations	–	3.6
<b>Earnings per share from continuing and discontinued operations</b>	<b>50.9</b>	<b>55.1</b>

Earnings per share calculations are based on 985,856,695 ordinary shares.

As a result of the factors set out above, profit attributable to equity shareholders of the Company was \$501.4 million compared with \$543.7 million in 2018, and total earnings per share from continuing and discontinued operations was 50.9 cents per share (2018 – 55.1 cents per share). Earnings per share from continuing operations was 50.9 cents per share (2018 – 51.5 cents per share).

## Dividends

Dividends per share declared in relation to the period are as follows:

	Year ended 31.12.19 \$ cents	Year ended 31.12.18 \$ cents
<b>Ordinary dividends:</b>		
Interim	10.7	6.8
Final	23.4	37.0
<b>Total dividends to ordinary shareholders</b>	<b>34.1</b>	<b>43.8</b>

The Board determines the appropriate dividend each year based on consideration of the Group's cash balance, the level of free cash flow and underlying earnings generated during the year and significant known or expected funding commitments. It is expected that the total annual dividend for each year would represent a payout ratio based on underlying net earnings for that year of at least 35%.

The Board has declared a final dividend for 2019 of 23.4 cents per ordinary share, which amounts to \$230.7 million and will be paid on 22 May 2020 to shareholders on the share register at the close of business on 24 April 2020.

The Board declared an interim dividend for the first half of 2019 of 10.7 cents per ordinary share, which amounted to \$105.5 million.

This gives total dividends proposed in relation to 2019 (including the interim dividend) of 34.1 cents per share or \$336.2 million in total (2018 – 43.8 cents per ordinary share or \$431.8 million in total) equivalent to a payout ratio of 67.0%.

## Capital expenditure

Capital expenditure increased by \$205.9 million from \$872.9 million in 2018 to \$1,078.8 million, mainly due to expenditure on the Los Pelambres Expansion project.

NB: capital expenditure figures quoted in this report are on a cash flow basis, unless stated otherwise.

## 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. At 31 December 2019 the derivative financial instruments in place had a negative fair value of \$7.3 million (2018 – positive \$0.8 million).

## Cash flows

The key features of the cash flow statement are summarised in the following table.

	Year ended 31.12.19 \$m	Year ended 31.12.18 \$m
<b>Cash flows from continuing operations</b>	<b>2,570.7</b>	<b>1,877.0</b>
Income tax paid	(403.6)	(498.0)
Net interest paid	(35.3)	(41.8)
Capital contributions and loans to associates	(1.8)	(8.1)
Disposal of subsidiary and associate	–	145.2
Purchases of property, plant and equipment	(1,078.8)	(872.9)
Dividends paid to equity holders of the Company	(470.3)	(466.9)
Dividends paid to non-controlling interests	(400.0)	(120.0)
Dividends from associates and joint ventures	58.0	16.6
Other items	1.8	(0.2)
Changes in net debt relating to cash flows	240.7	30.9
Other non-cash movements	(214.3)	(154.3)
Effects of changes in foreign exchange rates	6.5	(16.5)
Movement in net debt in the period	32.9	(139.9)
Net debt at the beginning of the year	(596.3)	(456.4)
<b>Net debt at the end of the year</b>	<b>(563.4)</b>	<b>(596.3)</b>

Cash flows from continuing operations were \$2,570.7 million in 2019 compared with \$1,877.0 million in 2018. This reflected EBITDA from subsidiaries for the year of \$2,302.8 million (2018 – \$2,118.9 million) adjusted for the positive impact of a net working capital decrease of \$291.9 million (2018 – working capital increase of \$240.3 million) and a non-cash decrease in provisions of \$24.0 million (2018 – decrease of \$1.6 million). The working capital decrease was mainly due to the \$275 million refund of the one-off short-term VAT payment which had been made in December 2018 and was refunded to the Group as expected in January 2019.

The net cash outflow in respect of tax in 2019 was \$403.6 million (2018 – \$498.0 million). This amount differs from the current tax charge in the consolidated income statement of \$354.4 million (2018 – \$404.5 million) mainly because cash tax payments for corporate tax and the mining tax partly include the settlement of outstanding balances in respect of the previous year's tax charge of \$29.5 million (2018 – \$147.2 million), payments on account for the current year based on the prior year's profit levels of \$456.4 million, as well as the recovery of \$82.3 million in 2019 relating to prior years.

In 2018 the cash inflow from the disposal of a subsidiary and an associate of \$145.2 million related to proceeds from the disposal of Centinela Transmisión (\$117.2 million) and El Arrayan (\$28.0 million).

Contributions and loans to associates and joint ventures of \$1.8 million relate to Tethyan Copper Company.

Capital expenditure in 2019 was \$1,078.8 million compared with \$872.9 million in 2018. This included expenditure of \$493.8 million at Los Pelambres (2018 – \$255.5 million), \$457.6 million at Centinela (2018 – \$502.4 million), \$49.9 million at Antucoya (2018 – \$42.8 million), \$15.9 million at the corporate centre (2018 – \$4.5 million) and \$61.6 million at the Transport division (2018 – \$67.7 million).

Dividends paid to equity holders of the Company were \$470.5 million, of which \$364.8 million related to the payment of the final element of the previous year's dividend and \$105.7 million to the interim dividend declared in respect of the current year. Dividends paid by subsidiaries to non-controlling shareholders were \$400.0 million (2018 – \$120.0 million). Dividends received from associates and joint ventures of \$58.0 million (2018 – \$16.6 million) were mainly related to a \$50.0 million dividend received from Zaldívar.

## Financial position

	At 31.12.19 \$m	At 31.12.18 \$m
Cash, cash equivalents and liquid investments	2,193.4	1,897.6
Total borrowings	(2,756.8)	(2,493.9)
<b>Net debt at the end of the period</b>	<b>(563.4)</b>	<b>(596.3)</b>

At 31 December 2019 the Group had combined cash, cash equivalents and liquid investments of \$2,193.4 million (31 December 2018 – \$1,897.6 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 \$1,849.6 million (31 December 2018 – \$1,615.2 million).

Total Group borrowings at 31 December 2019 were \$2,756.8 million, an increase of \$262.9 million on the prior year (31 December 2018 – \$2,493.9 million). The increase reflected \$469.0 million of additional borrowings at Los Pelambres in respect of the Expansion project, \$131.7 million of lease liabilities recognised upon the implementation of IFRS 16 Leases at 1 January 2019 (as explained in Note 1 to the financial statements), further leases of \$45.3 million recognised during 2019 and non-cash net increases of \$37.7 million (principally accrued interest), partly offset by net repayments of loans and finance leases of \$408.5 million and decreases due to the effects of changes in foreign exchange rates of \$12.3 million. The repayments of borrowings and finance leases of \$408.5 million reflected repayments at Los Pelambres of \$138.2 million, Centinela of \$196.0 million, Antucoya of \$39.8 million, the corporate centre of \$3.5 million and the Transport division of \$31.0 million.

Excluding the non-controlling interest share in each partly-owned operation, the Group's attributable share of the borrowings was \$2,041.3 million (31 December 2018 – \$1,890.5 million).

This resulted in net debt at 31 December 2019 of \$563.4 million (31 December 2018 – \$596.3 million). Excluding the non-controlling interest share in each partly-owned operation, the Group's attributable net debt was \$191.7 million (31 December 2018 – \$275.3 million).

### Cautionary statement about forward-looking statements

This Annual Report contains certain forward-looking statements. All statements other than historical facts are forward-looking statements. Examples of forward-looking statements include those regarding the Group's strategy, plans, objectives or future operating or financial performance, reserve and resource estimates, commodity demand

and trends in commodity prices, growth opportunities, and any assumptions underlying or relating to any of the foregoing. Words such as "intend", "aim", "project", "anticipate", "estimate", "plan", "believe", "expect", "may", "should", "will", "continue" and similar expressions identify forward-looking statements.

Forward-looking statements involve known and unknown risks, uncertainties, assumptions and other factors that are beyond the Group's 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 apply only as at the date of this report. Important factors that could cause actual results to differ from those in the forward-looking statements include: global economic conditions, 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 labour, operating or technical difficulties in connection with mining or development activities, employee relations, litigation, and actions and activities of governmental authorities, including changes in laws, regulations or taxation. Except as required by applicable law, rule or regulation, the Group does not undertake any obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Past performance cannot be relied on as a guide to future performance.

The Strategic Report has been approved by the Board and signed on its behalf by:

**Jean-Paul Luksic**  
Chairman

16 March 2020

**Ollie Oliveira**  
Senior Independent Director



# CORPORATE GOVERNANCE

The Board of Antofagasta plc is responsible for the long-term, sustainable success of the Group, generating value for shareholders and contributing to wider society.

The Board has established strong and effective governance structures that clearly define roles and responsibilities and promote constructive challenge.

These structures reflect the Board's commitment to international best practice and continuing success as an international mining company based in Chile.

## Governance

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# APPLYING THE PRINCIPLES



**“We apply the principles of the Code to our specific circumstances as an international mining company based in Chile.”**

**Jean-Paul Luksic**  
Chairman

## UK Corporate Governance Code compliance statement

The UK Corporate Governance Code issued by the Financial Reporting Council in July 2018 sets out the governance principles and provisions that applied to the Company during the 2019 financial year.

The Code is not a rigid set of rules. It consists of principles and provisions. The Listing Rules require companies to apply the principles and report to shareholders on how they have done so. The Corporate Governance Report that follows has been prepared for this purpose and demonstrates how these principles have been considered and applied to the Company’s specific circumstances.

The Company complied with all of the principles and detailed provisions of the Code in 2019 with the exception of Code Provision 19. This Code Provision, which recommends that the Chairman should not remain in post beyond nine years from the date of his first appointment to the board, was introduced for the first time for accounting periods beginning on or after 1 January 2019. The Company’s Chairman, Jean-Paul Luksic, was appointed to the Board in 1990. He served as Chief Executive Officer of the Group’s Mining division from 1998 until 2004 and was appointed Executive Chairman in 2004. In 2014, he stepped back from executive responsibilities to become Non-Executive Chairman. Mr Luksic’s vast Chilean, mining and business experience and unparalleled knowledge of the Group’s businesses have been, and continue to be, a cornerstone of the Company’s continuing growth and success. The Board considers

that Mr Luksic continues to demonstrate objective judgement and provides constructive challenge and believes that his continued appointment is appropriate without fixing a limit on his continuing length of service. The Company’s major shareholders were invited by the Senior Independent Director to discuss this subject during 2018 and 2019 and expressed their unanimous support for Mr Luksic’s ongoing service as Chairman of the Board.

As Chairman and Chair of the Board’s Nomination and Governance Committee, Mr Luksic fully supports wider succession and diversity planning and has overseen the design and implementation of succession plans to facilitate increased diversity and continual refreshment of the Board. Further details are set out in the Nomination and Governance Committee report on pages 103 to 105.

The UK Corporate Governance Code is available on the Financial Reporting Council website at [www.frc.org.uk](http://www.frc.org.uk).

## How the Code principles were applied in 2019

### Board leadership and company purpose

#### The role of the Board

- The Company is headed by an effective Board, which is collectively responsible for the Company's long-term sustainable success, generating value for shareholders and contributing to wider society as shown throughout this Corporate Governance Report.
- The Board has adopted and actively promotes the Group's purpose statement, vision and values. It has adopted behavioural guidelines, which are consistent with the Company's values and support its long-term sustainable success. This is explained further in the Chairman's introduction – page 86.
- An overview of how the Board ensures that its obligations to shareholders are met is described throughout this Corporate Governance Report.
- The Board considers the matters set out in section 172 of the Companies Act 2006 in Board discussions and decision-making. Examples can be found on page 94.
- The Board has established a framework of prudent and effective controls, enabling risk to be appropriately assessed and managed – pages 110-111.
- The Company's governance framework contributes to the delivery of the Group's strategy – pages 90 and 93.
- There are well-established and effective workforce engagement channels throughout the Group's businesses – page 95.

#### Dialogue with shareholders

- The Senior Independent Director and Chair of the Remuneration and Talent Management Committee met with shareholders during the year – pages 88 and 119.
- The Chairman and Directors met with shareholders at the AGM.

#### Constructive use of general meetings

- The Company held an accessible AGM in central London with voting on a poll, separate resolutions and proxy voting (for, against or withheld).
- The majority of the Directors attended the meeting.
- Committee Chairs were available to answer questions.

#### Division of responsibilities

- The Board is structured to ensure that there is limited scope for an individual or small group of individuals to dominate its decision-making, as demonstrated throughout this Corporate Governance Report.
- The CEO is not a Director of the Company and therefore not a member of the Board – page 99.
- There is a clear division of responsibilities between the leadership of the Board and the executive leadership of the Company's businesses.
- The division of responsibilities between the Chairman, the CEO and the Senior Independent Director are recorded in writing and are available on the Company's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).
- The roles of the Board and the Board Committees are recorded in the Schedule of Matters Reserved for the Board and the Terms of Reference for each of the Board's Committees, which are available on the Company's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

#### The Chairman

- The Chairman is responsible for the leadership of the Board and for its overall effectiveness in directing the Company. His responsibilities are set out on page 99.
- He is responsible for setting the Board's agenda, facilitating effective contribution of Non-Executive Directors and ensuring that the Directors receive accurate, timely and clear information – page 91.

#### Non-Executive Directors

- The Non-Executive Directors constructively challenge management and each other, and help develop proposals on strategy – page 99.

#### Commitment

- All Directors have confirmed they are able to allocate sufficient time to meet the expectations of their role.
- Additional external appointments are not undertaken without the prior approval of the Board.
- Time commitment is considered as part of the Board effectiveness review and when electing and re-electing Directors.
- A review of the Directors' external directorships is carried out annually – page 139.

#### Information and support

- The Board is provided with information in a form and of a quality appropriate to discharge its duties – page 91.
- The Board has access to independent professional advice and to the advice and services of the Company Secretary – page 99.
- The Board is regularly updated on the Group's performance between scheduled Board meetings – page 91.

#### Composition, succession and evaluation

##### Composition of the Board and Committees

- The Board has 11 Directors, comprising a Non-Executive Chairman and ten other Non-Executive Directors, seven of whom are independent.
- All members of the Audit and Risk and Remuneration and Talent Management Committees are independent and three of the four Nomination and Governance Committee members are independent.
- The Board and its Committees comprise Directors with the requisite combination of skills, experience and knowledge to fulfil their roles – pages 96 and 98.
- There is a diverse pipeline for succession, consideration is given to the length of service of the Board as a whole and membership is regularly refreshed – page 104.
- The Roles in the boardroom diagram shows the core responsibilities and participation in Board discussions and deliberations of each Director, the CEO and the Company Secretary – page 99.

##### Appointments to the Board and succession planning

- There is a formal, rigorous and transparent procedure for the identification and appointment of new Directors led by the Nomination and Governance Committee – page 104.
- An external search consultancy was engaged during the year for the appointment of Michael Anglin to the Board as a Non-Executive Director – page 104.
- An effective succession plan has been developed for Board and senior management appointments – page 104.

##### Development

- New Directors receive a thorough induction on joining the Board – page 105.
- Directors are regularly updated with information and training and, as a minimum, receive an annual briefing on legal, regulatory, market and other developments that are relevant to directors of UK-listed companies – page 98.

##### Evaluation

- An externally facilitated Board and Committee effectiveness review was conducted during the year – for full details see page 106.
- Following the review, the Board has agreed an action plan to close any gaps that have been identified – see page 106.

#### Re-election

- All Directors stand for annual re-election. Tim Baker will not be standing for re-election in 2020 – page 96.

#### Audit, risk and internal control Financial and business reporting

- The Board considers that the Annual Report taken as a whole is fair, balanced and understandable – page 140.
- Auditors' report – pages 142-148.
- Review of auditor's independence and objectivity – page 109.
- Robust assessment of principal risks and the Group's risk appetite – pages 24-30.
- Effectiveness of risk management and internal control framework – pages 22-23 and 110-111.
- Going concern statement – page 139.
- Viability statement – page 30.

#### Audit Committee and auditors

- Three out of the four Audit and Risk Committee members are considered to have recent and relevant financial experience – pages 98 and 107
- Significant issues considered by the Committee relating to the financial statements – page 108.
- Whistleblowing policy – page 111.
- Internal audit function – page 110.

#### Remuneration

##### The level and structure of remuneration

- The Company has no executive directors but voluntarily discloses the CEO's remuneration, which includes transparent, stretching and rigorously applied performance-related elements designed to promote the Company's long-term sustainable success – pages 126-137.
- The Directors' and CEO's Remuneration Policy is aligned to the Company's purpose and values, and is clearly linked to the successful delivery of the Company's long-term strategy – pages 117-125.
- The Board has a Remuneration and Talent Management Committee and all members of this Committee are independent. The Chair, Francisca Castro, served as a member of the Committee for more than 12 months before being appointed as Chair of the Committee.

##### Procedure

- The Directors' Remuneration Policy was last approved by shareholders at the 2017 AGM.
- The 2020 Directors' and CEO's Remuneration Policy was reviewed in 2019 in consultation with shareholders and will be put to shareholders for approval at the 2020 AGM – pages 120-125.
- The Board has a formal and transparent procedure for developing remuneration policies – pages 116-125.
- No Director is involved in setting his or her own remuneration and the CEO is not involved in fixing his own remuneration.

# A BETTER FUTURE BUILT ON STRONG AND EFFECTIVE GOVERNANCE

**"We apply international corporate governance best practice to enable us to operate successfully in Chile, where our corporate headquarters, senior management team and all of our operating assets are located."**

**Jean-Paul Luksic**  
Chairman



## **Gonzalo Menéndez**

It was with deep sadness and regret that we reported the passing of Non-Executive Director Gonzalo Menéndez in June 2019 following a period of illness. Mr Menéndez had been a Director of Antofagasta plc since 1985. His involvement with the Group dated back to the beginning of the 1980s, when he was appointed General Manager of the Group's railway business. From that time, Mr Menéndez played a key role in the growth and development of the Group, most recently through his contribution to the stewardship and oversight of the Group as Non-Executive Director. We will greatly miss his honest, forthright and wise counsel.

## **Introduction**

As highlighted in my introductory letter in 2018, we closely monitored the UK corporate governance reforms that were finalised during 2018. We are now delighted to report on how we have applied the new version of the Code that was published in July 2018.

The focus of our reporting is to outline how we have applied the principles of the Code in a way that can be meaningfully evaluated by our stakeholders. This reflects not only the emphasis of the new Code and its broader view of governance, but is also intended to allow everyone concerned to understand the particular circumstances of our Group and how this has influenced how we best apply the Code.

The Board's ability to continue to deliver long-term sustainable success relies on a detailed understanding and reflection of the views of our workforce and stakeholders in Chile, where our corporate headquarters, senior management team and all of our operating companies are located. I invite everyone to keep this in mind when reading this Corporate Governance Report, particularly where comparisons are made between the workforce engagement mechanisms and remuneration arrangements that we believe are appropriate for our circumstances in Chile and those mechanisms and arrangements that other companies may consider appropriate for their own circumstances.

The Board has been pursuing and overseeing a number of important developments during the year, which are highlighted throughout this Corporate Governance Report, a selection of which I would like to highlight in this letter.

## **Our purpose, strategy, culture and vision**

The Board fully embraces the important role that it has in setting the tone for the Group's culture and embedding it throughout the Group. Following the adoption of our purpose statement in 2018 – Developing Mining for a Better Future – we oversaw updates to the Group's strategic framework during 2019, described in detail on pages 92-93, which defines our strategy, culture and vision and is explicitly aligned with our purpose of Developing Mining for a Better Future.

The Board also reviewed amendments to several of the Group's most important policies during the year. This process has been complemented by the launch of behavioural guidelines for employees which set out, in concrete terms, the specific workplace behaviours we consider to be in line with each of our core values and truly reflective of our unique culture.

## **Stakeholder considerations and workforce engagement**

Mining is a long-term business and our relationships with our workforce, local communities, suppliers, governments, customers and shareholders are central to our long-term success. The Group's governance structures include a network of arrangements to ensure that the views and interests of stakeholders are represented in the boardroom and considered as part of deliberations. Some examples of Board decisions that were made during the year and how the interests of our stakeholders were taken into account are on page 94.

Boardroom discussions are enhanced by an understanding of the culture and context of activities at our various sites. Along with my fellow Directors, I regularly visit the Group's operations and projects to understand first-hand the realities and challenges that exist on site. These visits provide us with a deeper understanding of the topics that are important for our workforce, local communities and other stakeholders.

We engage constantly with our workforce, not only in the years when there are scheduled union negotiations. This open dialogue is key to maintaining good relations and is a testament to the trust that has been built up between the Company and its employees. While this year saw our first strike, at Antucoya, which lasted for 18 days, it was successfully resolved after constructive talks. Wage negotiations were also satisfactorily completed at Los Pelambres and Zaldívar and with one of the other unions at Antucoya. Details of our workforce engagement mechanisms are on page 95.

### Risk management and internal control

The Board oversaw the further maturation of the Group's risk management and internal control framework during the year. The Board has established a framework of prudent and effective internal controls and a system for the identification and management of risk to ensure the financial viability of the Group. As part of this process the Board decides the nature and extent of the significant risks the Group is willing to take to achieve its strategic objectives. The framework provides structure to our policies and practices throughout the business, which also ensures that the Board can focus on the most appropriate issues. This also enables the Board to prioritise its time and resources properly in order to actively monitor management's execution of approved strategic plans, as well as the transparency and adequacy of the internal and external communication of strategic plans. Further details can be found on pages 22-23 and 110-111.

### Board changes and succession planning

Wider succession and diversity planning has been a key area of focus for the Board for a number of years.

Following nine years of dedicated service, Tim Baker, a Non-Executive Director of the Company since 2011, will not stand for re-election as a Director at the Company's upcoming Annual General Meeting. I would like to thank Tim for the significant contribution he has made to the Company as a Director, Remuneration and Talent Management Committee Chair, and member of all Board Committees at different stages over this time. The Group has benefited enormously not only from Tim's vast mining operations experience, but also from his dedicated stewardship of the Remuneration and Talent Management Committee from 2011 until 2019.

We were delighted to appoint two new Directors to the Board over the last year. Michael Anglin was appointed in May 2019. He then joined the Remuneration and Talent Management and Projects Committees in September 2019 and his significant mining operations experience will continue to be of great value to the Board following Tim's departure.

Tony Jensen was appointed on 13 March 2020. Shareholders will be invited to vote on the election of Tony Jensen and the re-election of all other Directors (other than Tim Baker) at the Company's Annual General Meeting in May.

### External Board evaluation

Our 2019 Board evaluation was performed by independent external consultant, Clare Chalmers. As part of her review, Ms Chalmers conducted interviews with Directors and senior management, observed a Board meeting and participated in a safety leadership site visit to Los Pelambres. The review was designed so Ms Chalmers could identify and record observations as well as any key themes identified collectively by the Directors during one-to-one interviews. Further details on the process and actions arising from the review can be found on page 106.

### Shareholder engagement

I encourage all Directors to meet with shareholders. During the year, Ollie Oliveira, Senior Independent Director, Chair of the Audit and Risk and Projects Committees, and Francisca Castro, Chair of the Remuneration and Talent Management Committee, met with shareholders to discuss various matters, including corporate governance, risk management and the Company's remuneration policies.

The Board also receives regular summaries and feedback regarding meetings held as part of the investor relations programme. The Company's Annual General Meeting is also an opportunity to communicate with both institutional and private shareholders and, along with my fellow Directors, I look forward to seeing you at the Annual General Meeting.

### Jean-Paul Luksic

Chairman

# ENSURING EFFECTIVE GOVERNANCE

**“My role is to ensure that the Chairman, the Board and the management team receive independent and objective feedback and challenge, as well as a balanced view of issues that are relevant and important for shareholders of UK-listed companies.”**

**Ollie Oliveira**

Senior Independent Director



## **Q.What are your responsibilities as Senior Independent Director?**

I am appointed by the Board to act as a sounding board for the Chairman and to serve as an intermediary for the other Directors and shareholders. My role is to support the Chairman on several levels. I advise him on corporate governance matters and I seek to ensure that the issues that are especially important to the Board's independent Non-Executive Directors are reflected in Board discussions. I lead the annual review of the Chairman's performance and follow up on the closure of gaps identified in internal and externally facilitated reviews of Board and Committees' performance. Most importantly, I provide feedback on issues that matter to the Company's shareholders.

I live in Europe, close to many shareholders, directors at other UK-listed companies and advisers, and I am senior independent director at another large FTSE-listed mining company and a large global mining investment trust, which helps me to ensure that the Chairman, the Board and the Group receive independent and objective feedback and challenge, as well as a balanced view of issues that are relevant and important for shareholders of UK-listed companies.

## **Q.What impact does the controlling shareholding have on Company decisions?**

The Luksic family first acquired an interest in the Company 40 years ago. Since then, the Company has demonstrated an excellent track record in terms of safety, operational expertise and financial acumen.

First as an Independent Director and now as the Senior Independent Director, I have discussed the role of the controlling shareholder with other shareholders, proxy advisers and policy makers. The widely held view is that the substantial controlling interest is regarded positively, with shareholders satisfied that the interests of the controlling shareholder are aligned with theirs, and appreciative of their understanding of the copper price cycle and market fundamentals, long-term vision of the industry, and well-known conservative operating, financial and growth strategy.

Their support is – of course – conditional on the continuation of the current corporate governance framework, which rigorously protects the interests of all shareholders equally.

I, and all the Independent Directors, place a strong emphasis on maintaining this governance and protection regime. We guard our independence and preside over a framework and processes that go beyond the regulatory norm. We are supported and encouraged by the other Directors who – like the Independent Directors – bring their own perspectives and opinions and are committed to the long-term sustainable success of the Company.

The controlling shareholder, and the members of the Luksic family who serve on the Board (including the Chairman), are not just supportive of this framework but actively encourage the Independent Directors to provide the independent input and challenge that we are convinced proves indispensable in Board decision-making.

## **Q.What did you discuss with shareholders in 2019?**

I initiated meetings with a number of shareholders and proxy advisers during the year to understand their perspectives ahead of the 2020 AGM and reporting season, and to explain: the Company's adoption of the 2018 Code, particularly regarding the Board's position with respect to new Code Provision 19, which recommends that the Chairman should not remain in post beyond nine years from the date of his first appointment to the Board, as set out in more detail on page 84; and the Group's existing effective workforce engagement mechanisms which are described in more detail on page 95. I was pleased to receive unanimous support from investors for the Board's position that it is not appropriate to fix a limit on the Chairman's length of service.

I was delighted to hear that levels of concern regarding the Company's corporate governance arrangements continue to be very low and to receive assurances that explanations and the particular circumstances of the Group will be carefully considered when assessing how the Company has applied the new Code in 2019.

**Ollie Oliveira**

Senior Independent Director

### Relationship agreement

The E. Abaroa Foundation is a controlling shareholder of the Company for the purposes of the Listing Rules and certain other shareholders of the Company (including Aureberg Establishment) are also treated as controlling shareholders. Details of the Company's substantial shareholders are set out on page 139.

In 2014, the Company entered into relationship agreements in respect of each controlling shareholder, which contain the mandatory independence provisions required by the Listing Rules. The Company has complied with, and, so far as the Directors are aware, each controlling shareholder and its associates (including Metalinvest Establishment and Kupferberg Establishment) has complied with the mandatory independence provisions at all times during 2019.

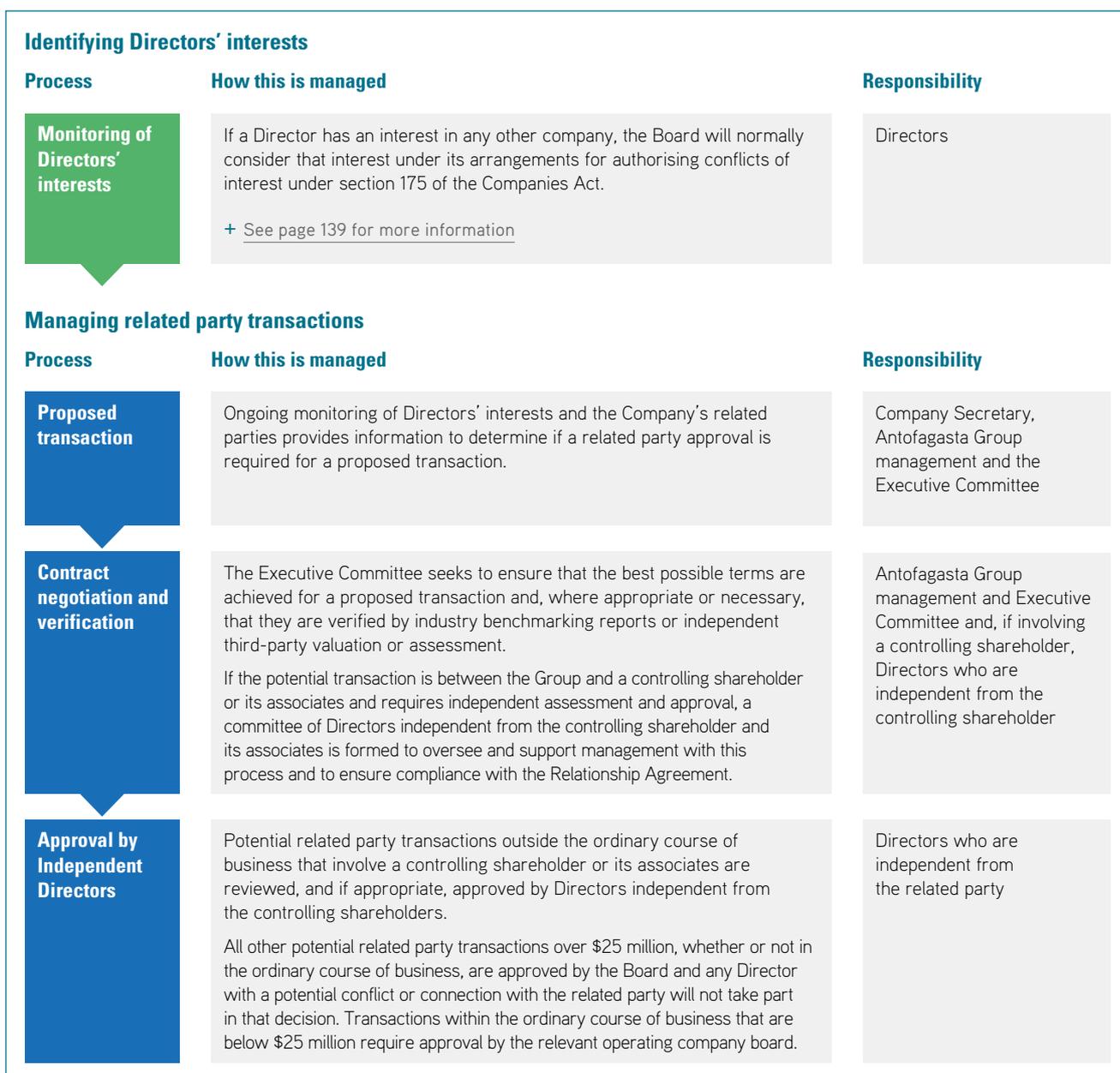
### Related party transactions

Certain related party transactions outside the ordinary course of business must be subject to independent assessment and approval. The Company has for many years presented all such related party transactions between the Company and the controlling shareholders or their associates to a committee of Directors independent from the controlling shareholders, to support the negotiation process and ultimately to make an assessment as to whether the Company should enter into such transactions. In most cases, transactions of this nature will also be subject to independent review by third-party shareholders in each of the Group's mining operating companies.

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.

### Related party governance in practice

There are a number of checks and balances to ensure that there is full transparency in the way that related party transactions are handled by the Board. The following diagram summarises the approach taken to identify and manage related party transactions and actual or potential conflicts of interest.



# A STRUCTURE FOR EFFECTIVE DECISION-MAKING

## Antofagasta plc Board

The Board's role is to promote the long-term, sustainable success of the Company, generating value for shareholders and contributing to wider society. The Board has established the Company's purpose, values, strategy and risk appetite and monitors the culture of the Group as well as ongoing performance against these measures.

The schedule of matters reserved for the Board was revised in 2019 and is available on the Company's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

### KEY RESPONSIBILITIES

- Culture
- Strategy and management
- Governance
- Shareholder engagement
- Internal controls, risk management and compliance
- Financial and performance reporting
- Structure and capital
- Approving material transactions

## Board Committees

**Nomination and Governance**

**Audit and Risk**

**Sustainability and Stakeholder Management**

**Projects**

**Remuneration and Talent Management**

The Board is assisted in its responsibilities by five Board Committees. The Board has delegated authority to these Committees to perform certain activities as set out in their terms of reference.

The Chair of each Committee reports to the Board following each Committee meeting, allowing the Board to understand and, if necessary, discuss matters in detail and consider the Committee's recommendations.

The terms of reference for each Committee were revised in 2019 and are available on the Company's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

### KEY RESPONSIBILITIES

The key responsibilities of each Committee are set out on page 102.

## CEO and Executive Committee

The Board has delegated day-to-day responsibility for implementing the Group's strategy and fostering the corresponding organisational culture to the Company's CEO, Iván Arriagada.

Mr Arriagada is not a Director of the Company but is invited to attend all Board and Committee meetings and is supported by the members of the Executive Committee, each of whom has executive responsibility for his or her respective functions.

Mr Arriagada chairs the Executive Committee.

The Executive Committee reviews significant matters and approves expenditure within designated authority levels.

The Executive Committee leads the annual budgeting and planning processes, monitors the performance of the Group's operations and investments, evaluates risk and establishes internal controls, and promotes the sharing of best practices across the Group.

## Subcommittees of the Executive Committee

**Operating Performance Review**

**Business Development**

**Disclosure**

**Ethics**

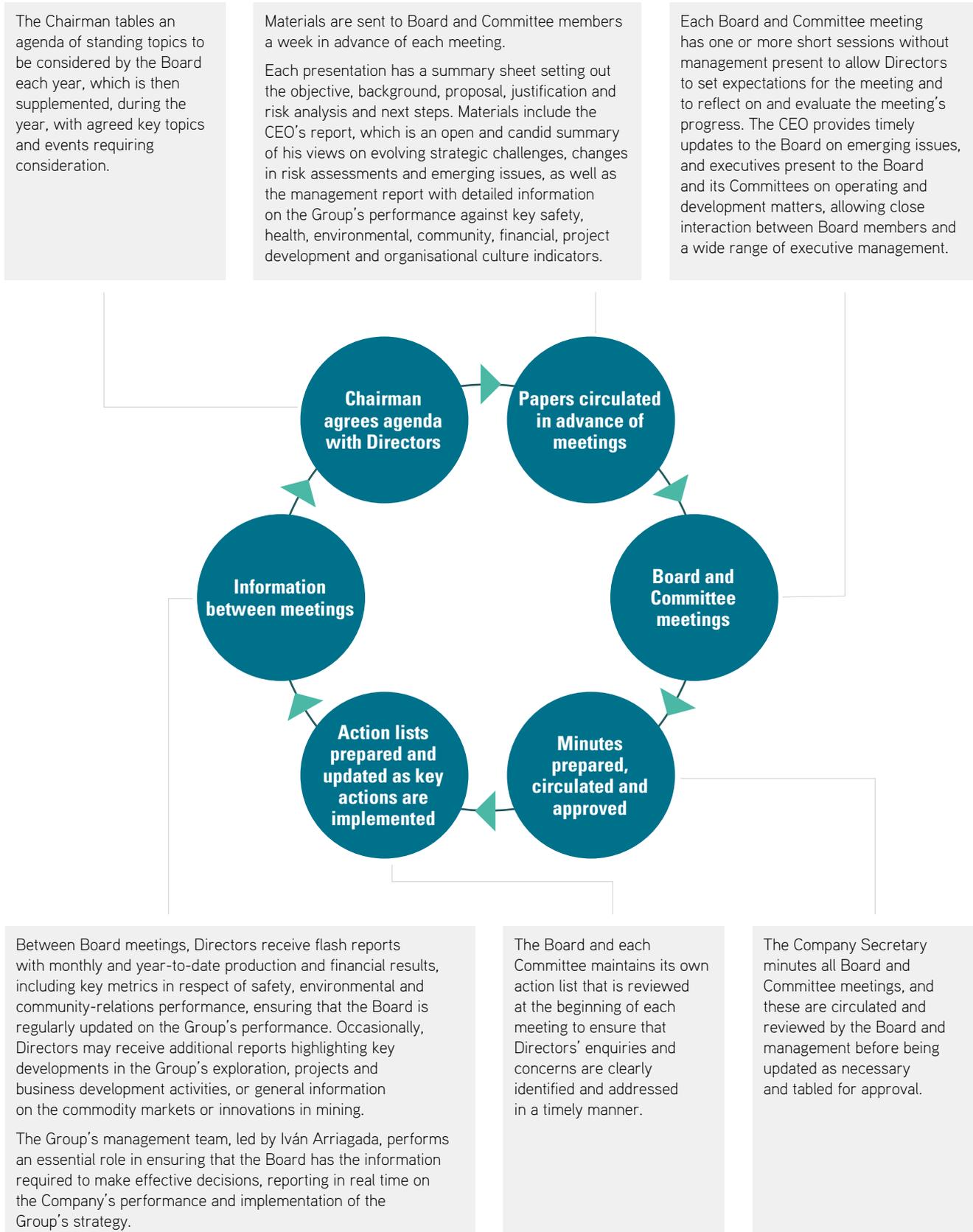
**Project Steering**

The Executive Committee is assisted in its responsibilities by the Operating Performance Review Committee, the Business Development Committee, the Disclosure Committee, the Ethics Committee and, from time to time, Project Steering Committees.

Members of the Executive Committee also sit on the boards of the Group's operating companies and report on the activities of those companies to the Board, Mr Arriagada and the Executive Committee.

Following the introduction of the EU Market Abuse Regulation, the Board adopted its current Disclosure Procedures Manual and delegated to the Disclosure Committee primary internal responsibility for identifying information that may need to be disclosed to the market and for managing the disclosure of such information.

## Board and Committee information flows



# STRATEGIC OVERSIGHT

The Board's 2019 activities focused on oversight and pursuit of the Group's strategy, ensuring critical issues were not overlooked and advising management in the development of strategic priorities and plans that align with the values of the Group and the best interests of our stakeholders.

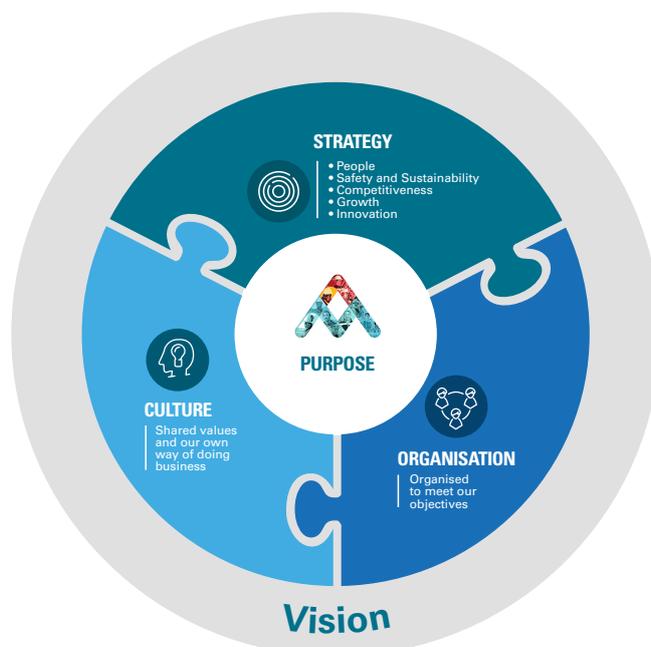
## OUR STRATEGIC FRAMEWORK

We are committed to Developing Mining for a Better Future. This is the purpose that mobilises us and gives meaning to everything we do.

We seek to continue being an international mining company based in Chile, focused on copper and its by-products, known for its operating efficiency, creation of sustainable value, high profitability and as a preferred partner in the global mining industry.

We want to generate an inclusive culture, with values shared by all. We have a Code of Ethics and our own way of doing things, while managing our risks. To be able to achieve this, we rely on the capacity and talent of our workforce and our flexible organisation allows us to overcome current and future challenges.

Below are examples of how the Board's 2019 activities have furthered the Group's strategy.



### Culture

- Visited operations and projects to understand the progress on developing the Group's culture, particularly around safety.
- Oversaw updates to the Group's strategic framework, which in part defines the Group's culture.
- Monitored progress on the implementation of the Group's Diversity and Inclusion Strategy.
- Monitored the implementation of behavioural guidelines which connect specific expected behaviours to the Group's culture.

### Governance and engagement

- Implemented revised governance protocols in accordance with the 2018 Code.
- Reviewed Board succession plans. Each Director withdrew from any meeting when his or her own position was being considered.
- Appointed Michael Anglin to the Board.
- Reviewed Director independence.

- Reviewed Directors' conflict of interest declarations.
- Approved requests by Directors to undertake additional external appointments.
- Approved updates to Committees' terms of reference.
- Oversaw the implementation of key recommendations arising from the 2018 internal and 2019 externally facilitated Board effectiveness reviews.
- Engaged with shareholders on corporate governance matters at the 2019 AGM.
- Monitored feedback from investors regarding the Group's corporate governance arrangements.

### Internal controls, risk management and compliance

- Reviewed the risk management system's maturity level.
- Approved updates to the Group's Risk Management Policy.
- Reviewed the Group's risk appetite statements, which are aligned with the Group's strategic pillars.
- Reviewed the Group's risk matrix, materialised risks and risk mitigation actions.

- Reviewed budgets for initiatives designed to mitigate material identified risks.
- Commissioned an independent audit of data protection.
- Approved the Group's Modern Slavery Act statement.
- Reviewed half-yearly compliance reports.
- Reviewed results of the Group's whistle-blowing processes.
- Reviewed an update on the Company's compliance related training.
- Approved changes to the Group's Compliance and Crime Prevention Models.

### Financial and performance reporting

- Approved the Group's 2018 full-year and 2019 half-year results.
- Recommended and approved the dividends paid to shareholders during 2019.
- Reviewed the Group's financial investment policy.

We have a solid strategy, structured around five pillars: People, Safety and Sustainability, Competitiveness, Growth and Innovation. For each of them, we have long-term objectives with defined, concrete, short- and medium-term goals that will allow us to continue develop mining for a better future.



## People

- Reviewed the annual talent management exercise, including succession plans for the Executive Committee.
- Monitored progress on the implementation of the Group's Diversity and Inclusion Strategy.
- Monitored labour relations at the Group's mining operations and reviewed the results of collective bargaining negotiations.
- Monitored the development of the new employee Total Rewards programme.
- Monitored the implementation of behavioural guidelines which connect specific expected behaviours to the Group's culture.
- Monitored the impact of the civil unrest in Chile, including contingency measures to protect the Group's workforce.



## Safety and Sustainability

- Reviewed and monitored the Group's safety and health performance.
- Reviewed the Group's compliance with environmental commitments and the results of a sustainability audit.
- Continued to monitor the independent review of tailings dam safety at Los Pelambres and Centinela.
- Reviewed progress of the Somos Choapa community relations model and its extension to the operations in the north of Chile.
- Continued to monitor the progress of local community interactions at Los Pelambres.
- Reviewed the Group's disclosures in relation to tailings dam safety.
- Monitored progress on the ICMM's global classification standard for tailings storage facilities.



## Competitiveness

- Monitored results of the Group's Cost and Competitiveness Programme, including possible future savings.
- Approved the renegotiation of key energy contracts at Los Pelambres and Centinela.
- Approved key procurement and sales contracts.
- Reviewed and monitored the Group's financial and operating performance.
- Reviewed and approved the Group's copper concentrate and copper cathode sales strategy.
- Approved an upgrade to the Los Pelambres ore transport system.
- Reviewed and monitored the successful financing of the Los Pelambres Expansion project and refinancing of Antucoya's third-party debt.



## Growth

- Reviewed execution progress for the Los Pelambres Expansion project.
- Approved the execution of the opening of the Esperanza Sur pit.
- Approved the submission by Twin Metals Minnesota of the Mine Plan of Operations to the relevant US authorities.
- Reviewed development and exploration activities, including business development opportunities.
- Reviewed progress on the feasibility study on the expansion of Centinela and approved the 2019 work plan.
- Reviewed progress on the Environmental Impact Assessment submitted in 2018 to extend Zaldívar's water extraction permit from current sources beyond 2025.
- Reviewed and approved the acquisition and divestment of mining properties in Chile.
- Reviewed and approved the Group's commercial parameters.
- Reviewed and approved the base case and development case for the Group's assets.
- Reviewed and approved the Group's 2020 budget.
- Reviewed the Group's reserves and resources statements.
- Reviewed the progress of proposed legislation which could affect the Group's growth possibilities.



## Innovation

- Approved the Zaldívar Chloride Leach project.
- Reviewed progress on the implementation of the Group's digital transformation programme.

# MAKING DECISIONS FOR A BETTER FUTURE

The Board closely monitors the Group's projects pipeline, ensuring that capital costs are controlled and that projects only proceed following detailed review of the long-term proposition for the Group's stakeholders.

The Group maintains ongoing dialogue with stakeholders to understand their expectations and concerns and to include this information in the Board's deliberations. A description of the Group's key stakeholders, their importance to the long-term success of the Group and the key initiatives that are in place to recognise their interests and concerns is set out in detail within the Strategic Report on pages 32 to 50. Further details on the Board's workforce engagement mechanisms are set out on page 95.

Construction of the \$1.3 billion Los Pelambres Expansion project, which includes \$500 million for a 400-litres per second desalination plant and water pipeline, started in early 2019 and the Board monitored construction progress throughout the year, discussing and making recommendations to management in relation to the design and execution of the project to ensure the following:



### Our people

The project continues to meet the commitment that 30% of the project's workers come from the Coquimbo Region and that they are fully trained to meet the safety and other standards required by the Group and for this project.



### Communities

Voluntary commitments are in place to provide professional development to local suppliers, keep roads maintained, and to reinforce the availability of emergency healthcare for local communities. Feedback from the communities in relation to these commitments is reviewed by the Board.



### Suppliers

The business relationship with the project's main EPCM contractor, Bechtel, is working effectively in accordance with the Group's core values and the Group's audit processes and mechanisms are reviewed to ensure that Bechtel's interactions with local supplier associations and local suppliers for the project are functioning in accordance with the Group's policies in relation to safety and health, the environment, ethics, labour conditions, compliance and risk management.



### Customers

The interaction between the project's construction and the operations of Los Pelambres is effectively managed to ensure that there is no interference to the operations of Los Pelambres that could impact its commitment to its customers. This is especially important at the plant, where project construction activities have commenced within the existing plant.



### Shareholders

Capital costs and project execution timing are monitored and controlled to ensure that the project's economics are maintained and that construction progress, including any unforeseen interruptions, is notified to shareholders.



### Governments and regulators

Commitments made under the project's permits, including the environmental permit, are monitored and included within the Group's environmental compliance management system, the results of which are periodically reported to the Board.

The Board also approved construction of the Esperanza Sur project at Centinela and the Zaldívar Chloride Leach project, both in Chile, during the year as well as Twin Metals Minnesota's presentation of a Mine Plan of Operations to the US authorities, which is the first stage of the required permitting process. In approving the progress of these projects, the Directors took into account stakeholder interests in Chile and the US, respectively.

+ Further information on the Group's growth projects and opportunities are on pages 64-66.

# UNDERSTANDING THE VIEWS OF OUR WORKFORCE

Mining is a long-term business and timescales often run into decades. Our relationships with our stakeholders are central to our long-term success and to our purpose of developing mining for a better future. The Group's governance structures include a network of arrangements to ensure that the views and interests of stakeholders, including our employees and contractors, are represented in the boardroom and considered as part of the Board's deliberations.

The Group maintains strong relations with its workforce based on trust, continuous dialogue and favourable working conditions. Over the last two years, the Board has carefully considered and thoroughly reviewed the mechanisms that are in place to allow the Board to understand the views of the Group's workforce. Ultimately, the Board has decided not to adopt any of the three workforce engagement mechanisms that are recommended in the Code. The Board considers that adopting any of these mechanisms would interfere with the effective, structured and formal combination of mechanisms that the Board already has in place.

The Group's workforce comprises approximately 25,000 people. More than 99% are in Chile and more than 41% come from communities in the Antofagasta and Coquimbo Regions, where all of the Group's operating companies are located. Approximately 25% of the workforce are Group employees and 75% are contractors or subcontractors.

Approximately 75% of the Group's employees are unionised. This number is close to 100% at the operator level. The Group maintains ongoing dialogue with labour unions and all key issues are raised with, and discussed by, the Remuneration and Talent Management Committee and the Board.

The Group has established control mechanisms to ensure that contractors and subcontractors, who are often members of their own labour unions, meet the Group's standards and guidelines on labour, environmental, social and ethical matters and adopt good practices with regard to safe workplaces and quality employment. Contractors and subcontractors receive the same protections as the Group's employees under Chilean labour law and the Group requires contractors to pay their employees ethical wages at least two-thirds higher than Chile's legal minimum and to provide other basic benefits including life and health insurance. These protections are reinforced through bank guarantees and contractors and subcontractors are subject to regular audits by independent third parties to ensure full compliance with these standards.

Below is a selection of the workforce engagement mechanisms that the Board currently has in place:

- Directors visit the Group's operations individually or in small groups throughout the year where they engage informally with the workforce. Impressions and views arising from these visits are reported to the Board and related questions are raised with the management team.
- Labour relations matters and the feedback from labour negotiations are reported directly to the Board and the Remuneration and Talent Management Committee throughout the year and typically form a key part of the CEO's general update to the Board.
- The CEO, Vice President of Operations, Vice President of Human Resources and the General Managers and HR Managers of each relevant operation meet with unions at least annually to share relevant information and listen to concerns and suggestions, the results of which are shared with the Remuneration and Talent Committee and the Board.
- Group-wide employee engagement surveys are conducted every two or three years. These surveys are conducted by independent third parties on behalf of the Group and results are reported to the Remuneration and Talent Management Committee and the Board. An employee engagement survey is planned for 2020. Following the most recent employee engagement survey in 2017, a more targeted labour relations monitoring programme has been performed at each of the Group's mining operations. This process was performed by an independent third party and included individual, group and union interviews and a review of documentary processes and collective agreements to measure the state of labour relations at each mining operation according to the measures of people management, regulatory compliance and trust.
- More targeted and specific "ad-hoc" workforce surveys are conducted and/or face-to-face focus groups are convened throughout the year in relation to specific areas of interest such as the Group's Diversity and Inclusion Strategy, flexitime working programme and employee value proposition. The results of these activities are overseen by the Executive Committee and included in information reported to the Remuneration and Talent Management Committee and the Board.
- The workforce is engaged in the design and development of programmes that impact culture or have a high impact on working conditions. Recently, the workforce participated in proposing changes to the Group's Leadership Model and in the design and implementation of the Group's purpose and updates and amendments to the Group's charter of values. These programmes have been reviewed and overseen or approved by the Board.
- The Group's workforce is encouraged to report any concerns to the Ethics Committee through the confidential whistleblowing hotline. Reports may be made anonymously, and all reports are investigated and reported to the Audit and Risk Committee and the Board.

# CONSTRUCTIVE CHALLENGE

Biographical details for each Director standing for re-election at the 2020 AGM are set out below.\*



**Jean-Paul Luksic**

Chairman, 55

Independent: No  
Appointed to the Board 1990  
Appointed Chairman 2004 (Non-Executive since 2014)  
Over 30 years' experience with Antofagasta, including responsibility for overseeing development of the Los Pelambres and El Tesoro (Centinela Cathodes) mines

**Previous roles**

- Chairman of Consejo Minero, the industry body representing the largest mining companies operating in Chile
- CEO of the Group's Mining division

**Current positions**

- Member of the board of Consejo Minero
- Non-Executive Director of Quiñenco SA; and of Banco de Chile and Sociedad Matriz SAAM SA, both of which are listed companies in the Quiñenco group
- Member of the governing board of Centro de Estudios Públicos, a Chilean not-for-profit academic foundation



**Ollie Oliveira**

Senior Independent Director, 68

Independent: Yes  
Appointed to the Board 2011  
Appointed Senior Independent Director 2016

Chartered accountant, management accountant and economist with over 35 years of strategic and operating experience in the mining industry and corporate finance

**Previous roles**

- Senior executive positions within the Anglo American group, including Executive Director Corporate Finance and Head of Strategy and Business Development of De Beers SA
- Director and audit committee chairman of Dominion Diamond Corporation

**Current positions**

- Director, senior independent director, nomination committee chairman and audit and risk committee and remuneration committee member of Polymetal International plc
- Director, audit and management engagement committee member of BlackRock World Mining Trust plc



**Ramón Jara**

Non-Executive Director, 67

Independent: No  
Appointed to the Board 2003  
Lawyer with considerable legal and commercial experience in Chile

**Previous roles**

- Partner, Jara del Favaro Abogados
- Director of Empresa Nacional del Petróleo ("ENAP")

**Current positions**

- Chairman of Fundación Minera Los Pelambres (charitable foundation)
- Director of Fundación Andrés Luksic A (charitable foundation)



**Juan Claro**

Non-Executive Director, 69

Independent: No  
Appointed to the Board 2005  
Extensive industrial experience in Chile, including an active role representing Chilean industrial interests nationally and internationally

**Previous roles**

- Chairman of the Sociedad de Fomento Fabril (Chilean Industrial Council)
- Chairman of the Confederación de la Producción y del Comercio (Chilean Business Confederation)
- Chairman of the Consejo Binacional de Negocios Chile-China (Council for Bilateral Business Chile-China)

**Current positions**

- Chairman of Embotelladora Andina SA (Coca Cola) and Energía Coyanco SA
- Director of Empresas Melón and Agrosuper
- Member of the governing board of Centro de Estudios Públicos, a Chilean not-for-profit academic foundation
- Country adviser, Goldman Sachs



**Andrés Luksic C**

Non-Executive Director, 66

Independent: No  
Appointed to the Board 2013  
Extensive experience across a range of business sectors throughout Chile, Latin America and Europe

**Current positions**

- Chairman of Quiñenco SA and of Compañía Cervecerías Unidas SA; Vice Chairman of Banco de Chile and Compañía Sudamericana de Vapores SA, all of which are listed companies in the Quiñenco group
- Director of Nexans SA, a company listed on NYSE Euronext Paris
- Director of la Sociedad de Fomento Fabril (SOFOPA) (Manufacturing Development Company in Chile)
- 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

**Gonzalo Menéndez**

Gonzalo Menéndez served as a Non-Executive Director since 1985 until his death in June. A tribute to Mr Menéndez can be found on page 86.

\* Tim Baker will not be standing for re-election at the 2020 AGM. All Directors have confirmed that their other commitments do not prevent them from devoting sufficient time to fulfilling their roles, and the Board acknowledges that the skills and experience gained by the Directors from these external appointments are of benefit to the Group. Additional external appointments cannot be undertaken without the prior approval of the Board. Ages are as at the date of the AGM.

**Key to Committees**

- NG Nomination and Governance
- AR Audit and Risk
- ST Sustainability and Stakeholder Management
- PC Projects
- RT Remuneration and Talent Management
- Chairman

**Board meeting attendance**

	Number attended		Number attended		Number attended
Jean-Paul Luksic	8/8	Juan Claro	8/8	Vivianne Blanlot <sup>4</sup>	7/8
Ollie Oliveira	8/8	William Hayes	4/4	Jorge Bande	8/8
Gonzalo Menéndez <sup>1</sup>	4/5	Tim Baker	8/8	Francisca Castro	8/8
Ramón Jara <sup>2</sup>	7/8	Andrónico Luksic C <sup>3</sup>	1/8	Michael Anglin	5/5

1. Gonzalo Menéndez was unable to attend one meeting during the year due to illness.
2. Ramón Jara was unable to attend one meeting during the year due to international travel to a business meeting on behalf of the Group.
3. Andrónico Luksic C. was unable to attend meetings during the year due to a period of medical leave of absence.
4. Vivianne Blanlot was unable to attend one meeting during the year due to the illness of a close family member.



**Vivianne Blanlot** ● ● ● ● ●

Non-Executive Director, 65

Independent: Yes  
Appointed to the Board 2014  
Economist with extensive experience across the energy, mining, water and environmental sectors in the public and private sectors in Chile

**Previous roles**

- Executive Director of the Comisión Nacional de Medio Ambiente (Environmental Agency in Chile)
- Undersecretary of Comisión Nacional de Energía (National Energy Commission in Chile)
- Minister of Defence for Chile
- Director of Scotiabank Chile
- Member of the Consejo para la Transparencia (Transparency Council), the Chilean body responsible for enforcing transparency in the public sector

**Current positions**

- Director of Empresas CMPC SA, a pulp and packaging company listed in Chile
- Director of Colbún SA, an energy company listed in Chile



**Jorge Bande** ● ● ● ●

Non-Executive Director, 67

Independent: Yes  
Appointed to the Board 2014  
Economist with over 40 years' experience in the mining, energy and water industries in Chile

**Previous roles**

- Co-founder and Executive Director of Copper and Mining Studies "CESCO", an independent not-for-profit think tank focused on mining policy issues
- Vice President of Development and later director of Codelco
- CEO of AMP Chile
- Adviser to the World Bank
- Member of the Global Agenda Council for Responsible Minerals Resource Management at the World Economic Forum
- Director of Edelnor SA, Electroandina SA (now E-CL SA) and Bupa Chile SA
- Member of the Experts Committee for Copper Prices for the Chilean Ministry of Finance

**Current positions**

- Director of CESCO
- Director of NextMinerals SA
- Professor of the International Postgraduate Programme in Mineral Economics at the University of Chile
- Member of the Advisory Council of the School of Economics and Business at the University of Chile



**Francisca Castro** ● ● ●

Non-Executive Director, 57

Independent: Yes  
Appointed to the Board 2016  
Commercial engineer with over 25 years' experience in industry, including mining, energy, finance and public/private infrastructure projects in the United States and Chile

**Previous roles**

- Executive Vice-President of Strategic Business at Codelco
- General Co-ordinator of Concessions at the Chilean Ministry of Public Works
- Various roles within the Chilean Finance Ministry and the World Bank, Washington DC

**Current positions**

- Member of the Chilean Pension Funds Risk Classification Committee
- Member of the independent Technical Panel of Chilean Public Works Concessions
- Director of SalfaCorp SA
- Director of the Fraunhofer Chile Research Foundation



**Michael Anglin** ● ● ●

Non-Executive Director, 64

Independent: Yes  
Appointed to the Board 2019  
Mining engineer with over 30 years' experience in base metals, including the development, construction and operation of large-scale mining operations in the Americas.

**Previous roles**

- Vice President Operations and Chief Operating Officer of BHP Base Metals
- Director of EmberClear Corp

**Current positions**

- Chairman of SSR Mining Inc



**Tony Jensen** ● ●

Non-Executive Director, 58

Independent: Yes  
Appointed to the Board on 13 March 2020 and will be standing for election by shareholders at the AGM.

Mining engineer with over 35 years of mining experience in the United States and Chile in operational, financial, business development and management roles.

**Previous roles**

- Director of Golden Star Resources Limited
- Director and CEO of Royal Gold Inc
- Mine General Manager of the Cortez joint venture in Nevada
- Treasury, business development and a wide range of other operating roles with Placer Dome in the USA and Chile

**Current positions**

- Director of Black Hills Corporation
- Director of the University Advisory Board for the South Dakota School of Mines and Technology

# A DIVERSE AND EFFECTIVE BOARD

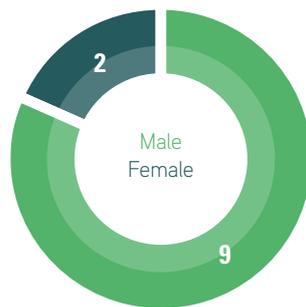
The Board comprises 11 Directors with a broad and complementary set of technical skills, educational and professional experience, nationalities, personalities, cultures and perspectives.

## Board balance<sup>1</sup>

### Independence<sup>2</sup>



### Gender diversity



### Tenure



### Nationality<sup>3</sup>



1. Tim Baker will not be standing for re-election at the 2020 AGM. The above figures reflect the Board balance as at the date of the Annual Report.
2. The Board reviews the independence of Directors annually. None of the factors set out in Code Provision 10 apply to the Company's Independent Directors.
3. The Company has met the Parker Review target and there is more than one Director of colour on the Board. Although the Group's footprint is primarily in Chile, the mining industry is international, and the Board includes a number of Directors from outside Chile in support of its vision and strategy.

## Board skills matrix

Director	Independence	CEO experience	Mining industry experience	Mining operations experience	Board governance	Financial	Legal	Executive compensation	Latin American experience	UK market	Project management	Sustainability	Energy experience	Government relations	Communication
Jean-Paul Luksic		✓	✓		✓	✓		✓	✓	✓	✓			✓	✓
Ollie Oliveira	✓	✓	✓		✓	✓		✓	✓	✓	✓			✓	✓
Ramón Jara			✓		✓	✓	✓	✓	✓			✓	✓	✓	✓
Juan Claro		✓			✓	✓		✓	✓			✓	✓	✓	✓
Andrónico Luksic C		✓			✓	✓		✓	✓					✓	✓
Vivianne Blanlot	✓				✓				✓			✓	✓	✓	✓
Jorge Bande	✓	✓	✓		✓	✓		✓	✓		✓		✓	✓	✓
Francisca Castro	✓		✓		✓	✓			✓		✓		✓	✓	
Michael Anglin	✓	✓	✓	✓	✓			✓	✓		✓	✓		✓	
Tim Baker	✓		✓	✓	✓			✓	✓		✓	✓			
Tony Jensen	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓

## Professional development

Induction	Continuing personal development	Resources
<p>New Directors receive a thorough induction on joining the Board. This includes meetings with the Chairman, other Directors, the CEO and Executive Committee members; briefings on the Group's strategy, UK corporate governance, operations, projects and exploration activities; and visits to the Group's operating companies.</p>	<p>Directors receive an annual briefing on governance, legal, regulatory and market developments that are relevant to directors of UK-listed companies complemented by discussions on Board-related matters.</p> <p>Directors have access to, and are encouraged to regularly attend, round-table discussions, seminars and other events that cover topics relevant to the Group and their role.</p>	<p>The Company provides Directors with the necessary resources to maintain and enhance their knowledge and capabilities.</p> <p>All Directors have access to management and to such information as they need to discharge their duties and responsibilities fully and effectively.</p> <p>Directors are also entitled to seek independent professional advice concerning the affairs of the Group at the Company's expense.</p>

# ROLES IN THE BOARDROOM



## Non-Executive Chairman

**Jean-Paul Luksic**

**Leads the Board and ensures its effectiveness in all aspects of its duties.**

- Promotes the highest standards of integrity, probity and corporate governance.
- Sets the agenda for Board meetings in consultation with other Directors, members of senior management and the Company Secretary.
- Chairs meetings and ensures that there is adequate time for discussion of all agenda items, focusing on strategic, rather than routine, issues.
- Promotes a culture of openness and debate within the Board by facilitating the effective contribution by all Directors.
- Oversees Director development, induction and performance review.
- Leads relations with shareholders.

## Independent Non-Executive Directors

**Ollie Oliveira**

**Tim Baker**

**Jorge Bande**

**Vivianne Blanlot**

**Francisca Castro**

**Michael Anglin**

**Tony Jensen**

**Ensure that no individual or small group of individuals can dominate the Board's decision-making.**

- Meet the independence criteria set out in the UK Corporate Governance Code.
- No connection with the Group or any other Director which could be perceived to compromise independence.
- Provide a range of outside perspectives to the Group and encourage robust debate with, and challenge of, the Group's executive management.

## CEO

**Iván Arriagada<sup>1</sup>**

**Leads the implementation of the Group's strategy set by the Board.**

- Manages the overall operations and resources of the Group.
- Leads the Executive Committee and ensures its effectiveness in all aspects of its duties.
- Provides information to the Board and participates in Board discussion regarding day-to-day activities of the Group.

## Senior Independent Director

**Ollie Oliveira**

**Provides a sounding board for the Chairman and supports the Chairman in the delivery of his objectives as required.**

- Where necessary, acts as an intermediary between the Chairman and the other members of the Board or the CEO.
- Acts as an additional point of contact for shareholders, focusing on the Group's governance and strategy, and gives shareholders an alternative means of raising concerns other than with the Chairman or senior management.

## Non-Executive Directors

**Juan Claro**

**Ramón Jara**

**Andrónico Luksic C**

**Provide a range of outside perspectives to the Group and encourage robust debate with, and challenge of, the Group's executive management.**

- The Board does not consider these Directors to be independent because they do not meet one or more of the independence criteria set out in the UK Corporate Governance Code.<sup>2</sup>
- Ensure that no individual or small group of individuals can dominate the Board's decision-making.

## Executive Committee members

+ See pages 100-101 for more information

**Present proposals, recommendations and information to the Board within their areas of responsibility.**

- Support the CEO in the implementation of the Group's strategy set by the Board.

## Company Secretary

**Julian Anderson**

**Ensures that Directors have access to the information they need to perform their roles.**

- Provides a conduit for Board and Committee communications and provides a link between the Board and management.
- Advises the Board on corporate governance and supports the Board in applying the Code and complying with listing obligations.

1. The Group's CEO, Iván Arriagada, is not a Director. This is consistent with practice in Chile where local law prohibits CEOs of public companies from being directors of those companies. Despite this, interaction between the Board and executive management is as you would expect between Non-Executive Directors and management in a typical UK-listed company. The CEO and CFO are invited to attend all Board meetings, the CEO is also invited to attend all Board Committee meetings and there is regular formal and informal dialogue between management and the Board. The Board considers that there are considerable benefits associated with having a Board comprising exclusively Non-Executive Directors. Not only does it provide a broad range of perspectives, but it also encourages robust debate with, and independent oversight of, the Group's executive management.

2. Ramón Jara provides advisory services to the Group. Andrónico Luksic C is the brother of Jean-Paul Luksic, the Chairman of the Company, and is Chairman of Quiñenco SA and Chairman or Director of Quiñenco's other listed subsidiaries. Jean-Paul Luksic is also a Non-Executive Director of Quiñenco and some of its listed subsidiaries. Like Antofagasta plc, Quiñenco is controlled by a foundation in which members of the Luksic family are interested. Ramón Jara and Juan Claro have served on the Board for more than nine years from the date of their first election.

# A MANAGEMENT TEAM WITH STRONG MINING EXPERIENCE



**Iván Arriagada** BD D P  
CEO

**Joined the Group in 2015**

- Commercial engineer and economist with over 20 years' international experience in the mining and oil and gas industries.

**Previous roles**

- Chief Financial Officer of Codelco
- Various positions at BHP Billiton, including President of Pampa Norte (Spence and Cerro Colorado), Vice President Operations and Chief Financial Officer of the Base Metals division
- Over 15 years' experience with Shell in Chile, the United Kingdom, Argentina and the United States



**Alfredo Atucha** BD E D P  
CFO

**Joined the Group in 2013**

- Chartered accountant with an MBA and over 30 years' financial and international experience in the mining, energy and fast-moving consumer goods industries.

**Previous roles**

- 10 years at BHP Billiton as Vice President of Finance for Minera Escondida and Senior Manager of Base Metals Major Projects
- Finance and Administration Manager at Chilquinta Energía (part of Semptra Energy and PSG Group)
- CFO at Reckitt Benckiser in Spain, Brazil and Chile
- Tax Planning and Treasury Manager at British American Tobacco



**Mauricio Ortiz** BD E D P  
Vice President of Finance

**Joined the Group in 2015**

- Electrical engineer and Master of Science (Metals and Energy Finance) with 14 years' experience in the energy, mining and railway industries.

**Previous roles**

- General Manager at FCAB (Transport division)
- Business Development Manager at Antofagasta plc
- Finance Manager at Codelco – Chuquicamata
- Business Development Principal at Rio Tinto plc, London
- Various operating and project roles at BHP Billiton



**Hernán Menares** DP P  
Vice President of Operations

**Joined the Group in 2008**

- Mining engineer and mineral economist with 30 years' experience in mining.

**Previous roles**

- Project Development Manager for the Centinela District
- Operating and business planning roles at Codelco
- Various positions at Compañía Minera del Pacífico and Compañía Minera Huasco SA



**Ana María Rabagliati** E  
Vice President of Human Resources

**Joined the Group in 2013**

- Human resources specialist with more than 25 years' experience in international companies across a range of industries, including financial services, industrials and oil and gas.

**Previous roles**

- Corporate Human Resources Manager at Masisa
- Country Human Resources Vice President at Citigroup
- Human Resources Manager of the Lafarge Group in Chile
- Various positions across several divisions and areas at Shell, including Human Resources Manager at the Lubricants Business of Shell Oil Latin America



**Gonzalo Sánchez**  
Vice President of Sales

**Joined the Group in 1996**

- Civil engineer with over 25 years' experience in marketing and hedging metals.

**Previous roles**

- Deputy Commercial Director, Antofagasta Minerals
- Copper sales at Codelco



**Francisco Walther** P  
Vice President of Projects

**Joined the Group in 2007**

- Mining engineer with over 25 years' experience in mining operations and engineering for open pit and underground mines.

**Previous roles**

- Project Director of Reko Diq
- Director of Codelco's Chuquicamata underground mine project
- Head of engineering for Codelco's Mansa Mina (now Ministro Hales) project



**Mauricio Larrain**  
General Manager – Los Pelambres

**Joined the Group in 2017**

- Civil mining engineer and Master of Science (Mineral Economics) with 28 years' experience in mining.

**Previous roles**

- General Manager at El Teniente
- Operations Manager at El Teniente
- Mine Planning Corporate Director at Codelco
- Various positions at Codelco and Los Pelambres



### René Aguilar

Vice President of Corporate Affairs and Sustainability



#### Joined the Group in 2017

- Industrial psychologist with 20 years' experience in mining, including in sustainability, safety, human resources and corporate affairs.

#### Previous roles

- Group Head of Safety at Anglo American plc, London
- Vice President of Corporate Affairs and Sustainability at Codelco, Chile
- Health and Safety Director at International Council on Mining and Metals "ICMM", London



### Patricio Enei

Vice President of Legal



#### Joined the Group in 2014

- Lawyer and MBA, with over 20 years' experience in mining, including roles at some of the largest international copper companies operating in Chile.

#### Previous roles

- General Counsel at Codelco
- Corporate Affairs Manager at Minera Escondida
- Senior lawyer at BHP Billiton in Chile
- Chief Legal Counsel at Minera Doña Inés de Collahuasi
- Lawyer at the Instituto de Normalización Previsional and in private practice



### Andronico Luksic L

Vice President of Development



#### Joined the Group in 2006

- Business administrator with broad mining experience in sales, exploration, business development and general management.

#### Previous roles

- Corporate Manager in the Mining division
- Director, Antofagasta Minerals Toronto Office
- Various positions at Banco de Chile

#### Key to Committees

- Operating Performance Review Committee
- Business Development Committee
- Ethics Committee
- Disclosure Committee
- Project Steering Committees



### Carlos Espinoza

General Manager – Centinela

#### Joined the Group in 2010

- Civil mining engineer and MBA, with 27 years of mining experience.

#### Previous roles

- Planning and Development Manager at Centinela
- Head of Mining Operations at Centinela
- Operations Manager at Michilla
- Planning positions at Minera Escondida and Minera Spence



### Leonardo Gonzalez

General Manager – Antucoya

#### Joined the Group in 2015

- Civil mining engineer and MBA, with 24 years' experience in mining.

#### Previous roles

- General Manager at Zaldívar
- Operations Manager at Zaldívar
- Mining Superintendent at Minera Doña Inés de Collahuasi



### Luis Sanchez

General Manager – Zaldívar

#### Joined the Group in 2016

- Civil metallurgical engineer and MBA, with 24 years' experience in mining.

#### Previous roles

- Operations Manager at Centinela
- President of Pampa Norte (Spence and Cerro Colorado)
- General Manager at Spence
- Various roles at Escondida, Codelco and Minera Doña Inés de Collahuasi



### Katherina Jenny

General Manager – FCAB (Transport division)

#### Joined the Group in 2016

- Mining engineer and MBA, with 15 years' experience in mining.

#### Previous roles

- Safety and Health Manager at Antofagasta plc
- Productivity and Costs Manager at Codelco
- Various roles at BHP Billiton, including mine planning, safety, health and environment

# BOARD COMMITTEES

The Board’s Committees ensure that Board deliberations are focused on key issues and that proposals are submitted after specialist debate and rigorous challenge.

Each Committee provides a forum to allow the views and perspectives of stakeholders to be discussed, so that they can be represented in the Board’s deliberations.

<p><b>Nomination and Governance Committee</b></p>	<p><b>Chair</b> Jean-Paul Luksic</p> <p><b>Members</b> Tim Baker Vivianne Blanlot Ollie Oliveira</p>	<p><b>Key responsibilities</b></p> <ul style="list-style-type: none"> <li>• Corporate governance framework</li> <li>• Succession planning for the CEO and the Board</li> <li>• Board and Committee composition</li> <li>• Board effectiveness reviews</li> </ul>	<p><b>p103</b></p>
<p><b>Audit and Risk Committee</b></p>	<p><b>Chair</b> Ollie Oliveira</p> <p><b>Members</b> Jorge Bande Vivianne Blanlot Francisca Castro Tony Jensen</p>	<p><b>Key responsibilities</b></p> <ul style="list-style-type: none"> <li>• Financial reporting</li> <li>• External audit</li> <li>• Internal audit</li> <li>• Risk and internal control</li> <li>• Compliance</li> </ul>	<p><b>p107</b></p>
<p><b>Sustainability and Stakeholder Management Committee</b></p>	<p><b>Chair</b> Vivianne Blanlot</p> <p><b>Members</b> Jorge Bande Juan Claro Ramón Jara</p>	<p><b>Key responsibilities</b></p> <ul style="list-style-type: none"> <li>• Policies and commitments</li> <li>• Safety and health</li> <li>• Community relations</li> <li>• Environment</li> </ul>	<p><b>p112</b></p>
<p><b>Projects Committee</b></p>	<p><b>Chair</b> Ollie Oliveira</p> <p><b>Members</b> Michael Anglin Tim Baker Jorge Bande Ramón Jara</p>	<p><b>Key responsibilities</b></p> <ul style="list-style-type: none"> <li>• Policies and commitments</li> <li>• Project reviews</li> <li>• Lessons learned from completed projects</li> </ul>	<p><b>p114</b></p>
<p><b>Remuneration and Talent Management Committee</b></p>	<p><b>Chair</b> Francisca Castro</p> <p><b>Members</b> Michael Anglin Tim Baker Vivianne Blanlot</p>	<p><b>Key responsibilities</b></p> <ul style="list-style-type: none"> <li>• Remuneration governance</li> <li>• Directors’ remuneration</li> <li>• Executive remuneration</li> <li>• Group pay structures</li> <li>• Talent management and succession planning for the Executive Committee</li> </ul>	<p><b>p116</b></p>

**“The Committee supports the Board in ensuring that effective governance structures are in place and that the Board and its Committees have the appropriate balance of skills, experience and knowledge to operate effectively.”**



**Jean-Paul Luksic**  
Chair

**2019 Membership and meeting attendance**

	Number attended
Jean-Paul Luksic (Chair)	5/5
Tim Baker	5/5
Ollie Oliveira	5/5

- Other regular attendees include the CEO and the Company Secretary.
- The Committee meets as necessary and at least twice per year.
- Except for the Chairman, all Committee members are independent.

**Key responsibilities**

The Nomination and Governance Committee supports the Board in ensuring that the Group has effective governance structures in place and that the Board and its Committees are appropriately staffed and operate effectively. The Committee identifies qualified individuals to join the Board, recommends any changes to the Board and Committee composition and monitors an annual process to assess Board effectiveness.

This involves:

- monitoring trends, initiatives and proposals in relation to corporate governance

- overseeing and facilitating annual reviews of the Chairman, the Board and the CEO, including externally-facilitated reviews
- evaluating and overseeing the balance of skills, knowledge and experience on the Board and its Committees, and reviewing the independence of Directors
- overseeing Board succession plans and leading the process of identifying suitable candidates to fill vacancies, nominating such candidates for approval by the Board and ensuring that appointments are made on merit and against objective criteria
- overseeing CEO succession plans.

**Key activities in 2019**

Corporate governance	Succession planning	Board and Committee composition	Board effectiveness reviews
<ul style="list-style-type: none"> <li>• Oversaw the implementation of plans in response to the new requirements and expectations of the Code.</li> <li>• Reviewed Board Governance Responsibility documents, including updates to the Schedule of Matters Reserved for the Board and all Board Committee terms of reference.</li> <li>• Sought feedback from shareholders on the Group’s corporate governance arrangements.</li> <li>• Attended meetings with shareholders.</li> <li>• Reviewed Directors’ potential conflict of interest declarations.</li> <li>• Reviewed requests by Directors to undertake additional appointments.</li> <li>• Reviewed the Governance section of the 2018 Annual Report and recommended it to the Board for approval.</li> <li>• Reviewed the effectiveness of the Group’s workforce engagement mechanisms.</li> </ul>	<ul style="list-style-type: none"> <li>• Reviewed and endorsed detailed succession plans for the Board and its Committees.</li> <li>• Reviewed updated succession plans for the CEO.</li> <li>• Continued to provide input to the Remuneration and Talent Management Committee in relation to succession plans for the Executive Committee (excluding the CEO) and the Group’s diversity and inclusion programme.</li> </ul>	<ul style="list-style-type: none"> <li>• Reviewed the independence of all Directors, making recommendations to the Board.</li> <li>• Engaged Spencer Stuart in the search for Independent Non-Executive Directors.</li> <li>• Interviewed and considered potential Board candidates.</li> <li>• Recommended that Michael Anglin be appointed to the Board, and subsequently to the Remuneration and Talent Management and Projects Committees.</li> <li>• Reviewed and endorsed updates to the Board’s Skills Matrix.</li> </ul>	<ul style="list-style-type: none"> <li>• Oversaw the implementation of recommendations arising from the 2018 internal evaluation of Board and Committees’ performance.</li> <li>• Engaged external board evaluator Clare Chalmers to carry out an external evaluation of the Board and Committees’ performance.</li> <li>• Reviewed and commenced implementation of the recommendations arising from the external evaluation of the Board and Committees’ performance.</li> </ul>

# BOARD COMPOSITION AND SUCCESSION PLANNING

The Company's Directors possess a range of skills and perspectives that contribute to Board discussions that allow us to fully assess the challenges and opportunities facing our business.

## Q.What is the scope of the Board's succession planning?

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.

## Q.How does the Board identify desirable skills for new Board candidates?

The Board maintains a Board skills matrix and the Committee reviews the balance of skills, experience and expertise at least annually. This process enables the Board and the Committee to identify the desirable skills required of new Board candidates and to instruct search firms to identify the candidates who fit these criteria when making new appointments to the Board.

## Q.What steps does the Committee take to identify and appoint new Directors?

The Committee discusses relevant profiles for future appointments and potential candidates, taking into account the results of Board effectiveness reviews, as shown on page 106, the Group's vision and strategy, as shown on pages 12-15 and 92-93, the Board's diversity policy (below) and the core competencies and areas of expertise on the Board, as shown on page 98.

When making new appointments of Directors to the Board, the Committee has appointed independent external search consultancies, who do not have any connection to the Group, to assist with searches for Board candidates. During 2019, the Committee appointed Spencer Stuart to assist with the search for a new independent Non-Executive Director. Spencer Stuart were briefed on the skills and experience of the existing Directors and were 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 Committee interviewed short-listed candidates and collectively selected Michael Anglin to be recommended to the Board for appointment.

## Q.What is the Board's position in relation to diversity?

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.

The Committee has worked hard to ensure that the Board is suitably diverse according to these criteria. The Board reviews its effectiveness in meeting diversity goals each year as part of the annual Board evaluation process.

As previously noted, the Group's current activities are focused in Chile, but for many years the Board has included a number of Directors from outside Chile in support of the Group's vision and strategy.

Gender diversity is an important part of the Group's diversity objectives and the Board recognises 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 by the end of 2020. Two of the five 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. Searches for new Directors access the widest possible talent pool and as part of the global searches conducted for the two most recent Board appointments, Spencer Stuart were instructed to specifically identify potential female candidates. It is important for overall Board effectiveness that potential candidates are proficient in Spanish and it is preferable for candidates to have relevant mining or extractive industry experience. For the most recent search, several hundred potential candidates were considered, from which a shortlist of seven were interviewed, four of whom were female. Although it was not possible to appoint female candidates for these most recent appointments, the Group is committed to developing a pipeline of diverse talent for the future.

## Q.What policies are in place to promote a diverse pipeline of talent for the future?

To further promote diversity at the Executive Committee level and below, a new Diversity and Inclusion Strategy was approved by the Board in 2017. This was prepared following an exercise to assess whether the Group's then existing diversity and inclusion model was appropriate, which included interviews with stakeholders, a bench-marking exercise and a comprehensive review of the Group's policies and processes. The review assessed whether any structural impediments needed to be addressed in order to achieve a sustained improvement in the Group's diversity and inclusion model. The Board has reviewed the progress in the implementation of this strategy during 2019 and the corresponding targets and results which are described in more detail on page 38.

The Group carefully considered the elements of diversity that would most contribute to achieving the Group's vision and strategy and has committed to increasing the percentage of women, people with disabilities and those who have international backgrounds and/or experience in the workforce by 2022, and for these improvements to be embedded, sustained and improved upon from that point. The current levels of gender diversity within the Mining division's workforce and further rationale behind the Diversity and Inclusion Strategy are set out within the Strategic Report on page 38.

As shown on page 131, metrics associated with the development of the Diversity and Inclusion Strategy were included as part of the Group's Annual Bonus Plan in 2019 and will again be included in 2020. Performance will be assessed by the Remuneration and Talent Management Committee at the end of the year.

The Remuneration and Talent Management Committee is also responsible for succession planning for the Executive Committee (excluding the CEO) which allows for ongoing monitoring of the impact of the Diversity and Inclusion Strategy on appointments that are made and their progress within the Company, including at the level of those who report to the Executive Committee, as noted on page 38.

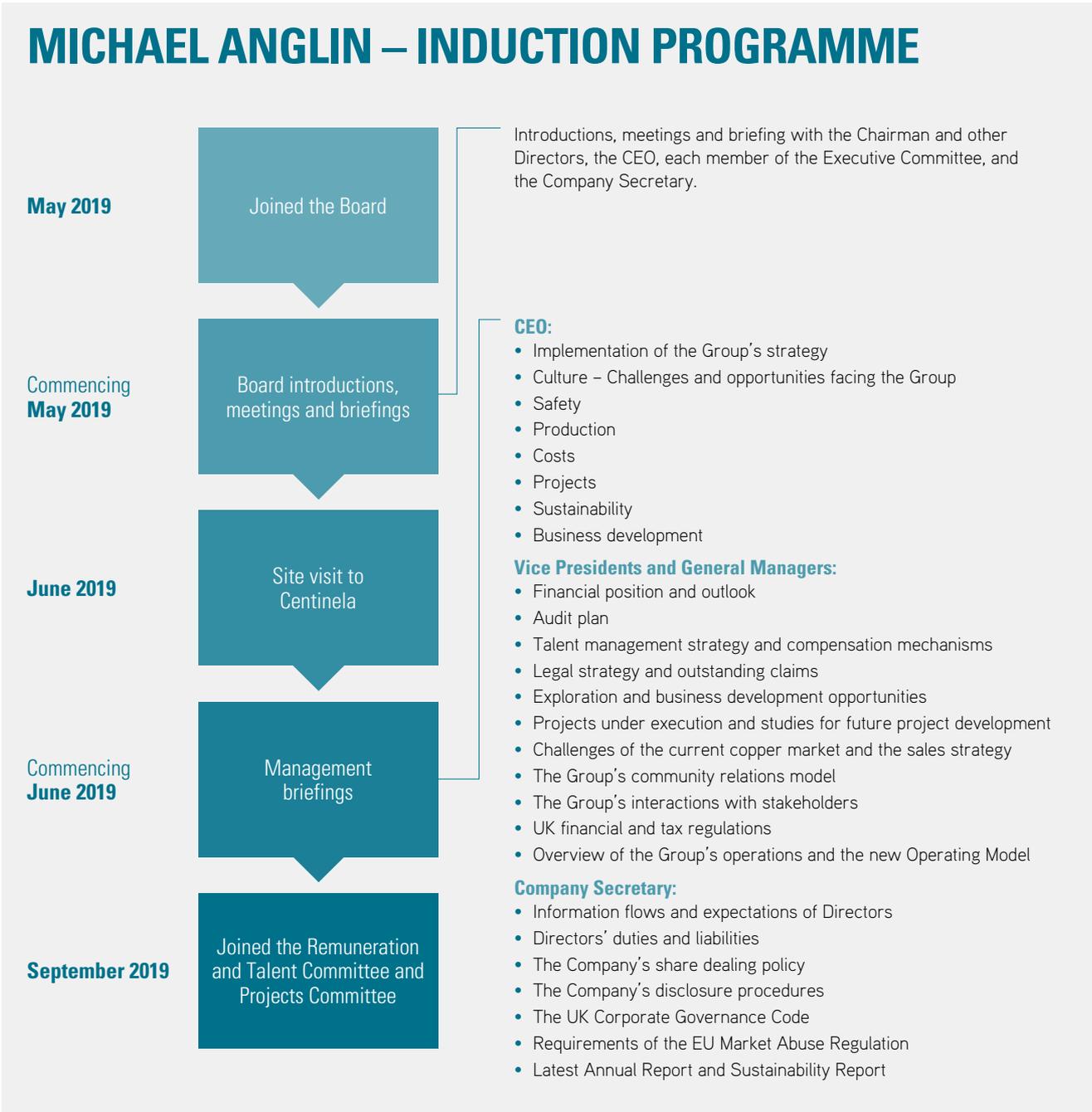
**Q.What support does the Company provide to facilitate induction and assist with professional development?**

The Company provides new Directors with a thorough induction on joining the Board. This includes meetings and briefings with the Chairman, other Directors, the Group CEO and Executive Committee members and visits to the Group's operating companies. Details of the induction process for Michael Anglin are set out below.

Incumbent Directors are provided with access to resources and continuing professional development. Further details are set out on page 98.

**Jean-Paul Luksic**

Chair of the Nomination and Governance Committee



# EXTERNAL BOARD REVIEW

The 2019 independent, externally-facilitated Board evaluation provided the Board with a fresh perspective and balanced feedback on its effectiveness, based on one-to-one interviews with Directors and observing Board dynamics at meetings.

In accordance with the Code, the Board aims to undertake an externally-facilitated effectiveness review at least once every three years. In 2019, the effectiveness review was facilitated by an external consultant, Clare Chalmers, who is independent and has no other connection with the Group.

The 2019 review process commenced with the Nomination and Governance Committee planning the scope of the evaluation. The Committee considered a shortlist of external evaluators for approval by the Board. The selected evaluator discussed the process with the Chairman, Senior Independent Director and the Company Secretary and agreed the questions to be put to Board members and members of the Executive Committee who regularly attend Board and Committee meetings.

Interviewees held one-on-one interviews with the evaluator. Ms Chalmers also observed a Board meeting, visited Chile twice and participated in a safety leadership site visit to Los Pelambres. The review was designed to recognise and raise key themes identified collectively by the Directors and for the Directors to reflect on how these themes should be addressed going forward. Ms Chalmers discussed her report initially with the Chairman and the Senior Independent Director and then presented it to the full Board in October 2019.

The findings of the review were discussed by the Board and, based on Ms Chalmers' report, the Directors were satisfied that the Board and its Committees operated effectively in 2019.

Ms Chalmers highlighted the Board's strengths as its diversity, the experience and balance of skills of the Directors, its collegiate working environment and the contribution of each Director at meetings. The Group's strong safety culture and relations with local communities were also highlighted as key strengths. Recommended opportunities for further improvement were also highlighted. These are set out below.

**“The Antofagasta Board and Directors work effectively and co-operatively to ensure strategic oversight of the business, demonstrating open dialogue and strategic questioning in the ever changing global environment.”**

**Clare Chalmers**

Board effectiveness reviewer

## 2019

**The external review focused on evaluating the following key areas:**

- The focus and prioritisation of the Board
- Alignment of the Company's purpose, strategy, values and culture with its vision
- The nature and quality of the information and support provided to the Board by management
- The visibility of the Board within the organisation
- The interests of shareholders and stakeholders
- The composition of the Board and its Committees, including balance of skills, size, succession and dynamics
- The leadership of the Chairman

## 2020

**The Board will focus on a number of areas to improve its, and its Committees', effectiveness:**

- greater strategic scene-setting in executive summaries provided to the Board before Board meetings to ensure that appropriate time is spent on strategic discussions;
- the requirement for more information to be presented to the Board in relation to talent management and succession planning;
- continuing to keep the targets in mind regarding the appointment of women to Board and Executive Committee positions when making appointments;
- the need for Directors to visit the Group's operations at least once a year; and
- paying special attention to emerging risks such as cyber security, climate change and digital transformation.

**“The Audit and Risk Committee is focused on ensuring the Group has strong financial controls and risk management.”**



**Ollie Oliveira**  
Chair

**2019 Membership and meeting attendance**

	Number attended
Ollie Oliveira (Chair)	4/4
Jorge Bande	4/4
Vivianne Blanlot	4/4
Francisca Castro	4/4

- Other regular attendees included representatives from PwC, the Group’s external auditor, the CEO, the CFO, the Vice President of Finance, the Group Financial Controller, the Head of Internal Audit,

the Head of Risk, Compliance and Internal Control and the Company Secretary.

- At least one Committee member serves on each of the other Board Committees, which allows the Committee to take into account the full spectrum of risks faced by the Group.
- The Committee meets as necessary and at least twice a year.
- All Committee members are independent.
- Ollie Oliveira, Jorge Bande and Francisca Castro are all considered to have recent and relevant financial experience.
- The Committee as a whole has significant experience relevant to the mining sector.

**Key responsibilities**

The Audit and Risk Committee assists the Board in meeting its responsibilities relating to financial reporting and control and risk management. The Committee’s main responsibilities cover:

- financial reporting, which includes responsibility for reviewing the year-end and half-year financial reports, and monitoring the overall financial reporting process
- overseeing the external audit process and managing the relationship with PwC, the Group’s external auditor

- reviewing and monitoring PwC’s independence and objectivity
- internal audit, including monitoring and reviewing the effectiveness of the Group’s internal audit function, processes and findings
- assisting the Board with its responsibilities in respect of risk management, including reviews of the Group’s risk appetite and key risks
- monitoring the performance of the compliance and crime prevention models.

**Key activities in 2019**

Financial reporting	External audit	Risk and internal control	Compliance
<ul style="list-style-type: none"> <li>• Reviewed the 2018 year-end and 2019 half-year financial reports, focusing on the significant accounting issues relating to the Group’s results.</li> <li>• Reviewed the Group’s 2018 reserves and resources statement.</li> <li>• Assisted the Board in ensuring that the 2018 Annual Report was fair, balanced and understandable, and reviewed the long-term viability statement.</li> <li>• Reviewed the Group’s tax position.</li> </ul>	<ul style="list-style-type: none"> <li>• Reviewed and approved the 2019 audit plan, including fees.</li> <li>• Assessed the effectiveness of the external audit process.</li> <li>• Reviewed PwC’s independence and objectivity.</li> <li>• Reviewed PwC’s audit partner transition plan.</li> <li>• Reviewed the key audit findings in respect of the 2018 audit, and reviewed progress reports from the external auditor in relation to the 2019 audit.</li> </ul>	<ul style="list-style-type: none"> <li>• Assisted the Board with its assessment of the Group’s key risks and its review of the effectiveness of the risk management and internal control processes.</li> <li>• Assisted the Board in updating the Group’s risk appetite assessment, including the incorporation of new risk areas.</li> <li>• Conducted detailed reviews with the General Managers of each of the Group’s operations, covering the operations’ key risks.</li> <li>• Reviewed the ongoing activities undertaken during the year to further develop the maturity of the Group’s risk management processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Reviewed the Group’s whistleblowing arrangements, including details of the most significant reports and the actions taken.</li> <li>• Reviewed the process to identify and manage potential conflicts of interest for the Group’s employees, and the due diligence process conducted in respect of the Group’s suppliers.</li> <li>• Reviewed the Group’s Compliance Model, including amendments to the Group’s Crime Prevention Manual to reflect updates made to Chilean anti-corruption legislation.</li> <li>• Reviewed the Company’s 2018 Modern Slavery Act statement.</li> <li>• Monitored the functioning of the Group’s crime prevention model, in accordance with Chilean and UK anti-corruption legislation.</li> </ul>
	<b>Internal audit</b>		
	<ul style="list-style-type: none"> <li>• Reviewed the key findings from the internal audit reviews conducted during 2019.</li> <li>• Reviewed the quality, experience and expertise of the function, confirming that it is appropriate to the business.</li> <li>• Agreed the scope and areas of focus for the 2020 internal audit plan.</li> </ul>		

# INTEGRATED RISK MANAGEMENT

The Group's integrated risk management framework is a key tool in ensuring and measuring optimal performance and driving appropriate behaviour across the Group.

## Q.What were the key areas of focus for the Committee in 2019?

In terms of financial reporting, given the relative uncertainty in the copper market during 2019, we have monitored the potential impact on the carrying value of the Group's assets. We have also worked closely with PwC to ensure a smooth transition to our new lead audit partner from 2020 onwards, both in terms of the selection of the new partner, and ensuring an appropriate transition plan.

With risk management, we assisted the Board with updating the Group's risk appetite assessment, including the incorporation of new risk areas, as well as reviewing the ongoing process to further develop the maturity of our risk management processes.

## Financial reporting

### Q.What are the Committee's main activities in respect of the Group's financial reporting?

The Committee reviews the year-end financial statements and half-yearly financial report, and ensures that the key accounting policies, estimates and judgements applied in those financial statements are reasonable.

We also monitor the overall financial reporting process to ensure it is robust and well-controlled. This includes ensuring that the Group's accounting and finance function is adequately resourced, with the appropriate segregation of duties and internal review processes, that the Group's accounting policies are appropriate and clearly communicated, and that the Group's accounting and consolidation systems are in line with expectations.

The Committee assists the Board in undertaking its assessment that the Annual Report is, when taken as a whole, fair, balanced and understandable, and provides the necessary information to allow shareholders to assess the Group's position and performance, business model and strategy. As part of this assessment, we use our detailed knowledge of the financial results and the key accounting judgements applied in the financial statements to ensure that the tone and content of the narrative reporting fairly reflects the financial results for the year.

We also review the going concern basis adopted in the financial statements, as well as the detailed long-term viability statement in the Annual Report.

We monitored the implementation of the new IFRS 16 Leases accounting standard, which has applied since 1 January 2019. All necessary elements of the implementation process had been completed during 2018, and the effectiveness of the process has been confirmed by the smooth transition to the new standard from January 2019 onwards.

## Q.What were the significant accounting issues in relation to the financial statements considered by the Committee during 2019?

The main accounting issues considered in detail by the Committee in respect of the 2019 financial statements were:

- **Asset valuations:** we have considered whether there were any indicators of impairment (or reversal of previous impairments) at the Group's operations, and concluded that there were not. Accordingly, we have not performed any impairment reviews in respect of the Group's assets at the 2019 year end. However, in order to assess the sensitivities of the valuations of the Group's mining operations, and to make appropriate disclosures within the financial statements in respect of this, a valuation and sensitivity analysis has been performed. As part of this analysis, we have considered the appropriate copper price forecasts to use in these valuation models, with reference to the forward curve as at 31 December 2019 and consensus analyst forecasts of the long-term copper price. We have also reviewed the key operational assumptions in the valuation models, in particular in respect of significant future development projects included within the models.
- **Inventories:** we have reviewed relevant aspects of the valuation and control over the Group's inventory balances. This is relevant because of the value of the inventories, the long-term nature of some of the balances, and the fact that the monitoring of mining work-in-progress inventories, particularly in respect of leaching processes, can be complex. In addition, the relative uncertainty in the copper market during 2019, and the consequent volatility in the copper price during the year, has an impact on the assessment of the net realisable value of the inventory balances.
- **Provision for decommissioning and restoration costs at the Group's mining operations:** we have reviewed updates to the mine closure provisions. These are important balances in terms of their value, and there is also a significant inherent level of estimation involved in the calculation of the provision balances, both in terms of the exact nature of the decommissioning and restoration activities which will be required, and the future cost of those activities. We have reviewed changes in the mine closure plans agreed in the regular reviews of the plans with Sernageomin, the Chilean government agency which regulates the mining industry in Chile, as well as changes to the financial parameters used in calculating the provision balance.

## External audit

### Q. What are the Committee's activities in respect of the external audit process?

The Committee is responsible for overseeing Antofagasta's relationship with PwC, the Group's external auditor. I have a key direct relationship with Jason Burkitt, the lead PwC audit partner. 2019 has been Jason's final year as lead audit partner, as, in line with normal regulatory requirements he is rotating off the engagement after five years in the role. I would like to thank Jason for the support and constructive and rigorous challenge he has provided to us during his time in the role. I have been closely involved with the process with PwC to select the new lead audit partner from 2020 onwards, and the Committee has approved the choice of Simon Morley as the new lead audit partner from 2020 onwards. The selection process was completed prior to the 2019 year-end, allowing Simon to observe relevant aspects of the 2019 year-end audit process, to ensure a smooth transition.

The Committee reviews and approves the scope of the external audit, the terms of engagement and fees. The Committee monitors the effectiveness of the audit process and we are responsible for ensuring the independence of the external auditor. The Committee informs the Board of the outcome of the external audit and explains how the external audit contributes to the integrity of the Group's financial reporting. We also make recommendations to the Board in respect of the appointment, reappointment or removal of the external auditor. The Committee formally meets with PwC without management present at least once a year.

### Q. How long has PwC been the Group's auditor?

PwC has been our external auditor for five years. We carried out a tender process during 2014, which resulted in PwC being appointed with effect from 2015 onwards. In line with relevant regulatory guidance we expect to undertake a tender process in respect of the external audit at least every 10 years. As noted above, Jason Burkitt has been the lead audit partner for five years from 2015 to 2019, and, in line with normal regulatory requirements has now rotated off the engagement, and will be replaced by Simon Morley as lead audit partner from 2020 onwards.

### Q. How do you assess the effectiveness of the external audit process?

The Committee considered the following factors as part of its review of the effectiveness of the external audit process during the year:

- the appropriateness of the proposed audit plan, the significant risk areas and areas of focus, and the effective performance of the audit
- the technical skills and industry experience of the audit engagement partner and the wider audit team
- the quality of the external auditor's reporting to the Committee
- the effectiveness of the co-ordination between the UK and Chilean audit teams
- the effectiveness of the interaction and relationship between the Group's management and the external auditor
- feedback from management in respect of the effectiveness of the audit processes for the individual operations and the Group overall
- the review of reports from the external auditor detailing its own internal quality control procedures, as well as its annual transparency report. In light of this assessment, the Committee considers it appropriate that PwC be reappointed as external auditor.

## Independence and objectivity of the external auditor

The Committee monitors the external auditor's independence and objectivity in line with Group policy, which covers the potential employment of former auditors, the types of non-audit services that the external auditor may and may not provide to the Group, and the approval process in respect of permitted non-audit services. Our policy is in compliance with the new 2019 Ethical Standard, and no services not included on the whitelist are permissible.

The policy specifies services which the external auditor may not provide to any Group entity. This includes playing any part in the management or decision-making of a Group entity, preparing accounting records and financial statements and designing or implementing internal control procedures relating to the preparation of financial information. In addition, a number of more specific services are prohibited, including internal audit services and valuation services that would have a material effect on the financial statements and the preparation of material tax calculations. The policy also includes "blacklisted" services that may not be provided to Antofagasta plc or its subsidiaries within the European Union (EU) – for instance, virtually all services in respect of taxation are prohibited.

The policy also requires prior approval by the Committee for all non-audit services, other than services considered to be clearly trivial, which the Committee has defined as being services with fees of \$25,000 or less. In addition to this pre-approval process for specific non-audit services, the Audit and Risk Committee monitors the total level of non-audit services provided by the external auditor in order to ensure that neither the auditor's objectivity nor its independence is put at risk.

A breakdown of the audit and non-audit fees is disclosed in Note 7 to the financial statements. The Company's external auditor, PwC, has provided non-audit services (excluding audit-related services) which amounted to \$39,000, or 3% of the fees for audit and audit-related services. This mainly related to assurance services relating to the Group's sustainability reporting and company secretarial compliance services.

In general, where the external auditor is selected to provide non-audit services, it is because it has specific expertise or experience in the relevant area and is considered to be the most suitable provider. The Committee has reviewed the level of these services in the course of the year and is confident that the objectivity and independence of the auditor is not impaired by such non-audit work.

The external auditor provides a report to the Committee at least once a year, setting out its firm's policies and procedures for maintaining its independence.

The Committee considers that PwC remained independent and objective throughout 2019.

The UK regulatory requirements in respect of competitive audit tendering and other related Audit Committee responsibilities in respect of the external auditor are set out in the Competition & Markets Authority's "The Statutory Audit Services for Large Companies Market Investigation (Mandatory Use of Competitive Tender Processes and Audit Committee Responsibilities) Order 2014" ("the Order"). The Company has been in compliance with the provisions of the Order during 2019.

## Internal audit

### Q.What are the Committee’s main activities in relation to internal audit?

The Committee monitors and reviews the effectiveness of the Group’s internal audit function. The Head of Internal Audit reports directly to the Committee and meets us without management present at least once a year.

The Committee reviews and approves Internal Audit’s plan of work for the coming year, including the department’s budget, headcount and other resources. We ensure there are sufficient resources in the plan to allow for special reviews that may be required during the year.

We also monitor the resources available to the Internal Audit team so that it has the appropriate mix of skills and experience for the Group’s businesses. Internal Audit utilises a mix of permanent team members, temporary secondees from elsewhere in the Group and third parties, particularly for areas such as IT-related reviews. The permanent team includes members with specific expertise in some of the most relevant areas for the Group, including mining technical experience, IT, risk, compliance and internal control and sustainability.

Internal Audit presents to the Committee summaries of the key findings from the reviews conducted during the year and any actions that have been taken or proposed. All Internal Audit reports are distributed to the Committee members once they have been finalised.

The Committee monitors the interaction between Internal Audit and PwC, to ensure an efficient relationship between the internal and external audit processes, avoid duplication of work, and achieve the effective and timely sharing of findings.

## Risk management and internal control

### Q.What are the Committee’s main activities in relation to risk management and internal control?

The Committee plays an important role in assisting the Board with its responsibilities with regard to risk management and related controls. The Board has ultimate responsibility for overseeing the Group’s principal risks and its risk appetite, as well as maintaining control systems. In order to achieve our business objectives, internal control systems are designed to identify and manage, rather than eliminate, the risk of failure, and can only provide reasonable, not absolute, assurance against material misstatement or loss.

### Q.What were the Committee’s main activities in 2019 relating to risk?

We assisted the Board with its update of the Group’s risk appetite assessment. This included the incorporation of two new separate risk areas, in respect of tailing storage and climate change (which had previously been considered as part of the overall operations and environmental management risk areas respectively). The separation of these two risk areas reflects the focus which the Group places on these two aspects, which are of key importance to the safe and sustainable long-term future of the Group. The Board defined the Group’s risk appetite in respect of both of these risk areas as low.

The Committee reviewed the ongoing activities undertaken by the Group during the year to further develop the maturity of its risk management processes. In particular, there has been an extensive programme of training and communication across the Group’s employees, to ensure a high level of understanding of the Group’s risk management objectives and processes.

The risk management function presented to the Committee several times during the year on developments in the Group’s risk management processes and Group-level strategic risks. The General Managers of the Group’s operations presented to the Committee their assessments of their respective operations’ key potential risks and any significant materialised risks.

The analysis of key risks includes an assessment of the significance of the risks based on the probability of the risk materialising and the potential impact of the risk, as well as an evaluation of the quality of the controls in place in respect of those specific risks.

## Audit and Risk Committee, Board and risk management function interaction

### Board

The Chair of the Audit and Risk Committee reports to the Board following each Committee meeting, allowing a wider discussion of the risk and compliance issues reviewed in detail by the Committee.

### Audit and Risk Committee

The Committee supports the Board in its review of the effectiveness of the Group’s risk management and internal control systems.

### General Managers of the operations

The General Managers are responsible for the risks relating to their operation and give detailed presentations to the Committee at least once a year, including on each operation’s key risks and materialised risks.

The risk management function provides regular presentations covering changes in the Group’s key risks, major materialised risks, and updates on the risk management and compliance processes.

### Risk management function

There are detailed presentations at each Committee meeting covering the risk management process, significant whistleblowing reports, and updates on compliance processes and activities.

The evaluation of the potential impact is not limited to economic factors but includes issues such as safety, health, environmental, regulatory, community and reputational issues. We also look at whether those risks have been increasing or decreasing in significance and the budget for each risk mitigation objective. The General Managers present their forecasts of any expected change in key risks over the coming 12 months. If there is a specific issue at one of the operations that requires more detailed understanding, we will ask the General Manager to attend the next meeting to discuss that issue. This direct interaction between the Committee and the General Managers is extremely valuable – not just in terms of the direct insight into each operation it affords the Committee, but also in allowing us to emphasise the importance we attach to strong risk management processes.

#### **Q. How does the Committee interact with the Board and other Committees?**

I report to the Board following each Committee meeting, summarising the main matters reviewed by the Committee. These regular reports allow the Directors to understand the main issues under consideration, and, when relevant, to discuss them in more detail with the Board.

The risk management function presents directly to the Board, providing updates of the analysis of the Group's key risks and relevant developments in the risk management and compliance processes.

We try to ensure that the review of risk by the Board is not compartmentalised into isolated sessions, but is integrated into everything that the Board considers. To this end, the operating update provided by the CEO to the Board at each meeting covers any significant materialised risks, and each proposal presented to the Board incorporates an analysis of its impact on the principal risks.

These processes have assisted the Board in carrying out a robust assessment of the principal risks facing the Company, including those that could threaten its business model, future performance, solvency or liquidity, and to assess the acceptability of the level of risks that arise from the Group's operations and development activities.

Each year the Board, with the support of the Committee, reviews the effectiveness of the Group's risk management and internal control systems. The review covers all material controls, including financial, operating and compliance controls. The 2019 review confirmed the effectiveness of the Group's risk management and internal control systems with no significant failures or weaknesses being identified.

We also have members of the Audit and Risk Committee participating on the Nomination and Governance Committee, the Projects Committee, the Remuneration and Talent Management Committee and the Sustainability and Stakeholder Management Committee, allowing close co-ordination between these Committees.

## **Compliance**

#### **Q. What are the Committee's main responsibilities relating to compliance?**

The Committee ensures that appropriate compliance policies and procedures are observed throughout the Group. The Group's Risk Management function makes regular presentations to the Committee covering developments in the Group's compliance processes and significant compliance issues. Chilean law requires the Group to appoint a Crime Prevention Officer and the Committee makes recommendations to the Board regarding this appointment as well as monitoring and overseeing the performance of the role. The Crime Prevention Officer is currently Alfredo Atucha, the CFO. The Committee receives reports from the Risk Management function in respect of the Group's crime prevention model, in accordance with Chilean and UK anti-corruption legislation.

#### **Q. What were the Committee's main activities in 2019 relating to compliance?**

The Committee reviewed the Group's whistleblowing arrangements, which enable employees and contractors to raise concerns in confidence about possible improprieties or non-compliance with the Group's Code of Ethics. This is important to encourage any potential issues to be raised. We received regular reports on reported whistleblowing incidents, detailing the number and type of incidents, along with details of the most significant and the actions resulting from their investigation.

We reviewed the process to identify and manage potential conflicts of interest for the Group's employees, and the due diligence process conducted in respect of the Group's suppliers. We also reviewed the Group's Compliance Model and details of the compliance training undertaken by the Group's employees during the year. Additionally, updates to the Group's Crime Prevention Manual were recommended to the Board for approval.

#### **Ollie Oliveira**

Chair of the Audit and Risk Committee

**“Understanding our stakeholders is critical to our long-term success. We set ambitious environmental, social and safety and occupational health commitments that are designed to take into account the interests of our stakeholders.”**



**Vivianne Blanlot**  
Chair

### 2019 Membership and meeting attendance

	Number attended
Vivianne Blanlot (Chair)	7/7
Jorge Bande	7/7
Juan Claro	4/7
William Hayes	2/3

- Other regular attendees include the CEO, the Vice President of Corporate Affairs and Sustainability and the Company Secretary.
- Sessions are also regularly attended by Directors who are not Committee members.
- The Committee meets as necessary and at least twice per year.

### Key responsibilities

- The Sustainability and Stakeholder Management Committee supports the Board in the stewardship of the Group’s environmental, social responsibility and safety and health programmes and makes recommendations to the Board to ensure that the considerations that are important for the Group’s stakeholders are taken into account in the Board’s deliberations.
- The Committee reviews the Group’s framework of safety and health, environmental, human rights and social policies, monitors the Group’s 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.

### Key activities in 2019

Policies and commitments	Safety and health	Community relations	Environment
<ul style="list-style-type: none"> <li>• Reviewed the Group’s 2018 Sustainability Report.</li> <li>• Reviewed the sustainability aspects of the Group’s expansion projects at Los Pelambres and Centinela.</li> <li>• Reviewed proposed amendments to the Committee’s terms of reference.</li> </ul>	<ul style="list-style-type: none"> <li>• Reviewed the Group’s 2020 Safety and Occupational Health Plan.</li> <li>• Monitored Group safety and occupational health performance, including high potential accidents.</li> <li>• Reviewed reports issued by the Independent Technical Review Board appointed to advise Los Pelambres and Centinela in the operation of their tailings deposits.</li> <li>• Reviewed the statement on the stability of the Group’s tailings dams and deposits.</li> <li>• Reviewed the Group’s approach to supporting the ICMM proposal to develop a global tailings standard.</li> </ul>	<ul style="list-style-type: none"> <li>• Reviewed the Group’s social management model.</li> <li>• Reviewed public perception survey results in connection with the Group’s operations in the north of Chile.</li> <li>• Reviewed the community relations programme for operating companies in the north of Chile.</li> <li>• Reviewed an evaluation of the social programmes at Los Pelambres.</li> <li>• Monitored results from the Group’s communications activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Reviewed environmental management reports.</li> <li>• Reviewed the Environmental Impact Study for the Transport division’s plans to make a railway yard in the centre of Antofagasta available for other uses.</li> <li>• Reviewed the results of Centinela’s implementation of the Group’s environmental management model.</li> <li>• Reviewed the Transport division’s environmental commitments.</li> </ul>

# MONITORING OUR COMMITMENTS TO STAKEHOLDERS

The Committee plays a vital role in monitoring the Group's relationships with stakeholders, ensuring that stakeholders' interests are considered as part of the Board's deliberations.

## Q. How does the Committee ensure that the Board takes into account the views and interests of stakeholders?

Committee meetings provide a forum for detailed discussion of many of the key issues that matter for our workforce (such as safety and health), local communities and other stakeholders. These issues are identified as part of the risk management and community engagement processes and are brought to the Committee by management. As Chair of the Committee, I report to the Board following each Committee meeting, summarising the main matters reviewed by the Committee.

## Q. What were the key achievements overseen by the Committee during the year?

Our first priority is the safety and health of our people and the Group's 2019 safety performance has been particularly pleasing. Apart from there being no fatalities during the year, the Group has also had its strongest safety performance against the measurable indices that are used to track safety performance. This result has followed the emphasis in recent years on the systematic and thorough application of safety standards and high levels of near-miss reporting. As the Group's safety model matures further, the Group is focusing on refining and further developing controls, and measuring leading fatality risk indicators.

In 2018, Antofagasta launched a new Social Management Model that has been implemented in 2019 in both the Mining and Transport divisions. This model enhances social management and introduces standards for engagement, management of initiatives, management of social risks and impact measurement of projects and programmes. The objective of the Social Management Model was to have a single, integrated way of operating at Group level. This enables the application of common engagement principles, methodologies and practices, guarantees excellence in project execution, measures impacts and has a social risk management system that offers the quantity and quality of information needed to make evidence-based decisions.

## Q. How does the Committee ensure that the Group's tailings facilities are safe?

The stability and safety of tailings storage facilities are a key part of the Committee's and Board's deliberations.

Chile's location means that it experiences a significant amount of seismic activity and as a consequence there are strict regulations governing construction in the country. These regulations apply to all mining and other construction, including the dams where tailings are deposited. Chilean standards have prohibited the construction of tailings using the upstream method, which is commonly used in other countries but poses significant safety risks. Current Chilean legislation also requires stability analysis of dam walls, a review of safety measures and the development of detailed emergency plans in the event of a major incident.

The Group's governance structures are designed to encourage the independent management and monitoring of our tailings facilities. This includes internal teams with reporting lines that are not linked to the mine operation teams and an independent tailings review board that visits our tailings facilities regularly, assessing risks and making recommendations to continue to ensure safety. The Committee and the Board review these reports and challenge management on any recommendations that are made. Further information in relation to our tailings facilities, including the risks and the governance measures in place, can be found on page 28.

## Q. How are community relations managed throughout the Group?

Dialogue with local communities is crucial for aligning views, preventing disputes and addressing concerns. To strengthen such dialogue, Antofagasta uses various engagement mechanisms, including dialogue with individual members of the community, round tables, community meetings, participatory environmental monitoring with the community and community visits to the Group's operations, as well as communications in the media, on websites and social networks.

## Q. What are the Committee's priorities in 2020?

Our number one priority continues to be the safety and health of our employees and contractors. As noted above, 2019 saw our strongest safety and health performance, including no fatal accidents. We will strive to achieve a similar record in 2020. Our safety and occupational health system is well-established and the relevant management teams are working to further define, refine and embed the controls that mitigate high potential accidents, ensuring that they are well understood and that near-miss accidents are thoroughly investigated with lessons learned effectively communicated across the Group.

The Committee will continue to monitor the implementation of the Group's environmental management system by the Group's operating companies.

Work is underway to achieve our greenhouse gases target for reduced carbon dioxide emissions. The Group has contracted power supply agreements that will provide 65% of the Group's power requirements from renewable sources from 2022.

The Committee will continue to monitor the implementation of the Group's social programmes and the work done with communities close to our operations in accordance with the Group's Social Management Model.

### Vivianne Blanlot

Chair of the Sustainability and Stakeholder Management Committee

**“The Committee oversees the full project lifecycle, from concept to start of operations, carefully assessing and robustly challenging investment proposals prior to submission to the Board, monitoring construction progress and ensuring lessons learned are applied to future proposals.”**



**Ollie Oliveira**  
Chair

### 2019 Membership and meeting attendance

	Number attended
Ollie Oliveira (Chair)	6/6
Michael Anglin <sup>1</sup>	2/2
Tim Baker	6/6
Jorge Bande	6/6
Ramón Jara	4/6

<sup>1</sup> Michael Anglin joined the Committee from 1 September 2019.

- Other regular attendees include the CEO, the Vice President of Projects and the Company Secretary.
- Sessions are also regularly attended by Directors who are not Committee members.
- The Committee meets as necessary and at least twice per year.

### Key responsibilities

- 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 the Group’s strategy and risk appetite.
- The Committee adds an important level of governance and control to the evaluation of the Group’s 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 Group projects.

### Key activities in 2019

#### Policies and commitments

- Reviewed the Group’s projects portfolio, including budgets and schedules.
- Reviewed project development guidelines.
- Reviewed proposed amendments to the Committee’s terms of reference.

#### Project reviews – Studies Phase

- Reviewed the results of the feasibility study for Zaldívar’s Chloride Leaching project and a proposal to proceed with execution.
- Reviewed preliminary results of Centinela’s Second Concentrator project feasibility study and a proposed 2019 work plan.
- Reviewed updated results of the pre-feasibility study for the Twin Metals project, incorporating a dry-stack tailings storage facility and a proposal to submit the Mine Plan of Operation to the relevant US authorities.
- Reviewed the results of the feasibility study to open the Esperanza Sur pit at Centinela.
- Reviewed a sustaining capital expenditure project for Los Pelambres’ ore transport system.

#### Project reviews – Execution Phase

- Reviewed progress in the execution of the Los Pelambres Expansion project.
- Reviewed progress in the execution of a sustaining capital expenditure project for Centinela’s tailings deposit.

# THOROUGH PROJECT REVIEW

The Committee supports the Board by ensuring that project development deliberations follow approved guidelines and that project execution decisions create value for the Company.

## Q. What is the Projects Committee's approval authority?

The Committee is not responsible for approving projects – that is for the Board to decide. Our role is to assist the Board by ensuring that projects follow a standard, structured process with consistent analysis, execution and evaluation practices. The Committee invites management to consider different perspectives, ideas and improvements to enhance the value of the Group's projects, enabling a focused discussion once the project is presented to the Board.

## Q. What tools does the Committee use?

The Committee provides guidance to each project manager, from the early stages of project planning through to completion, to ensure that policies, strategies and the Group's standard Asset Delivery System (ADS) implementation framework are applied.

ADS is a project management system whose processes and practices are widely used in the mining industry. ADS defines standards and common criteria, including governance by a steering committee, functional quality assurance reviews and risk management.

## Q. What were the Committee's key activities in 2019?

### Centinela

The Committee reviewed progress on the Centinela Second Concentrator project's feasibility study, including the 2019 work plan and budget which included further proposals in relation to detailed engineering and trade-off analysis.

### Twin Metals

The Committee reviewed the updated pre-feasibility study for the Twin Metals project, outcomes of the functional quality assurance review, technical permitting processes and matters, detailed engineering, project execution plan and project risks. During the course of the year, the Committee reviewed a proposal to change the project design to incorporate a dry-stack tailings storage facility in place of the originally proposed conventional downstream tailings dam.

These activities aided the Board in its approval of a proposal to submit the Mine Plan of Operations and associated documents (MPO) for the Twin Metals project to authorities in the USA to commence the environmental review and permitting phase for the project and approval of the 2019 work plan and budget, as explained in more detail on page 66.

### Zaldívar

The Committee monitored various aspects of Zaldívar's Chloride Leaching project, including the outcomes of the functional quality assurance review process, detailed engineering progress and project sensitivities.

These activities aided the Board in its approval of construction of the Zaldívar Chloride Leach project, as explained in more detail on page 66.

### Los Pelambres

The Committee reviewed progress made on the execution of the Los Pelambres Expansion project. This included monitoring key risks and mitigations, and performance against budget, as well as the interaction between the activities of the project team and the operating team at Los Pelambres. The Committee met with key members of the EPC contractor team to understand the innovations being deployed and associated benefits and risks.

The Committee also reviewed conceptual studies in relation to a possible future phase 2 expansion.

## Q. What are the Committee's priorities in 2020?

- To oversee progress in the construction of the Los Pelambres Expansion project, Zaldívar's Chloride Leach project and the Esperanza Sur pit project.
- To review proposals in relation to the Centinela Second Concentrator project.
- To oversee progress following submission of the Mine Plan of Operations for the Twin Metals project.
- To monitor the progress of projects at Los Pelambres, Centinela and Zaldívar.
- To review lessons learned from the Centinela Molybdenum Plant project.
- To continue to review and further enhance the Group's ADS framework and project development guidelines.

### Ollie Oliveira

Chair of the Projects Committee

**“The Committee ensures that conditions for the wider workforce are taken into account when setting incentives and determining the remuneration of the CEO and his senior management team.”**



**Francisca Castro**  
Chair

**2019 Membership and meeting attendance**

	Number attended
Francisca Castro (Chair <sup>1</sup> )	7/7
Michael Anglin	1/1 <sup>2</sup>
Vivianne Blanlot	7/7
Tim Baker	7/7

1. Tim Baker served as Chair until 1 May 2019. Francisca Castro first joined the Committee on 1 January 2017.
2. Michael Anglin joined the Committee from 1 September 2019.

- Other regular attendees include the CEO, the Vice President of Human Resources and the Company Secretary.
- At least one Committee member serves on each of the other Board Committees which allows the Committee to take into account strategic priorities and the views of all stakeholders in its deliberations.
- The Committee meets as necessary and at least twice per year.
- All Committee members are independent.

**Key responsibilities**

- The Remuneration and Talent Management Committee ensures that the Group’s remuneration arrangements support the effective implementation of the Group’s strategy and enable the recruitment, motivation, reward and retention of talent.
- The Committee is responsible for setting the remuneration for the Chairman, Directors and the CEO and for monitoring the compensation strategy, level, structure and outcomes for Executive Committee members.
- The Committee actively participates in the Group’s talent management strategy, including the review, consideration and implementation of succession plans for members of the Executive Committee (excluding the CEO).
- The Committee also reviews workforce remuneration and related policies, including the diversity and inclusion policy, and the alignment of incentives and rewards with the Group’s culture.

**Key activities in 2019**

Governance	Directors’ remuneration	Executive remuneration	Human resources and policy
<ul style="list-style-type: none"> <li>• Reviewed the Company’s application of the 2018 UK Corporate Governance Code.</li> <li>• Reviewed the Remuneration Policy which will be put to shareholders for approval at the Company’s 2020 AGM.</li> <li>• Reviewed Gender Pay Gap and CEO Pay Ratio figures for the Group (although not mandatory for the Group to disclose due to UK-based employee numbers).</li> <li>• Reviewed feedback from shareholders on the Group’s remuneration arrangements and proposed Remuneration Policy in advance of the 2020 AGM.</li> <li>• Reviewed proposed amendments to the Committee’s terms of reference.</li> <li>• Reviewed proxy voting advisory reports and shareholder feedback prior to the 2019 AGM.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluated Chairman, Director and Committee fees, recommending no change.</li> <li>• Reviewed Ramón Jara’s services contract with Antofagasta Minerals SA.</li> <li>• Reviewed the 2018 Directors’ Remuneration Report prior to its approval by the Board and subsequent approval by shareholders at the 2019 AGM.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluated the CEO’s performance and determined the variable compensation payable to him under the 2018 Annual Bonus Plan.</li> <li>• Reviewed LTIP eligibility, participants and criteria and approved the grant of the 2019 awards.</li> <li>• Reviewed performance for LTIP awards granted in 2016 and approved the vesting level.</li> <li>• Reviewed Group performance against the 2018 Annual Bonus Plan performance metrics and reviewed the metrics to apply to the 2019 Annual Bonus Plan.</li> <li>• Reviewed and approved the individual performance of Executive Committee members under the 2018 Annual Bonus Plan.</li> </ul>	<ul style="list-style-type: none"> <li>• Reviewed the 2019 Human Resources plan.</li> <li>• Reviewed progress with the implementation of the Diversity and Inclusion Strategy.</li> <li>• Monitored collective bargaining negotiations at Los Pelambres, Antucoya and Zaldívar.</li> <li>• Approved implementation of a new Total Rewards Programme to ensure that the Group’s total rewards proposition remains competitive, motivating and appropriately aligned with the Group’s strategy, vision and risk appetite.</li> <li>• Reviewed a remuneration proposal in connection with the Group’s innovation programme.</li> <li>• Reviewed the Group’s Health and Life insurance policy and approved its renewal.</li> </ul>

**Talent management and succession planning**

- Reviewed the Group’s talent management strategy and succession plans for members of the Executive Committee.
- Approved the implementation of succession plans and revisions to the composition of the Executive Committee and the appointment of new directors in the Group’s operating companies.

# ALIGNING PAY WITH STRATEGY TO ACHIEVE LONG-TERM SUSTAINABLE SUCCESS

## Dear Shareholders,

I am delighted to present the 2020 Directors' and CEO Remuneration Policy and the 2019 Directors' and CEO Remuneration Report.

### 2020 Directors' and CEO Remuneration Policy

The 2020 Directors' and CEO Remuneration Policy is set out on pages 120 to 125 and is being presented to shareholders for approval at the 2020 Annual General Meeting. Subject to shareholder approval, this policy will supersede the Directors' Remuneration Policy that was approved at the 2017 Annual General Meeting.

Following the implementation of the European Shareholders' Rights Directive II during the year, the 2020 Policy will apply to the Company's CEO for the first time. Although this requirement is new, the Policy is consistent with the pay practices that have been in place for the CEO and disclosed voluntarily for many years.

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 LTIP which are designed to align remuneration with overall Group performance and promote outcomes that are for the long-term benefit of the Group.

Market conditions and remuneration structures available in Chile are a central consideration when setting the CEO's remuneration. While the Committee has carefully considered 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. Our variable remuneration arrangements are simple, understandable and work effectively for our circumstances.

I met with the Company's major shareholders and proxy advisers during the year to discuss the proposed Policy. It is clear that, above all else, we do not overpay our CEO relative to our peers and I was pleased to engage in constructive discussions with investors, particularly in relation to our LTIP. It was also valuable to understand investors' perspectives on the appropriateness and balance of performance KPIs that should be included in the Annual Bonus Plan and the LTIP. This feedback was reported to, and discussed in detail with, the Committee and we will continue to take these perspectives into account as we apply the Policy in the coming years.

### 2019 Directors' and CEO Remuneration Report

As in previous years, although our CEO is not a Director, we voluntarily disclose his remuneration as if he were and provide details on the Group's executive pay structures to allow shareholders to understand how these structures support strategy and promote long-term sustainable success. These disclosures will become mandatory from next year, when we report on how we have applied the 2020 Directors' and CEO Remuneration Policy in 2020.

As set out earlier in the Annual Report, the Group has had a very strong year with record copper production and the Group's strongest safety performance to date.

We are committed to Developing Mining for a Better Future and our vision is to continue being an international mining company based in Chile, focused on copper and its by-products, known for its operating efficiency, creation of sustainable value, high profitability and as a preferred partner in the global mining industry.

Echoing the comments of our Chairman and CEO, the Group's performance this year has been particularly impressive given the challenges associated with the civil unrest in Chile and lower than forecast copper price during the year owing to the global trade uncertainties. I believe our management team has worked extremely hard to deliver against this challenge and can take pride in the results for the year.

The requirements of the revised UK Corporate Governance Code have provided the Committee with an opportunity to consider whether our approach to executive pay remains appropriate for our business and in line with regulatory and key stakeholder expectations and we explain why we believe this to be the case throughout this report.

### Performance and incentive outcomes for the year

As well as recording its strongest safety performance to date, the Group also achieved outstanding environmental and social performance results during the year which led to these elements of the annual bonus paying out at maximum. Furthermore, the CEO has demonstrated commitment and perseverance in delivering against challenging individual objectives which are described on page 132. An illustration of the outcomes is shown below.

### Group annual bonus outcomes (% of maximum)

The annual bonus payable to the CEO and members of the Executive Committee was 70% attributable to Group annual bonus outcomes and 30% attributable to personal performance according to measures and targets set at the beginning of the year. The overall Group annual bonus score was 75% of maximum, taking into account the Group annual bonus outcomes as shown below and the adjustments applied by the Committee explained on page 119.

Link to strategy	Objective	Link to strategy			
		People	Safety & sustainability	Competitiveness	Growth
		Threshold (0% vesting)	Target (50% vesting)	Maximum (100% vesting)	
	EBITDA – Mining division (15%)		70%		
	Copper production (25%)		50%		
	Costs (20%)		50%		
	Growth projects execution (15%)		50%		
	Exploration programme (5%)			85%	
	Safety (5%)				100%
	People (5%)				85%
	Environmental performance (5%)				100%
	Social performance (5%)				100%

+ See page 131 for more information

### CEO's bonus outcome (% of maximum)

The CEO's 2019 bonus outcome was 82.5% of maximum.

Objective	Threshold (0% vesting)	Target (50% vesting)	Maximum (100% vesting)
Overall Group annual bonus score (70%)			75%
Individual bonus score (30%)			100%
CEO's annual bonus outcome			82.5%

+ See page 131 and 132 for more information

### Forecast LTIP Performance Award outcomes (% of maximum)

The Performance Awards granted under the LTIP in 2017 will vest following the publication of the Group's full-year results. It is currently anticipated that these will pay out at 77% of the maximum based on exceptional EBITDA, mineral resources increase and projects, development and sustainability performance over the three-year performance period. This is also reflected in target anticipated performance against our relative total shareholder return KPI. An illustration of the anticipated outcomes is shown below.

Link to strategy	Objective	Threshold (0% vesting)	Target (57% vesting)	Maximum (100% vesting)
	Relative total shareholder return (35%)	33%		
	EBITDA (20%)			100%
	Mineral resources increase (15%)			100%
	Projects, development and sustainability (30%)			100%

+ See page 135 for more information

### Committee decisions on outcomes

Responsibility for safety and health is one of the Group’s core values and in 2016 the Committee implemented an automatic 15% adjustment to the Group’s performance score under the Annual Bonus Plan (downwards if there is a fatality during the year, and upwards if there are no fatalities during the year) to further align the Group’s incentives with this core value and our goal of zero fatalities. As there were no fatalities during the year, the Committee was delighted to endorse the automatic 15% upward adjustment for the Group performance score under the 2019 Annual Bonus Plan.

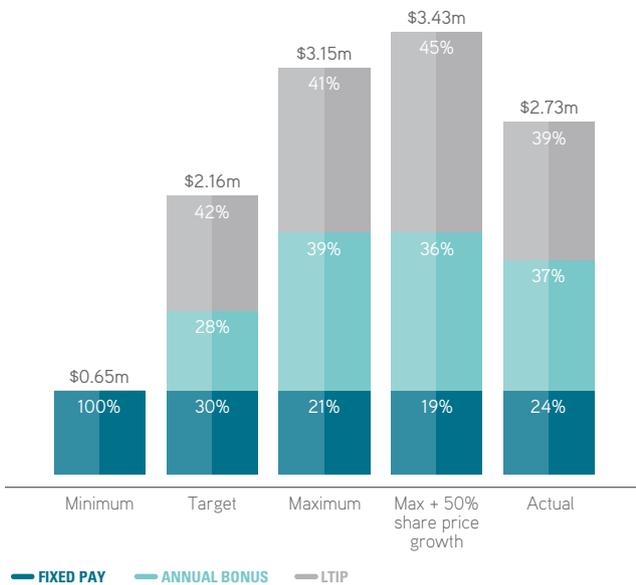
As mentioned by the Chairman, the Group also faced unforeseen civil unrest in Chile during the year. The Board believes that the Group’s employees, led by the CEO, handled these circumstances in an exceptional manner, exercising discretion to increase the formulaic outcome of the Group’s performance score under the Annual Bonus Plan from 73.5% to 75% of the maximum. Discretion was also applied to adjust the performance scores for each of the Group’s operating companies and in the cases of Los Pelambres and Centinela, discretion was also applied to decrease performance score outcomes for specific areas of performance that were not included within the scorecard KPIs.

The anticipated level of vesting of the LTIP is considered appropriate in light of the Group’s performance over the three-year performance period.

+ See page 131 for more information

### Single total figure outcome

The chart below shows the 2019 single figure of remuneration for the CEO compared with the expected level of remuneration for the CEO for the year.

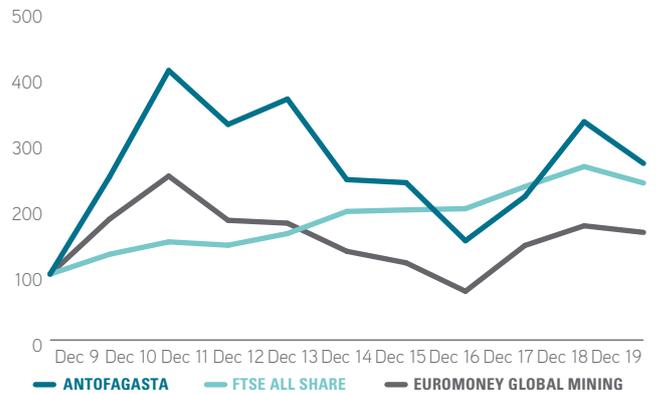


As can be seen, the majority of the CEO’s total remuneration package is variable pay, the outcome of which depends on the achievement of both financial and non-financial performance targets.

### Pay for performance

We are committed to ensuring that the pay delivered to our CEO aligns with the performance of the Company and reflects the achievement against our strategic goals.

The graph below shows the Company’s share price performance over the last 10 years, compared with the performance of the FTSE All-Share Index and the Euromoney Global Mining Index, measured by total shareholder return.



+ See page 129 for more information

The Company’s share price performance has outperformed the Euromoney Global Mining Index over the last 10 years, including the years since our CEO has been in place, and we are comfortable that the CEO is incentivised to work towards the Group’s long-term sustainable success.

### Shareholders

It is critical that the remuneration of our CEO is aligned with the return delivered to shareholders. We align the pay of our CEO in two ways. Our LTIP is delivered in phantom shares and the Performance Awards are subject to a three-year vesting period. In addition, relative total shareholder return is a core performance measure for our LTIP which means that our CEO is rewarded based on relative outperformance for shareholders.

### Corporate governance

At the start of the year, the Committee agreed that the publication of the 2018 Code provided an opportunity to review the Committee’s terms of reference. The Committee has always had a broad remit, covering the Executive Committee and the key HR policies for the Group. Nevertheless, this provided a valuable opportunity to further align the remit of the Committee with the new requirements of the 2018 Code. The terms of reference can be found on our website.

I hope that this report demonstrates the importance that we place on transparency of the decisions we make and how they are arrived at and I look forward to meeting shareholders at our AGM where I will be available to answer questions.

### Francisca Castro

Chair of the Remuneration and Talent Management Committee

# 2020 DIRECTORS' AND CEO REMUNERATION POLICY

The Committee presents the 2020 Directors' and CEO Remuneration Policy which will be put to a binding vote of shareholders at the Company's 2020 Annual General Meeting.

Subject to shareholder approval, this Policy will take effect from the 2020 AGM with the intention that it will supersede the remuneration policy approved by shareholders at the 2017 AGM. Once the Policy is approved, the Group will only make remuneration payments to Directors and the CEO, or payments for loss of office, if the payment is in line with the Policy. If the Committee is required, or wishes, to change the Policy within this period, it will submit a revised Policy for shareholders to approve.

## Policy scope

There has been no change to the composition of the Board of Directors this year which continues to comprise only Non-Executive Directors. The Board has considered the pros and cons of having executives on the Board and continues to be of the view that the existing structure is effective in ensuring that the Board maintains objectivity and independence from management. In addition, the structure is appropriate since the CEO, Executive Committee and most senior managers are based in Chile where company law prohibits CEOs of public companies from serving as Directors of those companies.

While historically not required, in previous years the Company has embraced the spirit of the UK remuneration reporting regulations and the UK Corporate Governance Code by voluntarily reporting annually on the remuneration and incentive structure for the CEO as if he were a Director. This has been done on a voluntary basis for a number of years to invite feedback from our various stakeholders and we are pleased with the strong level of support we have received on our Directors' Remuneration Report each year. Given the implementation of the European Shareholders' Rights Directive II and subsequent changes to regulations for the first time in the UK, the 2020 Policy is required to cover payments to the CEO even though he is not a Director. In line with the regulations, this Policy also covers the Non-Executive Directors of the Company.

The Company's policy is to ensure that we pay fairly with regard to the responsibilities undertaken and to consider comparable pay levels and structures in the UK, Chile and the international mining industry. The Policy being tabled for shareholder approval is consistent with pay practices that have been in place, and disclosed voluntarily by the CEO, for several years. The Committee is of the view that the approach to pay for the CEO and Non-Executive Directors is aligned to the strategy, and is effective and well understood.

## Policy table for the CEO

Purpose and link to strategy	Operation	Maximum opportunity	Performance measures
<b>Base salary</b>			
To retain and attract high-calibre executives by offering globally competitive salary levels.	<p>Typically, base salaries will be reviewed annually.</p> <p>Base salaries are usually paid in local currency but can be paid in any currency to attract or retain high-calibre executives.</p> <p>Base salary levels and any increases take into account:</p> <ul style="list-style-type: none"> <li>the individual's role, performance and experience;</li> <li>business performance, the external environment and cost to the Company;</li> <li>salary increases for the wider workforce; and</li> <li>salary levels for comparable roles at relevant comparators.</li> </ul>	<p>There is no prescribed maximum although salary increases will take into account those of the wider workforce. Chilean labour contracts are adjusted periodically to reflect Chilean inflation and adjustments may be made under any other labour contracts.</p> <p>Increases may be made above this level where the Committee considers it appropriate including (but not limited to):</p> <ul style="list-style-type: none"> <li>a significant increase in the scale, scope, market comparability or responsibilities of the role; and</li> <li>where an individual has been appointed on a salary lower than market levels, increases above those of the wider workforce may be made to recognise experience gained and performance in the role.</li> </ul> <p>Such increases will be explained in the relevant Annual Report.</p>	Both individual and Group performance are considered when determining base salaries and any increases.

Purpose and link to strategy	Operation	Maximum opportunity	Performance measures
<b>Benefits</b>			
To provide market competitive benefits.	Benefits typically include maintenance of insurance policies including life and health insurance. Where appropriate, other benefits may be offered including, but not limited to, car allowance, pension contribution, and allowances for relocation.	Benefits are reviewed periodically and may vary by role.  There is no overall maximum.	None
<b>Annual Bonus Plan</b>			
To focus on the delivery of annual financial and non-financial targets designed to align remuneration with the Group's strategy and create a platform for future sustainable performance.	The bonus is earned based on the achievement of one-year performance targets and is delivered in cash.	Maximum of 200% of salary.	<p>The bonus is based on a combination of financial, operational, strategic and individual measures.</p> <p>Performance measures and weightings are reviewed annually to ensure they continue to support the key strategic priorities. At least 50% of the bonus will be based on the Group's financial, operational and strategic performance. Other metrics include, but are not limited to business development, organisational capabilities, sustainability and safety.</p> <p>Currently, an automatic adjustment applies to the Group's performance score under the Annual Bonus Plan (downwards if there is a fatality during the year, and upwards if there is no fatality during the year) to further align the Group's incentives with the core value of safety and our goal of zero fatalities. The Committee will consider whether this should continue to apply on an annual basis, taking into account the Group's safety culture and performance.</p> <p>The bonus starts accruing at threshold performance (0% payout), with a payout of 50% of the maximum opportunity when target or mid-point performance is achieved.</p> <p>The Committee retains discretion to adjust the bonus outcomes to ensure they reflect underlying business performance, the impact of the commodity price and any other relevant factors to ensure an appropriate payout.</p>

## Policy table for the CEO continued

Purpose and link to strategy	Operation	Maximum opportunity	Performance measures
<b>Long-Term Incentive Plan (LTIP)</b>			
To align with the shareholders' experience and focus on long-term, sustainable performance.	<p>Awards under the LTIP will typically comprise:</p> <ul style="list-style-type: none"> <li>• Performance Awards – performance typically measured over a three-year period with vesting thereafter, comprising at least 70% of the total LTIP awards.</li> <li>• Restricted Awards – typically vest one-third each year over a three-year period following grant, comprising a maximum of 30% of the total LTIP awards.</li> </ul> <p>Due to the tax regime in Chile, awards will usually be made in the form of a conditional right to receive a cash payment by reference to the value of a specified number of the Company's shares (phantom shares).</p> <p>Malus provisions may be applied in exceptional circumstances as detailed in the notes to this table.</p>	Maximum of 200% of salary with a maximum of 325% of salary in exceptional circumstances.	<p>Performance Awards will be based on a combination of financial, shareholder return and strategic performance measures aligned with the business priorities, usually measured over a three-year period.</p> <p>The targets, measures and weightings will be determined by the Committee annually. Typically, the financial and total shareholder return measures are at least 50% of the Performance Awards.</p> <p>Performance Awards begin vesting at threshold performance, the amount depending on the performance metrics chosen. It is intended that this level across all metrics should be 25% or less at threshold. The goals for each performance criteria are designed so that the minimum level of performance delivers 0% pay-out and at target or mid-point performance represent an aggregate average of approximately 50% of the maximum opportunity.</p> <p>No performance conditions other than continued employment usually apply to Restricted Awards.</p> <p>The Committee retains discretion to adjust the payments to ensure they reflect underlying business performance, the impact of the commodity price and any other relevant factors to ensure an appropriate payout.</p>

## Notes to the Policy table

### Changes from last approved policy

This Policy will apply to the Company's CEO for the first time. It is consistent with the pay practices that have been in place for the CEO and disclosed voluntarily for many years.

### Operation of incentive plans

The incentive plans will always be operated within the Policy and in accordance with the relevant plan rules. There are several areas over which the Committee retains flexibility as detailed below:

- who participates in each plan;
- the timing and size of an award and/or payment subject to Policy limits;
- the performance measures, weightings and targets that will apply each year and any adjustments thereof;
- treatment of awards in the event of a change of control, restructuring or other corporate event;
- treatment of leavers; and
- amendments to the plan rules in accordance with their terms.

In the case of the CEO, any use of discretion by the Committee will be disclosed in the relevant Annual Report and may be subject to consultation with the Company's shareholders.

If the regulations and practice change in Chile to allow payment in shares without adverse consequences, and this practice is seen as desirable by the Committee, the Company reserves the right to make payment of the incentive plans to some or all participants in shares rather than cash. Any change will be disclosed in the Annual Report.

### Performance measures and targets

Awards under both the Annual Bonus Plan and a significant proportion of awards under the LTIP are subject to financial and non-financial performance metrics determined annually by the Committee.

The financial metrics align participants with the Group's strategy and the sustainable creation of value for our shareholders over the long term.

The non-financial metrics measure the development of important projects and exploration activities that are essential for future mining activities. Other metrics may relate to safety, people and environmental and social targets, which ensure that we act in a way that preserves our social licence to operate and takes into account the interests of all the Group's stakeholders.

Targets are set taking into account a number of internal and external factors including implementation of the Group's strategy and delivering growth in line with budgeted and forecast expectations.

Restricted Awards are not subject to performance conditions as it is appropriate given market conditions in Chile for part of variable remuneration to be subject to a time condition and continued employment only.

### Malus and clawback

Malus provisions apply in exceptional circumstances, including:

- Actions by a participant that, in the reasonable opinion of the Committee, amount to gross misconduct that has or may have a material effect on the value or reputation of the Company or any of its subsidiaries.
- A materially adverse error in the consolidated financial statements of the Group during the performance period.
- Any reasonable circumstances that the Committee determines in good faith to have resulted in an unfair benefit to the participant.

Clawback has not been introduced due to uncertainty around its legal validity in Chile.

### Legacy arrangements

Payments may be made to satisfy commitments made prior to the approval of this Policy. This may include, for example, payments made to satisfy legacy arrangements agreed prior to an employee (and not in contemplation of) being promoted to the position of CEO or the Board of Directors. All outstanding obligations may be honoured, and payment will be permitted under this Policy.

### Minor amendments

The Committee may make minor amendments to the Policy (for example for tax, regulatory, exchange control or administrative purposes) without obtaining shareholder approval.

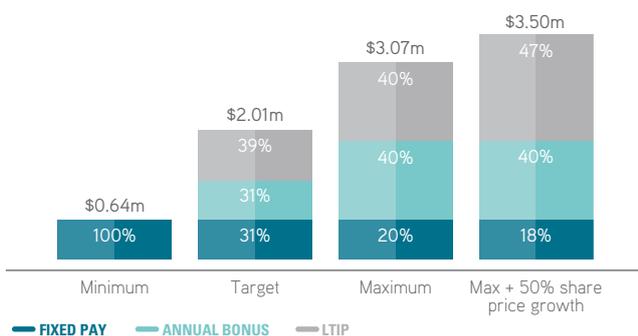
### Difference in CEO and employee remuneration policy

Apart from participation in the LTIP, which is limited to the Executive Committee and certain senior employees, there are no differences between the Policy as it applies to the CEO and the remuneration policy for employees generally.

### Illustrations of application of Policy

The graph below provides estimates of the potential remuneration opportunity for the CEO under three different performance scenarios: 'Minimum', 'Target' and 'Maximum'. In line with the reporting regulations, a scenario assuming 50% share price growth over the three-year Performance Awards performance period is also shown below (for the maximum performance scenario). Because the CEO is paid in Chilean pesos and reporting is in US dollars at the date of this Policy, this reflects the prevailing exchange rate as at the date of this Policy. The assumptions used for these charts are set out in the table below.

### CEO total remuneration



**Minimum performance**

- Fixed remuneration (salary and benefits) only.
- No payout under the annual bonus or LTIP.

**Target performance**

- Fixed remuneration.
- 50% of the maximum payout under the annual bonus.
- Vesting under the LTIP assumed as follows: 50% of Performance Awards, 100% of Restricted Awards.

**Maximum performance**

- Fixed remuneration.
- 100% of the maximum payout under the annual bonus.
- Maximum vesting under the LTIP assumed as follows: 100% of Performance Awards, 100% of Restricted Awards.

**Maximum performance + 50% share price growth**

- Fixed remuneration.
- 100% of the maximum payout under the annual bonus.
- Maximum vesting under the LTIP assumed as follows: 100% of Performance Awards, 100% of Restricted Awards. 50% assumed share price growth for Performance Awards over three-year performance period.

Other than for the scenario 'Maximum + 50% share price growth', no share price growth has been assumed in the charts above. Also, no dividend assumptions have been included in the charts above.

### Service contracts and letters of appointment

All Directors' letters of appointment and the CEO's service contract are available for inspection at the Company's registered office during normal business hours and at the Annual General Meeting (for 15 minutes prior to and during the meeting).

### CEO

Iván Arriagada is employed under a contract of employment with Antofagasta Minerals SA, a subsidiary of the Company. His contract is governed by Chilean labour law. It does not have a fixed term and can be terminated by either party on 30 days' notice in writing. Except in the case of termination for breach of contract or misconduct under the Chilean Labour Code, Mr Arriagada is entitled to receive one month's base salary for each year of service on termination, otherwise no other compensation or benefits are payable on termination of his employment.

Under his employment contract Mr Arriagada is entitled to 20 working days' paid holiday per year.

Because Mr Arriagada's salary is paid in Chilean pesos, it is subject to exchange rate movements when reported in US dollars.

### Chairman and Non-Executive Directors

Each Non-Executive Director has a letter of appointment from the Company. The Company has a policy of putting all Directors forward for re-election at each AGM, in accordance with the UK Corporate Governance Code. Under the terms of the letters, if a majority of shareholders do not confirm a Director's appointment, the appointment will terminate with immediate effect. In other circumstances, the appointment may be terminated by either party on one month's written notice. The letters require the Directors to undertake that they have sufficient time to discharge their responsibilities.

There is a contract between Antofagasta Minerals and Asesorías Ramón F Jara Ltda dated 2 November 2004 for the provision of advisory services by Ramón Jara. This contract does not have an expiry date but may be terminated by either party on one month's notice.

No other Director is party to a service contract with the Group.

### Policy on payments for loss of office

The CEO's contract can be terminated by either party on 30 days' notice in writing. Except in the case of termination for breach of contract or misconduct under the Chilean Labour Code, the CEO is entitled to receive one month's base salary for each year of service on termination.

The treatment of any outstanding incentive awards will be determined based on the relevant plan rules or as summarised in the table below:

<b>Annual bonus</b>	If employment lasts for at least six months of the financial year, leavers are entitled to be considered for a bonus depending on whether performance conditions have been met and any payment will usually be pro-rated for the period of employment, with Committee discretion to treat otherwise. If an individual's employment does not last for at least six months, leavers will not typically be entitled to be considered for a bonus, with Committee discretion to treat them otherwise.
<b>LTIP</b>	The default treatment is that any outstanding Performance Awards lapse on cessation of employment. However, if an individual is considered a good leaver, awards will usually vest subject to the satisfaction of the relevant performance criteria (if applicable) and, ordinarily, on a time pro-rated basis with the Committee's discretion to treat them otherwise. The balance of the awards will lapse.  Restricted Awards will usually lapse on cessation of employment unless the Committee determines otherwise.
<b>Corporate event/ change in control</b>	In the event of a change of control or winding up of the Company, LTIP awards will vest subject to the extent to which the performance conditions have been satisfied (if applicable) and time pro-rating, unless the Committee decides otherwise.  In the event of an internal reorganisation, LTIP awards may (with consent from any acquiring company) be replaced by equivalent awards. Alternatively, the Committee may decide that LTIP awards will vest as in the case of a change of control described above.  In the event of a demerger, special dividend or other corporate event that will materially impact the share price, the Committee may, at its discretion, allow LTIP awards to vest on the same basis as for a change of control as described above.

The Committee reserves the right to make other payments in connection with the CEO's cessation of employment. Any such payment may include paying a reasonable level of fees for outplacement assistance and/or the CEO's legal or professional advice fees in connection with his cessation of employment.

The letters of appointment for the Non-Executive Directors do not provide for any compensation for loss of office beyond payments in lieu of notice, and therefore the maximum amount payable upon termination of these letters is limited to one month's payment.

### Policy on recruitment

When determining remuneration on recruitment of a CEO, the Committee will take into account an individual's role, experience and relevant data points such as market data and internal comparisons. The Committee is mindful to pay no more than is necessary to facilitate recruitment of the right talent. On appointment, remuneration will generally be in line with the Policy and the maximum aggregate value of incentives (excluding buyouts) will be no more than the maximums in the Policy table. The approach on recruitment is summarised below:

Element	Policy and operation
<b>Base salary</b>	Base salary will be determined with reference to the individual's role and responsibilities, experience and skills, relevant market data and internal comparisons. Salaries may be set at a level lower than the prevailing market rate with increases made at a higher than usual rate as the individual gains experience and performs in the role.
<b>Benefits</b>	Benefits in line with the Policy, including relocation benefits if appropriate.
<b>Annual bonus</b>	The structure described in the Policy table will normally apply for new appointees with the relevant maximum typically pro-rated to reflect service during the year. For the first year of appointment, the Committee may determine that the annual bonus may be subject to modified terms considered appropriate in the context of the recruitment.
<b>LTIP</b>	LTIP awards will normally be on the same terms as described in the Policy table although the Committee does have the flexibility to make changes in the first year of employment, including the performance measures applied. Any change will be fully disclosed in the relevant Directors' and CEO Remuneration Report.
<b>Buyout awards</b>	The Committee recognises that it may be necessary, in certain circumstances, to provide compensation for amounts forfeited from a previous employer. Generally, any buyout awards will be made on a like-for-like basis in terms of commercial value, form, application of performance conditions and timing of receipt to ensure they reflect the incentives they are replacing.

The approach for an internal promotion will be consistent with the policy outlined above. Where an individual has contractual commitments or outstanding awards made prior to their promotion, the Company will honour these legacy arrangements.

For interim positions a cash supplement may be paid rather than salary (for example a Non-Executive Director taking on an executive function on a short-term basis).

On appointment of a new Non-Executive Director or Chairman, the information set out in the Policy table will apply.

## Policy table for the Chairman and Non-Executive Directors

Purpose and link to strategy	Operation	Maximum opportunity	Performance measures
<b>Fees</b>			
To attract and retain high calibre, experienced Directors by offering globally competitive fee levels.	<p>The Chairman receives an annual base fee. Non-Executive Directors receive an annual base fee. Directors may receive further fees for additional responsibilities including:</p> <ul style="list-style-type: none"> <li>• Senior Independent Director</li> <li>• Board Committee Chair</li> <li>• Committee member</li> </ul> <p>Separate base fees are paid for services to the Antofagasta Minerals Board and for serving as a Director on, or chairing, any subsidiary or joint-venture company.</p> <p>Ramon Jara also receives a base fee (adjusted for Chilean inflation) for advisory services provided to Antofagasta Minerals pursuant to his service agreement.</p> <p>Fees are subject to review taking into account time commitment, responsibilities and market practice.</p>	<p>Total fees paid will be within the limit stated in the Articles of Association.</p> <p>Changes may be made to Chilean-peso-denominated fees to take into account Chilean inflation.</p>	None
<b>Benefits</b>			
To provide appropriate benefits and reimburse appropriate expenses that are incurred in the performance of duties of the Directors.	<p>Non-Executive Directors are entitled to be reimbursed for reasonable expenses incurred during the performance of their duties, including any tax due.</p> <p>Benefits may include the provision of life, accident and health insurance, professional advice and certain other minor benefits including occasional spousal travel in connection with the business.</p>	Benefits set at a level appropriate to the individual's role and circumstance. The maximum opportunity will depend on the type of benefit and cost of its provision.	None

In line with the UK Corporate Governance Code, Non-Executive Directors do not participate in incentive or share schemes or receive a pension provision.

### Consideration of employment conditions elsewhere in the Group

When the Committee reviews remuneration of the Directors and CEO, it takes into consideration pay conditions across the Group. This is set in the context of different working environments and geographies and therefore is not a mechanical process. The Committee does not currently use any other remuneration comparison metrics when determining the quantum and structure of Director remuneration and does not seek employee views. The Directors' and CEO's Remuneration Policy is well understood by employees and employees are aware that the CEO's Remuneration Policy is substantially similar to their own remuneration policy. The Chair of the Remuneration and Talent Management Committee has not therefore explained this to employees.

During 2019 the Antofagasta HR team and management undertook a review of the reward and remuneration structure of the business with a view to reviewing market pressures and business interactions and whether the current processes and structures should change in order to better meet the needs of the business. As part of the review the HR team sought engagement with employee stakeholders, through leadership and senior management interviews, and focus groups with employees from across the business ensuring a full range of views from our diverse employees were represented. Additionally, with its advisers, the Group reviewed market practice and considered the developing environment for talent and the needs of the business before making proposals to the Remuneration and Talent Management Committee across a number of areas impacting the reward and talent proposition for employees. The proposals sought to continue to maximise value and increase the overall employee experience and ensure that the Group remains a world class employer attracting and retaining the best mining talent to succeed.

### Consideration of shareholder views

The Company maintains a dialogue with institutional shareholders and sell-side analysts, as well as potential shareholders. This communication is managed by the Investor Relations team and includes a formal programme of presentations to update institutional shareholders and analysts on developments in the Group following the announcement of the half-year and full-year results.

In addition, as part of the review of Director and CEO remuneration ahead of a new Policy being tabled for approval at the 2020 AGM, a consultation exercise was undertaken by the Chair of the Remuneration and Talent Management Committee with top shareholders and proxy agencies. The Company values the feedback received during this process and it was taken into account when determining the final Policy to be approved by shareholders.

The Board receives regular summaries and feedback in respect of the meetings held as part of the investor relations programme, as well as receiving research analysts' reports on the Company. The Senior Independent Director meets with shareholders regularly and the Chairman and the Chair of the Remuneration and Talent Management Committee are also regularly available to meet shareholders to discuss matters of importance, including the Group's remuneration structures. The Company's Annual General Meeting is also used as an opportunity to communicate with both institutional and private shareholders. This ongoing dialogue allows us to respond to the needs and concerns of all shareholders throughout the year and the Directors' and CEO's pay arrangements will continue to be reviewed each year in line with the Policy, taking into account the views of all the Company's shareholders.

# 2019 DIRECTORS' AND CEO REMUNERATION REPORT

## Statement of shareholder voting

The tables below show the voting results on the 2018 Directors' Remuneration Report and 2017 Directors' Remuneration Policy at the 2019 and 2017 AGMs respectively:

### Resolution to approve the 2018 Directors' Remuneration Report

Votes for	1,060,477,326
	98.36%
Votes against	17,686,386
	1.64%
Votes cast as a percentage of issued share capital	90.92%
Votes withheld	1,462,356

### Resolution to approve the 2017 Directors' Remuneration Policy

Votes for	1,073,241,098
	99.08%
Votes against	9,917,915
	0.92%
Votes cast as a percentage of issued share capital	91.34%
Votes withheld	113,419

The considerable vote in favour of both the 2018 Directors' Remuneration Report and 2017 Policy confirms the strong support received from shareholders for the Group's remuneration arrangements.

## Review of remuneration ahead of 2020 AGM

As noted in the Chair's statement, the implementation of the European Shareholders' Rights Directive II requires disclosure of the policy of pay for the CEO for the first time. This will be subject to shareholder approval at the 2020 Annual General Meeting.

In the spirit of transparency with our shareholders and for the purposes of providing shareholders with an opportunity to review and comment on the Company's pay arrangements, we have disclosed the CEO's pay on a voluntary basis for a number of years. We do so once again this year.

This section of the Report therefore provides information on:

- how we propose to implement our Policy for 2020 for Directors and the CEO; and
- how Directors and the CEO were paid for the year ending 31 December 2019.

As noted in the Chair's statement, ahead of the Policy being tabled for shareholder approval at the 2020 AGM, a review of our remuneration structure was conducted considering a number of reference points including our current strategy, performance of the Group, external market practice, peer practice and the evolving UK regulatory and governance landscape. The review covered our Directors, all of whom are Non-Executive, and our CEO and executive team.

As a Remuneration and Talent Management Committee, the Committee also has oversight of the approach to pay for the wider workforce and receives regular updates on workforce policies and practices which were taken into account during the Policy review. Further details on the specific activities undertaken by the Committee in 2019 are on page 116.

Furthermore, the Committee plays an important role in ensuring that the views of the Group's workforce are represented in the boardroom. A description of the Board's workforce engagement mechanisms is on page 95.

As outlined in our Policy, our Directors are paid an annual fee and may receive a fee for additional Board responsibilities such as chairing a Board Committee. This structure continues to be appropriate and therefore there are no significant changes proposed for 2020.

Iván Arriagada is the CEO and is responsible for leading the senior management team and for the executive management of the Group. Members of the Executive Committee report to Mr Arriagada and are responsible for leading the day-to-day operation of the Group's mining and transport businesses. No member of the Executive Committee, including the CEO, sits on the Board of the Company, however following the implementation of new regulations we are required to disclose the policy for the CEO's pay for the first time for 2020.

The CEO's pay comprises the following main elements:

- **Fixed pay** – base salary of \$613,629 and benefits including amounts paid to maintain life and health insurance policies. According to Chilean law, all employees are required to pay their own pension contribution and therefore no Company pension contributions are made.
- **Annual bonus** – maximum of 200% of salary with payout dependent on annual performance against Group (70%) and personal (30%) performance targets set at the beginning of each year. Paid in cash following the end of the performance period.
- **Long-term incentive plan** – maximum of 200% of salary (325% of salary in exceptional circumstances) comprising two main elements:
  - i. Performance Awards (70% of overall award) – based on three-year Group performance measures.
  - ii. Restricted Awards (30% of overall award) – one-third vest each year over a three-year period following grant.

Share awards have historically been taxed in full at grant in Chile, therefore awards are made in the form of cash-settled phantom share awards to ensure a link to share price. No holding period applies.

When reviewing our approach to remuneration, the Committee considered practice at global mining peers, UK listed companies and in Chile.

While we acknowledge that there are some differences between our approach and typical UK practice, we have sought to operate a structure that is appropriate for the Chilean market where almost all of our employees are based and enables us to attract and retain talent there rather than one that may work for our mining peers who operate across a number of geographies including the US, Australia and Canada.

We appreciate that share-based awards are common in the UK and considered this during our review. Due to the taxation laws in Chile in recent years, they are not common practice in the Chilean market. While a number of potential approaches for utilising shares were discussed, the Committee agreed to continue to use cash-based awards, linked to share price movement prior to vesting, due to the negative tax implications of granting share awards in Chile. As such, we do not operate a shareholding guideline for our CEO, who is based in Chile.

As part of the review, the Committee consulted with major shareholders and proxy agencies and actively took into account the feedback received during this process. Following the review of our Policy, the Committee has concluded that the overall structure has worked well at the Company and ensures that the CEO continues to focus on the delivery of sustained value for our shareholders. No changes from 2019 are therefore proposed.

The Company's approach results in pay which continues to be positioned at or below the lower quartile of the FTSE 100 and our global mining peers while ensuring we can maintain competitiveness in both local Chilean and international markets and attract the talent needed to successfully execute our strategy.

### Implementation of the Directors' Remuneration Policy in 2019

Remuneration arrangements for the Chairman and Non-Executive Directors were considered ahead of the 2020 AGM and it was agreed that they continued to be appropriate and therefore no changes are proposed.

#### Chairman

Jean-Paul Luksic's total fee in 2019 was \$1,005,000, (2018 – \$1,003,750) comprising:

- \$730,000 per annum for his services as Chairman of the Board;
- \$15,000 per annum for his services as Chairman of the Nomination and Governance Committee; and
- \$260,000 per annum for his services as Chairman of the Antofagasta Minerals board.

This fee level reflects his responsibility, experience and time commitment to the role.

### Non-Executive Directors

There has been no change to Non-Executive Director base fees since 2012. The base Non-Executive Director's fee in respect of the Board remains \$130,000 per annum. Given the core role which Antofagasta Minerals plays in the management of the mining operations and projects, all Directors also serve as directors of Antofagasta Minerals. The annual fee payable to directors of Antofagasta Minerals remains \$130,000. Therefore, the combined base fees payable to Non-Executive Directors amount to \$260,000 per annum.

The Board periodically reviews both the structure and levels of fees paid to Non-Executive Directors and will continue to review these fees from time to time, in accordance with the Directors' Remuneration Policy.

Additional fees are paid for additional Board responsibilities as set out in the table below:

### Additional Director fees payable in 2019

Role	Additional fees (\$000)
Senior Independent Director	20
Audit and Risk Committee Chair	25
Audit and Risk Committee member	12
Nomination and Governance Committee Chair	15
Nomination and Governance Committee member	6
Projects Committee Chair	21
Projects Committee member	12
Remuneration and Talent Management Committee Chair	21
Remuneration and Talent Management Committee member	12
Sustainability and Stakeholder Management Committee Chair	21
Sustainability and Stakeholder Management Committee member	12

## Audited single figure of Directors' total remuneration table

The remuneration of the Directors for 2019 is set out below in US dollars. Unless otherwise noted, amounts paid in Chilean pesos have been converted at the exchange rate on the first day of the month following the date of payment. Any additional fees payable for serving on subsidiary and joint venture company boards are also included in the amounts below.

As explained in the Directors' Remuneration Policy, Directors do not receive pensions or performance-related pay and are not eligible to participate in the LTIP.

	Fees		Benefits <sup>3,4</sup>		Total <sup>5</sup>	
	2019 \$000	2018 \$000	2019 \$000	2018 \$000	2019 \$000	2018 \$000
<b>Chairman</b>						
Jean-Paul Luksic	1,005	1,004	9	12	1,014	1,016
<b>Non-Executive Directors</b>						
Ollie Oliveira	332	329	73	158	405	487
Gonzalo Menéndez (passed away in June 2019)	130	260	3	10	133	270
Ramón Jara <sup>1</sup>	945	991	5	13	950	1,004
Juan Claro	272	272	10	9	282	281
William Hayes (retired 22 May 2019 <sup>2</sup> )	130	327	71	38	201	358
Tim Baker	293	297	69	64	362	361
Andrónico Luksic	260	260	3	4	263	264
Vivianne Blanlot	305	303	7	9	312	312
Jorge Bande	296	295	10	7	306	302
Francisca Castro	290	283	13	8	303	291
Michael Anglin (appointed 1 May 2019)	181		41	–	222	–
<b>Total Board</b>	<b>4,440</b>	<b>4,614</b>	<b>314</b>	<b>332</b>	<b>4,754</b>	<b>4,946</b>

- During 2019, remuneration of \$649,000 (2018 – \$695,000) for the provision of services by Ramón Jara was paid to Asesorías Ramón F Jara Ltda. The reported decrease in 2019 is due to a decrease in the CLP/USD exchange rate, partially offset by an annual adjustment for inflation in Chile. This amount is included in the amounts attributable to Ramón Jara of \$945,000 (2018 – \$991,000).
- William Hayes continues to receive remuneration from the Group for his ongoing role as Chairman of the Group's joint venture, Tethyan Copper Company Pty Limited.
- Amounts for Jean-Paul Luksic include the provision of life and health insurance. Amounts for Ramón Jara include the provision of life insurance. These insurances are not in place for other Directors.
- Except as described in footnote 3, all "benefits" amounts included in this table arose in connection with the fulfilment of Directors' duties and, in particular, the cost of attending Board meetings. These calculations have been based on what the Company believes would be deemed by HMRC to be taxable benefits if the Non-Executive Directors were UK tax resident and domiciled, relating to the costs of flights for attending Board meetings in Santiago, Chile and associated hotel and subsistence expenses, and for the cost of flights for attending Board meetings in London. Given these expenses are incurred by Directors in connection with the fulfilment of their duties, the Company also pays the professional fees incurred to complete individual tax returns and the actual tax incurred by Directors on these expenses, the latter of which has led to the higher reported figures for certain Directors. Figures are reported in the year that they are paid, or would be payable, by the Company.
- Totals reflect the total fixed remuneration for each Director. Directors did not receive any variable remuneration in 2018 or 2019.

## Statement of Directors' and CEO's shareholding and share interests

The Directors who held office at 31 December 2019 had the following interests in ordinary shares of the Company:

	Ordinary shares of 5p each	
	31 December 2019	1 January 2019
Jean-Paul Luksic <sup>1</sup>	41,963,110	41,963,110
Ramón Jara <sup>2</sup>	5,260	5,260

- Jean-Paul Luksic's interest relates to shares held by Aureberg Establishment, an entity that he ultimately controls.
- Ramón Jara's interest relates to shares held by a close family member.

There have been no changes to the Directors' interests in the shares of the Company between 31 December 2019 and the date of this report.

The Directors and CEO had no interests in the shares of the Company during the year other than those set out above or on page 133.

No Director had any material interest in any contract (other than a service contract in the case of Ramón Jara) with the Company or its subsidiary undertakings during the year other than in the ordinary course of business.

## Directors' shareholding guidelines

The Group does not have shareholding guidelines or requirements for Directors, all of whom are Non-Executive.

The Chairman Mr Luksic and Non-Executive Director Andrónico Luksic C are members of the Luksic family. Members of the Luksic family are interested in the E. Abaroa Foundation which controls Metalinvest Establishment and Kupferberg Establishment (which, in aggregate, hold approximately 60.66% of the Company's ordinary

shares and approximately 94.12% of the Company's preference shares). In addition, Mr Luksic controls the Severe Studere Foundation which, in turn, controls Aureberg Establishment (which holds approximately 4.26% of the Company's ordinary shares). This creates significant alignment between these members of the Board and shareholders.

During the period, no Non-Executive Director was eligible for any short-term or long-term incentive awards and no Non-Executive Director owns any shares as a result of the achievement of performance conditions.

## Letters of appointment

Each Non-Executive Director has a letter of appointment from the Company. The Company has a policy of putting all Directors forward for re-election at each AGM, in accordance with the UK Corporate Governance Code. Under the terms of the letters, if a majority of shareholders do not confirm a Director's appointment, the appointment will terminate with immediate effect. In other circumstances, the appointment may be terminated by either party on one month's written notice.

There is a contract between Antofagasta Minerals and Asesorías Ramón F Jara Ltda dated 2 November 2004 for the provision of advisory services by Ramón Jara. This contract does not have an expiry date but may be terminated by either party on one month's notice.

No other Director is party to a service contract with the Group.

## Other information

As described in this report, Directors are not entitled to payments for loss of office and do not receive pension benefits and no such payments were made, or benefits received, during 2019.

No payments were made to past Directors.

# 2019 CEO Remuneration report

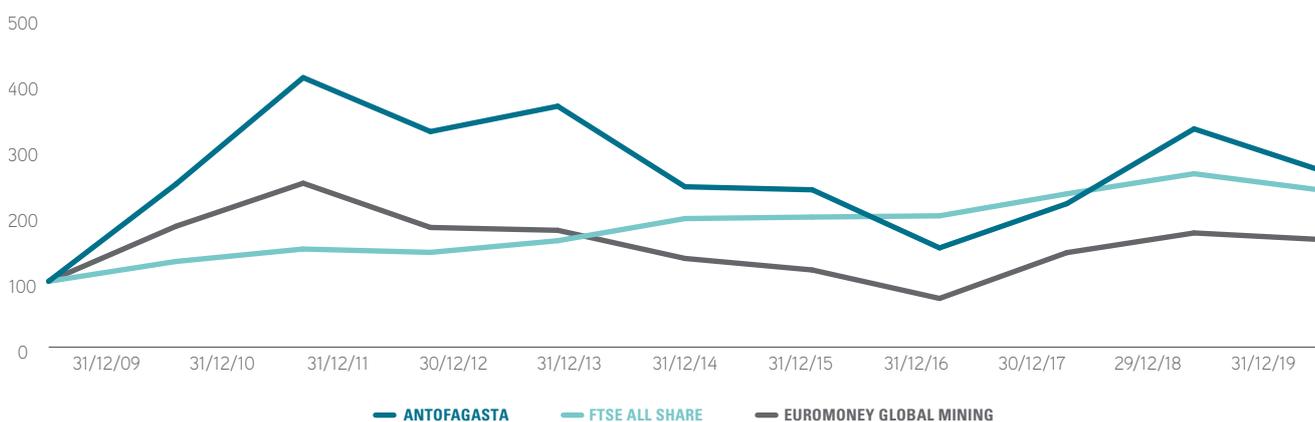
## CEO single figure total remuneration table

CEO (not on the Board)	LTIP <sup>4,5,6</sup>						Total	Total fixed remuneration	Total variable remuneration
	Salary	Benefits <sup>2</sup>	Annual bonus <sup>3</sup>	Restricted Awards	Performance Awards				
Iván Arriagada <sup>1</sup> 2019	640	7	1,012	405	669	2,733	647	2,302	
Iván Arriagada <sup>1</sup> 2018	668	8	577	630	630	2,513	676	1,686	

- No pension contributions are payable to or for Iván Arriagada. Mr Arriagada is paid in Chilean pesos and amounts reported in US dollars also reflect exchange rate movements during the year.
- The benefits expense represents the provision of life and health insurance and does not include taxable benefits relating to expenses.
- The annual bonus paid to Iván Arriagada in 2018 is reported based on the exchange rate as at 1 April 2019. In the 2018 Remuneration Report a slightly lower figure of \$564,000 was reported, which reflected the anticipated exchange rate at the date the 2018 Remuneration Report was published. Iván Arriagada's 2019 annual bonus will be paid following the date of publication of this report and the exchange rate used to calculate this figure is as at 2 January 2020 and is calculated as shown on page 132. As noted in the Committee Chair's introduction and on page 131, the Committee exercised its discretion to adjust the 2019 annual bonus outcome for the Group which accounts for \$13,000 in respect of Mr. Arriagada's 2019 annual bonus. This adjustment was unrelated to share price movements.
- As explained on page 133, awards granted pursuant to the LTIP are split between Restricted Awards and Performance Awards. Restricted Award amounts are reported in the year of grant based on the face value of the awards on the date of the grant. Performance Awards are reported in the year the performance period ends.
- The 2018 amounts payable to Iván Arriagada under the LTIP relate to Restricted Awards granted in 2018 and Performance Awards granted in 2016 (prior to his appointment as CEO). The performance period for Performance Awards granted in 2016 concluded on 31 December 2018 and those awards vested on 22 March 2019. In the 2018 Remuneration Report, a lower figure of \$981,000 was reported because the Performance Awards granted in 2016 had not yet vested and were estimated using the assumptions set out in the 2018 Remuneration Report and the amounts relating to Restricted Awards were reported in relation to those awards that vested (rather than those that were granted) in 2018.
- The 2019 amounts payable to Iván Arriagada under the LTIP relate to Restricted Awards granted in 2019 and Performance Awards granted in 2017. The performance period for Performance Awards granted in 2017 concluded on 31 December 2019 and those awards will vest on or after 30 March 2020. Because the Performance Awards granted in 2017 have not yet vested, the amounts attributable to these awards have been estimated by applying the 77% of maximum overall performance score at vesting as described in more detail on page 135, using the average share price in US dollars for the last three months of 2019 of \$11.48. The value of the amounts payable under the LTIP for 2019 attributable to an increase in the Company's share price is \$79,000. This figure has been calculated using the market value of the date of grant of the award versus the average share price in US dollars for the last three months of 2019. As noted on page 133, LTIP participants receive conditional rights to receive a cash payment by reference to a specified number of the Company's shares ("phantom share awards"). Participants are not compensated for dividends paid by the Company between the date of grant and vesting.

### Comparison of overall performance and remuneration

The following graph shows the Company's performance compared with the performance of the FTSE All-Share Index and the Euromoney Global Mining Index over a 10-year period, measured by total shareholder return (as defined below). The FTSE All-Share Index has been selected as an appropriate broad equity market index benchmark as it is the most broadly-based index to which the Company belongs and relates to the London Stock Exchange, where the Company's ordinary shares are traded. The Euromoney Global Mining Index is also shown because this index has been determined to be the most appropriate specific comparator group for the Company, and total shareholder return performance, in comparison with the Euromoney Global Mining Index, is one of the performance criteria in the Group's LTIP as set out on page 135.



Total shareholder return is calculated to show a theoretical change in the value of a shareholding over a period, assuming that dividends are reinvested to purchase additional shares at the closing price applicable on the ex-dividend date. Total shareholder return for the FTSE All-Share Index and the Euromoney Global Mining Index are calculated by aggregating the returns of all individual constituents of those indices at the end of a 10-year period.

### Lead executive remuneration for the last 10 years

The total remuneration of the lead executives in the Group for the past 10 years is as follows:

Single figure of remuneration for the Group's lead executive \$000	2010	2011	2012	2013	2014 <sup>1,2</sup>	2015	2016 <sup>3</sup>	2017	2018	2019
Chairman – Jean-Paul Luksic	3,330	3,521	3,598	3,615	2,196	–	–	–	–	–
CEO – Diego Hernández	–	–	–	–	688	2,445	1,525	–	–	–
CEO – Iván Arriagada	–	–	–	–	–	–	681	1,790	2,513	2,733
<b>Total</b>	<b>3,330</b>	<b>3,521</b>	<b>3,598</b>	<b>3,615</b>	<b>2,884</b>	<b>2,445</b>	<b>2,206</b>	<b>1,790</b>	<b>2,513</b>	<b>2,733</b>
Proportion of maximum annual bonus paid to the CEO	–	–	–	–	69%	39%	61%	79%	66%	<b>83%</b>
Proportion of maximum LTIP awards vesting in favour of the CEO <sup>4</sup>	–	–	–	–	76%	16%	–	85%	60%	<b>77%</b>

- The single figure of remuneration for the Group's lead executive in 2014 comprises Jean-Paul Luksic's remuneration until 1 September 2014 (when he became Non-Executive Chairman) and Diego Hernández's remuneration from 1 September 2014.
- The Chairman was not eligible for variable remuneration and the 2014 percentage figures therefore only relate to the 2014 annual bonus and LTIP awards vesting for the CEO.
- The single figure of remuneration for the Group's lead executive in 2016 comprises Diego Hernández's remuneration until 8 April 2016 (when he stepped down as CEO) and Iván Arriagada's remuneration from 8 April 2016 (when he became CEO).
- No Performance Awards vested for the CEO in 2016. As Restricted Awards do not have a performance element, they are not included in these calculations.

### Relative change in remuneration

Almost all of the Group's employees, including the CEO, are paid in Chilean pesos. The Chilean peso depreciated against the US dollar during 2019 and this depreciation is reflected in the following figures which are reported in US dollars.

The total remuneration paid to Iván Arriagada in 2019 was 9% higher than in 2018. This included a 4.3% decrease in base salary, a 5.6% decrease in benefits and a 75.5% increase in annual bonus.

The equivalent average percentage increase in total remuneration for Group employees as a whole in 2019 was -4.5%. This comprised a 6.2% decrease in salaries, a 6.7% decrease in benefits and a 4% increase in annual bonus. It is common for employment contracts in Chile to include a quarterly adjustment for Chilean inflation and most Group employees' base salaries in Chile are adjusted for inflation.

The table below compares the changes from 2018 to 2019 in base salary, benefits and annual bonus paid to the CEO and Group employees in US dollars. The underlying elements of the CEO's pay are calculated using the values reported in the single figure of remuneration table on page 129.

	Percentage change in base salary	Percentage change in benefits	Percentage change in annual bonus
CEO	-4.3%	-5.6%	75.5% <sup>1</sup>
Employees <sup>2</sup>	-6.2%	-6.7%	4.0% <sup>3</sup>

- As disclosed in the 2018 Annual Report, the CEO's maximum bonus opportunity was increased from 133% of base salary in 2018 to 200% of salary in 2019 in order to re-align his total package with an appropriate position in the market.
- Mining division employees were chosen as the comparator group because the Mining division accounts for more than 90% of the Group's revenue and the Annual Bonus Plan that applies to the Executive Committee is the same plan that applies to Mining division employees at the management and professional level.
- This figure relates to the percentage change in the average annual bonus for Mining division employees and does not include a one-off bonus paid to employees as a result of the conclusion of collective bargaining agreements with labour unions at Los Pelambres, Antucoya and Zaldívar in 2019.

### Relative importance of remuneration spend

The table below shows the total expenditure on employee remuneration, the levels of distributions to shareholders and the taxation cost in 2018 and 2019.

	2018 (\$m)	2019 (\$m)	Percentage change
Employee remuneration <sup>1</sup>	447.8	<b>439.8</b>	-1.8%
Distributions to shareholders <sup>2</sup>	431.8	<b>336.2</b>	-22.1%
Taxation <sup>3</sup>	404.5	<b>354.4</b>	12.4%

- Employee remuneration includes salaries and social security costs, as set out in Note 8 to the financial statements.
- Distributions to shareholders represent the dividends proposed and approved for payment in relation to the year as set out in Note 13 to the financial statements.
- Taxation has been included because it provides an indication of the Group's tax contribution, almost all of which is paid by the Group's operations in Chile to the Chilean state. The taxation cost represents the current tax charge in respect of corporate tax, mining tax (royalty) and withholding tax, as set out in Note 10 to the financial statements.

# Annual bonus

Employees are eligible to receive cash bonuses under the Annual Bonus Plan, based on Group and individual performance. The Annual Bonus Plan focuses on the delivery of annual financial and non-financial targets designed to align remuneration with the Group's strategy and create a platform for sustainable future performance.

Individual award levels are calibrated at the conclusion of each annual performance period to ensure that performance targets remain stretching and that high or maximum payments under the plan are received only for exceptional performance.

## Annual bonus payout – Group performance (70%)

For 2019, the bonus payable to the CEO and members of the Executive Committee was 70% attributable to the performance of the Group and 30% to personal performance, according to measures and targets set at the beginning of the year. The Group performance

criteria for the Annual Bonus Plan and the individual performance criteria for the CEO are set annually by the Remuneration and Talent Management Committee and the Board. The individual performance criteria for the Executive Committee are set by the CEO and reviewed by the Committee.

Group performance under the 2019 Annual Bonus Plan is shown in the table below. The choice of these criteria, and their respective weightings, reflects the Committee's belief that any incentive compensation should be tied both to the overall performance of the Group and to those areas of the business that the relevant individual can directly influence.

Weighting	Objective	Measure	2019 Threshold 90 (0% vesting)	2019 Target 100 (50% vesting)	2019 Maximum 110 (100% vesting)	2019 Outcome	2019 Performance score <sup>1</sup> (% of maximum)	2019 vesting (% of maximum)	
<b>60%</b>	<b>Core business</b>						<b>101</b>	<b>55</b>	
15%	EBITDA – Mining division <sup>2</sup>	\$m	2,036	2,262	2,488	2,359	104	70	
25%	Copper production <sup>3</sup>	kt	733.1	756.5 – 779.2	803.3	770.0	100	50	
20%	Costs <sup>4</sup>								
	Cash costs before by-product credits (17%)	\$/lb	1.75	1.65	1.55	1.65	100	50	
	Corporate expenditure (3%)	\$m	75.6	72.0	69.9	72.0	100	50	
<b>20%</b>	<b>Business development</b>						<b>102</b>	<b>60</b>	
			Measured according to the schedule and budget as described in more detail in the footnotes						
15%	Growth projects – construction execution <sup>5</sup>						100	50	
5%	Exploration programme <sup>6</sup>						107	88	
<b>20%</b>	<b>Sustainability and organisational capabilities</b>						<b>109</b>	<b>95</b>	
5%	Safety – Frequency Index – Mining division <sup>7</sup>	Index	1.20	1.00	0.90	0.75	110	100	
			Measured according to the KPIs and milestones as described in more detail in the footnotes						
5%	People – Diversity and Inclusion Strategy <sup>8</sup>						107	85	
5%	Environmental performance <sup>9</sup>						110	100	
5%	Social performance <sup>10</sup>						110	100	
	<b>Total – pre-adjustments</b>						<b>102.8</b>	<b>64</b>	
	Adjustment for meeting zero fatality target <sup>11</sup>						1.9	N/A	
	Board discretion applied						0.3	N/A	
	<b>Total – post-adjustments</b>						<b>105</b>	<b>75</b>	

- Performance score range is 90-110 where 90 = threshold (0% bonus), 100 = target (50% bonus) and 110 = maximum (100% bonus).
- The threshold, target and maximum target figures for EBITDA were adjusted for exchange rate fluctuations, copper price fluctuations, and the impact of one-off bonuses paid as part of labour negotiations at Los Pelambres, Antucoya and Zaldívar, which were not included in the Group's budget and were not included in the figures disclosed in the 2018 Annual Report due to their commercial sensitivity.
- 100% basis, except for Zaldívar (50%).
- The threshold, target and maximum target figures for cash costs were adjusted for exchange rate fluctuations and the impact of one-off bonuses paid as part of labour negotiations at Los Pelambres, Antucoya and Zaldívar. These were not included in the Group's budget and were not included in the figures disclosed in the 2018 Annual Report due to their commercial sensitivity. The figures for corporate expenditure were adjusted for the exchange rate fluctuations.
- Split between the Los Pelambres Expansion (10%) and two specific one-off projects at Zaldívar (5%). Targets for the Los Pelambres Expansion project related to execution progress and costs for the project versus budget. Targets for the Zaldívar projects were based on permitting and mine plan development progress. Outcome was 100 (50% of maximum) comprising 97 (35% of maximum) for the Los Pelambres Expansion project, and 106 (80% of maximum) for the Zaldívar projects.
- Maximum and target were defined according to the progress of execution of planned exploration programmes, including infill campaigns, increasing the potential mineral inventory for targets previously discovered to have potential mineralisation and the consolidation of exploration ownership interests.
- Performance against the global lost-time accidents frequency index with threshold of 1.20, target of 1.0 and maximum of 0.9 accidents with lost time per million hours worked. Outcome was 110 (100% of maximum) based on 0.75 accidents with lost time per million hours worked in 2019.
- Performance against targets set at the beginning of 2019 for implementation of the Diversity and Inclusion Strategy approved by the Board in 2017. The maximum was achievable if 1% of employees comprised those with disabilities, the percentage of female employees increased by 2% versus the 2018 baseline and the implementation of a flexible working programme. The outcome was 107 (85% of maximum).
- The control of risks relating to environmental performance across all companies where the maximum was achievable with no environmental incidents impacting on production or the Group's reputation and completion of the implementation of energy management initiatives across all companies. The outcome was 110 (100% of maximum).
- The control of risks relating to social incidents performance within the budget across all companies where maximum was achievable with no social incidents impacting production or the Group's reputation and without costs incurred outside the scope of the budget. The outcome was 110 (100% of maximum).
- A standalone adjustment trigger amounting to 15% of the performance score applies to the Annual Bonus Plan – upwards if there are no fatalities during the year and downwards if there are one or more fatalities during the year. This resulted in an automatic increase of 1.9 to the final Group performance score for 2019.
- As noted in the Committee Chair's introduction on page 117, the Group faced unforeseen civil unrest in Chile during the year. The Board believes that the Group's employees, led by the CEO, handled these circumstances in an exceptional manner, exercising discretion to increase the formulaic outcome of the Group's performance score under the 2019 Annual Bonus Plan from 104.7 to 105.0 (from 73.5% to 75% of the maximum).

**Annual bonus payout – individual performance (30%)**

The Committee, with input from the Board, assessed Iván Arriagada's performance against his individual objectives as 110 (within a range of 90 (Threshold 0% vesting) to 110 (Maximum 100% vesting) for his individual contribution to the business during the year. This performance score reflects exceptional performance during the year, in which all his individual objectives were met or exceeded and counts towards 30% of his annual bonus. Iván Arriagada's performance against his individual objectives is summarised below:

Category	Performance
<b>Relationship with the Board</b>	<ul style="list-style-type: none"> <li>• Strong communication throughout the year, bringing the right issues forward for discussion and approval in a timely manner and communicating regularly between Board meetings to ensure that Directors were apprised of important developments.</li> <li>• Receptive to Board input and feedback, ensuring that Board perspectives, ideas and feedback were shared throughout the Group.</li> </ul>
<b>Leadership</b>	<ul style="list-style-type: none"> <li>• Strong leadership and behaviour representative of the Group's core values before all stakeholders.</li> <li>• Outstanding leadership on safety, operational excellence, reliability of operations, talent management, diversity and inclusion, community relations and environmental responsibility.</li> <li>• Outstanding leadership during a period of civil unrest in Chile.</li> <li>• Maintained respect from his peers and continued to foster constructive labour union relationships.</li> </ul>
<b>Strategic planning</b>	<ul style="list-style-type: none"> <li>• Oversaw the effective transition to a new strategic framework, focusing the Group's activities and ensuring the right culture and organisational structures are in place to achieve the Board's strategic vision.</li> <li>• Demonstrated strong strategic alignment and planning, leading the management team in prioritising work in accordance with the Group's long-term strategy.</li> <li>• Progressed the Group's digital transformation and innovation initiatives to ensure the long-term success of the Group.</li> </ul>
<b>Succession planning and talent development</b>	<ul style="list-style-type: none"> <li>• Oversaw the development of a strategy for a new employee total rewards proposition which will enable the Group to provide the flexibility and needs of a changing workforce.</li> <li>• Strong progress on the development of internal talent evidenced by the internal promotion of CFO Mauricio Ortiz and Centinela General Manager Carlos Espinoza.</li> </ul>
<b>Business development</b>	<ul style="list-style-type: none"> <li>• Strong results from the Group's exploration programme.</li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li>• Outstanding Group safety performance.</li> <li>• Strong production and operating results.</li> </ul>
<b>Project development</b>	<ul style="list-style-type: none"> <li>• Construction of the Zaldívar Chloride Leach project and Esperanza Sur pre-stripping projects approved by the Board.</li> <li>• Submission of the Mine Plan of Operation for the Twin Metals project approved by the Board.</li> <li>• Advancement of the Centinela Second Concentrator project studies.</li> </ul>

**Total bonus in respect of 2019**

For 2019, Iván Arriagada's actual bonus was 165% of base salary and the average bonus for the Executive Committee members (excluding Mr Arriagada) was approximately 50% of base salary.

A critical issue for a mining company is the commodity price and the impact of changes in this price on our long-term and annual performance targets is carefully reviewed to ensure there is fair opportunity for achievement under each metric.

Based on performance achieved against targets during the 2019 financial year, the Committee determined that Mr Arriagada would receive a bonus payment of \$1,012,488 for 2019. This figure was determined as follows:

Overall performance score (90-110 where 90 = threshold (0% bonus), 100 = target (50% bonus) and 110 = maximum (100% bonus)  
 $(70\% \times 105) + (30\% \times 110) = 106.5$

Overall performance score (as a percentage of Maximum)  $(70\% \times 75) + (30\% \times 100) = 82.5\%$  of maximum  
82.5% of \$1,227,258

Gross annual bonus = \$1,012,488

Calculated in US dollars using the exchange rate as at 2 January 2020 of \$1 = Ch\$749.

Because the annual bonus is calculated and paid in Chilean pesos, it is subject to exchange rate movements when reported annually in US dollars.

The amount of bonus paid was not linked to share price appreciation.

## LTIP awards

Eligibility to participate in the LTIP is determined by the Committee each year on an individual basis and all members of the Executive Committee currently participate. Awards are normally granted annually, and the Directors are not eligible to participate.

Under the LTIP, participants receive a conditional right to receive a cash payment by reference to a specified number of the Company's ordinary shares ("phantom share awards"), which are paid in cash upon vesting based on the Company's share price at the time of vesting.

The Committee considers cash-based awards appropriate because share-based awards have historically been taxable on the date of grant for Chilean-based employees. Independent advice was sought by the Committee on the viability of granting shares, rather than cash-based awards and this subject was re-visited during the most recent Policy review. On balance, the Committee determined that it remains appropriate to continue to use cash-based awards due to the negative tax consequences of issuing interests in shares. However, the Committee will continue to monitor this position.

LTIP awards are split between Restricted Awards and Performance Awards. Restricted Awards vest only if the relevant employee remains employed by the Group on the vesting date. Performance Awards vest subject to both the satisfaction of performance conditions and the relevant employee remaining employed by the Group on the vesting date. The same performance criteria apply to all participants in the LTIP and are designed to link business objectives, shareholder value and senior management rewards.

- Performance Awards reward performance over three years. There is no additional holding period before these amounts are paid.
- Restricted Awards vest one-third in each year over a three-year period following the grant of the award.

The number of Performance Awards and Restricted Awards granted to each member of the Executive Committee is calculated as a percentage of salary up to a limit of 200% of base salary or 325% of base salary if the Committee determines that exceptional circumstances apply. The market value of shares in relation to which the award is to be granted is equal to the closing price on the dealing day before the grant, or, if the Committee determines, the average closing price during a period set by the Committee not exceeding five dealing days ending with the last dealing day before the grant.

LTIP awards are subject to malus provisions under the LTIP rules. These allow the Committee to, at its discretion, reduce the number of shares to which an award relates or to cancel an award as a result of:

- actions by a participant that, in the reasonable opinion of the Committee, amount to gross misconduct that has or may have a material effect on the value or reputation of the Company or any of its subsidiaries
- a materially adverse error in the consolidated financial statements of the Group during the performance period
- any reasonable circumstance that the Committee determines in good faith to have resulted in an unfair benefit to the participant.

Clawback has not been introduced due to uncertainty around its legal validity in Chile.

### Iván Arriagada's LTIP awards

The following LTIP awards with one or more outstanding tranches have been granted to Mr Arriagada. The number of shares to which each grant relates is determined based on the limits set out in the LTIP rules, consideration around retention and the share price at the time of grant.

Year of grant	Award type	Number of shares to which the grant relates	Date of grant	Vesting dates	Face value of award (using market price at date of grant) \$'000	Market price at the date of grant '\$'	End of performance period	% of award receivable if Threshold performance achieved	% of award receivable if Target performance achieved	% of award receivable if Maximum performance achieved
2017	Performance Awards	76,070	30-Mar-17	30-Mar-20	770	10.12	31-Dec-19	0%	57%	100%
	Restricted Awards	36,668	30-Mar-17	30-Mar-18 30-Mar-19 30-Mar-20	330	10.12	N/A	0%	100%	100%
2018 <sup>2</sup>	Performance Awards	109,397	28-Mar-18	28-Mar-21	1,470	13.44	31-Dec-20	0%	48%	100%
	Restricted Awards	46,885	28-Mar-18	28-Mar-19 28-Mar-20 28-Mar-21	630	13.44	N/A	0%	100%	100%
2019	Performance Awards	77,516	29-Mar-19	29-Mar-22	945	12.19	31-Dec-21	0%	48%	100%
	Restricted Awards	33,222	29-Mar-19	29-Mar-20 29-Mar-21 29-Mar-22	405	12.19	N/A	0%	100%	100%

1. The market price used at the date of grant was the average closing share price on the five dealing days ending on the last dealing day before the grant, converted into US dollars using the exchange rate on the date of grant.

2. Iván Arriagada received an exceptional LTIP grant of 325% in 2018. This is explained in more detail in the 2018 Directors' Remuneration Report.

### Performance measures for 2019

The performance measures and targets applying to the Performance Awards granted in 2019 are as follows:

Weighting	Objective	Measure
50%	Relative total shareholder return	Comparison against Euromoney Global Mining Index with 0% vesting at performance below the index during the three-year period, 33% vesting at performance equal to the index and 100% vesting at performance equal to or greater than the index plus 5% during the three-year period.
25%	Mineral resources increase	Tonnes of contained copper at the end of 2021 with 100% vesting if mineral resources of 84.2 million tonnes of contained copper is achieved, 50% vesting if mineral resources of 83.0 million tonnes of contained copper is achieved and 0% vesting if mineral resources of 81.8 million tonnes of contained copper or less is achieved.
12.5%	Project portfolio progress	Relates to the Group's priority projects at Los Pelambres and Zaldívar. Maximum is achievable if construction of the Los Pelambres Expansion project reaches 85% progress (70%), the Zaldívar Chloride Leach project is in construction (20%) and achievement of feasibility level advancement of Phase 2 of the Los Pelambres Expansion project by the end of 2021 (10%). Target (75% vesting) is 75% progress against the maximum objective for each goal and Threshold (0% vesting) is 50% progress against the maximum objective for each goal.
12.5%	Environmental performance	100% vesting if 100% compliance is achieved with historical commitments and agreements with communities surrounding Los Pelambres (80%) and concluding Zaldívar's renewable energy power supply agreements and progressing energy efficiency projects for the reduction of CO <sub>2</sub> emissions in accordance with the forecasts set on the grant date (20%). Target (50% vesting) is 75% progress against the maximum objective for each goal and Threshold (0% vesting) is 50% progress or less against the maximum objective for each goal.

### Performance measures for 2018

The performance measures and targets applying to the Performance Awards granted in 2018 are as follows:

Weighting	Objective	Measure
50%	Relative total shareholder return	Comparison against Euromoney Global Mining Index with 0% vesting at performance below the index during the three-year period, 33% vesting at performance equal to the index and 100% vesting at performance equal to or greater than the index plus 5% during the three-year period.
25%	Mineral resources increase	Tonnes of contained copper at the end of 2020 with 100% vesting if mineral resources of 85.7 million tonnes of contained copper is achieved, 50% vesting if mineral resources of 84.7 million tonnes of contained copper is achieved and 0% vesting if mineral resources of 82.7 million tonnes of contained copper or less is achieved.
12.5%	Project portfolio progress	Relates to the Group's priority projects at Los Pelambres, Centinela and Zaldívar. Maximum is achievable if construction of each of the Los Pelambres Expansion project (50%), the Centinela Second Concentrator project (35%) and the Zaldívar Chloride Leach project (15%) meets their respective construction plans approved by the Board at the time of approving execution of the project. If the Centinela Second Concentrator project is presented for approval but not approved by the Board before the end of the performance period, then this goal will be excluded from the metrics and the 35% attributable to this project will be distributed pro rata to the other two project weightings. Target (75% vesting) is 75% progress against the maximum objective for each goal and Threshold (0% vesting) is 50% progress or less against the maximum objective for each goal.
12.5%	Environmental performance	Maximum is achievable if 100% compliance is achieved with a plan to meet commitments for the Group's environmental permits and other environmental permits not connected with environmental impact assessments. Target (75% vesting) is 100% compliance with a plan to meet commitments for the Group's environmental permits connected with environmental impact assessments only. Threshold (0% vesting) is non-compliance with the plan.

### LTIP awards vesting in respect of 2019 – anticipated Group performance under the 2017 LTIP

As noted in the single figure table on page 129, performance against the Performance Awards granted in 2017 will not be finally determined by the Committee until after the date of this report, once the Group's 2019 results have been released to the market. The performance criteria attaching to these Performance Awards and the anticipated performance against these criteria, based on estimates as at the date of this report, are as follows:

Weighting	Objective	Measure			Anticipated performance	Anticipated achievement <sup>1</sup>
		Threshold (0%)	Target (see below)	Maximum (100%)		
35%	Relative total shareholder return <sup>2</sup>	0% vesting at performance below the index during the three-year period	33% vesting at performance equal to the index during the three-year period	100% vesting at performance equal to or greater than the index plus 5% during the three-year period	To be updated at the vesting date	33%
20%	EBITDA <sup>3</sup>	0% vesting at \$4,955 million or below	75% vesting at \$5,575 million	100% vesting at \$6,194 million	EBITDA for the period was \$7,401 million	100%
15%	Mineral resources increase	0% vesting at 77.7 million tonnes of contained copper or below as at 31 December 2019	50% vesting at 79.8 million tonnes of contained copper	100% vesting at 81.8 million tonnes of contained copper	Resources increased to 87.5 million tonnes of contained copper	100%
30%	Projects, development and sustainability	0% two or less of the four goals achieved	75% three of the four goals achieved	100% all four goals achieved	All four goals achieved	100%
	1. Los Pelambres compliance with environmental permits and commitments (two project-specific goals) <sup>4</sup>				Both two goals achieved	
	2. Execution decisions in respect of major construction projects at Minera Los Pelambres and Minera Centinela (two specific goals) <sup>5</sup>				Both two goals achieved	
<b>Total</b>						<b>77%<sup>6</sup></b>

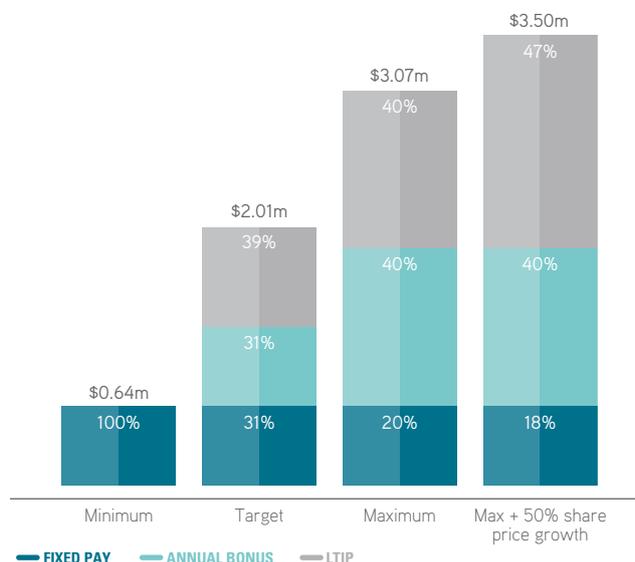
1. Anticipated achievement is based on estimates made as at the date of this report. These awards will not vest until after the Group's 2019 results have been released to the market.
2. Total shareholder return is calculated to show a theoretical change in the value of a shareholding over a specified period. Total shareholder return for the Euromoney Global Mining Index is calculated by aggregating the returns of all individual constituents of that index and, for the purposes of comparison with the Company's share performance, taking an average of the index over the three months before the beginning and the end of the period respectively.
3. Targets are calculated based on the mining operations' accumulated EBITDA over the period from 2017-19, versus the 2017 budget figure and the 2017 internal base case figures for 2018 and 2019. The final calculations have not been adjusted for commodity price or exchange rate fluctuations.
4. Goals were: (1) having in place by 2017 an environmental management system at Los Pelambres that would ensure compliance with environmental permits; and (2) full compliance with the environmental compliance programme committed to the relevant Environmental Authority by Los Pelambres.
5. Goals were: (1) commencement of the execution phase for the Los Pelambres Expansion project during 2017; and (2) a Board decision in relation to the execution of the Centinela Second Concentrator project by 2018. In relation to the second goal, following a full review, in 2018 the Board decided that the feasibility study for the project should be optimised.
6. The impact of this vesting level on the CEO's 2019 remuneration is set out in footnote 6 of the CEO single figure total remuneration table on page 129.

# Implementation of the CEO remuneration policy in 2020

A significant proportion of the remuneration available to the CEO is dependent on the performance of the Group and in 2020 his total remuneration will consist of the same elements as it did in 2019.

The chart below outlines the CEO's total potential remuneration in 2020 under different performance scenarios. The figures are based on the following assumptions:

	Description	Minimum	Target	Maximum
Long-term variable elements	LTIP awards of 200% of salary, 325% in exceptional circumstances (30% Restricted Awards, 70% Performance Awards)	No payout	100% of Restricted Awards, 48% of maximum Performance Awards	100% of Restricted Awards, 100% of maximum Performance Awards
Annual variable elements	Annual bonus, maximum opportunity of 200% of base salary	No payout	50% of maximum bonus opportunity	100% of maximum bonus opportunity
Fixed elements	Annual base salary of Ch\$459,448,716 (\$613,629) as at 1 January 2020, plus benefits	Base salary plus benefits only and excludes adjustments for inflation		



All elements are estimated using an exchange rate of \$1 = Ch\$749 and are therefore subject to exchange rate fluctuations during the year.

The Committee is confident that the Policy operates as intended and no changes are necessary.

## Base salary and benefits

No merit increase is expected to be applied to the CEO's salary resulting in a salary as at 1 January 2020 of \$613,629 (2019: \$639,617). This decrease is in line with the wider workforce and reflects depreciation of the Chilean Peso versus the US dollar in 2019, partially offset by inflation adjustments which automatically apply to the CEO's and employees' base salaries.

Benefits payable to Iván Arriagada reflect amounts paid to maintain life and health insurance policies.

According to Chilean law, all employees are required to pay their own pension and compulsory health insurance contributions and no additional contributions are made by the Group.

## Annual bonus

The maximum bonus opportunity for the CEO for 2020 will remain unchanged at 200% of salary.

The annual bonus focuses on the delivery of annual financial and non-financial targets designed to align remuneration with the Group's strategy and create a platform for sustainable future performance. The Board has agreed Group performance criteria for the 2020 plan as set out in the table below.

The number of KPIs and weightings attributable to each component of the 2020 Annual Bonus Plan is consistent with 2019 and reflects the Committee's view of the balance required to successfully implement the Group's strategy in 2020. 70% of the CEO and Executive Committee's 2020 annual bonus will be calculated based on the Group's performance against these criteria in 2020, with the remaining 30% based on personal performance.

Weighting	Objective	Measure	Threshold	Target	Maximum
<b>60%</b>	<b>Core business</b>				
15%	EBITDA – Mining division	\$m	≤-10%	The Group's future metals price assumptions are commercially sensitive and therefore the target for EBITDA will not be disclosed in advance. However, the Company will disclose the 2020 target and outcome in the 2020 Annual Report.	≥+10%
25%	Copper production	kt	698	720-743	765
20%	Costs				
	Cash costs before by-product credits (17%)	\$/lb	1.75	1.65	1.55
	Corporate expenditure (3%)	\$m	65	62	59
<b>20%</b>	<b>Business development – Growth and innovation projects execution</b>				
12%	Growth projects				
4%	Exploration				
4%	Innovation and Digital Transformation projects				
<b>20%</b>	<b>Sustainability and organisational capabilities</b>				
5%	Safety – Mining division				
5%	People				
5%	Environmental				
5%	Social				

Measured according to KPIs and milestones. The Company will disclose the 2020 targets and outcomes in the 2020 Annual Report.

Full disclosure on the targets and performance against them will be provided in the 2020 Remuneration Report.

### Performance adjustments and discretion

As has been the case since 2016, the final performance score under the 2020 Annual Bonus Plan will be subject to a 15% adjustment upwards if there are no fatalities and 15% downwards if there are one or more fatalities, during 2019.

The final performance score for the “core business” component of the annual bonus score, comprising 60% of the Group performance score, will also automatically be adjusted to 90 (0% bonus) when applied to the 2020 annual bonus for the Executive Committee if the Group does not record a profit after tax (excluding extraordinary non-cash items and changes to legislation or accounting rules and calculated using the statutory nominal tax rate) in 2020.

The Committee maintains discretion to adjust the final performance score within a range of three points. However, use of this adjustment must be approved by the Board.

### 2020 LTIP awards

The Committee carefully considered the design of the LTIP including the vesting and holding periods for Restricted Awards and Performance Awards and the mix of awards that are granted to participants in the LTIP. It confirmed that the current design continues to be appropriate, taking into account the overall quantum of remuneration available to the CEO and the Executive Committee and remuneration structures typically used in the market in Chile.

Following the Committee’s review, the maximum opportunity for 2020 will remain unchanged at 200% of salary (325% of salary in exceptional circumstances).

The LTIP will continue to comprise two elements as follows:

- Restricted Awards (30% of overall award) – vest one-third each year over a three-year period following grant.
- Performance Awards (70% of overall award) – awards subject to a three-year performance period with no holding period. The measures for 2020 awards are:

Weighting	Objective	Measure
50%	Relative total shareholder return	Comparison against Euromoney Global Mining Index with 0% vesting at performance below the index during the three-year period, 33% vesting at performance equal to the index and 100% vesting at performance equal or greater than the index plus 5% during the three-year period.
25%	Mineral resources increase	Tonnes of contained copper at the end of 2022. Maximum is expected to be 87.4 million tonnes of contained copper, with an anticipated Target and Threshold of 86.0 and 84.6 million tonnes of contained copper respectively.
12.5%	Project’s performance	Maximum is achievable if commissioning of the Los Pelambres Expansion project (70%) and the Zaldívar Chloride Leach project (20%) has commenced before the end of 2022 and the Environmental Impact Study for Phase 2 of the Los Pelambres Expansion project has been submitted by 2021 (10%).
12.5%	Environmental performance	Maximum is achievable if 100% compliance is achieved with historical commitments and agreements with communities surrounding all of the Group’s operations (70%) and achieving a Mining division CO <sub>2</sub> emission reduction target of 300,000t and transitioning mining operating companies away from coal-based long-term power purchase agreements (20%).

### Shareholding guidelines

As share awards have historically been taxed in full at grant in Chile, it has not been viable for the Company to operate share incentive schemes. Instead awards are granted as phantom shares which are linked to the share price and satisfied in cash. The Company does not therefore currently have any shareholding guidelines for the CEO or Executive Committee members, all of whom are based in Chile. The Committee has carefully considered whether in the absence of shareholding guidelines, CEO incentives are sufficiently aligned with the long-term interests of shareholders. As a Company with a majority shareholder, the Committee and the Board believe that the long-term interests of shareholders are monitored and protected without the need for CEO shareholding guidelines.

### External appointments

The Board will consider any proposal for an executive to serve as a non-executive director of another company on a case-by-case basis. The Board would carefully consider the time commitments of the proposed role, the industry of the company, whether it is a supplier, customer or competitor, and whether it would be appropriate for the executive to retain remuneration for the position.

### Implementation of the Directors’ Remuneration Policy in 2020

Directors will be paid fees in 2020 in accordance with the levels set out on page 127. Benefits that were reported in 2019 will continue to apply. Directors are not expected to receive any other remuneration in 2020.

### Committee and arrangements in place with advisers

The names of the members of the Remuneration and Talent Management Committee are set out on page 116 which forms part of the Remuneration Report.

During the year, the Committee reappointed remuneration consultants Willis Towers Watson to provide advice to the Committee on compensation benchmarking, regulatory and corporate governance

developments and market practice. This reappointment was based on the Committee’s satisfaction with the quality of advice received in previous years.

Willis Towers Watson is an independent global professional services firm that is a signatory to, and adheres to, the Code of Conduct for Remuneration Consultants. This can be found at [www.remunerationconsultantsgroup.com](http://www.remunerationconsultantsgroup.com).

The Committee is satisfied that the advice provided by Willis Towers Watson in 2019 was objective and independent, that no conflict of interest arose as a result of these services and that, except as highlighted below, Willis Towers Watson had no other connection with the Company. Willis Towers Watson’s fees for this work were charged in accordance with normal billing practices and amounted to £107,213.

Willis Towers Watson also provided advice and support during the year to management, primarily covering a review of remuneration policies and practices throughout the organisation that was undertaken by a specialist team on an independent basis. The outcomes of this workstream were tabled for the Committee’s review and the Committee was satisfied that the advice received was objective and independent.

The Committee also received assistance from the Chairman, the CEO, the Vice President of Human Resources and the Company Secretary during 2019, none of whom participated in discussions relating to their own remuneration.

The Committee Chair and the Committee regularly speak with advisers without management present, to provide a forum for open discussion and the sharing of views and opinions on compensation issues. Additionally, part of each Committee meeting is held without management present to ensure that individual views or areas of concern can be debated between Committee members.

# DIRECTORS' REPORT

## Directors

Directors who have served during the year and summaries of current Directors' key skills and experience are set out in the Corporate Governance Report on pages 97 to 99.

## Post-balance sheet events

There have been no post-balance sheet events.

## Financial risk management

Details of the Company's policies on financial risk management are set out in Note 24 to the financial statements.

## Results and dividends

The consolidated profit before tax has increased from \$1,252.7 million in 2018 to \$1,349.2 million in 2019.

The Board has recommended a final dividend of 23.4 cents per ordinary share (2018 – 37 cents). An interim dividend of 10.7 cents was paid on 4 October 2019 (2018 interim dividend – 6.8 cents). This gives total dividends per share proposed in relation to 2019 of 34.1 cents (2018 – 43.8 cents) and a total dividend amount in relation to 2019 of \$336.2 million (2018 – \$431.8 million).

Preference shares carry the right to a fixed cumulative dividend of 5% per annum. The preference shares are classified within borrowings and preference dividends are included within finance costs. The total cost of dividends paid on preference shares and recognised as an expense in the income statement was \$0.1 million (2018 – \$0.1 million). Further information relating to dividends is set out in the Financial review on page 80 and in Note 13 to the financial statements.

## Political contributions

The Group did not make political donations during the year ended 31 December 2019 (2018 – nil).

## Auditor

The Company's auditor, PricewaterhouseCoopers LLP, has indicated its willingness to continue in office and a resolution seeking its reappointment will be proposed at the Annual General Meeting.

## Disclosure of information to auditors

The Directors in office at the date of this report have each confirmed that:

- so far as they are aware, there is no relevant audit information of which the Group's auditor is unaware; and
- they have taken all the steps that they ought to have taken as Directors in order to make themselves aware of any relevant audit information and to establish that the Group's auditor is aware of that information.

## Capital structure

Details of the authorised and issued ordinary share capital are shown in Note 29 to the financial statements. 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 of the Company.

Details of the preference share capital are shown in Note 22 to the financial statements. The preference shares are non-redeemable and are entitled to a fixed cumulative dividend of 5% per annum. Each preference share carries 100 votes on a poll at any general meeting of the Company.

When the preference shares were issued, they each carried one vote at any general meeting of the Company in parity with the ordinary shares in issue at that time. The number of ordinary shares in issue has increased since then through stock splits and bonus issues and because the preference shares were not split at the same time as the ordinary shares, in order to maintain proportionate voting rights attaching to the preference shares, the voting rights attaching to preference shares have increased to 100 votes on a poll at any general meeting of the Company.

There are no specific restrictions on the transfer of shares or on their voting rights beyond those standard provisions set out in the Company's Articles of Association and other provisions of applicable law and regulation (including, in particular, following a failure to provide the Company with information about interests in shares as required by the Companies Act 2006). The Company is not aware of any agreements between holders of the Company's shares that may result in restrictions on the transfer of securities or on voting rights.

With regard to the appointment and replacement of Directors, the Company is governed by, and has regard to, its Articles of Association, the UK Corporate Governance Code 2018, the Companies Act 2006 and related legislation. The Articles of Association may be amended by special resolution of the shareholders. There are no significant agreements in place that take effect, alter or terminate upon a change of control of the Company. There are no agreements in place between the Company and its Directors or employees that provide for compensation for loss of office or employment resulting from a change of control of the Company.

The percentages of the total nominal share capital of the Company represented by each class of share are:

Class	Number in issue	Nominal value per share	Percentage of capital
Ordinary shares of 5p each	985,856,695	5p	96.10%
Preference shares of £1.00 each	2,000,000	£1	3.90%

## Authority to issue shares and authority to purchase own shares

At the 2019 AGM, held on 22 May 2019, authority was given to the Directors to allot unissued relevant securities in the Company up to a maximum amount equivalent to two-thirds of the ordinary shares in issue (of which one-third may only be offered by way of rights issue). This authority expires on the date of this year's AGM, scheduled to be held on 20 May 2020. No shares have been issued as at the date of this report or during the year. The Directors propose to seek renewal of this authority at this year's AGM.

A further special resolution passed at the 2019 AGM granted authority to the Directors to allot equity securities in the Company for cash, without regard to the pre-emption provisions of the Companies Act 2006. This authority also expires on the date of this year's AGM and the Directors will seek to renew this authority by way of two separate resolutions, in line with the Investment Association's guidance and the Pre-Emption Group's Statement of Principles.

The Company was also authorised by a shareholders' resolution passed at the 2019 AGM to purchase up to 10% of its issued ordinary share capital. Any shares bought back may be held as treasury

shares or, if not so held, must be cancelled immediately upon completion of the purchase, thereby reducing the amount of the Company's issued and authorised share capital. This authority will expire at this year's AGM and a resolution to renew the authority for a further year will be proposed. No shares were purchased by the Company during the year.

### Directors' interests and indemnities

Details of Directors' contracts and letters of appointment, remuneration and emoluments, and their interests in the shares of the Company as at 31 December 2019, are given in the Directors' Remuneration Report. No Director had any material interest in a contract of significance (other than a service contract – see page 128) with the Company or any subsidiary company during the year.

In accordance with the Company's Articles of Association and to the extent permitted by the laws of England and Wales, Directors are granted an indemnity from the Company in respect of liabilities personally incurred as a result of their office. The Company also maintained a Directors' and Officers' liability insurance policy throughout the financial year. A new policy has been entered into for the current financial year.

### Conflicts of interest

Each year, the Directors complete a form identifying interests that may constitute a conflict of interest, including, for example, directorships in other companies. Directors are also required to notify the Company during the year of any relevant changes in those positions or situations.

The Board, with assistance from the Nomination and Governance Committee, considers the potential and actual conflict situations and decides in relation to each situation the steps, if any, which need to be taken to manage it.

The authorisation process is not regarded as a substitute for managing an actual conflict of interest if one arises, and the monitoring, and, if appropriate, authorisation of actual and potential conflicts of interest is an ongoing process.

### Substantial shareholdings

As at 31 December 2019, the following significant holdings of voting rights in the share capital of the Company had been disclosed to the Company under Disclosure and Transparency Rule 5:

Shareholder	Ordinary share capital %	Preference share capital %	Total share capital %
1. Metalinvest Establishment	50.72	94.12	58.04
2. Kupferberg Establishment	9.94	–	8.27
3. Aureberg Establishment	4.26	–	3.54

Metalinvest Establishment and Kupferberg Establishment are both controlled by the E. Abaroa Foundation ("Abaroa"), in which members of the Luksic family are interested. As explained in Note 35 to the financial statements, Metalinvest Establishment is the immediate Parent Company of the Group and the E. Abaroa Foundation is the Ultimate Parent Company. Aureberg Establishment is controlled by the Severe Studere Foundation that, in turn, is controlled by Jean-Paul Luksic, the Chairman of the Company.

No interests have been disclosed to the Company between 31 December 2019 and the date of this report.

### Exploration and research and development

The Group's subsidiaries carry out exploration and research and development activities that are necessary to support and expand the Group's operations.

### Going concern

The Directors, having made appropriate enquiries, have satisfied themselves that it is appropriate to adopt the going concern basis of accounting in preparing the financial statements. Additionally, the Directors have considered longer-term viability, as described in their statement on page 30.

### Business relationships with suppliers, customers and others

A statement of how the Directors have had regard to the need to foster the Company's business relationships with suppliers, customers and others and the effect of that regard, including on principal decisions made by the Company during the year, are set out on pages 34 to 50 of the Strategic Report and page 94 of the Corporate Governance Report.

### Other statutory disclosures

The Corporate Governance Report on pages 82 to 137, the Statement of Directors' responsibilities on page 140 and Note 24 to the financial statements are incorporated into this Directors' Report by reference.

Other information can be found in the following sections of the Strategic Report:

	Location in Strategic Report
Future developments in the business of the Group	Pages 54 to 73
Viability statement	Page 30
Subsidiaries, associates and joint ventures	Pages 54 to 73
Employee consultation	Pages 38 to 40
Greenhouse gas emissions	Page 45

Disclosures required pursuant to Listing Rule 9.8.4R can be found on the following pages of the Annual Report:

	Location in Annual Report
Statement of interest capitalised by the Group (LR 9.8.4(1))	See Notes 5, 9 and 15 to the financial statements on pages 163 to 167, 172 and 177.
Relationship agreement (LR 9.8.4(14))	Page 89

By order of the Board

### Julian Anderson

Company Secretary

16 March 2020

# DIRECTORS' RESPONSIBILITIES

## Statement of Directors' responsibilities in relation to the financial statements

The Directors are responsible for preparing the Annual Report, the Directors' Remuneration Report and the financial statements in accordance with the applicable law and regulations.

Company law requires the Directors to prepare financial statements for each financial year. Under that law, the Directors have prepared the Group financial statements in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union, and the Parent Company financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law), including Financial Reporting Standard 101 Reduced Disclosure Framework ("FRS 101"). Under company law, the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and the Company and of the profit or loss of the Group for that period. In preparing these financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently
- make judgements and accounting estimates that are reasonable and prudent
- state whether IFRS as adopted by the European Union and applicable UK Accounting Standards, including FRS 101, have been followed, subject to any material departures disclosed and explained in the Group and Parent Company financial statements
- prepare the Financial Statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and the Group and enable them to ensure that the financial statements and the Directors' Remuneration Report comply with the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation. They are also responsible for safeguarding the assets of the Company and the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Directors are responsible for the maintenance and integrity of the Company's website. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The Directors consider that the Annual Report and financial statements, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Company's position and performance, business model and strategy.

Each of the Directors, whose names and functions are listed in the Corporate Governance Report, confirms that, to the best of his or her knowledge:

- the Parent Company financial statements, which have been prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law), give a true and fair view of the assets, liabilities, financial position and profit of the Company,
- the Group financial statements, which have been prepared in accordance with IFRS as adopted by the EU, give a true and fair view of the assets, liabilities, financial position and profit of the Group, and
- the Strategic Report and the Directors' Report include a fair review of the development and performance of the business and the position of the Group, together with a description of the principal risks and uncertainties that it faces.

By order of the Board

**Jean-Paul Luksic**  
Chairman

16 March 2020

**Ollie Oliveira**  
Senior Independent Director

# FINANCIAL STATEMENTS

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## REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

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### 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.

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### 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 non-compliance 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
<b>Overall materiality</b>	\$70 million (2018: \$64 million).	\$13.0 million (2018: \$14.5 million).
<b>How we determined it</b>	5% of three year average profit before tax adjusted for one off items.	1% of total assets.
<b>Rationale for benchmark applied</b>	<p>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.</p> <p>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.</p>	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:

<b>Reporting obligation</b>	<b>Outcome</b>
<p>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.</p>	<p>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.</p>
<p>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.</p>	<p>We have nothing to report.</p>

**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).

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### 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)*

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### 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)*

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### 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)*

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## 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](http://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

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### 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.

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### 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

## Financial Statements

# CONSOLIDATED INCOME STATEMENT

For the year ended 31 December 2019

	Notes	2019 \$m	2018 \$m
<b>Group revenue</b>	5,6	<b>4,964.5</b>	4,733.1
Total operating costs		<b>(3,588.7)</b>	(3,388.1)
<b>Operating profit from subsidiaries</b>	5,7	<b>1,375.8</b>	1,345.0
Net share of results from associates and joint ventures	5,17	<b>24.4</b>	22.2
<b>Total profit from operations, associates and joint ventures</b>	7	<b>1,400.2</b>	1,367.2
Investment income		<b>47.1</b>	30.1
Interest expense		<b>(111.1)</b>	(113.5)
Other finance items		<b>13.0</b>	(31.1)
<b>Net finance expense</b>	9	<b>(51.0)</b>	(114.5)
<b>Profit before tax</b>	5	<b>1,349.2</b>	1,252.7
Income tax expense	10	<b>(506.1)</b>	(423.7)
<b>Profit for the financial year from continuing operations</b>	5	<b>843.1</b>	829.0
<b>Profit for the financial year from discontinued operations</b>	11	<b>–</b>	51.3
<b>Profit for the year</b>		<b>843.1</b>	880.3
Attributable to:			
Non-controlling interests	30	<b>341.7</b>	336.6
<b>Profit for the year attributable to the owners of the parent</b>	12	<b>501.4</b>	543.7
		US cents	US cents
<b>Basic earnings per share</b>	12		
From continuing operations		<b>50.9</b>	51.5
From discontinued operations		<b>–</b>	3.6
<b>Total continuing and discontinued operations</b>		<b>50.9</b>	55.1

**CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME**

For the year ended 31 December 2019

	Note	2019 \$m	2018 \$m
<b>Profit for the year</b>	5	<b>843.1</b>	880.3
<i>Items that may be or were subsequently reclassified to profit or loss:</i>			
Gains on cash flow hedges time value		<b>0.4</b>	6.8
(Losses)/gains on cash flow hedges intrinsic value	24	<b>(7.7)</b>	1.4
Losses in fair value of cash flow hedges transferred to the income statement	24	<b>(0.8)</b>	(0.6)
Current tax effects arising on amounts transferred to the income statement		<b>2.0</b>	–
Share of other comprehensive losses of equity accounted units, net of tax	17	<b>–</b>	(0.4)
<b>Total items that may be subsequently reclassified to profit or loss</b>		<b>(6.1)</b>	7.2
<i>Items that will not be subsequently reclassified to profit or loss:</i>			
Actuarial (losses)/gains on defined benefit plans	26	<b>(4.7)</b>	3.9
Tax on items recognised through Other Comprehensive Income which will not be reclassified to profit or loss in the future		<b>0.9</b>	–
Gains/(losses) in fair value of equity investments	18	<b>0.3</b>	(1.3)
Share of other comprehensive losses of equity accounted units, net of tax		<b>(0.3)</b>	–
<b>Total items that will not be subsequently reclassified to profit or loss</b>		<b>(3.8)</b>	2.6
<b>Total other comprehensive (expense)/income</b>		<b>(9.9)</b>	9.8
<b>Total comprehensive income for the year</b>		<b>833.2</b>	890.1
Attributable to:			
Non-controlling interests	30	<b>338.6</b>	339.3
Equity holders of the Company		<b>494.6</b>	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	<b>7,318.4</b>	1,823.2	<b>9,141.6</b>
Adoption of new accounting standards	–	–	(5.8)	1.1	<b>(4.7)</b>	(2.0)	<b>(6.7)</b>
Balance at 1 January 2018	89.8	199.2	(18.3)	7,043.0	<b>7,313.7</b>	1,821.2	<b>9,134.9</b>
Profit for the year	–	–	–	543.7	<b>543.7</b>	336.6	<b>880.3</b>
Other comprehensive income for the year	–	–	3.8	3.3	<b>7.1</b>	2.7	<b>9.8</b>
Transfer to non-controlling interests	–	–	–	(38.2)	<b>(38.2)</b>	38.2	–
Dividends	–	–	–	(466.9)	<b>(466.9)</b>	(120.0)	<b>(586.9)</b>
At 31 December 2018	<b>89.8</b>	<b>199.2</b>	<b>(14.5)</b>	<b>7,084.9</b>	<b>7,359.4</b>	<b>2,078.7</b>	<b>9,438.1</b>
Profit for the year	–	–	–	501.4	<b>501.4</b>	341.7	<b>843.1</b>
Other comprehensive expense for the year	–	–	(3.6)	(3.2)	<b>(6.8)</b>	(3.1)	<b>(9.9)</b>
Dividends	–	–	–	(470.3)	<b>(470.3)</b>	(400.0)	<b>(870.3)</b>
<b>At 31 December 2019</b>	<b>89.8</b>	<b>199.2</b>	<b>(18.1)</b>	<b>7,112.8</b>	<b>7,383.7</b>	<b>2,017.3</b>	<b>9,401.0</b>

# CONSOLIDATED BALANCE SHEET

As at 31 December 2019

	Note	2019 \$m	2018 \$m
<b>Non-current assets</b>			
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
		<b>11,004.9</b>	10,663.6
<b>Current assets</b>			
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
		<b>3,605.5</b>	3,438.9
<b>Total assets</b>		<b>14,610.4</b>	14,102.5
<b>Current liabilities</b>			
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)
		<b>(1,548.9)</b>	(1,338.0)
<b>Non-current liabilities</b>			
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)
		<b>(3,660.5)</b>	(3,326.4)
<b>Total liabilities</b>		<b>(5,209.4)</b>	(4,664.4)
<b>Net assets</b>		<b>9,401.0</b>	9,438.1
<b>Equity</b>			
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
<b>Equity attributable to equity owners of the parent</b>		<b>7,383.7</b>	7,359.4
Non-controlling interests	30	2,017.3	2,078.7
<b>Total equity</b>		<b>9,401.0</b>	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
<b>Cash flow from continuing operations</b>	31	<b>2,570.7</b>	1,877.0
Interest paid		(76.3)	(68.2)
Income tax paid		(403.6)	(498.0)
<b>Net cash from operating activities</b>		<b>2,090.8</b>	1,310.8
<b>Investing activities</b>			
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
<b>Net cash used in investing activities</b>		<b>(1,656.2)</b>	(399.8)
<b>Financing activities</b>			
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)
<b>Net decrease in cash and cash equivalents</b>		<b>(375.0)</b>	(23.1)
Cash and cash equivalents at beginning of the year		1,034.4	1,083.6
<b>Net decrease in cash and cash equivalents</b>	31	<b>(375.0)</b>	(23.1)
Effect of foreign exchange rate changes	31	(5.7)	(26.1)
Cash and cash equivalents at end of the year	21,31	<b>653.7</b>	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

	31 December 2019 \$m	1 January 2019 \$m
The recognised right-of-use assets relate to the following types of assets:		
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

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 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:

- 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;
- 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
- 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)

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## (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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 5 SEGMENT INFORMATION CONTINUED

## A) Segment revenues and results

For the year ended 31 December 2019

	Los Pelambres \$m	Centinela \$m	Antucoya \$m	Zaldivar \$m	Exploration and evaluation <sup>2</sup> \$m	Corporate and other items \$m	Mining \$m	Transport division \$m	Total \$m
<b>Revenue</b>	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)
<b>Operating profit/(loss)</b>	1,115.1	425.8	(5.9)	-	(111.1)	(78.7)	1,345.2	30.6	1,375.8
<b>Equity accounting results</b>	-	-	-	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
<b>Profit/(loss) before tax</b>	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)
<b>Profit/(losses) attributable to the owners of the parent</b>	476.9	242.7	(11.2)	15.5	(111.1)	(143.1)	469.7	31.7	501.4
<b>EBITDA<sup>1</sup></b>	1,384.1	959.5	86.3	112.6	(111.1)	(73.3)	2,358.1	80.8	2,438.9
<b>Additions to non-current assets</b>									
Capital expenditure	573.0	535.9	43.0	-	-	16.0	1,167.9	68.6	1,236.5
<b>Segment assets and liabilities</b>									
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 <sup>2</sup> \$m	Corporate and other items \$m	Mining \$m	Transport division \$m	Total \$m
<b>Revenue</b>	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)
<b>Operating profit/(loss)</b>	1,173.8	229.6	62.9	–	(97.6)	(68.6)	1,300.1	44.9	1,345.0
<b>Equity accounting results</b>	–	–	–	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)
<b>Profit/(loss) before tax</b>	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)
<b>Profit/(losses) attributable to the owners of the parent</b>	473.5	188.2	27.0	14.2	(97.6)	(94.7)	510.6	33.1	543.7
<b>EBITDA<sup>1</sup></b>	1,427.6	645.0	141.6	87.4	(97.6)	(64.6)	2,139.4	88.9	2,228.3
<b>Additions to non-current assets</b>									
Capital expenditure	364.8	535.2	65.7	–	–	4.5	970.2	67.7	1,037.9
<b>Segment assets and liabilities</b>									
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 Internacional 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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 5 SEGMENT INFORMATION CONTINUED

## B) Entity-wide disclosures

Revenue by product<sup>1</sup>

	2019 \$m	2018 \$m
<b>Copper</b>		
- 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
<b>Gold</b>		
- Los Pelambres	75.2	78.5
- Centinela	332.5	169.5
<b>Molybdenum</b>		
- Los Pelambres	249.0	340.2
- Centinela	5.6	7.8
<b>Silver</b>		
- Los Pelambres	30.7	34.4
- Centinela	27.6	14.7
<b>Total</b>	<b>4,804.0</b>	<b>4,560.3</b>
<b>Transport division</b>	<b>160.5</b>	<b>172.8</b>
	<b>4,964.5</b>	<b>4,733.1</b>

Revenue by location of customer<sup>1</sup>

	2019 \$m	2018 \$m
<b>Europe</b>		
- 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
<b>Latin America</b>		
- Chile	213.8	248.1
- Rest of Latin America	95.3	73.9
<b>North America</b>		
- United States	88.9	199.4
<b>Asia</b>		
- 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
	<b>4,964.5</b>	<b>4,733.1</b>

## 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)
<b>Total revenue</b>	<b>4,964.5</b>	<b>4,733.1</b>

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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 6 REVENUE CONTINUED

For the year ended 31 December 2019<sup>1</sup>

	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
<b>Provisionally invoiced gross sales</b>	2,144.9	1,222.3	506.1	434.8	76.2	325.3	298.1	7.4
<b>Effects of pricing adjustments to previous year invoices</b>								
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)	–
<b>Total effect of adjustments to previous year invoices in the current year</b>	23.9	19.4	(0.3)	(0.2)	(1.3)	0.7	(9.1)	–
<b>Effects of pricing adjustments to current year invoices</b>								
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)
<b>Total effect of adjustments to current year invoices</b>								
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	–	–	–	–
<b>Revenue before deducting tolling charges</b>	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)
<b>Revenue net of tolling charges</b>	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<sup>1</sup>

	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
<b>Provisionally invoiced gross sales</b>	2,325.7	957.3	599.1	465.0	79.6	171.1	358.6	8.0
<b>Effects of pricing adjustments to previous year invoices</b>								
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	–
<b>Total effect of adjustments to previous year invoices in the current year</b>	(39.9)	(11.2)	(1.1)	(1.1)	0.4	(0.4)	14.3	–
<b>Effects of pricing adjustments to current year invoices</b>								
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
<b>Total effect of adjustments to current year invoices</b>								
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	–	–	–	–
<b>Revenue before deducting tolling charges</b>	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)
<b>Revenue net of tolling charges</b>	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	<b>158,600</b>	177,400
Average mark-to-market price	\$/lb	<b>2.81</b>	2.71
Average provisional invoice price	\$/lb	<b>2.68</b>	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	<b>12,000</b>	14,300
Average mark-to-market price	\$/lb	<b>2.80</b>	2.70
Average provisional invoice price	\$/lb	<b>2.77</b>	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	<b>21,200</b>	22,100
Average mark-to-market price	\$/oz	<b>1,542</b>	1,284
Average provisional invoice price	\$/oz	<b>1,485</b>	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	<b>1,900</b>	3,600
Average mark-to-market price	\$/lb	<b>9.2</b>	12.1
Average provisional invoice price	\$/lb	<b>9.3</b>	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	<b>29.1</b>	(23.6)
Los Pelambres – molybdenum concentrate	<b>(0.4)</b>	0.7
Centinela – copper concentrate	<b>15.2</b>	(9.5)
Centinela – gold in concentrate	<b>1.2</b>	0.7
Centinela – copper cathodes	<b>0.4</b>	(0.7)
Antucoya – copper cathodes	<b>0.4</b>	(0.7)
	<b>45.9</b>	(33.1)

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 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
<b>Group revenue</b>	<b>4,964.5</b>	4,733.1
Cost of sales	<b>(2,963.6)</b>	(2,807.7)
<b>Gross profit</b>	<b>2,000.9</b>	1,925.4
Administrative and distribution expenses	<b>(445.9)</b>	(422.7)
Other operating income	<b>31.2</b>	26.9
Other operating expenses	<b>(210.4)</b>	(184.6)
<b>Operating profit from subsidiaries</b>	<b>1,375.8</b>	1,345.0
Net share of results from associates and joint ventures	<b>24.4</b>	22.2
<b>Total profit from operations, associates and joint ventures</b>	<b>1,400.2</b>	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	<b>35.8</b>	(18.2)
– included in income tax expense	<b>0.7</b>	(0.7)
Depreciation of property, plant and equipment		
– owned assets	<b>(828.0)</b>	(731.5)
– assets held under finance leases	<b>–</b>	(29.0)
– leased assets	<b>(86.3)</b>	–
Loss on disposal of property, plant and equipment	<b>(12.7)</b>	(13.3)
Cost of inventories recognised as expense	<b>(1,970.1)</b>	(1,955.2)
Employee benefit expense	<b>(439.8)</b>	(447.8)
Decommissioning and restoration	<b>2.8</b>	(14.8)
Severance charges	<b>(24.8)</b>	(18.7)
Exploration and evaluation expense	<b>(111.1)</b>	(97.6)
Auditors' remuneration	<b>(1.5)</b>	(1.7)

A more detailed analysis of auditors' remuneration on a worldwide basis is provided below:

<b>Group</b>	<b>2019 \$000</b>	<b>2018 \$000</b>
Fees payable to the Company's auditor and its associates for the audit of parent company and consolidated financial statements	<b>944</b>	1,020
Fees payable to the Company's auditor and its associates for other services:		
– The audit of the Company's subsidiaries	<b>288</b>	374
– Audit-related assurance services	<b>219</b>	252
– Tax advisory services	<b>–</b>	76
– Other assurance services	<b>19</b>	–
– Corporate finance services not covered above	<b>–</b>	–
– Other non-audit services	<b>20</b>	12
	<b>1,490</b>	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
<b>Mining and Corporate</b>	<b>4,311</b>	<b>4,240</b>
<b>Transport division</b>	<b>1,408</b>	<b>1,371</b>
	<b>5,719</b>	<b>5,611</b>

- (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)
	<b>(439.8)</b>	<b>(447.8)</b>

### 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)
	<b>(16.1)</b>	<b>(18.4)</b>

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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 9 NET FINANCE EXPENSE

	2019 \$m	2018 \$m
<b>Investment income</b>		
Interest income	9.8	9.9
Fair value through profit or loss	37.3	20.2
	47.1	30.1
<b>Interest expense</b>		
Interest expense	(111.1)	(113.6)
	(111.1)	(113.6)
<b>Other finance items</b>		
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)
<b>Net finance expense</b>	<b>(51.0)</b>	<b>(114.5)</b>

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
<b>Current tax charge/credit</b>		
- 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)
	<b>(354.4)</b>	<b>(404.5)</b>
<b>Deferred tax charge</b>		
- Corporate tax (principally first category tax in Chile)	(125.1)	(14.6)
- Mining tax (royalty)	0.6	(4.6)
- Withholding tax	(27.2)	-
	<b>(151.7)</b>	<b>(19.2)</b>
<b>Total tax charge</b>	<b>(506.1)</b>	<b>(423.7)</b>

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	%
<b>Profit before tax</b>	<b>1,349.2</b>		1,252.7	-
<b>Tax at the Chilean corporate tax rate of 27%</b>	<b>(364.3)</b>	<b>27.0</b>	(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)	-
<b>Tax expense and effective tax rate for the year</b>	<b>(506.1)</b>	<b>37.5</b>	<b>(423.7)</b>	<b>33.8</b>

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).

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 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
<b>Proceeds on disposal, cash and cash equivalent</b>	-	117.2
<b>Assets of disposal group classified as held for sale</b>		
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)
<b>Total carrying amount disposed (Net asset)</b>	-	40.2
Transaction cost	-	(1.0)
<b>Profit on disposal of discontinued operations (Before tax)</b>	-	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:		
Revenue	-	4.8
Total operating costs	-	(1.6)
Net finance income	-	(0.3)
<b>Profit after tax of discontinued operations</b>	-	2.9
Tax	-	(0.8)
<b>Profit from the year from discontinued operations</b>	-	2.1
Profit on disposal of discontinued operations	-	76.0
Attributable tax expenses	-	(26.8)
<b>Net profit attributable to discontinued operations</b>	-	51.3
Cash and cash equivalents received as consideration for disposal	-	117.2
Net cash disposed of	-	(13.2)
<b>Net cash inflow arising on disposal</b>	-	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

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 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](http://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
<b>Cost</b>	
At 1 January 2018	150.1
Additions	–
Disposals	–
Foreign currency exchange difference	–
At 31 December 2018	150.1
Additions	–
Disposals	–
Foreign currency exchange difference	–
<b>At 31 December 2019</b>	<b>150.1</b>

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
<b>Cost</b>										
<b>At 1 January 2018</b>	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)
<b>At 31 December 2018</b>	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	-
<b>At 1 January 2019</b>	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)
<b>At 31 December 2019</b>	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
<b>Accumulated depreciation and impairment</b>										
<b>At 1 January 2018</b>	-	(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
<b>At 31 December 2018</b>	-	(490.3)	(441.9)	(2,140.1)	(30.5)	(84.3)	(3,448.2)	-	-	(6,635.3)
Finance lease transferred	-	-	-	-	-	-	99.9	-	(99.9)	-
<b>At 1 January 2019</b>	-	(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
<b>At 31 December 2019</b>	-	(530.3)	(704.1)	(2,383.2)	(34.0)	(91.2)	(3,731.2)	-	(170.9)	(7,644.9)
<b>Net book value</b>										
<b>At 31 December 2019</b>	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 Antucocya (2018 – \$48.4 million).

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 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
<b>Direct subsidiaries of the Parent Company</b>					
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%
<b>Indirect subsidiaries of the Parent Company</b>					
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 Logísticos 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 N° 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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 17 INVESTMENT IN ASSOCIATES AND JOINT VENTURES

	Inversiones Hornitos 2019 \$m	ATI 2019 \$m	Minera Zaldivar 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)
<b>Balance at the end of the year</b>	<b>56.9</b>	<b>6.1</b>	<b>961.8</b>	<b>–</b>	<b>1,024.8</b>
<b>Obligations on behalf of JV and associates</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>(1.8)</b>	<b>(1.8)</b>
Share of income/(loss) after tax	10.3	1.1	15.6	(2.6)	24.4
<b>Net share of results from associates and joint ventures</b>	<b>10.3</b>	<b>1.1</b>	<b>15.6</b>	<b>(2.6)</b>	<b>24.4</b>

	Inversiones Hornitos 2018 \$m	ATI 2018 \$m	El Arrayan 2018 \$m	Minera Zaldivar 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)
<b>Balance at the end of the year</b>	<b>54.6</b>	<b>5.1</b>	<b>–</b>	<b>996.4</b>	<b>–</b>	<b>–</b>	<b>1,056.1</b>
<b>Obligations on behalf of JV and associates</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>(1.0)</b>	<b>(1.0)</b>
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)
<b>Net share of results from associates and joint ventures</b>	<b>11.1</b>	<b>(0.2)</b>	<b>4.5</b>	<b>13.9</b>	<b>–</b>	<b>(7.1)</b>	<b>22.2</b>

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

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 17 INVESTMENT IN ASSOCIATES AND JOINT VENTURES CONTINUED

Summarised financial information for the joint ventures is as follows:

	Minera Zaldivar 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 Zaldivar 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)
<b>Balance at the end of the year</b>	<b>5.1</b>	<b>4.7</b>

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
<b>Balance at the end of the year</b>	<b>(3.1)</b>	<b>(4.6)</b>

The ageing analysis of the trade and other receivables balance is as follows:

	Past due but not impaired				Total \$m
	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	
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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

**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
	<b>2,193.4</b>	<b>1,897.6</b>

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
	<b>2,193.4</b>	<b>1,897.6</b>

The credit quality of cash, cash equivalents and liquid investments are as follows:

	2019 \$m	2018 \$m
<b>Current account bank deposits and cash at bank</b>		
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	<b>2,145.4</b>	<b>1,563.8</b>
Cash at bank <sup>1</sup>	<b>48.0</b>	<b>333.8</b>
Total cash, cash equivalents and liquid investments	<b>2,193.4</b>	<b>1,897.6</b>

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
<b>Los Pelambres</b>			
– Senior loan	(i)	(469.4)	–
– Short-term loan		–	(100.0)
– Leases	(ii)	(115.0)	(114.1)
<b>Centinela</b>			
– 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)	–
<b>Antucoya</b>			
– 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)
<b>Corporate and other items</b>			
– Senior loan	(xi)	(499.2)	(500.1)
– Leases	(xii)	(19.3)	(22.1)
<b>Transport division</b>			
– Senior loan	(xiii)	(44.6)	(74.2)
– Leases	(xiv)	(1.0)	(0.4)
<b>Preference shares</b>			
	(xv)	(2.6)	(3.0)
<b>Total</b>		<b>(2,756.8)</b>	<b>(2,493.9)</b>

- (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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 22 BORROWINGS CONTINUED

## B) Analysis of borrowings by currency

The exposure of the Group's borrowings to currency risk is as follows:

	Chilean pesos \$m	Sterling \$m	US dollars \$m	2019 Total \$m
<b>At 31 December 2019</b>				
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)
	<b>(195.7)</b>	<b>(2.6)</b>	<b>(2,558.5)</b>	<b>(2,756.8)</b>
<b>At 31 December 2018</b>				
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)
	<b>(114.8)</b>	<b>(3.0)</b>	<b>(2,376.1)</b>	<b>(2,493.9)</b>

## C) Analysis of borrowings by type of interest rate

The exposure of the Group's borrowings to interest rate risk is as follows:

	Fixed \$m	Floating \$m	2019 Total \$m
<b>At 31 December 2019</b>			
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)
	<b>(201.9)</b>	<b>(2,554.9)</b>	<b>(2,756.8)</b>
<b>At 31 December 2018</b>			
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)
	<b>(106.1)</b>	<b>(2,387.8)</b>	<b>(2,493.9)</b>

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:

	Within 1 year \$m	Between 1-2 years \$m	Between 2-5 years \$m	After 5 years \$m	2019 Total \$m
<b>At 31 December 2019</b>					
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)
	<b>(724.0)</b>	<b>(194.8)</b>	<b>(1,221.8)</b>	<b>(616.2)</b>	<b>(2,756.8)</b>
<b>At 31 December 2018</b>					
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)
	<b>(646.0)</b>	<b>(251.8)</b>	<b>(928.3)</b>	<b>(667.8)</b>	<b>(2,493.9)</b>

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	<b>(82.4)</b>	(44.3)
Between 1 – 2 years	<b>(68.4)</b>	(32.4)
Between 2 – 5 years	<b>(99.6)</b>	(103.5)
After 5 years	<b>(16.7)</b>	(13.6)
Total minimum lease payments	<b>(267.1)</b>	(193.8)
Less amounts representing finance charges	<b>23.1</b>	22.0
Present value of minimum lease payments	<b>(244.0)</b>	(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	<b>(513.5)</b>	(463.7)	–	–	<b>(513.5)</b>	(463.7)
Other creditors and accruals	<b>(237.1)</b>	(144.6)	<b>(8.2)</b>	(7.7)	<b>(245.3)</b>	(152.3)
	<b>(750.6)</b>	(608.3)	<b>(8.2)</b>	(7.7)	<b>(758.8)</b>	(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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 24 FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT

## A) Categories of financial instruments

The carrying value of financial assets and financial liabilities is shown below:

				2019 \$m
	At fair value through profit and loss	At fair value through other comprehensive income	Held at amortised cost	Total
<b>Financial assets</b>				
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
<b>Financial liabilities</b>				
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)

				2018 \$m
	At fair value through profit and loss	At fair value through other comprehensive income	Held at amortised cost	Total
<b>Financial assets</b>				
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
<b>Financial liabilities</b>				
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
<b>Financial assets</b>				
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
	<b>1,544.8</b>	<b>576.2</b>	<b>–</b>	<b>2,121.0</b>
<b>Financial liabilities</b>				
Derivative financial liabilities (a)	–	(12.1)	–	(12.1)
Trade and other payables	–	(0.4)	–	(0.4)
	<b>–</b>	<b>(12.5)</b>	<b>–</b>	<b>(12.5)</b>

	Level 1 \$m	Level 2 \$m	Level 3 \$m	Total 2018 \$m
<b>Financial assets</b>				
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
	<b>867.9</b>	<b>511.0</b>	<b>–</b>	<b>1,378.9</b>
<b>Financial liabilities</b>				
Derivative financial liabilities (a)	–	–	–	–
Trade and other payables	–	(34.5)	–	(34.5)
	<b>–</b>	<b>(34.5)</b>	<b>–</b>	<b>(34.5)</b>

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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 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.

	Less than 6 months \$m	Between 6 months to 1 year \$m	Between 1-2 years \$m	After 2 years \$m	2019 Total \$m
<b>At 31 December 2019</b>					
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)
	<b>(1,414.6)</b>	<b>(441.9)</b>	<b>(1,214.9)</b>	<b>(540.6)</b>	<b>(3,612.0)</b>
	Less than 6 months \$m	Between 6 months to 1 year \$m	Between 1-2 years \$m	After 2 years \$m	2018 Total \$m
<b>At 31 December 2018</b>					
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)
	<b>(949.4)</b>	<b>(375.2)</b>	<b>(306.3)</b>	<b>(1,647.6)</b>	<b>(3,278.4)</b>

\* 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	<b>\$11.2</b>	\$10.2
Expected volatility	<b>38.50%</b>	34.02%
Expected life of awards	<b>3 years</b>	3 years
Expected dividend yields	<b>4.18%</b>	4.38%
Discount rate	<b>1.71%</b>	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	<b>505,106</b>	<b>1,515,043</b>
Granted during the year	<b>331,221</b>	<b>523,883</b>
Cancelled during the year	<b>(50,121)</b>	<b>(113,803)</b>
Payments during the year	<b>(237,663)</b>	<b>(521,206)</b>
Outstanding at 31 December 2019	<b>548,543</b>	<b>1,403,917</b>
Number of awards that have vested	<b>329,929</b>	

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).

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 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
<b>Total charge to income statement</b>	<b>(21.9)</b>	<b>(10.7)</b>

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
<b>Balance at the end of the year</b>	<b>(118.7)</b>	<b>(107.4)</b>

## 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
<b>At 1 January 2018</b>	(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	–	–
<b>At 1 January 2019</b>	(1,057.3)	190.2	(11.3)	40.0	(108.2)	0.3	(946.3)
(Charge)/credit to income	<b>(87.2)</b>	<b>(34.8)</b>	<b>(27.2)</b>	<b>(4.6)</b>	<b>0.7</b>	<b>1.4</b>	<b>(151.7)</b>
Charge deferred in equity	–	<b>0.8</b>	–	–	<b>0.1</b>	–	<b>0.9</b>
Reclassifications	<b>32.7</b>	<b>(36.2)</b>	–	<b>0.1</b>	–	<b>3.5</b>	<b>0.1</b>
<b>At 31 December 2019</b>	<b>(1,111.8)</b>	<b>120.0</b>	<b>(38.5)</b>	<b>35.5</b>	<b>(107.4)</b>	<b>5.2</b>	<b>(1,097.0)</b>

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	<b>8.2</b>	37.2
Deferred tax liabilities	<b>(1,105.2)</b>	(983.5)
Net deferred tax balances	<b>(1,097.0)</b>	(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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 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	-
<b>Balance at the end of the year</b>	<b>(413.2)</b>	<b>(409.8)</b>
Short-term provisions	(22.0)	(30.9)
Long-term provisions	(391.2)	(378.9)
<b>Total</b>	<b>(413.2)</b>	<b>(409.8)</b>

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
<b>Authorised</b>				
Ordinary shares of 5p each	1,300,000,000	1,300,000,000	118.9	118.9
<b>Issued and fully paid</b>				
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
<b>Hedging reserves<sup>1</sup></b>		
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 losses transferred to the income statement	(0.6)	(0.4)
Tax on the above	1.2	–
At 31 December	(5.0)	(1.1)
<b>Equity investment revaluation reserve<sup>2</sup></b>		
At 1 January	(11.1)	(9.8)
Gains/(losses) on equity investment	0.3	(1.3)
At 31 December	(10.8)	(11.1)
<b>Foreign currency translation reserves<sup>3</sup></b>		
At 1 January	(2.3)	(2.3)
At 31 December	(2.3)	(2.3)
<b>Total other reserves per balance sheet</b>	<b>(18.1)</b>	<b>(14.5)</b>
<b>Retained earnings</b>		
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 <sup>4</sup>	(3.2)	3.3
Transfer to non-controlling interest <sup>5</sup>	–	(38.2)
<b>Total comprehensive income for the year</b>	<b>7,583.1</b>	<b>7,551.8</b>
Dividends paid	(470.3)	(466.9)
<b>At 31 December</b>	<b>7,112.8</b>	<b>7,084.9</b>

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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 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)

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

**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	<b>\$1.2860=£1;</b> <b>\$1 = Ch\$748.74</b>	\$1.2700=£1; \$1 = Ch\$694.77
Average rates	<b>\$1.2760=£1;</b> <b>\$1 = Ch\$702.82</b>	\$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) Compañía 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.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 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
<b>Non-current assets</b>			
Investment in subsidiaries	36D	538.6	538.6
Other receivables		485.0	500.0
Property, plant and equipment		0.1	0.3
		<b>1,023.7</b>	1,038.9
<b>Current assets</b>			
Other receivables	36D	233.0	59.0
Liquid investments		15.2	255.8
Cash and cash equivalents		39.4	106.2
		<b>287.6</b>	421.0
<b>Total assets</b>		<b>1,311.3</b>	1,459.9
<b>Current liabilities</b>			
Amounts payable to subsidiaries		(315.6)	(306.8)
Other payables		(9.8)	(9.4)
		<b>(325.4)</b>	(316.2)
<b>Non-current liabilities</b>			
Medium and long-term borrowings	36E	(499.2)	(500.1)
		<b>(499.2)</b>	(500.1)
<b>Total liabilities</b>		<b>(824.6)</b>	(816.3)
<b>Net assets</b>		<b>486.7</b>	643.6
<b>Equity</b>			
Share capital		89.8	89.8
Share premium		199.2	199.2
<b>Retained earnings</b>			
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)
		<b>197.7</b>	354.6
<b>Total equity</b>		<b>486.7</b>	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
<b>At 1 January 2018</b>	89.8	199.2	745.5	1,034.5
Comprehensive income for the year	–	–	76.0	76.0
Dividends	–	–	(466.9)	(466.9)
<b>At 31 December 2018</b>	89.8	199.2	354.6	643.6
Comprehensive income for the year	–	–	313.4	313.4
Dividends	–	–	(470.3)	(470.3)
<b>At 31 December 2019</b>	<b>89.8</b>	<b>199.2</b>	<b>197.7</b>	<b>486.7</b>

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).

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 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
<b>31 December 2019</b>	<b>60.6</b>	<b>478.0</b>	<b>538.6</b>

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.

## ALTERNATIVE PERFORMANCE MEASURES

## ALTERNATIVE PERFORMANCE MEASURES

This Annual Report includes a number of alternative performance measures, in addition to IFRS amounts. These measures are included because they are considered to provide relevant and useful additional information to users of the financial statements. Set out below are definitions of these alternative performance measures, explanations as to why they are considered to be relevant and useful, and reconciliations to the IFRS figures.

**A) Underlying earnings per share**

Underlying earnings per share is earnings per share from continuing operations, excluding exceptional items. This measure is reconciled to earnings per share from continuing and discontinued operations (including exceptional items) on the face of the income statement. This measure is considered to be useful as it provides an indication of the earnings generated by the ongoing businesses of the Group, excluding the impact of exceptional items which are non-regular or non-operating in nature. There were no exceptional items in the year.

**B) EBITDA**

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.

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

**For the year ended 31 December 2019**

	Los Pelambres \$m	Centinela \$m	Antucoya \$m	Zaldivar \$m	Exploration and evaluation \$m	Corporate and other items \$m	Mining \$m	Transport division \$m	Total \$m
Operating profit	1,115.1	425.8	(5.9)	–	(111.1)	(78.7)	1,345.2	30.6	1,375.8
Depreciation and amortisation	258.5	532.2	92.2	–	–	7.9	890.8	23.5	914.3
(Loss)/gain on disposals	10.5	1.5	–	–	–	–	12.0	0.7	12.7
<b>EBITDA from subsidiaries</b>	<b>1,384.1</b>	<b>959.5</b>	<b>86.3</b>	<b>–</b>	<b>(111.1)</b>	<b>(70.8)</b>	<b>2,248.0</b>	<b>54.8</b>	<b>2,302.8</b>
<b>Proportional share of the EBITDA from associates and JV</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>112.6</b>	<b>–</b>	<b>(2.5)</b>	<b>110.1</b>	<b>26.0</b>	<b>136.1</b>
<b>EBITDA</b>	<b>1,384.1</b>	<b>959.5</b>	<b>86.3</b>	<b>112.6</b>	<b>(111.1)</b>	<b>(73.3)</b>	<b>2,358.1</b>	<b>80.8</b>	<b>2,438.9</b>

**For the year ended 31 December 2018**

	Los Pelambres \$m	Centinela \$m	Antucoya \$m	Zaldivar \$m	Exploration and evaluation \$m	Corporate and other items \$m	Mining \$m	Transport division \$m	Total \$m
Operating profit	1,173.8	229.6	62.9	–	(97.6)	(68.6)	1,300.1	44.9	1,345.0
Depreciation and amortisation	243.3	415.4	78.7	–	–	7.2	744.6	15.9	760.5
Gain on disposals	10.5	–	–	–	–	–	10.5	2.8	13.3
<b>EBITDA from subsidiaries</b>	<b>1,427.6</b>	<b>645.0</b>	<b>141.6</b>	<b>–</b>	<b>(97.6)</b>	<b>(61.4)</b>	<b>2,055.2</b>	<b>63.6</b>	<b>2,118.8</b>
<b>Proportional share of the EBITDA from associates and JV</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>87.4</b>	<b>–</b>	<b>(3.2)</b>	<b>84.2</b>	<b>25.3</b>	<b>109.5</b>
<b>EBITDA</b>	<b>1,427.6</b>	<b>645.0</b>	<b>141.6</b>	<b>87.4</b>	<b>(97.6)</b>	<b>(64.6)</b>	<b>2,139.4</b>	<b>88.9</b>	<b>2,228.3</b>

### C) Cash costs

Cash costs are a measure of the cost of operating production expressed in terms of cents per pound of payable copper produced.

This 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).

	2019 \$m	2018 \$m
<b>Reconciliation of cash costs excluding tolling charges and by-product revenue:</b>		
Total Group operating cost (Note 5)	<b>3,588.7</b>	3,388.1
Zaldívar operating costs	<b>224.3</b>	202.3
Less:		
Depreciation and amortisation (Note 5)	<b>(914.3)</b>	(760.5)
Loss on disposal (Note 5)	<b>(12.7)</b>	(13.3)
Elimination of non-mining operations:		
Corporate and other items – Total operating cost (Note 5)	<b>(70.8)</b>	(61.4)
Exploration and evaluation – Total operating cost (Note 5)	<b>(111.1)</b>	(97.6)
Transport division – Total operating cost (Note 5)	<b>(105.7)</b>	(109.2)
Closure provision and other expenses not included within cash costs	<b>(81.8)</b>	(78.8)
Inventory variation	<b>3.0</b>	(0.5)
<b>Total cost relevant to the mining operations' cash costs</b>	<b>2,519.6</b>	2,469.1
<b>Copper production volumes (tonnes)</b>	<b>769,970</b>	725,300
<b>Cash costs excluding tolling charges and by-product revenue (\$/tonne)</b>	<b>3,272</b>	3,404
Cash costs excluding tolling charges and by-product revenue (\$/lb)	<b>1.48</b>	1.55
Reconciliation of cash costs before deducting by-product revenue:		
Tolling charges – copper – Los Pelambres (Note 6)	<b>147.5</b>	162.1
Tolling charges – copper – Centinela (Note 6)	<b>104.6</b>	82.4
Tolling charges – copper – total	<b>252.1</b>	244.5
Copper production volumes (tonnes)	<b>769,970</b>	725,300
Tolling charges (\$ / tonne)	<b>327.4</b>	337
Tolling charges (\$ / lb)	<b>0.17</b>	0.17
Cash costs excluding tolling charges and by-product revenue (\$/lb)	<b>1.48</b>	1.55
Tolling charges (\$/lb)	<b>0.17</b>	0.17
Cash costs before deducting by-products revenue (\$/lb)	<b>1.65</b>	1.72

## ALTERNATIVE PERFORMANCE MEASURES CONTINUED

## Cash costs (continued)

	2019 \$m	2018 \$m
<b>Reconciliation of cash costs (net of by-product revenue):</b>		
Gold revenue – Los Pelambres (Note 5)	75.2	78.6
Gold revenue – Centinela (Note 5)	332.5	169.4
Molybdenum revenue – Los Pelambres (Note 5)	248.9	340.2
Molybdenum revenue – Centinela (Note 5)	5.7	7.8
Silver revenue – Los Pelambres (Note 5)	30.7	34.4
Silver revenue – Centinela (Note 5)	27.6	14.7
<b>Total by-product revenue</b>	<b>720.6</b>	<b>645.1</b>
Copper production volumes (tonnes)	769,970	725,300
By-product revenues (\$/tonne)	935.9	889
By-product revenues (\$/lb)	0.43	0.43
Cash costs before deducting by-product revenue (\$/lb)	1.65	1.72
By-product revenue (\$/lb)	(0.43)	(0.43)
<b>Cash costs (net of by-product revenue) (\$/lb)</b>	<b>1.22</b>	<b>1.29</b>

The totals in the tables above may include some small apparent differences as the specific individual figures have not been rounded.

**D) Attributable cash, cash equivalents and liquid investments, borrowings and net debt**

Attributable cash, cash equivalents & liquid investments, borrowings and net debt reflects the proportion of those balances which are attributable to the equity holders of the Company, after deducting the proportion attributable to the non-controlling interests in the Group's subsidiaries.

This is considered to be a useful and relevant measure as the majority of the Group's cash tends to be held at the corporate level and therefore 100% attributable to the equity holders of the Company, whereas the majority of the Group's borrowings tends to be at the level of the individual operations, and hence only a proportion is attributable to the equity holders of the Company.

	2019			2018		
	Total amount	Attributable share	Attributable amount	Total amount	Attributable share	Attributable amount
Cash, cash equivalents and liquid investments:						
Los Pelambres	405.5	60%	243.3	459.9	60%	275.9
Centinela	491.6	70%	344.1	179.7	70%	125.8
Antucoya	113.4	70%	79.4	148.3	70%	103.8
Corporate	1,177.2	100%	1,177.2	1,060.2	100%	1,060.2
Railway and other transport services	5.7	100%	5.7	49.5	100%	49.5
<b>Total (Note 21)</b>	<b>2,193.4</b>		<b>1,849.7</b>	<b>1,897.6</b>		<b>1,615.2</b>
Borrowings:						
Los Pelambres (Note 22)	(584.4)	60%	(350.6)	(214.1)	60%	(128.5)
Centinela (Note 22)	(785.7)	70%	(550.0)	(852.2)	70%	(596.5)
Antucoya (Note 22)	(820.0)	70%	(574.0)	(827.8)	70%	(579.5)
Corporate (Note 22)	(521.1)	100%	(521.1)	(525.2)	100%	(525.2)
Railway and other transport services (Note 22)	(45.6)	100%	(45.6)	(74.6)	100%	(74.6)
<b>Total (Notes 22 and 31)</b>	<b>(2,756.8)</b>		<b>(2,041.3)</b>	<b>(2,493.9)</b>		<b>(1,904.3)</b>
<b>Net debt</b>	<b>(563.4)</b>		<b>(191.6)</b>	<b>(596.3)</b>		<b>(289.0)</b>

## FIVE YEAR SUMMARY

	2019 \$m	2018 \$m	2017 \$m	2016 \$m	2015 \$m
<b>Consolidated balance sheet<sup>1</sup></b>					
Intangible asset	150.1	150.1	150.1	150.1	150.1
Property plant and equipment	9,556.7	9,184.1	9,064.3	8,737.5	8,601.1
Other non-current assets	2.1	2.6	3.5	2.6	2.0
Inventories	208.0	172.7	111.1	157.3	263.9
Investment in associates and joint ventures	1,024.7	1,056.1	1,069.7	1,086.6	1,149.1
Trade and other receivables	48.2	56.1	67.0	66.7	292.9
Derivative financial instruments	1.8	–	0.2	0.2	–
Equity investments	5.1	4.7	6.5	4.6	2.7
Deferred tax assets	8.2	37.2	69.1	82.8	124.6
Non-current assets	11,004.9	10,663.6	10,541.5	10,288.4	10,583.9
Current assets	3,605.5	3,438.9	3,668.2	3,435.4	2,953.2
Current liabilities	(1,526.9)	(1,307.1)	(1,562.1)	(1,554.0)	(1,438.6)
Non-current liabilities	(3,682.5)	(3,357.3)	(3,506.0)	(3,660.1)	(3,581.7)
	9,401.0	9,438.1	9,141.6	8,509.7	8,519.3
Share capital	89.8	89.8	89.8	89.8	89.8
Share premium	199.2	199.2	199.2	199.2	199.2
Reserves (retained earnings and hedging, translation and fair value reserves)	7,094.7	7,070.4	7,029.4	6,526.3	6,357.1
Equity attributable to equity holders of the Company	7,383.7	7,359.4	7,318.4	6,815.3	6,646.1
Non-controlling interests	2,017.3	2,078.7	1,823.2	1,694.4	1,873.2
	9,401.0	9,438.1	9,141.6	8,509.7	8,519.3
	2019 \$m	2018 \$m	2017 \$m	2016 \$m	2015 \$m
<b>Consolidated income statement<sup>1</sup></b>					
Group revenue	4,964.5	4,733.1	4,749.4	3,621.7	3,225.7
Total profit from operations and associates	1,400.2	1,367.2	1,900.8	355.7	283.2
Profit before tax	1,349.2	1,252.7	1,830.8	284.6	242.8
Income tax expense	(506.1)	(423.7)	(633.6)	(108.6)	(154.4)
Profit for the financial year from continuing operations	843.1	829.0	1,197.2	176.0	88.4
Profit for the financial year from discontinued operations	–	51.3	0.5	38.3	613.3
Profit for the year	843.1	880.3	1,197.7	214.3	701.7
Non-controlling interests	(341.7)	(336.6)	(447.1)	(56.3)	(93.5)
Net earnings (profit attributable to equity holders of the Company)	501.4	543.7	750.6	158.0	608.2
EBITDA	2,438.9	2,228.3	2,586.6	1,626.1	910.1
	2019 cents	2018 cents	2017 cents	2016 cents	2015 cents
<b>Earnings per share</b>					
Basic and diluted earnings per share	50.9	55.1	76.2	16.0	61.7

1. These numbers have been restated for prior years.

## FIVE YEAR SUMMARY CONTINUED

	2019 cents	2018 cents	2017 cents	2016 cents	2015 cents
<b>Dividends per share proposed in relation to the year</b>					
Ordinary dividends (interim and final)		43.8	50.9	18.4	3.1
		43.8	50.9	18.4	3.1
Dividends per share paid in the year and deducted from equity		<b>47.4</b>	<b>25.6</b>	<b>3.1</b>	<b>12.9</b>
	2019 \$m	2018 \$m	2017 \$m	2016 \$m	2015 \$m
<b>Consolidated cash flow statement</b>					
Cash flow from continuing operations	<b>2,570.7</b>	1,877.0	2,495.0	1,457.3	858.3
Interest paid	<b>(76.3)</b>	(68.2)	(59.1)	(46.3)	(38.6)
Income tax paid	<b>(403.6)</b>	(498.0)	(338.4)	(272.6)	(427.1)
Net cash from operating activities	<b>2,090.8</b>	1,310.8	(2,097.5)	1,138.4	392.6
Investing activities					
Acquisition and disposal of subsidiaries, joint venture and associates	<b>-</b>	145.2	3.1	30.0	(29.9)
Dividends from associates	<b>58.0</b>	16.6	81.8	10.2	12.1
Equity investments, investing activities and recovery of VAT	<b>(678.3)</b>	284.2	115.9	(425.2)	414.8
Purchases and disposals of intangible assets, property, plant and equipment	<b>(1,076.9)</b>	(872.2)	(894.4)	(794.6)	(1,046.9)
Interest received	<b>41.0</b>	26.4	14.3	14.4	11.0
Net cash used in investing activities	<b>(1,656.2)</b>	(399.8)	(679.3)	(1,165.2)	(638.9)
Financing activities					
Dividends paid to equity holders of the Company	<b>(470.3)</b>	(466.9)	(252.3)	(30.6)	(127.2)
Dividends paid to preference holders and non-controlling interests	<b>(400.1)</b>	(120.1)	(320.1)	(260.0)	(80.0)
New borrowings less repayment of borrowings and finance leases	<b>60.8</b>	(347.1)	(487.0)	214.3	452.0
Net cash used in financing activities	<b>(809.6)</b>	(934.1)	(1,059.4)	(76.3)	244.8
Net (decrease)/increase in cash and cash equivalents	<b>(375.0)</b>	(23.1)	358.8	(103.1)	(1.5)
	2019 \$m	2018 \$m	2017 \$m	2016 \$m	2015 \$m
<b>Consolidated net cash</b>					
Cash, cash equivalents and liquid investments	<b>2,193.4</b>	1,897.6	2,252.3	2,048.5	1,731.6
Short-term borrowings	<b>(723.9)</b>	(646.0)	(753.6)	(836.8)	(758.9)
Medium and long-term borrowings	<b>(2,032.9)</b>	(1,847.9)	(1,955.1)	(2,283.4)	(1,996.2)
	<b>(2,756.8)</b>	(2,493.9)	(2,708.7)	(3,120.2)	(2,755.1)
Net (debt)/cash at the year-end	<b>(563.4)</b>	(596.3)	(456.4)	(1,071.7)	(1,023.5)



## ORE RESERVES AND MINERAL RESOURCES ESTIMATES

At 31 December 2019

### INTRODUCTION

The ore reserves and mineral resources estimates presented in this report 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 the Group as minimum standard for the preparation and disclosure of the information contained herein. The definitions and categories of ore reserves and mineral resources are set out below.

The information on ore reserves and mineral resources was prepared by or under the supervision of Competent Persons as defined in the JORC Code. The Competent Persons have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking. The Competent Persons consent to the inclusion in this report of the matters based on their information in the form and context in which it appears. The Competent Person for Exploration Results and Mineral Resources is Osvaldo Galvez (CP, Chile), Deputy Manager of Mineral Resource Evaluation for Antofagasta Minerals S A. The Competent Person for Ore Reserves is Murray Canfield (P.Eng. Ontario), Technical Manager of Mining for Antofagasta Minerals S A.

The Group's operations and projects are subject to a comprehensive programme of audits aimed at providing assurance in respect of ore reserves and mineral resources estimates. The audits are conducted by suitably qualified Competent Persons from within an operation, another operation of the Company or from independent consultants.

The ore reserves and mineral resources estimates are the total reserves and resources, with the Group's attributable share for each mine shown in the 'Attributable Tonnage' column. The Group's economic interest in each mine is disclosed in the notes following the estimates on pages 220 to 221. The totals in the table may include some small apparent differences due to rounding.

### 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 sub-divided, 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.

## ORE RESERVES ESTIMATES

Group Subsidiaries	Tonnage (millions of tonnes)		Copper (%)		Molybdenum (%)		Gold (g/tonne)		Attributable Tonnage (millions of tonnes)	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
<b>Ore reserves</b>										
<b>Los Pelambres (see note (a))</b>										
<b>Sulphides</b>										
Proved	694.7	732.7	0.60	0.61	0.020	0.020	0.05	0.05	416.8	439.6
Probable	377.3	399.5	0.58	0.59	0.018	0.018	0.05	0.04	226.4	239.7
<b>Total</b>	<b>1,072.0</b>	<b>1,132.2</b>	<b>0.60</b>	<b>0.60</b>	<b>0.020</b>	<b>0.019</b>	<b>0.05</b>	<b>0.05</b>	<b>643.2</b>	<b>679.3</b>
<b>Centinela (see note (b))</b>										
<i>Centinela Cathodes (oxides)</i>										
Proved	119.8	134.3	0.54	0.52	-	-	-	-	83.9	94.0
Probable	205.7	191.8	0.33	0.32	-	-	-	-	144.0	134.2
<b>Sub-Total</b>	<b>325.5</b>	<b>326.0</b>	<b>0.41</b>	<b>0.40</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>227.9</b>	<b>228.2</b>
<i>Centinela Concentrates (sulphides)</i>										
Proved	540.5	565.9	0.46	0.48	0.012	0.012	0.18	0.19	378.4	396.2
Probable	1,288.8	1,279.2	0.40	0.40	0.012	0.012	0.12	0.12	902.2	895.5
<b>Sub-Total</b>	<b>1,829.4</b>	<b>1,845.2</b>	<b>0.42</b>	<b>0.42</b>	<b>0.012</b>	<b>0.012</b>	<b>0.14</b>	<b>0.14</b>	<b>1,280.6</b>	<b>1,291.6</b>
Proved	660.3	700.2	0.48	0.49	-	-	-	-	462.2	490.1
Probable	1,494.5	1,471.0	0.39	0.39	-	-	-	-	1,046.2	1,029.7
<b>Total</b>	<b>2,154.9</b>	<b>2,171.2</b>	<b>0.41</b>	<b>0.42</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,508.4</b>	<b>1,519.8</b>
<b>Antucoya (see note (c))</b>										
Proved	292.5	346.6	0.39	0.36	-	-	-	-	204.8	242.6
Probable	394.5	294.1	0.28	0.31	-	-	-	-	276.1	205.9
<b>Total</b>	<b>687.0</b>	<b>640.7</b>	<b>0.33</b>	<b>0.34</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>480.9</b>	<b>448.5</b>
<b>Total Group Subsidiaries</b>	<b>3,913.9</b>	<b>3,944.1</b>	<b>0.45</b>	<b>0.46</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,632.5</b>	<b>2,647.6</b>
<b>Group Joint Venture</b>										
<b>Zaldívar (see note (k))</b>										
Proved	430.8	252.8	0.43	0.46	-	-	-	-	215.4	126.4
Probable	137.7	214.7	0.42	0.47	-	-	-	-	68.8	107.4
<b>Total Group Joint Venture</b>	<b>568.5</b>	<b>467.5</b>	<b>0.43</b>	<b>0.46</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>284.2</b>	<b>233.7</b>
<b>Total Group Ore Reserves</b>	<b>4,482.4</b>	<b>4,411.6</b>	<b>0.45</b>	<b>0.46</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,916.8</b>	<b>2,881.4</b>

## ORE RESERVES AND MINERAL RESOURCES ESTIMATES CONTINUED

At 31 December 2019

### MINERAL RESOURCES ESTIMATES (INCLUDING ORE RESERVES)

Group Subsidiaries	Tonnage (millions of tonnes)		Copper (%)		Molybdenum (%)		Gold (g/tonne)		Attributable Tonnage (millions of tonnes)	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
<b>Los Pelambres (see note (a))</b>										
<b>Sulphides</b>										
Measured	1,156.9	1,200.8	0.58	0.58	0.020	0.020	0.05	0.05	694.1	720.5
Indicated	2,069.5	2,093.6	0.52	0.52	0.016	0.016	0.05	0.05	1,241.7	1,256.1
Measured + Indicated	3,226.4	3,294.4	0.54	0.54	0.017	0.017	0.05	0.05	1,935.8	1,976.6
Inferred	2,835.1	2,819.0	0.46	0.46	0.016	0.016	0.06	0.06	1,701.1	1,691.4
<b>Total</b>	<b>6,061.5</b>	<b>6,113.4</b>	<b>0.50</b>	<b>0.50</b>	<b>0.017</b>	<b>0.017</b>	<b>0.05</b>	<b>0.05</b>	<b>3,636.9</b>	<b>3,668.0</b>
<b>Los Pelambres Total</b>										
<b>Measured</b>	<b>1,156.9</b>	<b>1,200.8</b>	<b>0.58</b>	<b>0.58</b>	<b>0.020</b>	<b>0.020</b>	<b>0.05</b>	<b>0.05</b>	<b>694.1</b>	<b>720.5</b>
<b>Indicated</b>	<b>2,069.5</b>	<b>2,093.6</b>	<b>0.52</b>	<b>0.52</b>	<b>0.016</b>	<b>0.016</b>	<b>0.05</b>	<b>0.05</b>	<b>1,241.7</b>	<b>1,256.1</b>
<b>Measured + Indicated</b>	<b>3,226.4</b>	<b>3,294.4</b>	<b>0.54</b>	<b>0.54</b>	<b>0.017</b>	<b>0.017</b>	<b>0.05</b>	<b>0.05</b>	<b>1,935.8</b>	<b>1,976.6</b>
<b>Inferred</b>	<b>2,835.1</b>	<b>2,819.0</b>	<b>0.46</b>	<b>0.46</b>	<b>0.016</b>	<b>0.016</b>	<b>0.06</b>	<b>0.06</b>	<b>1,701.1</b>	<b>1,691.4</b>
<b>Total</b>	<b>6,061.5</b>	<b>6,113.4</b>	<b>0.50</b>	<b>0.50</b>	<b>0.017</b>	<b>0.017</b>	<b>0.05</b>	<b>0.05</b>	<b>3,636.9</b>	<b>3,668.0</b>
<b>Centinela (see note (b))</b>										
<b>Centinela Cathodes (oxides)</b>										
Measured	180.4	217.4	0.50	0.50	-	-	-	-	126.3	152.2
Indicated	311.7	305.8	0.33	0.33	-	-	-	-	218.2	214.1
Measured + Indicated	492.1	523.2	0.39	0.40	-	-	-	-	344.5	366.3
Inferred	27.0	28.6	0.33	0.36	-	-	-	-	18.9	20.0
<b>Sub-Total</b>	<b>519.2</b>	<b>551.8</b>	<b>0.39</b>	<b>0.40</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>363.4</b>	<b>386.3</b>
<b>Centinela Concentrates (sulphides)</b>										
Measured	923.0	956.1	0.49	0.49	0.013	0.013	0.19	0.19	646.1	669.3
Indicated	2,100.4	2,032.7	0.38	0.38	0.012	0.012	0.12	0.12	1,470.3	1,422.9
Measured + Indicated	3,023.4	2,988.8	0.41	0.42	0.013	0.013	0.14	0.15	2,116.4	2,092.2
Inferred	1,168.2	973.2	0.31	0.32	0.011	0.011	0.09	0.10	817.8	681.3
<b>Sub-Total</b>	<b>4,191.6</b>	<b>3,962.0</b>	<b>0.38</b>	<b>0.39</b>	<b>0.012</b>	<b>0.012</b>	<b>0.13</b>	<b>0.13</b>	<b>2,934.1</b>	<b>2,773.4</b>
<b>Centinela Total</b>										
<b>Measured</b>	<b>1,103.4</b>	<b>1,173.5</b>	<b>0.49</b>	<b>0.49</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>772.4</b>	<b>821.5</b>
<b>Indicated</b>	<b>2,412.1</b>	<b>2,338.6</b>	<b>0.37</b>	<b>0.37</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,688.5</b>	<b>1,637.0</b>
<b>Measured + Indicated</b>	<b>3,515.5</b>	<b>3,512.1</b>	<b>0.41</b>	<b>0.41</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,460.9</b>	<b>2,458.4</b>
<b>Inferred</b>	<b>1,195.3</b>	<b>1,001.8</b>	<b>0.31</b>	<b>0.32</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>836.7</b>	<b>701.3</b>
<b>Total</b>	<b>4,710.8</b>	<b>4,513.9</b>	<b>0.38</b>	<b>0.39</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,297.5</b>	<b>3,159.7</b>
<b>Antucoya (see note (c))</b>										
<b>Oxides</b>										
Measured	441.3	407.1	0.33	0.34	-	-	-	-	308.9	285.0
Indicated	393.8	418.9	0.31	0.30	-	-	-	-	275.6	293.2
Measured + Indicated	835.1	825.9	0.32	0.32	-	-	-	-	584.5	578.1
Inferred	365.7	427.8	0.28	0.27	-	-	-	-	256.0	299.5
<b>Sub-Total</b>	<b>1,200.8</b>	<b>1,253.7</b>	<b>0.31</b>	<b>0.30</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>840.6</b>	<b>877.6</b>
<b>Antucoya Total</b>										
<b>Measured</b>	<b>441.3</b>	<b>407.1</b>	<b>0.33</b>	<b>0.34</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>308.9</b>	<b>285.0</b>
<b>Indicated</b>	<b>393.8</b>	<b>418.9</b>	<b>0.31</b>	<b>0.30</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>275.6</b>	<b>293.2</b>
<b>Measured + Indicated</b>	<b>835.1</b>	<b>825.9</b>	<b>0.32</b>	<b>0.32</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>584.5</b>	<b>578.1</b>
<b>Inferred</b>	<b>365.7</b>	<b>427.8</b>	<b>0.28</b>	<b>0.27</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>256.0</b>	<b>299.5</b>
<b>Total</b>	<b>1,200.8</b>	<b>1,253.7</b>	<b>0.31</b>	<b>0.30</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>840.6</b>	<b>877.6</b>

Group Subsidiaries	Tonnage (millions of tonnes)		Copper (%)		Molybdenum (%)			Gold (g/tonne)	Attributable Tonnage (millions of tonnes)	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
<b>Polo Sur (see note (d))</b>										
<i><b>Oxides</b></i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	<b>86.8</b>	86.8	<b>0.43</b>	0.43	-	-	-	-	<b>86.8</b>	86.8
Measured + Indicated	<b>86.8</b>	86.8	<b>0.43</b>	0.43	-	-	-	-	<b>86.8</b>	86.8
Inferred	<b>38.8</b>	38.8	<b>0.35</b>	0.35	-	-	-	-	<b>38.8</b>	38.8
<b>Sub-Total</b>	<b>125.6</b>	125.6	<b>0.40</b>	0.40	-	-	-	-	<b>125.6</b>	125.6
<i><b>Sulphides</b></i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	<b>704.1</b>	704.1	<b>0.37</b>	0.37	<b>0.007</b>	0.007	<b>0.06</b>	0.06	<b>704.1</b>	704.1
Measured + Indicated	<b>704.1</b>	704.1	<b>0.37</b>	0.37	<b>0.007</b>	0.007	<b>0.06</b>	0.06	<b>704.1</b>	704.1
Inferred	<b>684.8</b>	684.8	<b>0.30</b>	0.30	<b>0.007</b>	0.007	<b>0.05</b>	0.05	<b>684.8</b>	684.8
<b>Sub-Total</b>	<b>1,388.9</b>	1,388.9	<b>0.34</b>	0.34	<b>0.007</b>	0.007	<b>0.05</b>	0.05	<b>1,388.9</b>	1,388.9
<b>Polo Sur Total</b>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	<b>790.9</b>	790.9	<b>0.38</b>	0.38	-	-	-	-	<b>790.9</b>	790.9
Measured + Indicated	<b>790.9</b>	790.9	<b>0.38</b>	0.38	-	-	-	-	<b>790.9</b>	790.9
Inferred	<b>723.6</b>	723.6	<b>0.31</b>	0.31	-	-	-	-	<b>723.6</b>	723.6
<b>Total</b>	<b>1,514.5</b>	1,514.5	<b>0.34</b>	0.34	-	-	-	-	<b>1,514.5</b>	1,514.5
<b>Penacho Blanco (see note (e))</b>										
<i><b>Oxides</b></i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	<b>18.3</b>	18.3	<b>0.29</b>	0.29	-	-	-	-	<b>9.3</b>	9.3
<b>Sub-Total</b>	<b>18.3</b>	18.3	<b>0.29</b>	0.29	-	-	-	-	<b>9.3</b>	9.3
<i><b>Sulphides</b></i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	<b>321.9</b>	321.9	<b>0.38</b>	0.38	-	-	<b>0.05</b>	0.05	<b>164.2</b>	164.2
<b>Sub-Total</b>	<b>321.9</b>	321.9	<b>0.38</b>	0.38	-	-	<b>0.05</b>	0.05	<b>164.2</b>	164.2
<b>Penacho Blanco Total</b>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	<b>340.2</b>	340.2	<b>0.37</b>	0.37	-	-	-	-	<b>173.5</b>	173.5
<b>Total</b>	<b>340.2</b>	340.2	<b>0.37</b>	0.37	-	-	-	-	<b>173.5</b>	173.5

## ORE RESERVES AND MINERAL RESOURCES ESTIMATES CONTINUED

At 31 December 2019

### MINERAL RESOURCES ESTIMATES (INCLUDING ORE RESERVES) CONTINUED

Group Subsidiaries	Tonnage (millions of tonnes)		Copper (%)		Molybdenum (%)		Gold (g/tonne)		Attributable Tonnage (millions of tonnes)	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
<b>Mirador (see note (f))</b>										
<i>Oxides</i>										
Measured	1.2	3.3	0.23	0.47	-	-	-	-	0.9	2.6
Indicated	15.4	24.1	0.27	0.32	-	-	-	-	12.0	18.8
Measured + Indicated	16.6	27.4	0.27	0.34	-	-	-	-	12.9	21.4
Inferred	6.1	8.5	0.26	0.26	-	-	-	-	4.8	6.6
<b>Sub-Total</b>	<b>22.7</b>	<b>35.9</b>	<b>0.26</b>	<b>0.32</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>17.7</b>	<b>28.0</b>
<i>Sulphides</i>										
Measured	30.6	31.2	0.35	0.35	0.006	0.006	0.13	0.13	30.6	31.2
Indicated	14.0	16.8	0.28	0.28	0.008	0.008	0.08	0.08	14.0	16.8
Measured + Indicated	44.6	48.0	0.33	0.32	0.007	0.007	0.11	0.11	44.6	48.0
Inferred	1.2	2.5	0.26	0.26	0.009	0.008	0.05	0.06	1.2	2.5
<b>Sub-Total</b>	<b>45.7</b>	<b>50.5</b>	<b>0.32</b>	<b>0.32</b>	<b>0.007</b>	<b>0.007</b>	<b>0.11</b>	<b>0.11</b>	<b>45.7</b>	<b>50.5</b>
<b>Mirador Total</b>										
<b>Measured</b>	<b>31.8</b>	<b>34.5</b>	<b>0.34</b>	<b>0.36</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>31.5</b>	<b>33.8</b>
<b>Indicated</b>	<b>29.4</b>	<b>40.9</b>	<b>0.27</b>	<b>0.30</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>26.0</b>	<b>35.6</b>
<b>Measured + Indicated</b>	<b>61.2</b>	<b>75.5</b>	<b>0.31</b>	<b>0.33</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>57.5</b>	<b>69.4</b>
<b>Inferred</b>	<b>7.3</b>	<b>11.0</b>	<b>0.26</b>	<b>0.26</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5.9</b>	<b>9.1</b>
<b>Total</b>	<b>68.5</b>	<b>86.4</b>	<b>0.30</b>	<b>0.32</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>63.5</b>	<b>78.5</b>
<b>Los Volcanes (see note (g))</b>										
<i>Oxides</i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	30.8	30.8	0.31	0.31	-	-	-	-	15.7	15.7
<b>Sub-Total</b>	<b>30.8</b>	<b>30.8</b>	<b>0.31</b>	<b>0.31</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>15.7</b>	<b>15.7</b>
<i>Sulphides</i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	1,873.4	1,873.4	0.50	0.50	0.011	0.011	0.03	0.03	955.4	955.4
<b>Sub-Total</b>	<b>1,873.4</b>	<b>1,873.4</b>	<b>0.50</b>	<b>0.50</b>	<b>0.011</b>	<b>0.011</b>	<b>0.03</b>	<b>0.03</b>	<b>955.4</b>	<b>955.4</b>
<b>Los Volcanes Total</b>										
<b>Measured</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Indicated</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Measured + Indicated</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Inferred</b>	<b>1,904.2</b>	<b>1,904.2</b>	<b>0.50</b>	<b>0.50</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>971.1</b>	<b>971.1</b>
<b>Total</b>	<b>1,904.2</b>	<b>1,904.2</b>	<b>0.50</b>	<b>0.50</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>971.1</b>	<b>971.1</b>

Group Subsidiaries	Tonnage (millions of tonnes)		Copper (%)		Molybdenum (%)		Gold (g/tonne)		Attributable Tonnage (millions of tonnes)	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
<b>Brujulina (see note (h))</b>										
<i>Oxides</i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	87.2	87.2	0.49	0.49	-	-	-	-	44.5	44.5
<b>Total</b>	<b>87.2</b>	<b>87.2</b>	<b>0.49</b>	<b>0.49</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>44.5</b>	<b>44.5</b>
<b>Brujulina Total</b>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	87.2	87.2	0.49	0.49	-	-	-	-	44.5	44.5
<b>Total</b>	<b>87.2</b>	<b>87.2</b>	<b>0.49</b>	<b>0.49</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>44.5</b>	<b>44.5</b>
<b>Sierra (see note (i))</b>										
<i>Oxides</i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	52.0	52.0	0.69	0.69	-	-	-	-	52.0	52.0
<b>Total</b>	<b>52.0</b>	<b>52.0</b>	<b>0.69</b>	<b>0.69</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>52.0</b>	<b>52.0</b>
<b>Sierra Total</b>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	52.0	52.0	0.69	0.69	-	-	-	-	52.0	52.0
<b>Total</b>	<b>52.0</b>	<b>52.0</b>	<b>0.69</b>	<b>0.69</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>52.0</b>	<b>52.0</b>

## ORE RESERVES AND MINERAL RESOURCES ESTIMATES CONTINUED

At 31 December 2019

### MINERAL RESOURCES ESTIMATES (INCLUDING ORE RESERVES) CONTINUED

Group Subsidiaries	Tonnage (millions of tonnes)		Copper (%)		Nickel (%)		TPM (g/tonne Au+Pt+Pd)		Attributable Tonnage (millions of tonnes)	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
<b>Twin Metals (see note (j))</b>										
<i><b>Maturi</b></i>										
Measured	291.4	291.4	0.63	0.63	0.20	0.20	0.57	0.57	224.6	224.6
Indicated	818.3	818.3	0.57	0.57	0.18	0.18	0.57	0.57	771.6	771.6
Measured + Indicated	1,109.7	1,109.7	0.59	0.59	0.19	0.19	0.57	0.57	996.1	996.1
Inferred	534.1	534.1	0.50	0.50	0.16	0.16	0.57	0.57	483.2	483.2
<b>Sub-Total</b>	<b>1,643.8</b>	<b>1,643.8</b>	<b>0.56</b>	<b>0.56</b>	<b>0.18</b>	<b>0.18</b>	<b>0.57</b>	<b>0.57</b>	<b>1,479.3</b>	<b>1,479.3</b>
<i><b>Maturi South West</b></i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	93.1	93.1	0.48	0.48	0.17	0.17	0.31	0.31	65.2	65.2
Measured + Indicated	93.1	93.1	0.48	0.48	0.17	0.17	0.31	0.31	65.2	65.2
Inferred	29.3	29.3	0.43	0.43	0.15	0.15	0.26	0.26	20.5	20.5
<b>Sub-Total</b>	<b>122.4</b>	<b>122.4</b>	<b>0.47</b>	<b>0.47</b>	<b>0.17</b>	<b>0.17</b>	<b>0.30</b>	<b>0.30</b>	<b>85.7</b>	<b>85.7</b>
<i><b>Birch Lake</b></i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	90.4	90.4	0.52	0.52	0.16	0.16	0.87	0.87	63.3	63.3
Measured + Indicated	90.4	90.4	0.52	0.52	0.16	0.16	0.87	0.87	63.3	63.3
Inferred	217.0	217.0	0.46	0.46	0.15	0.15	0.64	0.64	151.9	151.9
<b>Sub-Total</b>	<b>307.4</b>	<b>307.4</b>	<b>0.48</b>	<b>0.48</b>	<b>0.15</b>	<b>0.15</b>	<b>0.70</b>	<b>0.70</b>	<b>215.2</b>	<b>215.2</b>
<i><b>Spruce Road</b></i>										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	435.5	435.5	0.43	0.43	0.16	0.16	-	-	304.8	304.8
<b>Sub-Total</b>	<b>435.5</b>	<b>435.5</b>	<b>0.43</b>	<b>0.43</b>	<b>0.16</b>	<b>0.16</b>	<b>-</b>	<b>-</b>	<b>304.8</b>	<b>304.8</b>
<b>Twin Metals Total</b>										
Measured	291.4	291.4	0.63	0.63	0.20	0.20	-	-	224.6	224.6
Indicated	1,001.8	1,001.8	0.56	0.56	0.18	0.18	-	-	900.0	900.0
Measured + Indicated	1,293.2	1,293.2	0.57	0.57	0.18	0.18	-	-	1,124.6	1,124.6
Inferred	1,215.9	1,215.9	0.47	0.47	0.16	0.16	-	-	960.4	960.4
<b>Total</b>	<b>2,509.1</b>	<b>2,509.1</b>	<b>0.52</b>	<b>0.52</b>	<b>0.17</b>	<b>0.17</b>	<b>-</b>	<b>-</b>	<b>2,085.0</b>	<b>2,085.0</b>
<b>Group subsidiaries</b>										
Measured + Indicated	9,722.2	9,791.9	0.46	0.47	-	-	-	-	6,954.2	6,998.1
Inferred	8,726.4	8,582.7	0.43	0.43	-	-	-	-	5,724.8	5,626.4
<b>Total Group Subsidiaries</b>	<b>18,448.7</b>	<b>18,374.6</b>	<b>0.45</b>	<b>0.45</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>12,679.0</b>	<b>12,624.5</b>

Group Joint Venture	Tonnage (millions of tonnes)		Copper (%)		Molybdenum (%)		Gold (g/tonne)		Attributable Tonnage (millions of tonnes)	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
<b>Zaldívar (see note (k))</b>										
<i><b>Oxides &amp; Secondary Sulphides</b></i>										
Measured	595.7	544.2	0.41	0.43	-	-	-	-	297.9	272.1
Indicated	249.0	230.7	0.37	0.38	-	-	-	-	124.5	115.4
Measured + Indicated	844.7	774.9	0.40	0.41	-	-	-	-	422.3	387.4
Inferred	29.1	43.7	0.46	0.25	-	-	-	-	14.5	21.9
<b>Sub-Total</b>	<b>873.8</b>	<b>818.6</b>	<b>0.40</b>	<b>0.41</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>436.9</b>	<b>409.3</b>
<i><b>Primary Sulphides</b></i>										
Measured	107.9	-	0.40	-	-	-	-	-	54.0	-
Indicated	312.2	-	0.39	-	-	-	-	-	156.1	-
Measured + Indicated	420.1	-	0.39	-	-	-	-	-	210.1	-
Inferred	29.1	-	0.36	-	-	-	-	-	14.5	-
<b>Sub-Total</b>	<b>449.2</b>	<b>-</b>	<b>0.39</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>224.6</b>	<b>-</b>
<b>Zaldívar Total</b>										
Measured	703.6	544.2	0.41	0.43	-	-	-	-	351.8	272.1
Indicated	561.2	230.7	0.38	0.38	-	-	-	-	280.6	115.4
Measured + Indicated	1,264.8	774.9	0.40	0.41	-	-	-	-	632.4	387.4
Inferred	58.2	43.7	0.41	0.25	-	-	-	-	29.1	21.9
<b>Total Group Joint Venture</b>	<b>1,323.0</b>	<b>818.6</b>	<b>0.40</b>	<b>0.41</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>661.5</b>	<b>409.3</b>
Total Group	Tonnage (millions of tonnes)		Copper (%)		Molybdenum (%)		Gold (g/tonne)		Attributable Tonnage (millions of tonnes)	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Measured + Indicated	10,987.0	10,566.8	0.46	0.46	-	-	-	-	7,586.6	7,385.6
Inferred	8,784.6	8,626.4	0.43	0.43	-	-	-	-	5,753.9	5,648.3
<b>Total Group Mineral Resources</b>	<b>19,771.6</b>	<b>19,193.2</b>	<b>0.44</b>	<b>0.45</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>13,340.5</b>	<b>13,033.8</b>

## ORE RESERVES AND MINERAL RESOURCES ESTIMATES CONTINUED

At 31 December 2019

### NOTES TO ORE RESERVES AND MINERAL RESOURCES ESTIMATES

The ore reserves mentioned in this report were determined considering specific cut-off grades for each mine and using a long-term copper price of \$3.10/lb (unchanged from 2018), \$9.50/lb molybdenum (\$9.00 in 2018) and \$1,300/oz gold (unchanged from 2018), 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 mineralisation that has “reasonable prospects for eventual economic extraction” (JORC Code) the resources are enclosed within pit shells that were optimised based on measured, indicated and inferred resources and considering a copper price of \$3.60/lb (unchanged from 2018). Mineralisation estimated outside these pit shells is not included in the resource figures.

Group 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 audits carried out during 2019 on the expanded Zaldivar resource model and reserves for the two oxide deposits acquired by Centinela in 2018 (Mirador Phase 4 and Tesoro Sur). All resource and reserve estimates have been found to comply with the JORC Code (2012).

#### A) Los Pelambres

Los Pelambres is 60% owned by the Group. The cut-off grade applied to the determination of ore reserves is variable over 0.35% copper, while the cut-off grade applied to mineral resources is 0.35% copper. Ore reserves have decreased 60 million tonnes due 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. For 2019 the mineral resource model has been updated with 21 drill holes for a total of 3,440 metres. Mineral resources decreased overall by a net 52 million tonnes, including depletion.

#### B) Centinela (concentrates and cathodes)

Centinela is 70% owned by the Group and consists of Centinela Concentrates (Esperanza + Esperanza Sur, mostly sulphide porphyry deposits) and Centinela Cathodes (Tesoro Central and Tesoro Sur oxide deposits, including the oxide portion of the Mirador and Encuentro 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 for Centinela Cathodes is 0.20% copper for ore reserves and 0.15% copper for mineral resources.

The Centinela Cathodes ore reserves have decreased marginally due to the incorporation of reserves for the Mirador Phase 4 and Tesoro Sur deposits, following completion of external audits during the year, which has largely offset depletion. Centinela Cathodes ore reserves are made up of 208 million tonnes at 0.49% copper of heap leach ore and 117 million tonnes at 0.27% copper of ROM ore. Centinela Cathodes mineral resources decreased by a net 33 million tonnes, principally due to depletion, as well as refinements made to the Encuentro Oxides resource model.

Centinela Concentrates ore reserves have remained effectively unchanged, decreasing by a net 16 million tonnes, with depletion of 37 million tonnes in Esperanza partially offset by a slight increase in Esperanza Sur ore reserves. Centinela Sulphides mineral resources increased by a net 230 million tonnes, mainly due to the decrease in processing costs (most relevantly energy) and the update of costs and metallurgical parameters for Encuentro Sulphides.

#### C) Antucoya

Antucoya is 70% owned by the Group. The ore reserve cut-off grade is 0.16% copper, while the cut-off grade for mineral resources is 0.15% copper. For 2019 the mineral resource model has been updated with 70 drill holes for a total of 13,400 metres. Ore reserves have increased by a net 46 million tonnes, including a depletion of 30 million tonnes offset by an increase in resources converted to reserves. Mineral resources have decreased by a net 53 million tonnes, due to depletion and the application of more conservative economic assumptions in pit optimisation.

#### D) Polo Sur

Polo Sur is 100% owned by the Group. The cut-off grade applied to the determination of mineral resources for both oxides and sulphides is 0.20% copper. For 2019 the resource model has not been updated.

#### E) Penacho Blanco

Penacho Blanco is 51% owned by the Group. The cut-off grade applied to the determination of mineral resources for both oxides and sulphides is 0.20% copper. For 2019 the resource model has not been updated.

#### F) Mirador

Mirador is 100% owned by the Group. 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 decreased by a net 18 million tonnes due to higher economic parameters.

### **G) Los Volcanes**

Los Volcanes is 51% owned by the Group. The cut-off grade applied to the determination of ore reserves and mineral resources is 0.20% copper. For 2019 the mineral resource model has not been updated.

### **H) Brujulina**

Brujulina is 51% owned by the Group. The cut-off grade applied to the determination of mineral resources is 0.30% copper. For 2019 the mineral resource model has not been updated.

### **I) Sierra**

Sierra is 100% owned by the Group. The cut-off grade applied to the determination of mineral resources is 0.30% copper. For 2019 the mineral resource model has not been updated.

### **J) Twin Metals Minnesota LLC**

Twin Metals Minnesota LLC ("Twin Metals") is owned 100% by the Group.

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 2019 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.

### **K) Zaldívar**

Zaldívar is 50% owned by the Group. The cut-off grade applied to the determination of ore reserves for Heap Leach ore is 0.29% copper, while the cut-off grade for mineral resources is 0.24% copper. In both cases, the cut-off grade for Dump Leach material is 0.10% copper. These values are applied to the oxide and secondary sulphide mineral resources and ore reserves estimates. For 2019 the primary sulphide mineral resource has been added to the table for the first time, after completion of a comprehensive drilling programme carried out in 2018 and 2019. The cut-off grade applied to the primary sulphide portion of the mineral resources is 0.30% copper. The updated resource model incorporates 90 new drillholes for a total of 27,200 metres, it has been independently audited and found to comply with the JORC Code (2012). The impact of this updated resource model has been a net increase of 101 million tonnes of ore reserves and a total of 504 million tonnes of mineral resources (55 million tonnes of oxides and secondary sulphides plus 449 million tonnes of primary sulphides, with 0.11 g/tonne gold and 0.007 % molybdenum).

The final pit phase in the southern portion of the orebody (Phase 13), which represents approximately 18% of current ore reserves, impacts a portion of Minera Escondida mine property, as well as infrastructure owned by third parties (road, railway, powerline and pipelines). Mining of this pit phase is subject to agreements or easements to access these areas and relocate this infrastructure.

### **L) Antomin 2 and Antomin Investors**

The Group has an approximately 51% interest in two indirect subsidiaries, Antomin 2 Limited ("Antomin 2") and Antomin Investors Limited ("Antomin Investors"), which own a number of 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 ("Mineralinvest"), a company controlled by E. Abaroa Foundation, in which members of the Luksic family are interested. Further details are set out in Note 33(c) to the financial statements.

### Business, financial and accounting

AIFR	All Injury Frequency Rate. The total number of accidents during the year per million hours worked.
AMSA	Antofagasta Minerals S.A., a wholly-owned subsidiary of the Group incorporated in Chile, which acts as the corporate centre for the Mining division.
Annual Report	The Annual Report and Financial Statements of Antofagasta plc.
Antucoya	Minera Antucoya S.A., a 70%-owned subsidiary incorporated in Chile.
ATI	Antofagasta Terminal Internacional S.A., a 30%-owned associate of the Group incorporated in Chile that operates the port in the city of Antofagasta.
Australian dollars	Australian currency.
Banco de Chile	A commercial bank that is a subsidiary of Quiñenco.
Barrick Gold	Barrick Gold Corporation, incorporated in Canada and our joint venture partner in Zaldívar and Tethyan.
Capex	Capital expenditure.
Cash costs	A measure of the cost of operating production expressed in terms of US dollars per pound of payable copper produced. Cash costs are stated net of by-product credits and include tolling charges for concentrates for Los Pelambres and Centinela. Cash costs exclude depreciation, financial income and expenses, hedging gains and losses, exchange gains and losses, and corporation tax.
CDP	Carbon Disclosure Project.
Centinela	Minera Centinela S.A., a 70%-owned subsidiary incorporated in Chile that holds the Centinela Concentrates and Centinela Cathodes operations.
Centinela Mining District	Copper district located in the Antofagasta Region of Chile, where Centinela is located.
CGU	Cash-Generating Unit.
Chilean peso	Chilean currency.
Comex	A commodity exchange that trades metals such as gold, silver, copper and aluminium.
Companies Act 2006	Principal legislation for United Kingdom company law.
Company	Antofagasta plc.
Continental water	Water that comes from the interior of land masses including rain, snow, streams, rivers, lakes and groundwater.
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 which applies to accounting periods beginning on or after 1 January 2019.

Directors	The Directors of the Company.
Duluth	Duluth Metals Limited, a wholly-owned subsidiary of Antofagasta plc acquired on 28 January 2015 through which the Group holds the Twin Metals Project.
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation.
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 sulphide prospect in the Centinela Mining District.
EPS	Earnings per share.
Esperanza Sur	Copper deposit in the Centinela Mining District.
EU	European Union.
FCA	Financial Conduct Authority. UK regulatory body.
FCAB	Ferrocarril de Antofagasta a Bolivia, the corporate name of our Transport division.
FTSE100 Index	A share index of the 100 companies listed on the London Stock Exchange with the highest market capitalisation.
FTSE All-Share Index	A market-capitalisation weighted index representing the performance of all eligible companies listed on the London Stock Exchange's main market.
GAAP	Generally Accepted Accounting Practice or Generally Accepted Accounting Principles, a collection of commonly-followed accounting rules and standards for financial reporting.
GHG	Greenhouse Gas.
Government	The Government of the Republic of Chile.
Group	Antofagasta plc and its subsidiary companies and joint ventures.
Hedge accounting	Accounting treatment for derivative financial instruments permitted under IAS 39 "Financial Instruments: Recognition and Measurement", which recognises the offsetting effects on profit or loss of changes in the fair values of a hedging instrument and the hedged item.
IAS	International Accounting Standards.
IASB	International Accounting Standards Board.
ICMM	International Council on Metals and Mining.
IFRIC	International Financial Reporting Interpretations Committee.
IFRS	International Financial Reporting Standards.
Inversiones Hornitos	Inversiones Hornitos S.A., a 40%-owned associate of the Group incorporated in Chile, which owns the 150MW Hornitos thermoelectric power plant in Mejillones in Chile's Antofagasta Region.
IVA	Impuesto al Valor Agregado, or Chilean Value Added Tax (Chilean VAT).

Key Management Personnel	Persons with authority and responsibility for planning, directing and controlling the activities of the Group.	Ramsar Convention	International treaty for the conservation and sustainable utilisation of wetlands.
KPI	Key performance indicator.	Reko Diq	A copper-gold deposit in Pakistan, previously a subsidiary of Tethyan and now subject to arbitration proceedings.
LIBOR	London Inter Bank Offered Rate.	RCA	Resolucion de Calificación Ambiental, Environmental Approval Resolution.
LME	London Metal Exchange.	Realised prices	Effective sale price achieved comparing revenues (grossed up for tolling charges for concentrate) with sales volumes.
Los Pelambres	Minera Los Pelambres S.A., a 60%-owned subsidiary incorporated in Chile.	SERNAGEOMIN	Servicio Nacional de Geología y Minería, a government agency that provides geological and technical advice and regulates the mining industry in Chile.
LSE	London Stock Exchange.	SHFE	Shanghai Futures Exchange.
LTIFR	Lost Time Injury Frequency Rate. The number of accidents with lost time during the year per million hours worked.	SONAMI	Sociedad Nacional de Minería. Institution that represents the mining industry in Chile, for large, medium and small scale, metallic and non-metallic mining companies.
LTIP	Long Term Incentive Plan in which the Group's CEO, Executive Committee members and other senior managers participate.	Sterling	Pounds sterling, UK currency.
Marubeni	Marubeni Corporation, the Group's 30% minority partner in Centinela and Antucoya.	SVS	Superintendencia de Valores y Seguros de Chile, the Chilean securities regulator.
Michilla	Minera Michilla S.A., a 99.9%-owned subsidiary incorporated in Chile which was closed at the end of 2015 and sold in November 2016.	SDGs	The United Nations' Sustainable Development Goals, which were adopted by all member states in 2015.
PEP	Politically Exposed Person, an individual who holds or has held a prominent public position in a national or international organisation within the last year.	TCFD	Task Force on Climate-related Financial Disclosures.
Platts	A provider of energy and metals information and source of benchmark price assessments.	Tesoro Central and Tesoro Noreste	Copper oxide open pits forming part of the Centinela operation.
PPA	Power Purchase Agreement.	Tethyan	Tethyan Copper Company Limited, a 50-50 joint venture with Barrick Gold incorporated in Australia.
Provisional pricing	A sales term in several copper and molybdenum concentrate sale agreements and cathodes sale agreements that provides for provisional pricing of sales at the time of shipment, with final pricing being based on the monthly average LME copper price or monthly average molybdenum price for specific future periods, normally ranging from 30 to 180 days after delivery to the customer. For the purposes of IAS 39, the provisional sale is considered to contain an embedded derivative (ie the forward contract for which the provisional sale is subsequently adjusted) that is separated from the host contract (ie the sale of metals contained in the concentrate or cathode at the provisional invoice price less tolling charges deducted).	TSR	Total Shareholder Return, being the movement in the Company's share price plus reinvested dividends.
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.	Twin Metals Minnesota Project	A copper, nickel and platinum group metals underground-mining project located in Minnesota, US.
		UK	United Kingdom.
		UKLA	United Kingdom Listing Authority, part of the FCA.
		US	United States.
		US dollar	United States currency.
		Zaldívar	Compañía Minera Zaldívar SpA, a 50-50 joint venture with Barrick Gold, which operates the Zaldívar copper mine in Chile.

## Mining industry

<b>Brownfield project</b>	A development or exploration project in the vicinity of an existing operation.	<b>Ore grade</b>	The relative quantity, or percentage, of metal content in an ore body or quantity of processed ore.
<b>By-products (credits in copper concentrates)</b>	Products obtained as a result of copper processing. Los Pelambres and Centinela Concentrates receive credit for the gold and silver content in the copper concentrate sold. Los Pelambres and Centinela also produce molybdenum concentrate.	<b>Ore reserves</b>	Part of Mineral Resources for which appropriate assessments have been carried out to demonstrate that at a given date extraction could be reasonably justified. These include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors.
<b>Concentrate</b>	The product of a physical concentration process, such as flotation or gravity concentration, which involves separating ore minerals from unwanted waste rock. Concentrates require subsequent processing (such as smelting or leaching) to break down or dissolve the ore minerals and obtain the desired elements, usually metals.	<b>Oxide and sulphide ores</b>	Different kinds of ore containing copper. Oxide ore occurs on the weathered surface of ore-rich lodes and normally results in the production of cathode copper through a heap-leaching process. Sulphide ore is an unweathered parent ore normally treated using a flotation process to produce concentrate which then requires smelting and refining to produce cathode copper.
<b>Contained copper</b>	The proportion or quantity of copper contained in a given quantity of ore or concentrate.	<b>Payable copper</b>	The proportion or quantity of contained copper for which payment is received after metallurgical deduction.
<b>Copper cathode</b>	Refined copper produced by electrolytic refining of impure copper by electrowinning.	<b>Porphyry</b>	A large body of rock which contains disseminated chalcopyrite and other sulphide minerals. Such a deposit is mined in bulk on a large scale, generally in open pits, for copper and its by-products.
<b>Cut-off grade</b>	The lowest grade of mineralised material considered economic to process and used in the calculation of ore reserves and mineral resources.	<b>Run-of-Mine ("ROM")</b>	A process for the recovery of copper from ore, typically used for low-grade ores. The mined, uncrushed ore is leached with a chemical solution. The metal is then recovered from the solution through the SX-EW process.
<b>Flotation</b>	A process of separation by which chemicals in solution are added to finely crushed materials, some of which are attracted to bubbles and float, while others sink, which result in the production of concentrate.	<b>Stockpile</b>	Material extracted and piled for future use.
<b>Grade A copper cathode</b>	Highest-quality copper cathode, 99.99% pure.	<b>SX-EW</b>	Solvent extraction and electrowinning. A process for extracting metal from an ore and producing pure metal. First the metal is leached into solution, the resulting solution is then purified in the solvent-extraction process before being treated in an electrochemical process (electrowinning) to recover cathode copper.
<b>Greenfield project</b>	The development or exploration of a new project at a previously undeveloped site.	<b>Tailings dam or tailings storage facility (TSF)</b>	Construction used to deposit the rock waste which remains as a result of the concentrating process after the recoverable minerals have been extracted in concentrate form.
<b>Heap-leaching or leaching</b>	A process for the recovery of copper from ore, generally oxides. The crushed material is laid on a slightly sloping, impermeable pad and leached by uniformly trickling (gravity fed) chemical solution through the heaps to collection ponds. The metal is then recovered from the solution through the SX-EW process.	<b>TC/RCs</b>	Treatment and refining charges, being terms used to set the smelting and refining charge or margin for processing copper concentrate and normally set on either an annual or spot basis.
<b>JORC ktpd</b>	The Australasian Joint Ore Reserves Committee. Thousand tonnes per day.	<b>Tolling charges</b>	Charges or margins for converting concentrate into finished metal. These include TC/RCs, price participation and price sharing for copper concentrate and roasting charges for molybdenum concentrate.
<b>Life-of-Mine ("LOM")</b>	The remaining life of a mine expressed in years, calculated by reference to scheduled production rates (ie comparing the rate at which ore is expected to be extracted from the mine to current defined reserves).	<b>Tonne tpd</b>	Metric tonne. Tonnes per day, normally with reference to the quantity of ore processed over a given period of time expressed as a daily average.
<b>Mineral resources</b>	Material of intrinsic economic interest occurring in such form and quantity that there are reasonable prospects for eventual economic extraction. Mineral resources are stated inclusive of ore reserves, as defined by JORC.	<b>Underground mine</b>	Natural or man-made excavation under the surface of the ground.
<b>MW</b>	Megawatts (one million watts).		
<b>Net cash cost</b>	Gross cash costs less by-product credits.		
<b>Open pit</b>	Mine working or excavation that is open to the surface.		
<b>Ore</b>	Rock from which metal(s) or mineral(s) can be economically and legally extracted.		

## Shareholder information

### Currency abbreviations

\$	US dollar
\$000	Thousand US dollars
\$m	Million US dollars
£	Pound sterling
£000	Thousand pounds sterling
£m	Million pounds sterling
p	Pence sterling
C\$	Canadian dollar
C\$m	Million Canadian dollars
Ch\$	Chilean peso
Ch\$000	Thousand Chilean pesos
Ch\$m	Million Chilean pesos
A\$	Australian dollar
A\$000	Thousand Australian dollars
A\$m	Million Australian dollars

### Definitions and conversion of weights and measures

lb	Pound
oz	A troy ounce
1 troy ounce	31.1 grammes
'000 m <sup>3</sup>	Thousand cubic metres
1 kilogramme	2.2046 pounds
1 tonne	2,204.6 pounds or 1,000 kilogrammes
'000 tonnes	Thousand metric tonnes
1 kilometre	0.6214 miles

### Chemical symbols

Cu	Copper
Mo	Molybdenum
Au	Gold
Ag	Silver

### Dividends

Details of dividends proposed in relation to the year are given in the Directors' Report on page 138, and in Note 13 to the Financial Statements.

If approved at the Annual General Meeting, the final dividend of 23.4 cents will be paid on 22 May 2020 to ordinary shareholders that are on the register at the close of business on 24 April 2020. Shareholders can elect (on or before 27 April 2020) to receive this final dividend in US dollars, Sterling or Euro, and the exchange rate, which will be applied to final dividends to be paid in Sterling or Euro, will be set as soon as reasonably practicable after that date, which is currently anticipated to be on 30 April 2020.

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](http://www.antofagasta.co.uk)) or from the Company's registrar, Computershare Investor Services PLC on +44 37 0702 0159.

Dividends are paid gross without deduction of United Kingdom income tax. Antofagasta plc is a resident in the United Kingdom for tax purposes.

### Annual General Meeting

The Annual General Meeting will be held at Church House Conference Centre, Dean's Yard, Westminster, London SW1P 3NZ at 10.00 am on Wednesday 20 May 2020. The formal notice of the Annual General Meeting and resolutions to be proposed are set out in the Notice of Annual General Meeting.

### London Stock Exchange listing and share price

The Company's shares are listed on the London Stock Exchange.

### Share capital

Details of the Company's ordinary share capital are given in Note 29 to the Financial Statements.

## Shareholder calendar 2019

22 January 2020	Q4 2019 Production Report
17 March 2020	FY 2019 Results Announcement
22 April 2020	Q1 2020 Production Report
23 April 2020	2019 Final Dividend – Ex Dividend date
24 April 2020	2019 Final Dividend – Record date
27 April 2020	2019 Final Dividend – Final date for receipt of Currency Elections
30 April 2020	2019 Final Dividend – Pound Sterling/Euro Rate set
20 May 2020	Annual General Meeting
22 May 2020	2019 Final Dividend – Payment date
22 July 2020	Q2 2020 Production Report
20 August 2020	HY 2020 Results Announcement
3 September 2020	2020 Interim Dividend – Ex Dividend date
4 September 2020	2020 Interim Dividend – Record date
7 September 2020	2020 Interim Dividend – Final date for receipt of Currency Elections
10 September 2020	2020 Interim Dividend – Pound Sterling/Euro Rate set
2 October 2020	2020 Interim Dividend – Payment date
21 October 2020	Q3 2020 Production Report
20 January 2021	Q4 2020 Production Report

Dates are provisional and subject to change.

## Registrars

Computershare Investor Services PLC  
The Pavilions  
Bridgwater Road  
Bristol  
BS99 6ZY  
United Kingdom  
Tel: +44 370 702 0159  
[www.computershare.com](http://www.computershare.com)

## Website

Antofagasta plc's annual and half-yearly financial reports, press releases and other presentations are available on our website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

## Registered office

Cleveland House  
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SW1Y 6RJ  
United Kingdom  
Tel: +44 20 7808 0988

## Santiago office

Antofagasta Minerals SA  
Av. Apoquindo 4001 – Piso 18  
Las Condes  
Santiago  
Chile  
Tel: +56 2 2798 7000

## Registered number

1627889

Additional information can be found in the Shareholder Information section of the Notice of Annual General Meeting and on our website.

## Directors

Jean-Paul Luksic	Non-Executive Chairman
Manuel Lino Silva De Sousa-Oliveira (Ollie Oliveira)	Non-Executive
Ramón Jara	Non-Executive
Juan Claro	Non-Executive
Andrónico Luksic C	Non-Executive
Vivianne Blanlot	Non-Executive
Jorge Bande	Non-Executive
Francisca Castro	Non-Executive
Michael Anglin	Non-Executive
Tony Jensen	Non-Executive

## Company secretary

Julian Anderson

## Auditor

PricewaterhouseCoopers LLP

## Solicitors

Clifford Chance LLP

## Financial advisers

Rothschild & Co

## Stockbrokers

J.P. Morgan Cazenove

Citigroup Global Markets Limited

For up-to-date investor information including our past financial results, visit:

+ [Group website: www.antofagasta.co.uk](http://www.antofagasta.co.uk)

+ [Investors: www.antofagasta.co.uk/investors](http://www.antofagasta.co.uk/investors)



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Pureprint Ltd is a Carbon / Neutral® Printing Company.

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