ANTOFAGASTA PLC

NEWS RELEASE, 14 MARCH 2017

PRELIMINARY RESULTS ANNOUNCEMENT FOR THE YEAR ENDED 2016

Delivering profitable growth

Antofagasta plc CEO Iván Arriagada said: *"2016 has been a year of operational delivery for Antofagasta putting us on a stronger and larger production base from which to grow. The successful integration of Zaldívar and the ramp-up of Antucoya – alongside the completion of the expansion of Centinela Concentrates – have contributed to a 12.5% rise in copper production to 709,400 tonnes.*

"But volume increases are not the whole story at Antofagasta. We are focused on growth through profitable tonnes. A combination of measures to boost productivity, improve efficiencies and reduce costs has led to sustainable mine site cost reductions of $176 million in 2016. This performance helped cash flow from operations increase by 70% to $1.5 billion during the year whilst our EBITDA margins improved from 28% to 45%. In the medium term we expect to see a steady shift from a copper market in balance to a slight deficit, leading to further improvement in prices.

The Board has decided that in view of the Company's improved performance and the more positive outlook to declare a final dividend of 15.3 cents per share, bringing the dividend for the full year to 18.4 cents per share, which represents 53% of underlying earnings per share, significantly more than the company's commitment to pay-out a minimum of 35%

"Antofagasta's cautious approach has served us well in what is a cyclical industry, providing us with a stable operating base and a strong balance sheet. As a company we were founded with an entrepreneurial spirit, one that looks for opportunities where others do not see them and it is this attitude – combined with a continued commitment to capital discipline – that informs our outlook. Consequently, our focus in 2017 is on developing those projects that offer all our stakeholders the best returns – such as the incremental expansion at Los Pelambres, which we expect to approve by the end of the year – and will underpin the continued success of Antofagasta."

HIGHLIGHTS

Financial performance

- **EBITDA(1) for the full year was $1,626.1 million**, 78.7% higher than the previous year as operating costs (before exceptional items) fell by 8.1% and revenue increased by 12.3%
- **EBITDA margin(2) strengthened to 44.9%**, up from 28.2% in the same period last year, and 40.8% in first six months of 2016 as prices and volumes increased in the second half of the year
- **Operating cash flow generation of $1,457.3 million,** up 69.8% compared to same period last year on the back of stronger margins and higher production
- **Capital expenditure down by 24.2% to $795.1 million,** compared to 2015 as the Antucoya project and Centinela expansion were completed during the year.
- **Operating cost reduction of $242 million,** of which $176 million was achieved under the Cost and Competitiveness Programme reducing mine site costs by 11c/lb.
- **Exceptional items during the year of $386.4 million after tax,** which includes the previously announced write off of the Group's interest in Alto Maipo, and an impairment charge against Antucoya.
- **Earnings per share from continuing operations and before exceptional items of 34.7 cents per share,** a 35.2 cents increase on 2015.

- **Earnings per share from continuing and discontinued operations after exceptional items of 16.0 cents per share** as reported in the financial statements, compared to 61.7 cents per share in the previous year.
- **Final dividend of 15.3 cents per share declared,** bringing the total dividend for the year to 18.4 cents per share, a 15.3 cents per share increase compared to 2015 and, at 53%, is above the Company's minimum payout policy of 35% of underlying net earnings per share.

Operating performance

- **Safety.** Regrettably there were two fatal accidents during the year, one at Antucoya and the other in the Transport Division. The Group remains committed to achieving zero fatalities and reducing Lost Time Incidents and is continually working to strengthen and deepen the safety culture at all its operations. In the last five years the Lost Time Injury Frequency Rate (LTIFR) has fallen by 40%.
- **Group copper production increased to 709,400 tonnes by 12.5%** compared to 2015. This was driven by higher copper production at Centinela and additional production coming from the Group's new Antucoya and Zaldívar operations, partly offset by the closure of Michilla at the end of 2015
- **Group cash costs(1) before by-product credits were $1.54/lb,** 27c/lb lower than last year as a result of the successful cost savings achieved during the year, higher production and the previously announced change in the estimation method for deferred stripping costs
- **Group net cash costs(1) were $1.20/lb,** 20.0% lower than in 2015. This reflected the lower cash costs before by-product credits, higher gold production and higher realised prices for gold and molybdenum, partly offset by lower molybdenum production

Outlook for 2017

- **Group production in 2017 is expected to be 685-720,000 tonnes of copper** (as previously announced), 185-205,000 ounces of gold and 8,500-9,500 tonnes of molybdenum.
- **Group cash cost before by-product credits** in 2017 (as previously announced) are expected to be similar to this year's at $1.55/lb and net cash cost are expected to be approximately $1.30/lb.
- **Further cost savings of $140 million** under the Cost and Competitiveness Programme are included in the unit cost guidance figures
- **Capital expenditure** for 2017 is estimated at less than $900 million with some $100 million carried over from 2016

Other

- **Los Pelambres Incremental Expansion feasibility study completed.** High return $1.05 billion investment, increasing copper production by 55,000 tpa over 15 years from 2020.
- **Long standing court cases at Los Pelambres resolved during the year,** focus now on long term value creation for the company and all its stakeholders

YEAR ENDING 31 DECEMBER		2016	2015	%
Group revenue	$m	3,621.7	3,225.7(3)	12.3
EBITDA (1)	$m	1,626.1	910.1(3)	78.7
EBITDA margin (2)	%	44.9	28.2(3)	59.2
Underlying Earnings per share (continuing operations, before exceptional items)	cents	34.7	(0.5)(3)	-
Earnings per share (continuing and discontinued operations, after exceptional items)	cents	16.0	61.7(4)	(74.1)
Dividend per share	cents	18.4	3.1	493.5
Cash flow from operations (continuing & discontinued)	$m	1,457.3	858.3	69.8
Capital expenditure (5)	$m	(795.1)	(1,048.5)	(24.2)
Attributable net debt at period end(1)	$m	(499.5)	(525.0)	(4.9)
Average realised copper price	$/lb	2.33	2.28	2.2
Copper sales	kt	698.5(6)	635.9	9.8
Gold sales	koz	271.4	219.2	23.8
Molybdenum sales	kt	7.2	9.9	(27.3)
Cash costs before by-product credits(1)	$/lb	1.54	1.81	(14.9)
Net cash costs(1)	$/lb	1.20	1.50	(20.0)

Note: The financial results are prepared in accordance with IFRS, unless otherwise noted below.

(1) Non IFRS measures. Refer to the alternative performance measures in Note 31 to the preliminary results announcement

(2) Calculated as EBITDA/Group revenue. If Associates and JVs revenue is included EBITDA margin was 41.1% in 2016 and 27.3% in 2015.

(3) Restated to exclude Michilla

(4) Includes the sale of the water division

(5) On a cash basis

(6) Includes pre-commercial production sales at Antucoya of 11,800 tonnes.

The 2016 Preliminary Results Presentation is available for download from the website www.antofagasta.co.uk.

This announcement contains inside information

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DIRECTORS' COMMENTS FOR THE YEAR ENDED 2016

2016 FINANCIAL HIGHLIGHTS

Group revenue in 2016 was $3,621.7 million, 12.3% higher than in 2015. The increase of $396.0 million mainly reflected an increase in copper sales volumes and the realised copper price, as well as higher gold and silver revenue. This increase in revenue was reflected in EBITDA, which coupled with lower cash costs, increased by 78.7% to $1,626.1 million, generating an EBITDA margin of 44.9%. Earnings per share from continuing operations for the year were 34.7 cents, before 22.6 cents relating to the impairment provisions and 3.9 cents relating to discontinued operations, an increase of 35.2 cents compared with 2015. Cash flow from operations strengthened by 69.8% to $1.5 billion compared with $0.9 billion in the previous year.

During the year, there was a significant improvement in the underlying performance of the Group's operations with copper production increasing by 12.5% to 709,400 tonnes, compared to 2015. While this was in part driven by higher production at Centinela Concentrates, it also reflected production capacity being achieved at Antucoya and the complete integration of Zaldívar, which contributed its first full year of production. At Los Pelambres production fell slightly against 2015, primarily due to lower throughput as a greater proportion of harder ore was processed in the plant.

Gold production was 270,900 ounces, 26.6% higher than in 2015, reflecting better grades and throughput at Centinela. Molybdenum production decreased 3,000 tonnes for the full year as grades and recoveries fell. The transport division saw increased customer demand and improved performance of the rolling stock and better fleet utilisation, all contributing to a 6.3% increase in transported volume to 6.5 million tonnes.

During the year a significant forecast construction cost overrun was announced at the Alto Maipo hydroelectric project, in which Los Pelambres held a non-controlling 40% interest, at a time when long term electricity prices is Chile had been falling dramatically. Having reviewed the company's options it was concluded that it would be best for Antofagasta to dispose of its interest to benefit from lower future sustainable energy costs for Los Pelambres.

The success of the Group's decision to concentrate efforts in 2016 on operating and capital cost control has been a highlight of the year. Improved productivity and efficiencies have also begun to bear fruit with net cash costs decreasing by 20% year-on-year to $1.20/lb in 2016.

The copper market in 2016 was roughly in balance and, although the LME price of copper averaged some 11.6% lower than in 2015, it finished the year at $2.51/lb, 17.8% higher than at the end of the previous year. This resulted in the average realised price of copper being 2.2% higher in 2016 at $2.33/lb. The average realised gold price increased by 8.7% to $1,256/oz, while the realised molybdenum price increased by 19.3% to $6.8/lb.

CULTURE OF PRODUCTIVITY

Improvements in productivity are key to the long term success of the Company and are a permanent on-going process that is part of the culture of Antofagasta.

The Group introduced the Cost and Competitiveness Programme (CCP) in 2014, with the aim of reducing the cost base and improving the Group's competitiveness within the industry. Since then, the Group has achieved savings in mine site costs of $359 million, approximately $176 million of which were during 2016, some 10% more than were targeted. The savings in mine site costs are equivalent to $0.11/lb, and the target for 2017 is set at an incremental $140 million. In addition exploration, evaluation and corporate costs were reduced by $66 million during the year and total operating cost savings since 2014 were over $500 million.

Mine site cost savings are being achieved in four areas, services productivity, operating and maintenance management, corporate and organisational effectiveness, and energy efficiency.

COMMUNITY ENGAGEMENT

During 2016, the Group resolved long-standing legal issues with the Caimanes community, mainly related to the Mauro tailings dam with the two outstanding court cases being resolved during the year. This was achieved through a process of open dialogue with the community, prioritising their needs and clarifying the Company's commitments. The open forum meetings were monitored by the Chilean branch of Transparency International to ensure the openness and fairness of the process. As a result the Company is now proceeding with the plans agreed with the community and courts as regards the future water supply solutions, additional safety measures, community development projects and to provide access to benefits for families in the community.

OPERATING MODEL

During 2016 the Group began to implement a new operating model throughout its operations, with the objective of strengthening key processes and achieving full production commitments. The model improves operating reliability and releases spare capacity, resulting in a competitive advantage for the Group's mining operations. The model focuses on the safety, production and costs at the operations, prioritising maintenance, strengthening the production planning and other functional processes, and continuous improvement to achieve operating excellence. This model will be imbedded in the operations over the coming years to generate long term improvements in productivity

FUTURE GROWTH

The next stage of growth will come from the Los Pelambres Incremental Expansion project, which is expected to start construction in 2018, and building a second concentrator at Centinela, which will together add up to 200,000 tonnes of annual copper production. The feasibility study for the Los Pelambres Incremental Expansion has been recently completed and the feasibility study for the second concentrator at Centinela is expected to be completed early in 2018 although the start of construction will depend on market conditions at the time and sequencing of the project relative to the Los Pelambres expansion.

The development of the Los Pelambres Incremental Expansion will be split into two phases. The first will maximise throughput under the mine's existing environmental and water permits and increase annual production by 55,000 tonnes of copper at a capital cost of $1.05 billion. The second will increase throughput to 205,000 tonnes per day. This phasing will simplify the permit application process and spread the costs of the expansion over a longer period.

At Centinela the Environmental Impact Assessment for the second concentrator was granted in late 2016. The feasibility study is underway and will focus on the first phase of expansion to add some 140,000 tonnes of copper, 150,000 ounces of gold and 2,800 tonnes of molybdenum annually.

INNOVATION

The Group has made some important progress over 2016 which is associated to real innovation. The entrepreneurial spirit is a core element of Antofagasta's character since the early days of the Michilla mine.

At Centinela the Group commissioned three new paste thickeners which represent a new water saving technology, on the biggest scale yet seen in copper mining. They play a big role, not only in improving efficient use of water, but also in enabling the plant to operate at the newly increased throughput capacity of 105,000 tonnes per day. Elsewhere the Group has been working on developing partnerships with technology and specialist engineering companies to improve training and safety systems.

The most potentially significant project is the research currently underway to develop a commercial large scale heap leaching process for sulphide ores, which would have a particularly important impact on the long term future of Zaldívar. Recent work is part of a long term programme building on work done at Michilla.

SAFETY

Safety remains the number one priority for the Group. During the course of 2016 Antofagasta tragically suffered a fatal accident at Antucoya in April and at our transport division in July. The Board and everyone at Antofagasta extend their sincerest condolences, to the affected families and friends. These fatalities are not acceptable and the Group is determined to achieve the target of zero fatalities and to continue to reduce Lost Time Incidents.

While overall safety standards have improved with the Lost Time Injury Frequency Rate (LTIFR) falling by 40% over the last five years, the Group is redoubling efforts to ensure that all employees and contractors live in a culture of safety every day. The Group is building on the 2016 safety programme, including enhancing Critical Safety Controls verifications and "near-miss" incidents reporting.

The executive team continues to visit the Group's mining operations regularly as part of the safety leadership programme, demonstrating to employees and contractors the importance of safety and empowering employees to ensure safety comes first.

DIVIDENDS

The final dividend for the year is 15.3 cents per share, bringing the total dividend for the year to 18.4 cents per share or $182 million. This represents a total pay-out ratio of 53% of underlying net earnings, significantly in excess of the Company's policy of paying out a minimum of 35% of underlying net earnings.

OUTLOOK

Group copper production in 2017 is expected to be in the range of 685-720,000 tonnes, similar to the 709,400 tonnes produced in 2016. Centinela will be operating at its newly expanded throughput capacity and the Group will benefit from the first year of full production from Antucoya and start-up production from Encuentro Oxides. However, this growth will be offset by lower mined grades at Centinela and Los Pelambres.

Group cash costs before by-product credits for 2017 are expected to be almost unchanged at $1.55/lb as further expected savings from the Cost and Competitiveness Programme and the decrease in unit costs at Antucoya and Zaldívar are offset by a lower contribution from the lowest cost mine, Los Pelambres. Net cash costs are expected to increase by some 10c/lb to $1.30/lb.

This year has started strongly following the upturn in the last quarter of 2016, bolstered by the continued improvement in sentiment towards copper and the production problems at some of the world's largest copper mines. It seems that there is now a reflationary environment and this is positive for commodities. As many continue to adjust their forecasts for China, the Group is confident that consumption there will continue to grow as they support their power and infrastructure requirements.

The higher level of mine disruptions experienced since the beginning of the year should keep pressure on refined copper availability and support the fundamentals for copper in the months to come. As a result, the Group does not foresee copper returning to the lows of 2016.

In the medium term the Group expects to see a steady shift from a market in balance to a slight deficit, leading to a further improvement in prices. There are wild cards of course, but these are more likely to be positive for the copper price than negative. Potential higher demand in the US under the new administration is one, increased disruptions to supply is another.

REVIEW OF OPERATIONS AND PROJECTS
MINING DIVISION

LOS PELAMBRES

2016 Performance

Operational Performance

EBITDA at Los Pelambres was $921.0 million in 2016, compared with $749.3 million in 2015, reflecting significantly lower operating costs. Realised copper prices rose to $2.35/lb from $2.24/lb, further supporting EBITDA growth.

Production

Copper production was 355,400 tonnes in 2016, which was slightly below production in 2015 of 363,200 tonnes. This decrease is primarily due to lower throughput as a greater proportion of harder ore is processed in the plant, and was only partly offset by higher mined grades. Molybdenum production for the year was 7,100 tonnes, 29.7% lower than in 2015, due to lower grades and recoveries. Gold production was 12.5% higher in 2016 at 57,800 ounces, compared with 51,400 ounces in 2015.

Costs

Cash costs before by-product credits at $1.36/lb were 9.3% lower than in 2015, due to the savings achieved through the Cost and Competitiveness Programme and changes in the estimating method for deferred stripping costs. Net cash costs for the full year 2016 were $1.06/lb compared with $1.23/lb in 2015. This decrease is mainly due to higher realised prices for gold and molybdenum, slightly offset by lower molybdenum production.

Capital expenditure

Total capital expenditure in 2016 was $215.3 million, which included $99.4 million on mine development. Capital expenditure is forecast at approximately $260 million in 2017, reflecting higher sustaining capital expenditure compared to 2016.

Legal update

Resolution of outstanding claims relating to the Mauro tailings dam

Following the agreement reached with the Caimanes community in April 2016, the long-running claims relating to the Mauro tailings dam were substantively resolved during 2016.

Cerro Amarillo Waste Dump

As previously announced, in 2014 Xstrata Pachón S.A. (“Xstrata Pachón”), a subsidiary of Glencore plc, filed civil and criminal claims against Los Pelambres before the Federal Courts of San Juan, Argentina, alleging that Los Pelambres had unlawfully extended a waste-rock dump (“Cerro Amarillo Waste Dump”) on its property (which is adjacent to Los Pelambres on the Argentinian side of the Chile/Argentina border) and that Los Pelambres had violated several Argentinian laws relating to the misappropriation of land, unlawful appropriation of water bodies and that people’s health was in jeopardy from the alleged contamination that the Cerro Amarillo Waste Dump might generate.

Los Pelambres continues to exercise all available legal avenues to defend its position. In January 2017, Los Pelambres finished removing truck tyres that had previously been stored on the Cerro Amarillo Waste Dump – honouring a commitment previously made to the Province of San Juan in Argentina.

The Cerro Amarillo Waste Dump is a pile of inert waste-rock and any potential future environmental impact could be easily prevented with the implementation of an environmental closure plan, which is the accepted and recommended practice.

Outlook

Production

The forecast production for 2017 is 330–345,000 tonnes of payable copper (slightly below the 355,400 tonnes produced in 2016), 8,500–9,500 tonnes of molybdenum and 45–55,000 ounces of gold.

Costs

Cash costs before by-product credits for 2017 are forecast to increase to approximately $1.45/lb and net cash costs to increase to approximately $1.15/lb as the mine grades decrease.

CENTINELA

2016 Performance

Operational Performance

EBITDA at Centinela was $562.5 million, compared with $238.4 million in 2015, reflecting higher production and lower operating costs. The realised copper price was $2.32/lb in 2016, remaining almost unchanged. The realised gold price rose from $1,159/oz in 2015 to $1,257/oz in 2016.

Production

Copper production for the full year 2016 was 6.8% higher than in 2015, primarily due to higher sulphide grades and the completion of the concentrator expansion project. This was partly offset by lower throughput in the Centinela Cathodes plant and the expected continued decline in oxide grades.

Copper in concentrate production for the full year was 24.2% higher year-on-year, mainly reflecting expanded throughput capacity following the installation of new tailings thickeners and modifications to the grinding and flotation circuits. Higher grades and slightly higher recoveries also helped increase production during the year.

Gold production was 213,000 ounces, some 31% higher than in 2015. This was mainly due to higher throughput and grades, as recoveries remained flat across the two years.

Copper cathode production for the year was 55,800 tonnes, 26.5% lower than the previous year, as grades declined as expected with mining moving to the lower grade zones of the Tesoro Central and Tesoro Noreste pits.

Costs

Cash costs before by-product credits for the year were 22.9%, or 52c/lb, lower than in 2015. Savings achieved through the Cost and Competitiveness Programme reduced costs by 12c/lb and a further 23c/lb was the result of a change in the estimation method for deferred stripping costs. The balance was due to higher production. Net cash costs for 2016 were $1.19/lb compared with $1.85/lb in 2015. This decrease is due to lower cash costs before by-product credits and higher production and realised prices for gold.

Capital expenditure

Capital expenditure was $534.7 million, including $206.2 million on Encuentro Oxides and the molybdenum plant and $205.0 million on mine development. Total capital expenditure in 2017 is expected to be similar to 2016, including $170 million related to the construction of the Encuentro Oxides and molybdenum plant projects and $240 million on mine development.

Outlook

Production

Production for 2017 is forecast at 220–230,000 tonnes of payable copper and 140–150,000 ounces of gold. This includes 65–70,000 tonnes of cathodes and 155–160,000 tonnes of copper in concentrate. The construction of the Encuentro Oxides project is expected to reach completion during 2017 and this will provide feed to Centinela's SX-EW plant, allowing it to operate at near peak capacity of 100,000 tonnes per annum from 2018.

Costs

Cash costs before by-products for 2017 are forecast at approximately $1.75/lb, similar to 2016, and net cash costs at approximately $1.35/lb.

In 2015, Centinela commenced construction on a separate molybdenum plant that will produce approximately 2,400 tonnes per year of molybdenum over the remaining life of the mine. Commissioning is expected to commence in 2017.

ANTUCOYA

2016 Performance

Operational Performance

EBITDA at Antucoya was $64.9 million as the operation came into commercial production in April 2016.

Production

The mine began commercial production at the beginning of April and produced 66,200 tonnes of copper during the year, as expected, reaching its design capacity in August.

Costs

Cash costs from the start of commercial production were $1.83/lb.

Capital expenditure

Total pre-financing construction cost of the project has been $1.9 billion with $9.4 million spent in 2016.

Outlook

In 2017 cathode production is forecast at approximately 80–85,000 tonnes and cash costs are expected to decrease to $1.60/lb.

Total capital expenditure in 2017 is expected to be approximately $85 million, which includes $20 million related to mine development costs.

ZALDÍVAR

2016 Performance

Acquisition

The Group's acquisition of a 50% interest in the Zaldívar mine from Barrick Gold Corporation was completed in December 2015. Total consideration for the transaction, after working capital adjustments, was $950 million.

Production

Total attributable production in 2016 was 51,700 tonnes of copper cathodes. During the year there has been a significant increase in copper recovery due to improved sulphide leaching, using experience gained at other Group operations.

Costs

Cash costs for 2016 were lower than expected at $1.54/lb, partly because leach recoveries and grades were higher than anticipated and partly due to synergic savings made during the year following the mine's merger into the Group.

Capital expenditure

Attributable capital expenditure for the 2016 full year was $57.5 million, which includes approximately $30 million with respect to mine development. These amounts are not included in the Group capital expenditure figures.

Outlook

Attributable copper production in 2017 is forecast to be approximately 55–60,000 tonnes at a cash cost of $1.50/lb.

Attributable capital expenditure in 2017 is expected to be approximately $50 million, of which $25 million will be spent on mine development.

GROWTH PROJECTS AND OPPORTUNITIES

Projects under construction

Encuentro Oxides

The Encuentro Oxides deposit is within the Centinela Mining District. It is expected to produce an average of approximately 43,000 tonnes of copper cathode per year over an eight-year period, utilising the existing capacity at Centinela's SX-EW plant. Once the project is completed, it will enable the plant to produce at full capacity of 100,000 tonnes per annum for a number of years, helping to offset a natural decline in production due to falling mined grades at Centinela's existing oxide pits. The project entails the installation of new crushing and heap-leach facilities at the Encuentro Oxides deposit, a pipeline to take the leach solution for processing at the existing SX-EW plant some 17 km away, and the extension of the sea water pipeline from Centinela to Encuentro. Higher-grade ore will be crushed and sent to the new heap-leach facilities, while lower-grade ore will be processed later on a Run-of-Mine (ROM) leach pad.

This deposit is important for the Group's long-term development, as Encuentro Oxides sits on top of the much larger Encuentro Sulphide deposit. The Encuentro Oxides project will therefore act as a funded pre-strip for the sulphide deposit, opening up the latter for development as part of the Centinela Second Concentrator project.

Pre-stripping started in August 2014 and full-scale construction in early 2015. During 2016, total expenditure incurred was $149.2 million and by the end of the year construction was over 79% complete, with first production expected in late 2017. The total construction budget for the project is $636 million.

Centinela

During 2016, work continued on optimising Centinela's concentrator plant in order to bring the level of throughput to 105,000 tonnes per day. Debottlenecking of the flotation and concentrate circuit and the installation of two paste thickeners were completed during the year and the plant achieved its design capacity in November. The final paste thickener was completed in early 2017 allowing the plant to produce tailings with a solids content of approximately 67% on a continuous basis, an improvement of some four percentage points. The new paste thickeners are the largest application of this thickened tailings technology in the world.

Molybdenum Plant

This project will allow Centinela to produce an average of 2,400 tonnes of molybdenum per year. Completion is expected in 2017, and the addition of another by-product credit will lower Centinela's unit net cash costs.

Brownfield growth projects

Los Pelambres Incremental Expansion

The expansion project has been split into two phases in order to smooth its progress, simplify permitting applications and spread the cost over a longer period.

Phase 1

This phase is designed to optimise throughput within the limits of the existing operating, environmental and water extraction permits, which will thus need only relatively simple updates. During this phase, Los Pelambres will operate at an average throughput of 190,000 tonnes per day with the addition of a new grinding and flotation circuit to mitigate the hard ore currently being mined, and a 400 litres per second desalination plant and pipeline. Desalinated water will be pumped to the tailings storage facility at El Mauro where it will connect with the recycling circuit returning water to the Los Pelambres plant.

During the year the Group submitted the EIA for the desalination plant to the authorities and expects to receive approvals in late 2017 or early 2018. The feasibility study was completed in early 2017 and detailed engineering will be completed once EIA approvals are received. The project will be subject to internal review and should be presented to the Board for construction approval by the end of 2017. A decision to proceed will be made only in suitable market conditions and with an approved EIA in place. Production would commence in 2020 at the earliest. The feasibility study estimate of the capital expenditure for this project is approximately $1.05 billion, with some $580 million allocated to the additional crushing and flotation circuits and the balance to the desalination plant and water pipeline. The expansion is estimated to increase copper production by an average of 55,000 tonnes per year over a period of 15 years.

Phase 2

In this phase the Group will seek to increase throughput to 205,000 tonnes per day and to extend the mine's life beyond the currently approved 21 years. As part of this development a new EIA must be submitted to increase the capacity of the mine's El Mauro tailings storage facility and the mine waste dumps. The Group is preparing to commence the environmental baseline study for the EIA in 2017. Capital expenditure for this phase is estimated at approximately $500 million, with the majority of the expenditure being on mining equipment, additional crushing and grinding capacity and flotation cells.

The conveyors from the primary crusher to the concentrator plant will also have to be repowered to support the additional throughput. Critical studies on tailings and waste storage capacity are underway in parallel with the Phase 1 feasibility study and should be completed by the end of 2017. However, the project will only proceed following a decision on Phase 1 and will require the submission of various permit applications, including a new EIA. First production from this phase would be in 2022 at the earliest.

Greenfield growth projects

Centinela Second Concentrator

The Centinela Mining District is a key area for longer-term growth and the Group continues to evaluate options for its development.

The second concentrator will be built some 7 km from Centinela's current concentrator and is expected to have an ore throughput capacity of approximately 90,000 tonnes per day, with annual production of approximately 140,000 tonnes of copper, 150,000 ounces of gold and 2,800 tonnes of molybdenum. Ore will be sourced initially from the Esperanza Sur deposit and, once mining is completed at Encuentro Oxides, additionally from Encuentro Sulphides.

The pre-feasibility study for this $2.7 billion project was completed at the end of 2015 and the feasibility study is now underway. The EIA was approved in 2016 and the Group has commenced applications for the additional permits required for the project following certain design modifications made during the year. The feasibility study, which is due for completion in 2017, will include the testing of a pilot hydraulic roll crushing system that is being considered in preference to conventional SAG and ball mills. A decision to proceed with the project will depend on the market outlook and sequencing of the project relative to the Los Pelambres project. If approval is granted in 2018, production would be expected to begin in 2021. The project team continues to review options for reducing the capital cost of the project. These include the use of existing infrastructure (power lines, pipelines, concentrate shipping and other facilities) as well as enhancing the owner's team, to improve the project execution strategy, management and control, together with other initiatives.

There is scope to further increase the plant capacity once the second concentrator is completed. The Group is considering the possibility and timing of such an expansion, which could bring throughput capacity to approximately 150,000 tonnes per day and increase annual production to approximately 200,000 tonnes of copper, 170,000 ounces of gold and 5,500 tonnes of molybdenum. Feasibility study work is underway on certain critical early-stage activities.

United States – Twin Metals

Twin Metals Minnesota LLC (Twin Metals) is a wholly-owned copper, nickel and platinum group metals (PGM) underground mining project holding the Maturi, Maturi Southwest, Birch Lake and Spruce Road copper-nickel-PGM deposits located in north-eastern Minnesota, USA.

During 2016 the Group undertook evaluation and optimisation exercises on the pre-feasibility study completed in 2014 and progressed various activities in preparation for submitting permitting applications.

As previously announced, on 15 December 2016 Twin Metals was notified that the relevant U.S. authorities had denied renewal of two of its long-held federal mining leases. Twin Metals' leases had been held in good standing by the federal government for more than 50 years, and had been twice renewed without controversy.

Twin Metals has filed a federal lawsuit seeking to secure its rights to the two federal mineral leases and believes denial of the leases is inconsistent with federal law, the terms of leases themselves and the federal government's established precedent in supporting and renewing the leases over five decades.

While Twin Metals is assessing the impact of the agencies' lease renewal decision, it will continue progressing the project while also pursuing legal avenues to protect its contractual mineral rights.

Other exploration and evaluation activities

The Group has an active early-stage exploration programme beyond the core locations of the Centinela and Los Pelambres mining districts. This is managed through its in-house exploration team and utilises partnerships with third parties to build a portfolio of longer-term opportunities across Chile and the rest of the world. In response to the depressed copper market the Group reduced its exploration and evaluation expenditure from $101.9 million in 2015 to $44.3 million in 2016.

Chile

The Group focuses its exploration activities on the main copper porphyry belts in northern and central Chile. During the year, as part of its asset rationalisation programme, the Group relinquished low priority tenements and acquired new tenements more closely aligned with its target areas. First stage drilling was initiated during the year and progressed as planned at targets located in the second and third regions of Chile.

International

The Group's international exploration strategy is to identify, secure and evaluate high-quality copper exploration projects in preferred jurisdictions. During 2016, the Group downgraded Australia as a target country increasing its focus on the Americas while refining its portfolio of early-stage exploration projects on key copper provinces in target countries. Working in partnership with selected companies, both public and private, the Group drilled and tested projects in Argentina, Australia, Mexico and Zambia and exited from projects in Portugal, Finland and Canada. Exploration efforts in Canada and Australia generated new projects that will be evaluated during 2017.

The Group's strategy is to partner with experienced junior exploration companies, funding their exploration programmes to earn an interest in the projects while benefiting from their local knowledge and expertise

TRANSPORT DIVISION

2016 Performance

During the year, FCAB optimised and expanded its business by integrating and strengthening the three key areas of sustainability, productivity and cost management. There was a positive effect on revenue as sales associated with spot services increased due to higher utilisation of the fleet. The railway agreed a tonnage increase with one of its largest customers and reached an important milestone with the purchase of seven new locomotives, with the object of optimising the fleet and increasing asset productivity.

Operational performance

The division's EBITDA was $73.3 million in 2016, compared to $58.4 million in 2015, reflecting tight cost management, which reduced costs by 7.6% compared to the previous year.

Transport Tonnage

During 2016 the division transported 6.5 million tonnes, compared to 6.1 million tonnes in 2015. This 6.3% increase was due to increased customer demand, improved performance of rolling stock and better fleet utilisation, which allowed more acid and copper and other concentrates to be transported.

This increase in tonnage transported marks the reversal of a downward trend since 2013 and further growth is expected in the medium term.

Costs

Cost management was focused on optimising the division's business processes to ensure the lasting competitiveness of its services. This was achieved by better utilisation of the fleet resulting in greater fuel efficiency, and savings in the use of third-party services and other organisational changes.

Outlook

The division will also develop new business opportunities and optimise the use of rolling stock and utilisation of the fleet. One area of emphasis will be on maintenance, using knowledge gained from the mining division. Maintenance practice will be strengthened in order to deliver more consistent fleet availability, thereby improving operational continuity and budget compliance. This will ensure a seamlessly integrated fleet and more efficient use of assets and resources.

In the medium term, copper production in the Antofagasta Region will change from metallic copper output to concentrate, increasing the mass to be transported, and declining ore grades will increase the consumption of bulk supplies. These factors present unique opportunities for the transport division and will drive revenue growth in the medium to long term.

FINANCIAL REVIEW FOR THE YEAR ENDED 31 DECEMBER 2016

Results

	Year ended 31.12.2016			Year ended 31.12.2015 (restated)
	Before exceptional items $m	Exceptional items (Note 3) $m	Total $m	Total $m
Revenue	3,621.7	-	**3,621.7**	3,225.7
EBITDA (including results from associates and joint ventures)	1,626.1	-	**1,626.1**	910.1
Operating costs excluding depreciation	(2,100.0)	(241.0)	**(2,341.0)**	(2,349.1)
Depreciation, loss on disposals and impairments	(598.1)	(215.6)	**(813.7)**	(587.6)
Operating profit from subsidiaries	923.6	(456.6)	**467.0**	289.0
Net share of results from associates and joint ventures	23.4	(134.7)	**(111.3)**	(5.8)
Total profit from operations, associates and joint ventures	947.0	(591.3)	**355.7**	283.2
Net finance expense	(71.1)	-	**(71.1)**	(40.4)
Profit before tax	875.9	(591.3)	**284.6**	242.8
Income tax expense	(313.5)	204.9	**(108.6)**	(154.4)
Profit from continuing operations	562.4	(386.4)	**176.0**	88.4
Discontinued operations	38.3	-	**38.3**	613.3
Profit for the year	600.7	(386.4)	**214.3**	701.7
Basic earnings per share	US cents	US cents	US cents	US cents
From continuing operations	34.7	(22.6)	**12.1**	(0.5)
From discontinued operations	3.9	-	**3.9**	62.2
Total continuing and discontinued operations	38.6	(22.6)	**16.0**	61.7

As a result of the disposal of Michilla in 2016, and the disposal of Aguas de Antofagasta (the Water division) and Empresa Ferroviaria Andina (the Bolivian transport operation) in 2015 their net results are shown in the "Profit from discontinued operations" line. The 2015 comparatives have been restated to present Michilla's net result for 2015 in the discontinued operations line.

A detailed segmental analysis of the components of the income statement is contained in Note 4 to the preliminary results announcement.

The following table reconciles the change in EBITDA between 2015 and 2016:

	$m
EBITDA in 2015	**910.1**
Revenue	
Increase in copper volumes sold	218.7
Increase in realised copper price	84.5
Increase in tolling charges	(7.0)
Increase in revenue from copper sales	**296.2**
Increase in gold revenue	87.5
Increase in silver revenue	15.9
Decrease in molybdenum revenue	(11.4)
Increase in revenue from by-products	**92.0**
Increase in transport division revenue	7.8
Increase in Group revenue	**396.0**
Operating costs	
Decrease in mine operating costs	220.7
Decrease in closure provisions	23.2
Decrease in exploration and evaluation costs	57.6
Decrease in corporate costs	11.1
Increase in other mining division costs	(70.6)
Decrease in operating costs for mining division	**242.0**
Decrease in transport division operating costs	7.1
Increase in EBITDA relating to associates and in joint ventures (*)	70.9
Total EBITDA in 2016	**1,626.1**

(*) attributable

Revenue

Revenue for the Group in 2016 was $3,621.7 million, 12.3% higher than in 2015. The increase of $396.0 million mainly reflected an increase in copper sales volumes and the realised copper price, as well as higher gold and silver revenue.

Revenue from the mining division

Revenue from copper sales

Revenue from copper concentrate and copper cathode sales increased by $296.0 million, or 11.1%, to $2,961.6 million, compared with $2,665.6 million in 2015. The increase reflected the impact of higher sales volumes and slightly higher realised prices.

(i) Copper volumes

Copper sales volumes reflected within revenue increased from 590,400 tonnes in 2015 to 634,000 tonnes in 2016 increasing revenue by $218.5 million. This increase was mainly due to Antucoya which achieved commercial production on 1 April 2016, and which recorded sales volumes of 54,900 tonnes reflected within revenue from that point onwards.

(ii) Realised copper prices

The Group's average realised copper price increased by 2.2% to $2.33/lb in 2016 (2015 – $2.28/lb) despite the market price having fallen by 11.6%. This was due to a significant year-end positive price adjustment of $153.6 million with the copper price ending the year at $2.51/lb, compared with a decrease of $291.2 million in 2015. The increase in the average realised price led to an $84.5 million increase in revenue from copper sales.

Realised copper prices are determined by comparing revenue (gross of tolling 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 for future periods (normally about 30 days after delivery to the customer in the case of cathode sales and up to 150 days after delivery to the customer in the case of concentrate sales). Realised copper prices also reflect the impact of realised gains or losses on commodity derivative instruments hedge accounted for in accordance with IAS 39 "Financial Instruments: Recognition and Measurements".

Further details of provisional pricing adjustments are given in Note 5 to the preliminary results announcement.

In 2016 revenue also includes a loss of $2.2 million (2015 – nil) relating to commodity derivatives which matured during the year. Further details of hedging activity in the period are given in Note 6(c) to the preliminary results announcement.

(iii) Tolling charges

Tolling charges for copper concentrate increased by $7.0 million to $301.0 million in 2016 from $294.0 million in 2015. Tolling 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 $92.2 million or 22.6% to $499.9 million in 2016, compared with $407.7 million in 2015.

Revenue from gold sales (net of tolling charges) was $339.7 million (2015 - $252.0 million), an increase of $87.7 million, which mainly reflected an increase in volumes and a higher realised price. The realised gold price was $1,256.1/oz in 2016 compared with $1,154.5/oz in 2015, with the increase reflecting higher market prices. Gold sales volumes increased by 23.8% from 219,200 ounces in 2015 to 271,400 ounces in 2016, mainly due to higher grades at Centinela.

Revenue from molybdenum sales (net of roasting charges) was $94.0 million (2015 - $105.3 million), a decrease of $11.3 million. The decrease was mainly due to lower sales volumes of 7,200 tonnes (2015 – 9,900 tonnes), partly offset by an increased realised price of $6.8/lb (2015 - $5.7/lb).

Revenue from silver sales increased by $15.8 million to $66.2 million in 2016 (2015 - $50.4 million). The increase was due to higher sales volumes of 3.7 million ounces (2015 – 3.3 million ounces) and an increased realised silver price of $17.5/oz (2015 - $15.4/oz).

Revenue from the transport division

Revenue from the transport division (FCAB) increased by $7.8 million or 5.1% to $160.2 million, mainly due to higher tonnages transported.

Operating costs (excluding depreciation, loss on disposals and impairments)

Operating costs (excluding depreciation, loss on disposals and impairments) amounted to $2,100.0 million (2015 – $2,349.1 million), a decrease of $249.1 million despite copper sales volumes having increased by 9.8%. This was mainly due to lower mine operating costs and reduced exploration & evaluation and corporate expenditure.

Operating costs (excluding depreciation, loss on disposals and impairments) at the mining division

Operating costs (excluding depreciation, loss on disposals and impairments) at the mining division decreased by $242.0 million to $2,013.1 million in 2016, a decrease of 10.7%. Of this decrease, $220.7 million is attributable to lower mine-site operating costs. This reduction in mine-site costs reflected significant cost savings achieved during the year as well the impact of a revised estimation of deferred stripping costs, partly offset by additional costs resulting from the higher production volumes in the year. Reflecting these decrease costs, weighted average unit cash costs excluding by-product credits (which are reported as part of revenue) and tolling charges for concentrates (which are deducted from revenue) decreased from $1.58/lb in 2015 to $1.33/lb in 2016.

Exploration & evaluation costs decreased by $57.6 million to $44.3 million (2015 – $101.9 million). This reflected a general decrease in exploration activity, in particular at the Centinela District in Chile and the Twin Metals project in the United States. Corporate costs decreased by $11.1 million compared with 2015, and costs relating to the mine closure provisions decreased by $23.2 million. These decreases were partly offset by a $70.6 million increase in other expenses, largely relating to increased community spend at Los Pelambres.

Operating costs (excluding depreciation and loss on disposals) at the transport division

Operating costs (excluding depreciation and loss on disposals) at the transport division decreased by $7.1 million to $86.9 million, mainly reflecting lower diesel prices and a decrease in services provided by third parties.

EBITDA

EBITDA (earnings before interest, tax, depreciation, amortisation) increased by $716.0 million or 78.7% to $1,626.1 million in 2016 (2015 - $910.1 million). EBITDA includes the Group’s proportional share of EBITDA from associates and joint ventures

EBITDA from the Group’s mining subsidiaries increased by 73.6% from $876.6 million in 2015 to $1,521.7 million in this year. As explained above, this was mainly due to the decrease in revenue, lower unit cash costs, and lower exploration & evaluation and corporate costs.

EBITDA at the transport division increased by $8.9 million to $87.7 million in 2016, reflecting the increased revenue and lower operating costs explained above.

The Group’s proportional share of EBITDA from associates and joint ventures included $85.1 million from Zaldívar (2015 – $6.8 million) and $19.3 million from other associates and joint ventures (2015 – $26.7 million).

Depreciation, amortisation and disposals

The depreciation and amortisation charge was largely in-line with the prior year at $578.4 million (2015 - $576.1 million). In addition, there were losses on disposals of assets of $19.7 million (2015 – loss of $11.5 million).

Exceptional impairment provisions

The Group recognised exceptional impairment provisions with a total impact of $591.3 million before tax. After a corresponding tax credit of $204.9 million the after tax impact was $386.4 million.

The majority of this relates to the Group’s 40% interest in Alto Maipo SpA (“Alto Maipo”), which is developing two hydroelectric power stations in Chile. The remaining 60% controlling interest is held by AES Gener SA ("Gener"). The Group had been reviewing its options with respect to its investment in Alto Maipo following the announcement of a significant forecast cost overrun for the project. In January 2017 the Group entered into an agreement with Gener to dispose of its stake in Alto Maipo to Gener for a nominal consideration. Accordingly, an impairment provision of $367.6 million has been recognised in respect of the total carrying value relating to the project. This impairment provision resulted in a deferred tax credit of $95.0 million and so the post-tax impact is $272.6 million.

An impairment review was also conducted in respect of the Antucoya mine. Following the completion of construction, Antucoya achieved commercial production in April 2016 and then reached full production capacity in August 2016. This process was slower than originally forecast so costs capitalised during the ramp-up period were greater than originally forecast and net depreciation of the assets commenced later than originally anticipated. The achievement of commercial production and full capacity during the year has allowed a final determination of the total capital cost of the project, including costs capitalised during the ramp-up to commercial production, along with an understanding of the actual operational performance of the mine. The impairment review determined that the recoverable amount of Antucoya's assets was below their carrying value, and accordingly an impairment provision of $215.6 million (on a pre-tax basis) has been reflected in respect of Antucoya. This impairment provision resulted in a deferred tax credit of $99.4 million and so the post-tax impact is $116.2 million.

In addition, the Group's Energia Andina joint venture holds an investment in the Javiera solar plant in Chile. In February 2017 the disposal of the interest in Javiera was agreed. The terms of the sale agreement indicate a recoverable value for the interest in Javiera which is $8.1 million below the carrying value and accordingly an impairment provision for this amount has been recognised. The sale agreement is subject to certain closing conditions, and the transaction is expected to complete during the first half of 2017.

Further details are given in Note 3 to the preliminary results announcement.

Operating profit from subsidiaries

As a result of the above factors, operating profit from subsidiaries increased in 2016 by 61.6% to $467.0 million. Of the exceptional impairment provisions outlined above $456.6 million was recorded within operating expenses, and therefore excluding the exceptional impairment provisions, operating profit was $923.6 million, a 219.6% increase compared to 2015.

Share of results from associates and joint ventures

The Group's share of results from associates and joint ventures was a loss of $134.7 million in 2016, compared with a loss of $5.8 million in 2015. This was largely a reflection of the exceptional impairment provisions. Of the total impairment provision outlined above, $134.7 million was recorded within the share of results from associates and joint ventures. Excluding the impact of the exceptional impairment, the share of results from associates and joint ventures was a profit of $23.5 million (2015 – loss of $5.8 million). The improvement compared with the prior year mainly reflected a full year's contribution from from Zaldívar.

Net finance expense

Net finance expense in 2016 was $71.1 million, compared with $40.4 million in 2015.

	Year ended 31.12.16 $m	Year ended 31.12.15 $m
Investment income	26.9	17.5
Interest expense	(86.1)	(33.7)
Other finance items	(11.9)	(24.2)
Net finance expense	**(71.1)**	**(40.4)**

Interest income increased from $17.5 million in 2015 to $26.9 million in 2016 due to an increase in operating cash invested as a result of increased revenue in 2016.

Interest expense increased from $33.7 million in 2015 to $86.1 million in 2016, mainly due to interest charges at Antucoya being expensed since the start of commercial production on 1 April 2016. Additionally, there was higher corporate interest expense reflecting a new long-term loan of $500 million taken out during the period.

Other finance items comprised a loss of $11.9 million (2015 – loss of $24.2 million) arising mainly from foreign exchange losses of $2.9 million in 2016, compared with a loss of $14.8 million in 2015.

Profit before tax

As a result of the factors set out above, profit before tax increased by 17.2% to $284.6 million (2015 - $242.8 million). Excluding exceptional items, profit before tax was $875.9 million, a 260.7% increase compared with the prior year.

Income tax expense

The tax charge for 2016 was $108.6 million and the effective tax rate was 38.2%. The exceptional impairment provisions had an impact on the overall tax charge and the reconciliation of the effective tax rate. Excluding these exceptional impairment provisions, the 2016 tax charge was $313.5 million and the effective tax rate was 35.8%.

	31.12.2016 BEFORE EXCEPTIONAL ITEMS		31.12.2016 AFTER EXCEPTIONAL ITEMS		Year ended 31.12.2015 (Restated)	
	$m	%	$m	%	$m	%
Profit before tax	875.9	-	284.6		242.8	
Tax at the Chilean corporate rate tax of 24% (2015 – 22.5%)	(210.2)	24.0	(68.3)	24.0	(54.6)	22.5
Provision against carrying value of assets (exceptional items)	-	-	63.0	(22.1)	-	-
Effect of increase in future first category tax rates on deferred tax balances	(24.6)	2.8	(24.6)	8.6	(8.9)	3.7
Items not deductible from first category tax	(23.7)	2.7	(23.7)	8.3	(21.2)	8.7
Items not subject to first category tax	8.5	(1.0)	8.5	(2.9)	4.1	(1.7)
Carry-back tax losses resulting in credits at historic tax rates	(5.4)	0.6	(5.4)	1.8	(25.8)	10.6
Mining tax (royalty)	(60.1)	6.9	(60.1)	21.1	(31.8)	13.1
Withholding taxes	-	-	-	-	(14.8)	6.1
Withholding taxes – adjustment to previous year	(3.8)	0.4	(3.8)	1.3	-	-
Tax effect of share of results of associates and joint ventures	5.6	(0.6)	5.6	(1.9)	(0.5)	0.2
Net other items	0.2	(0.0)	0.2	(0.0)	(0.9)	0.4
Tax expense and effective tax rate for the year	(313.5)	35.8	(108.6)	38.2	(154.4)	63.6

This effective tax rate (excluding exceptional items) varied from the statutory rate principally due to the effect of increases in future first category tax rates on deferred tax balances (impact of $24.6 million / 2.8%), the effect of expenses not deductible for Chilean corporate tax purposes (principally the funding of expenses outside of Chile) and items not subject to first category tax (impact of $15.2 million / 1.7%), and the mining tax (impact of $60.1 million / 6.9%).

Further details are given in Note 8 to the preliminary results announcement.

Profit from discontinued operations

On 30 December 2016 the Group completed the disposal of Minera Michilla and the resulting profit of $38.3 million has been reflected as a profit from discontinued operations. In the prior year a profit from discontinued operations of $613.3 million was recognised, mainly relating to the disposal of Aguas de Antofagasta in that year.

Non-controlling interests

Profit for 2016 attributable to non-controlling interests was $56.3 million (2015 - $93.5 million). Before exceptional items the profit attributable to non-controlling interests was $220.9 million.

Earnings per share

	Year ended 31.12.16 $ cents	Year ended 31.12.15 $ cents
Total including exceptional items		
Earnings per share from continuing operations	12.1	(0.5)
Earnings per share from discontinued operations	3.9	62.2
Total earnings per share from continuing and discontinued operations	16.0	61.7
Excluding exceptional items		
Earnings per share from continuing operations	34.7	(0.5)
Earnings per share from discontinued operations	3.9	62.2
Total earnings per share from continuing and discontinued operations	38.6	61.7

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 $158.0 million compared with $608.2 million in 2015, and total earnings per share from continuing and discontinued operations was 16.0 cents per share (2015 – 61.7 cents per share).

Profit from continuing operations and excluding exceptional items attributable to equity shareholders of the Company was $341.5 million compared with a loss of $5.1 million in 2015, and earnings per share from continuing operations excluding exceptional items was 34.7 cents per share (2015 – loss of 0.5 cents per share).

Dividends

Dividends per share declared in relation to the period are as follows:

	Year ended 31.12.16 $ cents	Year ended 31.12.15 $ cents
Ordinary		-
Interim	**3.1**	3.1
Final	**15.3**	-
Total dividends to ordinary shareholders	**18.4**	3.1

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 of 2016 of 15.3 cents per ordinary share, which amounts to $150.8 million and will be paid on 26 May 2017 to shareholders on the share register at the close of business on 28 April 2017.

The Board declared an interim dividend for the first half of 2016 of 3.1 cents per ordinary share, which amounted to $30.6 million and was paid on 30 September 2016 to shareholders on the share register at the close of business on 9 September 2016.

This gives total dividends proposed in relation to 2016 (including the interim dividend) of 18.4 cents per share or $181.4 million in total (2015 – 3.1 cents per ordinary share or $30.6 million in total).

Capital expenditure

Capital expenditure decreased by $253.4 million from $1,048.5 million in 2015 to $795.1 million in the year. This was mainly due to decreased construction costs at Antucoya, which is now in operation, partly offset by increased expenditure at Los Pelambres, relating mainly to capitalised stripping costs.

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 exposure to commodity price movements. At 31 December 2016 the Group had entered into min/max contracts at Centinela for a notional amount of 72,000 tonnes of copper production covering a period up to 31 December 2017, with an average minimum price of $2.25/lb and an average maximum price of $2.84/lb. The Group also periodically uses interest rate swaps to swap the floating rate interest for fixed rate interest. At 31 December 2016 the Group had entered into contracts at Centinela for a maximum notional amount of $70 million at a weighted average fixed rate of 3.372 % maturing in August 2018. The Group had also entered into contracts in relation to a financing loan at the FCAB for a maximum notional amount of $90 million at a weighted average fixed rate of 1.634% maturing in August 2019.

Cash flows

The key features of the Group cash flow statement are summarised in the following table.

	Year ended 31.12.16 $m	Year ended 31.12.15 $m
Cash flows from continuing and discontinued operations	**1,457.3**	**858.3**
Income tax paid	(272.6)	(427.1)
Net interest paid	(31.9)	(27.6)
Capital contributions and loans to associates	(10.1)	(112.0)
Acquisition of joint ventures	20.0	(972.8)
Disposal of subsidiary	10.0	942.9
Acquisition of mining properties	(7.0)	(78.0)
Purchases of property, plant and equipment	(795.1)	(1,048.5)
Dividends paid to equity holders of the Company	(30.6)	(127.2)
Dividends paid to non-controlling interests	(260.0)	(80.0)
Dividends from associates	10.2	12.1
Other items	0.4	19.1
Changes in net debt relating to cash flows	**90.6**	**(1,040.8)**
Other non-cash movements	(149.0)	50.0
Exchange	10.2	(31.1)
Movement in net debt in the period	**(48.2)**	**(1,021.9)**
Net debt at the beginning of the year	(1,023.5)	(1.6)
Net debt at the end of the year	**(1,071.7)**	**(1,023.5)**

Cash flows from continuing and discontinued operations were $1,457.3 million in 2016 compared with $858.3 million in 2015. This reflected EBITDA from subsidiaries for the year of $1,521.7 million[1] (2015 – $876.6 million) adjusted for a net working capital increase of $64.4 million (2015 – working capital increase of $32.4 million).

Cash tax payments in 2016 were $272.6 million, broadly in line with the current tax charge for the year of $261.2m. However, within this amount the payments on account for the current year were only $186.3m, as they were based on the prior year's profit levels. In addition to these payments on account there were other tax payments of $194.6 million, mainly comprising tax relating to the disposal of Aguas de Antofagasta S.A. in 2015, as well as the recovery of $108.3 million relating to prior years.

In 2016 the disposal of subsidiary amount of $10.0 million related to the disposal of Michilla (2015 - $947.3 million related to the disposal of Aguas de Antofagasta S.A.).

Contributions and loans to associates and joint ventures of $10.1 million relate to the Group's share of the funding of the costs of Tethyan Copper Company and Energia Andina.

Cash disbursements relating to capital expenditure in 2016 were $795.1 million compared with $1,048.5 million in 2015. This included expenditure of $534.7 million at Centinela (2015 – $559.4 million), $215.3 million at Los Pelambres (2015 – $203.1 million) and $9.4 million at Antucoya (2015 – $143.4 million).

At 31 December 2016 dividends paid to ordinary shareholders of the Company were $30.6 million, which related to the payment of the interim dividend declared in respect of the current year (2015 - $127.2 million).

Dividends paid by subsidiaries to non-controlling shareholders were $260.0 million (2015 – $80.0 million).

Financial position

	At 31.12.16 $m	At 31.12.15 $m
Cash, cash equivalents and liquid investments	2,048.5	1,731.6
Total borrowings	(3,120.2)	(2,755.1)
Net debt at the end of the period	**(1,071.7)**	**(1,023.5)**

At 31 December 2016 the Group had combined cash, cash equivalents and liquid investments of $2,048.5 million (31 December 2015 – $1,731.6 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 $1,830.2 million (31 December 2015 – $1,410.8 million).

New borrowings in 2016 were $938.8 million (2015 – $725.9 million), including new short-term borrowings at Los Pelambres of $312.0 million, Centinela of $100.0 million, Antucoya of $30.0 million and new long-term borrowings at Corporate of $496.8 million. Repayments of borrowings and finance leasing obligations in 2016 were $724.4 million, relating mainly to repayments at Los Pelambres of $373.1 million, Centinela $250.0 million, Antucoya $66.1 million and the transport division of $31.5 million.

Total Group borrowings at 31 December 2016 were $3,120.2 million (at 31 December 2015 – $2,755.1 million). Of this, $2,329.7 million (at 31 December 2015 – $1,936.2 million) is proportionally attributable to the Group after excluding the non-controlling interest shareholdings in partly-owned operations.

[1] Excluding the Group's share of EBITDA from associates and joint ventures.

Cautionary statement about forward-looking statements

This preliminary results announcement 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 speak 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.

Consolidated Income Statement

	Notes	Year ended 31.12.2016 Before exceptional items $m	Year ended 31.12.2016 Exceptional items (Note 3) $m	Year ended 31.12.2016 Total $m	Year ended 31.12.2015 (restated) Total $m
Group revenue	2,5	3,621.7	-	**3,621.7**	3,225.7
Total operating costs		(2,698.1)	(456.6)	**(3,154.7)**	(2,936.7)
Operating profit from subsidiaries	2,4	923.6	(456.6)	**467.0**	289.0
Net share of results from associates and joint ventures	2,4	23.4	(134.7)	**(111.3)**	(5.8)
Total profit from operations, associates and joint ventures		947.0	(591.3)	**355.7**	283.2
Investment income		26.9	-	**26.9**	17.5
Interest expense		(86.1)	-	**(86.1)**	(33.7)
Other finance items		(11.9)	-	**(11.9)**	(24.2)
Net finance expense	7	(71.1)	-	**(71.1)**	(40.4)
Profit before tax		875.9	(591.3)	**284.6**	242.8
Income tax expense	8	(313.5)	204.9	**(108.6)**	(154.4)
Profit for the financial year from continuing operations		562.4	(386.4)	**176.0**	88.4
Discontinued operations					
Profit for the financial year from discontinued operations	9	38.3	-	**38.3**	613.3
Profit for the year		600.7	(386.4)	**214.3**	701.7
Attributable to:					
Non-controlling interests		220.9	(164.6)	**56.3**	93.5
Profit for the period attributable to the owners of the parent		379.8	(221.8)	**158.0**	608.2
Basic earnings per share		US cents	US cents	US cents	US cents
From continuing operations	10	34.7	(22.6)	**12.1**	(0.5)
From discontinued operations	10	3.9	-	**3.9**	62.2
Total continuing and discontinued operations		38.6	(22.6)	**16.0**	61.7

Consolidated Statement of Comprehensive Income

	Notes	**Year ended 31.12.2016** $m	Year ended 31.12.2015 $m
Profit for the financial year		**214.3**	701.7
Items that may be or were reclassified subsequently to profit or loss:			
(Losses)/gains in fair value of cash flow hedges deferred in reserves		**(3.5)**	1.7
Share of other comprehensive income/(losses) of equity accounted units, net of tax	14	**4.4**	(16.0)
Gains/(losses) in fair value of available for sale investments	15	**1.7**	(3.2)
Currency translation adjustment		**-**	(1.8)
Deferred tax effects arising on cash flow hedges deferred in reserves		**0.6**	-
Losses in fair value of cash flow hedges transferred to the income statement	6c)(i)	**5.8**	5.8
Share of other comprehensive income of equity accounted units transferred to the income statement	3	**52.6**	-
Losses in fair value of available- for- sale investments transferred to income statement		**-**	1.0
Deferred tax effects arising on amounts transferred to the income statement		**(1.4)**	(1.3)
Total items that may be or were reclassified subsequently to loss		**60.2**	(13.8)
Items that will not be subsequently reclassified to profit or loss:			
Actuarial gains on defined benefit plans	19	**7.8**	3.8
Tax on items recognized through OCI which will not be reclassified to profit or loss in the future		**(1.3)**	(1.2)
Total items that will not be subsequently reclassified to loss		**6.5**	2.6
Total other comprehensive income		**66.7**	(11.2)
Total comprehensive income for the year		**281.0**	690.5
Attributable to:			
Non-controlling interests		**24.9**	90.9
Equity holders of the Company		**256.1**	599.6

Consolidated Statement of Changes in Equity

For the year ended 31 December 2016

	Share capital	Share premium	Other reserves (note 23)	Retained earnings (note 23)	**Net equity**	Non-controlling interests	**Total**
	$m	$m	$m	$m	**$m**	$m	**$m**
Balance at 1 January 2016	89.8	199.2	(59.3)	6,416.4	**6,646.1**	1,873.2	**8,519.3**
Profit for the year	-	-	-	158.0	**158.0**	56.3	**214.3**
Other comprehensive income for the year	-	-	37.0	4.8	**41.8**	24.9	**66.7**
Dividends	-	-	-	(30.6)	**(30.6)**	(260.0)	**(290.6)**
Balance at 31 December 2016	**89.8**	**199.2**	**(22.3)**	**6,548.6**	**6,815.3**	**1,694.4**	**8,509.7**

For the year ended 31 December 2015

	Share capital	Share premium	Other reserves (note 23)	Retained earnings (note 23)	**Net equity**	Non-controlling interests	**Total**
	$m	$m	$m	$m	**$m**	$m	**$m**
Balance at 1 January 2015	89.8	199.2	(47.4)	5,932.1	**6,173.7**	1,861.0	**8,034.7**
Profit for the year	-	-	-	608.2	**608.2**	93.5	**701.7**
Other comprehensive (expense)/income for the year	-	-	(11.9)	3.3	**(8.6)**	(2.6)	**(11.2)**
Loss of control in subsidiaries	-	-	-	-	**-**	(13.3)	**(13.3)**
Capital contribution from non-controlling interests	-	-	-	-	**-**	14.6	**14.6**
Dividends	-	-	-	(127.2)	**(127.2)**	(80.0)	**(207.2)**
Balance at 31 December 2015	**89.8**	**199.2**	**(59.3)**	**6,416.4**	**6,646.1**	**1.873.2**	**8,519.3**

Consolidated Balance Sheet

	Notes	At 31.12.2016 $m	At 31.12.2015 $m
Non-current assets			
Intangible assets	12	**150.1**	150.1
Property, plant and equipment	13	**8,737.5**	8,601.1
Other non-current assets		**2.6**	2.0
Inventories	17	**157.3**	263.9
Investment in associates and joint ventures	14	**1,086.6**	1,149.1
Trade and other receivables		**66.7**	292.9
Derivative financial instruments		**0.2**	-
Available for sale investments	15	**4.6**	2.7
Deferred tax assets	21	**82.8**	124.6
		10,288.4	10,586.4
Current assets			
Inventories		**393.4**	297.1
Trade and other receivables		**736.1**	604.8
Current tax assets		**255.2**	319.5
Derivative financial instruments	6	**2.2**	0.2
Liquid investments	25	**1,332.2**	924.1
Cash and cash equivalents	25	**716.3**	807.5
		3,435.4	2,953.2
Total assets		**13,723.8**	13,539.6
Current liabilities			
Short-term borrowings	18	**(836.8)**	(758.9)
Derivative financial instruments	6	**(2.0)**	(2.0)
Trade and other payables		**(595.8)**	(478.9)
Current tax liabilities		**(119.4)**	(198.8)
		(1,554.0)	(1,438.6)
Non-current liabilities			
Medium and long-term borrowings	18	**(2,283.4)**	(1,996.2)
Derivative financial instruments	6	**(0.5)**	(1.5)
Trade and other payables		**(7.9)**	(24.4)
Liabilities in relation to joint venture	14	**(3.1)**	(2.5)
Post-employment benefit obligations	19	**(92.2)**	(86.9)
Decommissioning & restoration and other long term provisions	20	**(392.1)**	(394.0)
Deferred tax liabilities	21	**(880.9)**	(1,076.2)
		(3,660.1)	(3,581.7)
Total liabilities		**(5,214.1)**	(5,020.3)
Net assets		**8,509.7**	8,519.3
Equity			
Share capital	22	**89.8**	89.8
Share premium	22	**199.2**	199.2
Other reserves	23	**(22.3)**	(59.3)
Retained earnings	23	**6,548.6**	6,416.4
Equity attributable to equity holders of the Company		**6,815.3**	6,646.1
Non-controlling interests		**1,694.4**	1,873.2
Total equity		**8,509.7**	8,519.3

The preliminary information was approved by the Board of Directors on 13 March 2017.

Consolidated Cash Flow Statement

	Notes	Year ended 31.12.2016 $m	Year ended 31.12.2015 $m
Cash flow from continuing and discontinuing operations	24	**1,457.3**	858.3
Interest paid		**(46.3)**	(38.6)
Income tax paid		**(272.6)**	(427.1)
Net cash from continuing and discontinued activities		**1,138.4**	392.6
Investing activities			
Capital contributions and loans to associates and joint ventures	14	**(10.1)**	(112.0)
Acquisition of joint ventures	14	**20.0**[1]	(972.8)
Dividends from associate	14	**10.2**	12.1
Acquisition of available for sale investments	15	**-**	(0.2)
Disposals of subsidiaries	9	**10.0**	942.9
Acquisition of mining properties	13	**(7.0)**	(78.0)
Proceeds from sale of property plant and equipment		**0.5**	1.6
Purchases of property, plant and equipment		**(795.1)**	(1,048.5)
Net (increase)/decrease in liquid investments		**(408.1)**	605.0
Interest received		**14.4**	11.0
Net cash used in investing activities		**(1,165.2)**	(638.9)
Financing activities			
Dividends paid to equity holders of the Company		**(30.6)**	(127.2)
Dividends paid to preference shareholders of the Company		**(0.1)**	(0.2)
Dividends paid to non-controlling interests		**(260.0)**	(80.0)
Capital increase from non-controlling interests		**-**	14.6
Net proceeds from issue of new borrowings	18	**938.8**	725.9
Repayments of borrowings	18	**(693.1)**	(276.4)
Repayments of obligations under finance leases	18	**(31.3)**	(11.9)
Net cash (used in)/from financing activities		**(76.3)**	244.8
Net decrease in cash and cash equivalents		**(103.1)**	(1.5)
Cash and cash equivalents at beginning of the year		**807.5**	845.4
Net decrease in cash and cash equivalents	25	**(103.1)**	(1.5)
Effect of foreign exchange rate changes	25	**11.9**	(36.4)
Cash and cash equivalents at end of the year	25	**716.3**	807.5

[1]Represents cash refunded to the Group as part of the final adjustments to the consideration relating to the acquisition of the 50% stake in Zaldivar as detailed in Note 14.

Notes

1. General information and accounting policies

a) General information

This preliminary results announcement is for the year ended 31 December 2016. While the financial information contained in this preliminary results announcement has been prepared in accordance with International Financial Reporting Standards ("IFRS"), this announcement does not itself contain sufficient information to comply with 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. The Group will send its full financial statements that comply with IFRS to shareholders in April 2017.

The financial information contained in this preliminary results announcement has 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 Financial Review.

This preliminary results announcement does not constitute the Group's statutory accounts as defined in section 434 of the Companies Act 2006 (the "Act") but is derived from those accounts. The statutory accounts for the year ended 31 December 2016 have been approved by the Board and will be delivered to the Registrar of Companies following the Company's Annual General Meeting which will be held on 24 May 2017. The auditor has reported on those accounts and their report was unqualified, with no matters by way of emphasis, and did not contain statements under section 498(2) of the Act (regarding adequacy of accounting records and returns) or under section 498(3) (regarding provision of necessary information and explanations).

The information contained in this announcement for the year ended 31 December 2015 also does not constitute statutory accounts. A copy of the statutory accounts for that year has been delivered to the Registrar of Companies. The auditor's report on those accounts was unqualified, with no matters by way of emphasis, and did not contain statements under sections 498(2) or (3) of the Companies Act 2006.

The information contained in Note 30 of this preliminary results announcement is not derived from the statutory accounts for the years ended 31 December 2015 and 2016 and is accordingly not covered by the auditor's reports.

b) Significant events during 2016

The Antucoya operation achieved commercial production on 1 April 2016, and its revenue and costs have accordingly been recognised in the income statement from that date onwards.

In 2015 Antofagasta acquired a 50% stake in Compañia Minera Zaldívar SpA ("Zaldívar") from Barrick Gold Corporation. Total preliminary consideration for the transaction was $1,005.0 million in cash, subject to adjustments based on the net debt and working capital levels of Zaldivar at the completion date. The net debt and working capital adjustments were finalised in August 2016 and resulted in a final adjusted consideration of $949.7 million.

The Group completed the sale of Minera Michilla SA ("Michilla") to Haldeman Mining Company S.A. on 30 December 2016. In these financial statements the net results of Michilla for the twelve months to December 2016 are shown in the income statement on the line for "Profit for the period from discontinued operations". The comparative results for the prior year have been restated in order to present the comparative net result on the "Profit for the period from discontinued operations" line.

Impairment charges have been recognised during 2016 in respect of the investments in Alto Maipo, the property, plant & equipment of Minera Antucoya SA, and the Energia Andina joint venture.

The investment in associate balance relating to Tethyan Copper Company Limited ("Tethyan") is a negative balance $3.1 million. The negative balance has been recognised because the Group funds the on-going expenses and liabilities of Tethyan. Given the balance is negative it has been included within non-current liabilities. The prior year negative balance of $2.5 million has been reclassified to non-current liabilities.

c) Change in estimation

The Group has revised its estimation of deferred stripping costs which has resulted in the capitalisation of $118.1 million of deferred stripping costs for Los Pelambres mine during 2016.

d) Going concern

Having reassessed the principal risks of the Group, the Directors considered it appropriate to adopt the going concern basis of accounting in preparing the annual financial statements report.

e) Accounting policies

The following International Financial Reporting Standards (IFRS), amendments and interpretations are effective for the first time in the current period.

f) Adoption of new accounting standards

The following accounting standards, amendments and interpretations became effective in the current reporting period:

- IFRS 14, *Regulatory Deferral Accounts*
- IAS 19, Defined Benefit Plans, Employee Contributions (Amendments to IAS 19)
- Annual improvements 2010 – 2012 Cycle - improvements to six IFRSs
- Accounting for Acquisitions of Interests in Joint Operations (Amendments to IFRS 11)
- Clarification of Acceptable Methods of Depreciation and Amortisation (Amendments to IAS 16 and IAS 38)
- Agriculture: Bearer Plants (Amendments to IAS 16 and IAS 41)
- Equity Method in Separate Financial Statements (Amendments to IAS 27)
- Sale or Contribution of Assets between an Investor and its Associate or Joint Venture, (Amendments to IFRS 10 and IAS 28)
- Investment Entities: Applying the Consolidation Exception (Amendments to IFRS 10, IFRS 12 and IAS 28)
- Disclosure Initiative (Amendments to IAS 1)
- Annual improvements 2012 – 2014 Cycle – improvements to four IFRSs

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.

Accounting standards issued but not yet effective applied

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

New Standards	**Effective date (Subject to EU endorsement)**
IFRS 9, *Financial Instruments*	Annual periods beginning on or after January 1, 2018
IFRS 15, *Revenue from Contracts with Customers*	Annual periods beginning on or after January 1, 2018
IFRS 16, *Leases*	Annual periods beginning on or after January 1, 2019
IFRIC 22, *Foreign Currency Transactions and Advance Consideration*	Annual periods beginning on or after January 1, 2018

Amendments to IFRSs	**Effective date (Subject to EU endorsement)**
Recognition of Deferred Tax Assets for Unrealized Losses (Amendments to IAS 12	Annual periods beginning on or after January 1, 2017
Disclosure Initiative (Amendments to IAS 7)	Annual periods beginning on or after January 1, 2017
Classification and Measurement of Share-based Payment Transactions (Amendments to IFRS 2)	Annual periods beginning on or after January 1, 2018
Applying IFRS 9 'Financial Instruments' with IFRS 4 'Insurance Contracts' (Amendments to IFRS 4)	Annual periods beginning on or after January 1, 2018
Transfers of Investment Property (Amendments to IAS 40)	Annual periods beginning on or after January 1, 2018
Annual Improvements to three IFRS Standards 2014–2016 Cycle	Annual periods beginning on or after January 1, 2018

The Group is continuing to evaluate in detail the potential impact of IFRS 9 and IFRIC 22.

In respect of IFRS 15 Revenue from contracts the current expectation is that the principal impact will relate to situations where the Group is effectively providing a shipping service to customers who have purchased copper from the Group, to transport that copper to a destination port specified by the customer. Such shipping services will represent a separate performance obligation and should be accounted for over time separately from the sale of goods. The impact of recognising shipping revenue over time rather than at a point in time is not expected to have a material impact on the financial statements.

IFRS 16 Leases will result in most of the Group's existing operating leases being accounted for similar to finance leases under the current IAS 17, resulting in the recognition of additional assets within property, plant and equipment in respect of the right of use of the lease assets, and additional lease liabilities. The operating lease charges currently reflected within operating expenses (and EBITDA) will be eliminated, and instead depreciation and finance charges will be recognised in respect of the lease assets and liabilities. Based on the operating leases in place at 31 December 2016 it is currently estimated that this would result in the recognition of additional lease assets within property, plant & equipment and additional lease liabilities as at 1 January 2017 of approximately $100 million in each case. It is also estimated that this would result in a decrease in annual operating expenses before depreciation (and therefore an increase in EBITDA) of approximately $75m, an increase in annual depreciation of approximately $70 million, an increase in finance costs of less than $15m, and a net impact on profit before tax of less than $15 million.

2. Total profit from operations, associates and joint ventures

	Year ended 31.12.2016	Year ended 31.12.2015 (restated)
	$m	$m
Group revenue	**3,621.7**	3,225.7
Cost of sales	**(2,087.0)**	(2,349.0)
Gross profit	**1,534.7**	876.7
Administrative and distribution expenses	**(479.1)**	(437.5)
Provision against carrying value of assets	**(456.6)**	-
Other operating income	**20.2**	33.9
Other operating expenses	**(152.2)**	(184.1)
Operating results from subsidiaries	**467.0**	289.0
Equity accounting results	**23.4**	(5.8)
Provision against carrying value of assets	**(134.7)**	-
Net share of income from associates and joint ventures	**(111.3)**	(5.8)
Total profit from operations, associates and joint ventures	**355.7**	283.2

3. Exceptional items and asset sensitivities

Exceptional items are material items of income and expense which are non-regular or non-operational and typically non-cash movements. The exceptional items in the year ended 31 December 2016 and their impact on the results are set out below. There were no exceptional items in 2015.

	Operating profit		**SHARE OF RESULTS FROM ASSOCIATES AND JOINT VENTURES**		**Profit before tax**		**Earnings per share**	
	Year ended 31.12.2016	Year ended 31.12.2015	**Year ended 31.12.2016**	Year ended 31.12.2015	**Year ended 31.12.2016**	Year ended 31.12.2015	**Year ended 31.12.2016**	Year ended 31.12.2015
	$m	$m	**$m**	$m	**$m**	$m	**US cents**	**US cents**
Before exceptional items	**923.6**	289.0	**23.4**	**(5.8)**	**875.9**	**242.8**	**38.6**	61.7
Provision against the carrying value of assets	**-**	-	**-**	**-**			**-**	-
Alto Maipo – Loan	**(241.0)**	-	**-**	-	**(241.0)**	-	**6.3**	-
Alto Maipo – Investment	**-**	-	**(126.6)**	-	**(126.6)**	-	**5.8**	-
Antucoya – PP&E	**(215.6)**	-	**-**	-	**(215.6)**	-	**10.7**	-
Energia Andina – Investment	**-**	-	**(8.1)**	-	**(8.1)**	-	**(0.2)**	-
Total Provision against the carrying value of assets	**(456.6)**	-	**(134.7)**	-	**(591.3)**	-	**(22.6)**	-
After exceptional items	**467.0**	**289.0**	**(111.3)**	**(5.8)**	**284.6**	**242.8**	**16.0**	**61.7**

(i) Alto Maipo

The Group has a 40% interest in Alto Maipo SPA ("Alto Maipo"), which is developing two run-of-river hydroelectric power stations located in the upper section of the Maipo River, approximately 50 kilometres to the southeast of Santiago. The remaining 60% interest is held by AES Gener SA ("Gener"). The Group has been reviewing its options with respect to its investment in Alto Maipo following the announcement of a significant forecast cost overrun for the project. In January 2017 the Group entered into an agreement with Gener to dispose of its stake in Alto Maipo to Gener for a nominal consideration. Accordingly, an impairment provision of $367.6 million has been recognised in respect of the total carrying value relating to the project, comprising the $74.0 million investment in associate balance and $52.6 million of mark-to-market losses in respect of derivative financial instruments held by Alto Maipo previously deferred in reserves, resulting in a $126.6 million loss reflected on the profit from associates and joint ventures line, and $241.0 million of loan financing (including accrued interest) reflected in operating cost. This impairment provision resulted in a deferred tax credit of $95.0 million and so the post-tax impact is $272.6 million.

(ii) Antucoya

An impairment review has been conducted for the Antucoya operation. Following the completion of construction, Antucoya achieved commercial production in April 2016 and then reached full production capacity in August 2016. This process was slower than originally forecast, meaning that the costs capitalised during the ramp-up period were greater than originally forecast and net depreciation of the assets commenced later than originally anticipated. The achievement of commercial production and full capacity during the year has allowed a final determination of the total capital cost of the project, including costs capitalised during the ramp-up to commercial production, along with an understanding of the actual operational performance of the mine.

The impairment review determined that the recoverable amount (fair value less costs of disposal) of Antucoya's assets was $ 1,502.3 million, compared with the carrying value of $1,717.9 million, and accordingly an impairment provision of $215.6 million (on a pre-tax basis) has been reflected in respect of Antucoya. This impairment provision resulted in a deferred tax credit of $99.4 million and so the post-tax impact is $116.2 million. All of the provision has been allocated against Antucoya's property, plant and equipment.

The key assumptions to which the value of the assets are most sensitive are future commodity prices, the discount rate used to determine the present value of the future cash flows, future operating costs, sustaining and development capital expenditure and ore reserve estimates. The commodity 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 300 c/lb has been used in the calculations. 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.

To illustrate the sensitivity of the valuation of Antucoya to negative movements in these parameters, a 5% decrease in the forecast long-term copper price would result in an increase in the impairment of $121.0 million, and an increase in the discount rate from 8% to 9% would result in an increase in the impairment of $89.0 million. These are simple sensitivities, looking at illustrative movements in the long-term copper price and discount rate in insolation. 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, as well as potential operational changes, which could partly mitigate these estimated potential sensitivities.

(iii) Energia Andina

The Group's Energia Andina joint venture holds an investment in the Javiera solar plant in Chile. In February 2017 the disposal of the interest in Javiera was agreed. The terms of the sale agreement indicate a recoverable value for the interest in Javiera which is $8.1 million below the carrying value, and accordingly an impairment provision for this amount has been recognised. The terms of the sale agreement is subject to certain closing conditions, and the transaction is expected to complete during the first half of 2017.

(iv) Other asset sensitivities

There were no indicators of impairment for the Group's other mining operations, and accordingly no detailed impairment reviews have been performed for those operations. However, in order to provide an indication of the sensitivities of the valuations of these assets, a sensitivity analysis has been performed. For all of the other mining operations a valuation exercise using assumptions consistent with those used in the Antucoya impairment review confirmed that the recoverable amount of the assets was in excess of their carrying value. The recoverable amount of the assets still remained in excess of their carrying value for all of the other mining operations with either a 5% decrease in the forecast long-term copper price or an increase in the discount rate from 8% to 9%.

4. Segmental analysis

The Group's reportable segments are as follows:

- Los Pelambres
- Centinela
- Michilla (sold in 2016)
- Antucoya
- Zaldívar
- Exploration and evaluation
- Railway and other transport services
- Water concession (sold in 2015)
- Corporate and other items

For management purposes, the Group is organised into two business divisions based on their products – Mining and Railway and other transport services. The Group disposed of its Water division in 2015. The mining division is split further for management reporting purposes to show results by mine and exploration activity. Following the completion of construction, the Antucoya mine achieved commercial production in April 2016. The Group acquired a 50% stake in the Zaldívar mine in December 2015. The Michilla mine was placed on care and maintenance at the end of 2015, and was disposed of in December 2016. Los Pelambres produces primarily copper concentrate and molybdenum as a by-product. Centinela produces primarily copper concentrate containing gold as a by-product and copper cathodes. Antucoya and Zaldívar produce copper cathodes, as did Michilla. The transport division provides rail cargo (based in Chile and formerly Bolivia) and road cargo (based in Chile) together with a number of ancillary services (based in Chile). The water division, which produced and distributed potable water to domestic customers and untreated water to industrial customers in Chile's Antofagasta Region, was sold during 2015. 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 makers monitors the operating results of business segments separately for the purpose of making decisions about resources to be allocated and of assessing performance. Segment performance is evaluated based on the operating profit of each of the segments.

a) Segment revenues and results

For the year ended 31 December 2016

	Los Pelambres	Centinela	Antucoya	Zaldívar	Exploration and evaluation[2]	Corporate and other items	**Mining**	**Railway and other transport services**	**Total**
	$m	$m	$m	$m	$m	$m	**$m**	**$m**	**$m**
Revenue	1,845.6	1,338.0	277.9	-	-	-	**3,461.5**	160.2	**3,621.7**
Operating costs excluding depreciation	(923.8)	(775.5)	(213.0)	-	(44.3)	(56.5)	**(2,013.1)**	(86.9)	**(2,100.0)**
Depreciation and amortisation	(195.7)	(299.4)	(62.7)	-	-	(5.2)	**(563.0)**	(15.4)	**(578.4)**
Loss on disposals	(0.2)	(17.1)	-	-	-	(0.6)	**(17.9)**	(1.8)	**(19.7)**
Provision against the carrying value of assets	(241.0)	-	(215.6)	-	-	-	**(456.6)**	-	**(456.6)**
Operating profit/(loss)	**484.9**	**246.0**	**(213.4)**	**-**	**(44.3)**	**(62.3)**	**410.9**	**56.1**	**467.0**
Equity accounting results	0.4	-	-	29.5	-	(11.2)	**18.7**	4.7	23.4
Provision against the carrying value of assets	(126.6)	-	-	-	-	(8.1)	(134.7)	-	(134.7)
Net share of results from associates and joint ventures	**(126.2)**	**-**	**-**	**29.5**	**-**	**(19.3)**	**(116.0)**	**4.7**	**(111.3)**
Investment income	15.7	5.3	0.6	-	-	4.7	**26.3**	0.6	**26.9**
Interest expense	(6.5)	(32.0)	(30.5)	-	-	(14.6)	**(83.6)**	(2.5)	**(86.1)**
Other finance items	(2.7)	(5.4)	(5.0)	-	-	3.0	**(10.1)**	(1.8)	**(11.9)**
Profit/(loss) before tax	**365.2**	**213.9**	**(248.3)**	**29.5**	**(44.3)**	**(88.5)**	**227.5**	**57.1**	**284.6**
Tax	(117.4)	(73.3)	94.3	-	-	5.3	**(91.1)**	(17.5)	**(108.6)**
Profit/(loss) for the period from continuing operations	**247.8**	**140.6**	**(154.0)**	**29.5**	**(44.3)**	**(83.2)**	**136.4**	**39.6**	**176.0**
Profit for the period from discontinued operations	-	-	-	-	-	38.3	**38.3**	-	**38.3**
Profit/(loss) for the period	247.8	140.6	(154.0)	29.5	(44.3)	(44.9)	**174.7**	39.6	**214.3**
Non-controlling interests	(97.9)	(32.8)	74.3	-	-	0.1	**(56.3)**	-	**(56.3)**
Profit/(loss) for the period attributable to the owners of the parent	**149.9**	**107.8**	**(79.7)**	**29.5**	**(44.3)**	**(44.8)**	**118.4**	**39.6**	**158.0**
EBITDA[1]	**921.0**	**562.5**	**64.9**	**85.1**	**(44.3)**	**(50.8)**	**1,538.4**	**87.7**	**1,626.1**
Additions to non-current assets									
Capital expenditure	316.6	617.4	27.4	-	-	31.0	**992.4**	16.9	**1,009.3**
Segment assets and liabilities									
Segment assets	3,606.2	5,008.0	1,740.5	-	9.5	1,867.2	**12,231.4**	323.0	**12,554.4**
Deferred tax assets	-	-	-	-	-	78.6	**78.6**	4.2	**82.8**
Investment in associates and joint ventures	-	-	-	983.7	-	25.1	**1,008.8**	77.8	**1,086.6**
Segment liabilities	(1,368.2)	(1,979.3)	(1,085.3)	-	(4.5)	(638.3)	**(5,075.6)**	(138.5)	**(5,214.1)**

[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.

[2] During the year, operating cash flow from exploration and evaluation was $22.1 million

For the year ended 31 December 2015 (Restated)

	Los Pelambres	Centinela	Michilla	Antucoya	Zaldívar	Exploration and evaluation[2]	Corporate and other items	**Mining**	**Railway and other transport services**	**Water concession**	**Total**
	$m	$m	$m	$m	$m	$m	$m	**$m**	**$m**	**$m**	**$m**
Revenue	1,807.2	1,266.1	-	-	-	-	-	**3,073.3**	152.4	**-**	**3,225.7**
Operating cost excluding depreciation	(1,057.9)	(1,027.7)	-	-	-	(101.9)	(67.6)	**(2,255.1)**	(94.0)		**(2,349.1)**
Depreciation and amortisation	(191.6)	(367.6)	-	-	-	-	(3.1)	**(562.3)**	(13.8)	-	**(576.1)**
Loss on disposals	(2.7)	(1.8)	-	-	-	-	(4.4)	**(8.9)**	(2.6)	-	**(11.5)**
Operating profit/(loss)	**555.0**	**(131.0)**	**-**	**-**	**-**	**(101.9)**	**(75.1)**	**247.0**	**42.0**	**-**	**289.0**
Share of results from associates and joint ventures	(3.7)	-	-	-	(2.8)	-	(7.5)	**(14.0)**	8.2	-	**(5.8)**
Investment income	10.2	4.3	-	-	-	-	2.2	**16.7**	0.8	-	**17.5**
Interest expense	(1.8)	(27.1)	-	-	-	-	(1.8)	**(30.7)**	(3.0)	-	**(33.7)**
Other finance items	(4.6)	(9.7)	-	(3.4)	-	-	(7.5)	**(25.2)**	1.0	-	**(24.2)**
Profit/(loss) before tax	**555.1**	**(163.5)**	**-**	**(3.4)**	**(2.8)**	**(101.9)**	**(89.7)**	**193.8**	**49.0**	**-**	**242.8**
Tax	(161.8)	49.6	-	(21.8)	-	-	1.8	**(132.2)**	(22.2)	-	**(154.4)**
Profit/(loss) for the period from continuing operations	393.3	(113.9)	-	(25.2)	(2.8)	(101.9)	(87.9)	**61.6**	26.8	-	**88.4**
Profit/(loss) for the period from discontinued operations	-	-	10.6	-	-	-	-	**10.6**	(13.1)	615.8	**613.3**
Profit/(loss) for the period	393.3	(113.9)	10.6	(25.2)	(2.8)	(101.9)	(87.9)	**72.2**	13.7	615.8	**701.7**
Non-controlling interests	(151.8)	46.5	(0.2)	11.9	-	-	-	**(93.6)**	0.1	-	**(93.5)**
Profit/(loss) for the period attributable to the owners of the parent	**241.5**	**(67.4)**	**10.4**	**(13.3)**	**(2.8)**	**(101.9)**	**(87.9)**	**(21.4)**	**13.8**	**615.8**	**608.2**
EBITDA[1]	**748.7**	**238.4**	**-**	**-**	**6.8**	**(101.9)**	**(60.7)**	**831.3**	**78.8**	**-**	**910.1**
Additions to non-current assets											
Capital expenditure	188.3	535.1	-	147.9	-	-	111.0	**982.3**	13.9	16.4	**1,012.6**
Segment assets and liabilities											
Segment assets	3,753.3	4,969.5	122.7	1,974.4	-	-	950.9	**11,770.8**	497.6	-	**12,268.4**
Deferred tax assets	-	43.5	-	-	-	-	78.0	**121.5**	3.1	-	**124.6**
Investment in associates and joint ventures	33.5	-	-	-	998.9	-	31.0	**1,063.4**	83.2	-	**1,146.6**
Segment liabilities	(1,205.9)	(2,068.9)	(46.0)	(1,185.5)	-	-	(154.1)	**(4,660.4)**	(359.9)	-	**(5,020.3)**

[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.
[2] During the year, operating cash flow from exploration and evaluation was $38.3 million

b) Entity wide disclosures

Revenue by product

	Year ended 31.12.2016	Year ended 31.12.2015 (Restated)
	$m	$m
Copper		
- Los Pelambres	**1,627.0**	1,606.7
- Centinela concentrates	**778.7**	626.6
- Centinela cathodes	**278.1**	432.3
- Antucoya	**277.9**	-
Gold		
- Los Pelambres	**78.5**	60.7
- Centinela	**261.2**	191.3
Molybdenum		
- Los Pelambres	**94.0**	105.3
Silver		
- Los Pelambres	**46.1**	34.5
- Centinela	**20.0**	15.9
Total Mining	**3,461.5**	3,073.3
Railway and transport services	**160.2**	152.4
	3,621.7	3,225.7

Revenue by location of customer

	Year ended 31.12.2016	Year ended 31.12.2015 (Restated)
	$m	$m
Europe		
- United Kingdom	**-**	19.1
- Switzerland	**217.7**	175.2
- Spain	**115.6**	54.1
- Germany	**38.5**	167.0
- Rest of Europe	**157.3**	68.9
Latin America		
- Chile	**105.2**	165.5
- Rest of Latin America	**126.4**	74.1
North America		
- United States	**49.5**	105.2
Asia Pacific		
- Japan	**1,483.5**	1,147.0
- China	**771.9**	623.8
- Rest of Asia	**556.1**	625.8
	3,621.7	3,225.7

Information about major customers

In the year ended 31 December 2016 the Group´s mining revenues included $694.7 million related to one large customer that individually accounted for more than 10% of the Group’s revenues (year ended 31 December 2015 – one large customer representing $426.0 million).

Non-current assets by location of asset

	Year ended 31.12.2016	Year ended 31.12.2015
	$m	$m
- Chile	**9,996.3**	10,287.1
- USA	**204.4**	171.2
- Other	**0.1**	0.8
	10,200.8	10,459.1

Notes to geographical information

The non-current assets balance disclosed by location of assets excludes financial instruments, available-for-sale investments and deferred tax assets.

5. Revenues

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 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 five months after shipment to the customer. The provisional pricing mechanism within the sale agreements is an embedded derivative under IFRS. 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 Group determines mark-to-market prices using forward prices at each period end for copper concentrate (including gold by-product sales) 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.

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 below. Further details of derivative commodity instruments in place at the year ended are given in Note 6.

Copper and molybdenum concentrate sales are stated net of deductions for tolling charges, as shown in the tables below.

For the period ended 31 December 2016

	$m	$m	$m	$m	$m	$m	$m
	Los Pelambres	Centinela	Centinela	Antucoya	Los Pelambres	Centinela	Los Pelambres
	Copper concentrate	Copper concentrate	Copper cathodes	Copper cathodes	Gold in concentrate	Gold in concentrate	Molybdenum concentrate
Provisionally invoiced gross sales	**1,715.1**	**845.2**	**276.8**	**274.2**	**78.9**	**263.9**	**105.5**
Effects of pricing adjustments to previous year invoices							
Reversal of mark-to-market adjustments at the end of the previous year	**14.5**	**6.2**	**(0.2)**	**-**	**-**	**2.2**	**(1.0)**
Settlement of sales invoiced in the previous year	**(18.9)**	**(7.8)**	**-**	**-**	**(0.1)**	**(1.0)**	**1.7**
Total effect of adjustments to previous year invoices in the current year	**(4.4)**	**(1.6)**	**(0.2)**	**-**	**(0.1)**	**1.2**	**0.7**
Effects of pricing adjustments to current year invoices							
Settlement of sales invoiced in the current year	**80.5**	**28.7**	**4.1**	**4.3**	**(0.1)**	**(1.6)**	**2.4**
Mark-to-market adjustments at the end of the current year	**28.0**	**15.3**	**(0.4)**	**(0.6)**	**-**	**(1.3)**	**(0.7)**
Total effect of adjustments to current year invoices	**108.5**	**44.0**	**3.7**	**3.7**	**(0.1)**	**(2.9)**	**1.7**
Total pricing adjustments	**104.1**	**42.4**	**3.5**	**3.7**	**(0.2)**	**(1.7)**	**2.4**
Realised loss on commodity derivatives	**-**	**-**	**(2.2)**	**-**	**-**	**-**	**-**
Revenue before deducting tolling charges	**1,819.2**	**887.6**	**278.1**	**277.9**	**78.7**	**262.2**	**107.9**
Tolling charges	**(192.2)**	**(108.9)**	**-**	**-**	**(0.2)**	**(1.0)**	**(13.9)**
Revenue net of tolling charges	**1,627.0**	**778.7**	**278.1**	**277.9**	**78.5**	**261.2**	**94.0**

For the year ended 31 December 2015

	$m	$m	$m	$m	$m	$m	$m
	Los Pelambres	Centinela	Centinela	Michilla	Los Pelambres	Centinela	Los Pelambres
	Copper concentrate	Copper concentrate	Copper cathodes	Copper cathodes	Gold in concentrate	Gold in concentrate	Molybdenum concentrate
Provisionally invoiced gross sales	**2,001.6**	**805.8**	**443.4**	**173.3**	**63.0**	**200.7**	**147.0**
Effects of pricing adjustments to previous year invoices							
Reversal of mark-to-market adjustments at the end of the previous year	**45.5**	**19.6**	**1.4**	**0.4**	**-**	**1.8**	**2.0**
Settlement of sales invoiced in the previous year	**(100.4)**	**(49.8)**	**(5.6)**	**(2.3)**	**-**	**3.6**	**(7.1)**
Total effect of adjustments to previous year invoices in the current year	**(54.9)**	**(30.2)**	**(4.2)**	**(1.9)**	**-**	**5.4**	**(5.1)**
Effects of pricing adjustments to current year invoices							
Settlement of sales invoiced in the current year	**(126.7)**	**(47.6)**	**(7.1)**	**(2.6)**	**(2.1)**	**(11.8)**	**(19.8)**
Mark-to-market adjustments at the end of the current year	**(14.5)**	**(6.2)**	**0.2**	**0.1**	**-**	**(2.2)**	**1.0**
Total effect of adjustments to current year invoices	**(141.2)**	**(53.8)**	**(6.9)**	**(2.5)**	**(2.1)**	**(14.0)**	**(18.8)**
Total pricing adjustments	**(196.1)**	**(84.0)**	**(11.1)**	**(4.4)**	**(2.1)**	**(8.6)**	**(23.9)**
Realised gains on commodity derivatives	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Revenue before deducting tolling charges	**1,805.5**	**721.8**	**432.3**	**168.9**	**60.9**	**192.1**	**123.1**
Tolling charges	**(198.8)**	**(95.2)**	**-**	**-**	**(0.2)**	**(0.8)**	**(17.8)**
Revenue net of tolling charges	**1,606.7**	**626.6**	**432.3**	**168.9**	**60.7**	**191.3**	**105.3**

The revenue from the individual products shown in the above tables is reconciled to total Group revenue in Note 4.

(i) Copper concentrate

The typical period for which sales of copper concentrate remain open until settlement occurs is a range of approximately three to five months from shipment date.

		At 31.12.2016	At 31.12.2015
Sales	Tonnes	**199,900**	184,400
Average mark-to-market price	$/lb	**2.51**	2.13
Average provisional invoice price	$/lb	**2.41**	2.18

(ii) Copper cathodes

The typical period for which sales of copper cathodes remain open until settlement occurs is approximately one month from shipment date.

		At 31.12.2016	At 31.12.2015
Sales	Tonnes	**13,200**	7,700
Average mark-to-market price	$/lb	**2.51**	2.13
Average provisional invoice price	$/lb	**2.54**	2.12

(iii) Gold in concentrate

The typical period for which sales of gold in concentrate remain open is approximately one month from shipment date.

		At 31.12.2016	At 31.12.2015
Sales	Ounce	**36,400**	50,300
Average mark-to-market price	$/oz	**1,167**	1,061
Average provisional invoice price	$/oz	**1,203**	1,105

(iv) Molybdenum concentrate

The typical period for which sales of molybdenum remain open is approximately two months from shipment date.

		At 31.12.2016	At 31.12.2015
Sales	Tonnes	**1,300**	1,900
Average mark-to-market price	$/lb	**6.6**	5.1
Average provisional invoice price	$/lb	**6.9**	4.8

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 year are as follows:

	Effect on debtors of year end mark to market adjustments	
	At 31.12.2016 $m	At 31.12.2015 $m
Los Pelambres - copper concentrate	**28.0**	(14.5)
Los Pelambres - molybdenum concentrate	**(0.7)**	1.0
Centinela - copper concentrate	**15.3**	(6.2)
Centinela - gold in concentrate	**(1.3)**	(2.2)
Centinela - copper cathodes	**(0.4)**	0.2
Antucoya - copper cathodes	**(0.6)**	-
Michilla - copper cathodes	**-**	0.1
	40.3	(21.6)

6. Financial instruments

a) Categories of financial instruments

The carrying value of financial assets and financial liabilities is shown below:

	At 31.12.2016	At 31.12.2015
	$m	$m
Financial assets		
Derivatives in designated hedge accounting relationships	**2.4**	0.2
Available-for-sale-investments	**4.6**	2.7
Loans and receivables at amortised cost (including cash and cash equivalents)	**1,519.1**	1,703.9
Fair value through profit and loss (liquid investments and mark-to-mark debtors)	**1,375.5**	925.4
Financial liabilities		
Derivatives in designated hedge relationships	**(2.5)**	(3.5)
Financial liabilities measured at amortised cost	**(3,725.5)**	(3,235.5)
Fair value through profit and loss (mark-to-mark creditors)	**(3.0)**	(22.9)

The fair value of financial assets and financial liabilities carried at amortised cost is not materially different from the carrying value presented above.

Fair value of financial instruments

An analysis of financial assets and financial liabilities measured at fair value is presented below:

	Level 1	Level 2	Level 3	At 31.12.2016	At 31.12.2015
Recurring fair value measurements	$m	$m	$m	**$m**	$m
Financial assets					
Derivatives in designated hedge accounting relationships	-	2.4	-	**2.4**	0.2
Available for sale investments	4.6	-	-	**4.6**	2.7
Fair value through profit and loss	1,332.2	-	-	**1,332.2**	924.1
Debtors mark-to-market	-	43.3	-	**43.3**	1.3
Financial liabilities					
Derivatives in designated hedge relationships	-	(2.5)	-	**(2.5)**	(3.5)
Creditors mark-to-market	-	(3.0)	-	**(3.0)**	(22.9)

Recurring fair value measurements are those that are required in the balance sheet at the end of each reporting year.

Non-recurring fair value measurements are those that are required in particular circumstances e.g. when the recoverable amount of an asset is determined to be fair value less cost to sell according to IAS 36 *Impairment of assets*. The only non-recurring fair value measurements in the year ended 31 December 2016 was the impairment relating to Antucoya, with an impact of $215.6 million (see Note 3).

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.

Available for sale 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.

Provisionally priced metal sales for the year are marked-to-market at the end of the year. Gains and losses from the marking-to-market of open sales are recognised through adjustments to revenue in the income statement and trade debtors in the balance sheet. Forward prices at the end of the year are used for copper sales while year-end average prices are used for molybdenum concentrate sales. These are level 2 inputs as described below.

Financial assets measured at fair value through profit and loss are highly liquid current asset investments that are valued using market prices at the year 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 2016 there were no transfers between levels in the hierarchy.

b) Embedded derivatives

As explained in Note 5, 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 being based on the monthly average London Metal Exchange copper price or monthly average molybdenum price for specified future periods. The provisional pricing mechanism within the sale agreements is an embedded derivative under IFRS. Details of the provisional pricing arrangements are included in Note 5.

c) 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 IAS 39 *"Financial Instruments: Recognition and Measurement"*. 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 derivatives recognise in the income statement have been recorded within revenue. The time value element of changes in the fair value of derivative options is excluded from the designated hedging relationship, and is therefore recognised directly in the income statement within other finance items.

(i) Mark-to-market adjustments and income statement impact

The gains or losses recorded in the income statement or in reserves during the year, and the fair value recorded on the balance sheet at the year are as follows. The impact on reserves is shown before tax and non-controlling interests.

For the year ended 31 December 2016

	Impact on income statement for year ended 31.12.2016			Impact on reserves for year ended at 31.12.2016	Fair value recorded on balance sheet 31.12.2016
	Realised gains/(losses)	Gains resulting from mark-to-market adjustments on hedging instruments	Total net gain/(loss)	Gains resulting from mark-to-market adjustments on hedging instruments	Net financial asset/(liability)
	$m	$m	$m	$m	$m
Commodity Derivatives					
Centinela	(2.2)	1.0	(1.2)	-	1.1
Interest Derivatives					
Centinela	(2.6)	-	(2.6)	1.8	(1.2)
Railway and other transport services	(1.0)	-	(1.0)	0.5	-
	(5.8)	**1.0**	**(4.8)**	**2.3**	**(0.1)**

For the year ended 31 December 2015

	Impact on income statement for year ended 31.12.2015			Impact on reserves for year ended at 31.12.2015	Fair value recorded on balance sheet 31.12.2015
	Realised gains/(losses)	Gains resulting from mark-to-market adjustments on hedging instruments	Total net gain/(loss)	Gains/(losses) resulting from mark-to-market adjustments on hedging instruments	Net financial asset/(liability)
	$m	$m	$m	$m	$m
Commodity Derivatives					
Centinela	(0.1)	-	(0.1)	(0.1)	0.1
Exchange Derivatives					
Antucoya	0.2	-	0.2	4.0	-
Interest Derivatives					
Centinela	(3.6)	-	(3.6)	3.1	(2.9)
Railway and other transport services	(2.3)	-	(2.3)	0.5	(0.5)
	(5.8)	**-**	**(5.8)**	**7.5**	**(3.3)**

The gains/(losses) recognised in reserves are disclosed before non-controlling interests and tax.

The net financial liability resulting from the balance sheet mark-to-market adjustments is analysed as follows:

	At 31.12.2016	At 31.12.2015
	$m	$m
Analysed between:		
Current assets	**2.2**	0.2
Non-current assets	**0.2**	-
Current liabilities	**(2.0)**	(2.0)
Non-current liabilities	**(0.5)**	(1.5)
	(0.1)	(3.3)

(ii) Outstanding derivative financial instruments

Commodity derivatives

The Group periodically uses commodity derivatives to manage its exposure to commodity price fluctuations.

- **Min-max instruments**

	At 31.12.2016			For instruments held at 31.12.2016	
	Copper production hedged	Average Min	Average Max	Weighted average remaining period from 1 January 2017	Covering a period up
	000 tonnes	$/lb	$/lb	Months	to:
Centinela	72,000	2.25	2.84	12.0	31-12-2017

Exchange derivatives

The Group periodically uses foreign exchange derivatives to reduce its exposure to fluctuations in the exchange rates influencing operating costs and the fair value of non-US dollar denominated assets or liabilities. The Group had no such instruments in place at 31 December 2016.

Interest derivatives

The Group periodically uses interest derivatives to reduce its exposure to interest rate movements.

- **Interest rate swaps**

The Group has used interest rate swaps to swap the floating rate interest relating to the Centinela project financing and long-term loans at the Railway for fixed rate interest. At 31 December 2016 the Group had entered into the contracts outlined below.

	Start date	Maturity date	Actual notional amount	Weighted Average Fixed Rate
			$m	%
Centinela	15-02-2011	15-08-2018	70.0	3.372
Railway and other transport services	12-08-2014	12-08-2019	90.0	1.634

The actual notional amount hedge depends upon the amount of the related debt currently outstanding.

7. Net finance expense

	Year ended 31.12.2016	Year ended 31.12.2015 (Restated)
	$m	$m
Investment income		
Interest receivable	**20.4**	16.1
Fair value through profit or loss	**6.5**	1.4
	26.9	17.5
Interest expense		
Interest expense	**(86.0)**	(33.5)
Preference dividends	**(0.1)**	(0.2)
	(86.1)	(33.7)
Other finance items		
Time value effect of derivatives	**1.0**	0.1
Unwinding of discount on provisions	**(10.0)**	(8.5)
Impairment of available for sale investments	**-**	(1.0)
Foreign exchange	**(2.9)**	(14.8)
	(11.9)	(24.2)
Net finance expense	**(71.1)**	(40.4)

During 2016, $9.2 million relating to net interest expense and other finance items at Antucoya (year ended 31 December 2015 - $29.6 million), $2.3 million at Centinela (year ended 31 December 2015 - $4.1 million) and $0.5 million at Los Pelambres (year ended 31 December 2015 - $1.2 million) was capitalised, and is consequently not included within the above table.

The fair value through profit or loss line represents the fair value gains relating to liquid investments.

8. Taxation

The tax charge for the year comprised the following:

	Year ended 31.12.2016	Year ended 31.12.2015 (Restated)
	$m	$m
Current tax charge		
Corporate tax (principally first category tax in Chile)	**(222.1)**	(54.8)
Mining tax (royalty)	**(35.3)**	(20.4)
Withholding tax	**(3.8)**	(12.9)
Exchange losses on corporate tax balances	**-**	(1.0)
	(261.2)	(89.1)
Deferred tax credit/(charge)		
Corporate tax (principally first category tax in Chile)	**(27.5)**	(53.0)
Exceptional items	**204.9**	-
Mining tax (royalty)	**(24.8)**	(10.4)
Withholding tax provision	**-**	(1.9)
	152.6	(65.3)
Total tax charge (income tax expense)	**(108.6)**	(154.4)

The rate of first category (i.e. corporate) tax in Chile is currently 24% (2015-22.5%). The rate will increase to 25.5% in 2017 and then 27% from 2018 onwards.

In addition to first category tax the Group incurs withholding taxes on remittance of profits from Chile. Withholding tax is levied on remittances of profits from Chile at 35% less first category (i.e. 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 and, the Tesoro Central and Mirador pits at Centinela cathodes are currently subject to a rate of 4% of taxable operating profit and Centinela concentrates of 5%, and production from 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.

	31.12.2016		31.12.2016		Year ended	
	BEFORE EXCEPTIONAL ITEMS		AFTER EXCEPTIONAL ITEMS		31.12.2015 (Restated)	
	$m	%	$m	%	$m	%
Profit before tax	**875.9**	**-**	**284.6**		242.8	
Tax at the Chilean corporate rate tax of 24% (2015 – 22.5%)	**(210.2)**	**24.0**	**(68.3)**	**24.0**	(54.6)	22.5
Provision against carrying value of assets (exceptional items)	**-**	**-**	**63.0**	**(22.1)**	-	-
Effect of increase in future first category tax rates on deferred tax balances	**(24.6)**	**2.8**	**(24.6)**	**8.6**	(8.9)	3.7
Items not deductible from first category tax	**(23.7)**	**2.7**	**(23.7)**	**8.3**	(21.2)	8.7
Items not subject to first category tax	**8.5**	**(1.0)**	**8.5**	**(2.9)**	4.1	(1.7)
Carry-back tax losses resulting in credits at historic tax rates	**(5.4)**	**0.6**	**(5.4)**	**1.8**	(25.8)	10.6
Mining tax (royalty)	**(60.1)**	**6.9**	**(60.1)**	**21.1**	(31.8)	13.1
Withholding taxes	**-**	**-**	**-**	**-**	(14.8)	6.1
Withholding taxes – adjustment to previous year	**(3.8)**	**0.4**	**(3.8)**	**1.3**	-	-
Tax effect of share of results of associates and joint ventures	**5.6**	**(0.6)**	**5.6**	**(1.9)**	(0.5)	0.2
Net other items	**0.2**	**(0.0)**	**0.2**	**(0.0)**	(0.9)	0.4
Tax expense and effective tax rate for the year	**(313.5)**	**35.8**	**(108.6)**	**38.2**	(154.4)	63.6

The tax charge for 2016 was $108.6 million and the effective tax rate was 38.2%. The exceptional impairment provisions had an impact on the overall tax charge and the reconciliation of the effective tax rate, and accordingly we have presented the tax reconciliation above both including and excluding the impact of the exceptional items. Excluding these exceptional impairment provisions, the 2016 tax charge was $313.5 million and the effective tax rate was 35.8%.This effective tax rate varied from the statutory rate principally due to the effect of increase in future first category tax rates on deferred tax balances (impact of $24.6 million / 2.8%), the effect of expenses not deductible for Chilean corporate tax purposes (principally the funding of expenses outside of Chile) and items not subject to first category tax (impact of $15.2 million / 1.7%) and the mining tax (impact of $60.1 million / 6.9%).

The current and deferred tax relating to items that are charged directly to equity was $2.1 million (2015 - $1.4 million).

The main factors which are expected to impact the sustainability of the Group's existing effective tax rate (excluding exceptional items) is the increase in the rate of first category (i.e. corporate) tax in Chile from the 2016 rate of 24% to 25.5% in 2017 and then 27% from 2018 onwards.

There are no significant tax uncertainties which would require critical judgements, estimates or potential provisions.

9. Discontinued operations

(i) Profit for the period from discontinued operations

On 30 December 2016 the Group completed the disposal of Minera Michilla SA ("Michilla").
During 2015 the Group disposed of its Water division, Aguas de Antofagasta SA ("ADASA") and its transport operation in Bolivia, Empresa Ferroviaria Andina S.A. ("FCA").

The results of Michilla for the period prior to disposal as well as the profit on disposal have been presented on the "Profit for the period from discontinued operations" line in the income statement, as were ADASA and FCA in 2015, reflecting the following amounts:

	MICHILLA	**Year ended 31 December 2016**	ADASA	FCA	MICHILLA	Year ended 31 December 2015
	$m	$m	$m	$m	$m	$m
Revenues	3.8	**3.8**	53.9	12.9	168.9	235.7
Total operating costs	(10.2)	**(10.2)**	(34.9)	(20.2)	(153.5)	(208.6)
Net finance income	(1.4)	**(1.4)**	(0.1)	(0.2)	1.2	0.9
Profit/(loss) before tax	(7.8)	**(7.8)**	18.9	(7.5)	16.6	28.0
Attributable tax expense	4.4	**4.4**	(3.9)	-	(6.0)	(9.9)
Profit/(loss) of discontinued operations	(3.4)	**(3.4)**	15.0	(7.5)	10.6	18.1
Profit/(loss) on disposal of discontinued operations	42.9	**42.9**	853.2	(5.6)	-	847.6
Attributable tax expense	(1.2)	**(1.2)**	(252.4)	-	-	(252.4)
Net profit attributable to discontinued operations (attributable to owners of the Company)	38.3	**38.3**	615.8	(13.1)	(10.6)	613.3

During the period, Michilla SA, contributed $13.6 million cash outflow (2015 - $23.0 million cash inflow) to the Group´s net cash flow from operating activities, nil (2015 - nil) in respect to net cash used in investing activities and paid nil (2015 - nil) in net cash provided in financing activities. During 2015 ADASA contributed $21.7 million to the Group´s net cash flow from operating activities, $19.2 million in respect to net cash used in investing activities and paid $2.0 million in net cash provided in financing activities. During 2015 FCA contributed $2.2 million to the Group´s net cash flow from operating activities, $2.1 million in respect to net cash used in investing activities and paid $0.1 million in net cash provided in financing activities.

(ii) Disposal of Minera Michilla SA

On 30 December 2016, the Group disposed of its 100% interest in Minera Michilla SA ("Michilla").The proceeds on disposal of $54.3 million were received in cash ($52.3 million) and a short-term receivable ($2.0 million). The gain on disposal of MIC is analysed below. No investment was retained in the former subsidiary.

The net assets of Michilla at the date of disposal were as follows:

	At 30 December 2016
Proceeds	$m
Cash and cash equivalents	**52.3**
Receivable	**2.0**
	54.3
Asset Disposed of:	
Inventories	(0.1)
Trade and other receivables	(0.7)
Cash and cash equivalents	(42.3)
Long-term provision	35.8
Deferred tax liabilities	(4.1)
Total carrying amount disposed	**11.4**
Profit on disposal of discontinued operations	**42.9**
Loss for the year	(3.4)
Total profit on disposal of discontinued operations (before tax)	**39.5**
Attributable tax expense	(1.2)
Profit on disposal of discontinued operations (before tax)	**38.3**

Net cash inflow arising on disposal:	
Consideration received in cash and cash equivalents	52.3
Less: Cash and cash equivalents disposed of	(42.3)
	10.0

10. Earnings per share

Basic and diluted earnings per share is calculated on profit after tax and non-controlling interests giving profit for the period attributable to the owners of the parent of $158.0 million (2015 - $608.2 million) and amounted to 16.0 cents and based on 985,856,695 ordinary shares. There was no potential dilution of ordinary shares in either year.

Profit after tax attributable to the owners of the parent before exceptional items represents underlying net earnings. In the year ended 31 December 2016, underlying net earnings were $379.8 million and resulted in underlying earnings per share of 38.6 cents.

11. Dividends

The Board has recommended a final dividend of 15.3 cents per ordinary share or $151.0 million in total (2015 – nil). The interim dividend of 3.1 cents per ordinary share or $30.6 million in total was paid in September 2016 (2015 interim dividend of 3.1 cents per ordinary share or $30.6 million in total). This gives total dividends proposed in relation to 2016 (including the interim dividend) of 18.4 cents per share or $181.4 million in total (2015 – 3.1 cents per ordinary share or $30.6 million in total).

Dividends per share actually paid in the year and recognised as a deduction from net equity under IFRS were 3.1 cents per ordinary share or $30.6 million in total (2015 –12.9 cents per ordinary share or $127.2 million in total) being the interim dividend for the year and the final dividend proposed in respect of the previous year.

Further details of the currency election timing and process (including the default currency of payment) are available on the Antofagasta plc website (www.antofagasta.co.uk) or from the Company's registrar, Computershare Investor Services PLC on +44 870 702 0159.

12. Intangible assets

	Year ended 31.12.2016	Year ended 31.12.2015
	$m	$m
Balance at the beginning of the year	**150.1**	118.6
Acquisition	**-**	150.1
Disposal	**-**	(113.7)
Amortisation	**-**	(2.4)
Foreign currency exchange difference	**-**	(2.5)
Balance at the end of the year	**150.1**	150.1

The $150.1 million intangible asset reflects the value of Twin Metals' mining property assets. The mining properties will be amortised once production commences.

13. Property, plant and equipment

	Mining	**Railway and other transport**	**Year ended 31.12.2016**	Year ended 31.12.2015
	$m	**$m**	**$m**	$m
Balance at the beginning of the year	8,438.8	162.3	**8,601.1**	8,213.9
Additions	904.8	16.9	**921.7**	984.3
Additions – depreciation capitalised	87.6	-	**87.6**	28.3
Reclassification	3.8	(0.1)	**3.7**	123.8
Acquisition	-	-	**-**	20.8
Adjustment to capitalised decommissioning provisions	16.9	-	**16.9**	(35.7)
Depreciation	(563.0)	(15.4)	**(578.4)**	(590.7)
Depreciation capitalised in PP&E and in inventories	(79.2)	-	**(79.2)**	(44.9)
Provision against the carrying value of assets	(215.6)	-	**(215.6)**	-
Assets derecognized due to loss of control of subsidiary	-	-	**-**	(84.6)
Asset disposals/write off	(18.0)	(2.3)	**(20.3)**	(12.3)
Foreign currency exchange difference	-	-	**-**	(1.8)
Balance at the end of the year	8,576.1	161.4	**8,737.5**	8,601.1

Future capital commitments at 31 December 2016 were $196.1 million (31 December 2015 - $283.1 million) of which $129.8 million were related to the development of the Encuentro Oxides project.

Borrowing costs of $12.0 million were capitalised, mainly at Antucoya (2015 - $60 million). The average interest rate for the amounts capitalised was 1.1% (2015 – 1.2%).

Reclassifications of $3.7 million are mainly related to the capitalisation of interest of $9.3 million, depreciation of machinery used in construction of $14.6 million and other expenses incurred during the commissioning of Antucoya and credits related to a refund from a contractor for contract underperformance of $24.9 million and credits related to sales.

At 31 December 2016, assets capitalised relating to the decommissioning provision were $147.2 million (at 31 December 2015, $137.4 million).

Depreciation capitalised in property, plant and equipment of $87.6 million related to stripping cost depreciation of $64.8 at Pelambres and Centinela and $22.8 million related to Antucoya depreciation capitalized during the commissioning period.

14. Investment in associates and joint ventures

	Inversiones Hornitos	ATI	El Arrayan	Alto Maipo	Minera Zaldívar	Energía Andina	Tethyan Copper	Year ended 31.12.2016	Year ended 31.12.2015
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Balance at the beginning of the year	75.1	8.1	23.2	33.5	998.9	10.3	-	**1,149.1**	198.1
Obligations on behalf of JV	-	-	-	-	-	-	(2.5)	**(2.5)**	-
Capital contribution	-	-	-	36.0	-	1.0	10.0	**47.0**	48.1
Capital decrease and others	-	-	(0.9)	-	0.3	-	-	**(0.6)**	-
Adjustment to Purchase price	-	-	-	-	(45.0)	-	-	**(45.0)**	1,001.7
Gains/(losses) in fair value of cash flow hedges deferred in reserves of associates	-	-	0.3	4.1	-	-	-	**4.4**	(16.0)
Fair value of investment in associate upon reclassification to subsidiary	-	-	-	-	-	-	-	**-**	(67.4)
Provision against carrying value of assets	-	-	-	(74.0)	-	(8.1)	-	**(82.1)**	-
Share of profit/(loss) before tax	8.9	(1.9)	(1.0)	0.4	41.9	-	(10.6)	**36.4**	(4.4)
Share of tax	(2.5)	0.2	0.4	-	(12.4)	-	-	**(13.0)**	(1.4)
Share of income/(loss) from associate	6.4	(1.7)	(0.6)	0.4	29.5	-	(10.6)	**23.4**	(5.8)
Dividends received	(10.2)	-	-	-	-	-	-	**(10.2)**	(12.1)
Balance at the end of the year	71.3	6.5	22.0	-	983.7	3.2	-	**1,086.6**	1,149.1
Obligations on behalf of JV	**-**	**-**	**-**	**-**	**-**	**-**	**(3.1)**	**(3.1)**	**(2.5)**

	Inversiones Hornitos	ATI	El Arrayan	Alto Maipo	Minera Zaldívar	Energía Andina	Tethyan Copper	Year ended 31.12.2016	Year ended 31.12.2015
Share of income/(loss) from associate	6.4	(1.7)	(0.6)	0.4	29.5	-	(10.6)	**23.4**	(5.8)
Provision against carrying value of assets (exceptional items)	-	-	-	(74.0)	-	(8.1)	-	**(82.1)**	-
Other comprehensive income of associates to profit for the year (exceptional items)	-	-	-	(52.6)	-	-	-	**(52.6)**	-
Net share of results from associates and joint ventures	**6.4**	**(1.7)**	**(0.6)**	**(126.2)**	**29.5**	**(8.1)**	**(10.6)**	**(111.3)**	**(2.5)**

The investments which are included in the $1,083.5 million balance at 31 December 2016 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 16-year power purchase agreements with Inversiones Hornitos SA for the provision of up to 40MW 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 30% interest in El Arrayan, which operates an 115MW wind-farm project. The Group has a 20-year power purchase agreements with El Arrayan for the provision of up to 40MW of electricity for Los Pelambres.

(iv) The Group has a 40% interest in Alto Maipo SPA ("Alto Maipo"), which is developing two run-of-river hydroelectric power stations located in the upper section of the Maipo River, approximately 50 kilometres to the southeast of Santiago. The remaining 60% interest is held by AES Gener SA ("Gener"). As explained in Note 3, the Group has been reviewing its options with respect to its investment in Alto Maipo following the announcement of a significant forecast cost overrun for the project. In January 2017 the Group entered into an agreement with Gener to dispose of its stake in Alto Maipo to Gener for a nominal consideration. Accordingly, an impairment provision of $367.6 million has been recognised in respect of the total carrying value relating to the project, comprising the $74.0 million investment in associate balance as shown above, $241.0 million of loan financing (including accrued interest) and $52.6 million of mark-to-market losses in respect of derivative financial instruments held by Alto Maipo previously deferred in reserves.

During 2016 the Group made provision for capital contributions of $36.0 million (2015 – $42.8 million). During the year the Group provided nil loan financing (2015 – $63.9 million) to Alto Maipo. The balance due from Alto Maipo to the Group at 31 December 2016 was nil after provision (2015 - $229.7 million) representing loan financing with an interest rate of LIBOR six-months plus 4.25%. During 2016 a fair value loss of $4.1 million (2015 – $14.4 million loss) was recognised in relation to the mark-to-market of the derivative financial instruments with this amount deferred in reserves as it formed part of a designated cash flow hedging relationship.

The Group has a 20-year power purchase agreement with Alto Maipo for the provision of up to 110 MW of electricity for Los Pelambres from the completion date of the project.

Investment in joint ventures

(v) The Group's 50% interest in Minera Zaldívar SpA ("Zaldívar"), was acquired on 1 December 2015 (see Note 16). Zaldívar is an open-pit, heap-leach copper mine located in Northern Chile, which produces approximately 100,000 tonnes of copper cathodes annually.

Total preliminary consideration for the transaction was $1,005.0 million in cash, subject to adjustments based on the net debt and working capital levels of Zaldívar at the completion date. The net debt and working capital adjustments were finalised in August 2016 and resulted in a final adjusted consideration of $949.7 million. Including capitalized acquisition costs of $7.0 million the initial investment in joint venture balance is therefore $956.7 million. The allocation of the fair values of the individual assets and liabilities effectively contained within the overall investment in joint venture balance was also completed during 2016.

(vi) The Group's 50.1% (2014 – 50.1%) interest in Energia Andina, which is a joint venture with Origin Geothermal Chile Limitada for the evaluation and development of potential sources of geothermal and solar energy.

In February 2017 the disposal of the interest in Javiera was agreed. The terms of the sale agreement indicate a recoverable value for the interest in Javiera which is $8.1 million below the carrying value, and accordingly an impairment provision for this amount has been recognised. The terms of the sale agreement is subject to certain closing conditions, and the transaction is expected to complete during the first half of 2017.

(vii) The Group's 50% interest in Tethyan Copper Company Limited ("Tethyan"), which is a joint venture with Barrick Gold Corporation over Tethyan's mineral interest in Pakistan, which is now subject to international arbitration. 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 for the joint ventures obligations.

15. Available for sale investments

	Year ended 31.12.2016	Year ended 31.12.2015
	$m	$m
Balance at the beginning of the year	**2.7**	15.6
Additions	**-**	0.2
Reclassification	**-**	(9.4)
Movement in fair value	**1.7**	(3.2)
Disposal	**-**	(0.2)
Foreign currency exchange differences	**0.2**	(0.3)
Balance at the end of the year	**4.6**	2.7

Available for sale 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 are based on quoted market prices.

16. Acquisition of 50% stake in Zaldívar

On 1 December 2015 Antofagasta completed its acquisition of a 50% stake in Compañia Minera Zaldívar SpA ("Zaldívar") from Barrick Gold Corporation ("Barrick"), pursuant to an agreement entered into on 30 July 2015. As a result, Antofagasta became operator of the Zaldívar mine. Zaldívar is an open-pit, heap-leach copper mine located in Northern Chile, which produces approximately 100,000 tonnes of copper cathodes annually.

Given that Antofagasta and Barrick have joint control over Zaldívar, Antofagasta is accounting for its 50% stake in Zaldívar as a joint venture, using the equity method of accounting.

Total preliminary consideration for the transaction was $1,005.0 million in cash, subject to adjustments based on the net debt and working capital levels of Zaldívar at the completion date. The net debt and working capital adjustments were finalised in August 2016 and resulted in a final adjusted consideration of $949.7 million. Including capitalized acquisition costs of $7.0 million the initial investment in joint venture balance is therefore $956.7 million. The allocation of the fair values of the individual assets and liabilities effectively contained within the overall investment in joint venture balance was also completed during 2016.

17. Inventories

	Year ended 31.12.2016	Year ended 31.12.2015
	$m	$m
Current:		
Raw materials and consumables	**189.4**	162.0
Work in progress	**141.9**	97.7
Finished goods	**62.1**	37.4
	393.4	297.1
Non-current:		
Work in progress	**157.3**	263.9
	157.3	263.9

Non–current work-in-progress is expected to be processed more than 12 months after the balance sheet date.

18. Borrowings

	Notes	At 31.12.2016	At 31.12.2015
		$m	$m
Los Pelambres			
Corporate loans	(i)	**(17.5)**	(52.3)
Short-term loan	(ii)	**(312.0)**	(312.1)
Finance leases	(iii)	**(62.2)**	(7.9)
Centinela			
Corporate loans	(iv)	**(743.8)**	(889.8)
Shareholder loan (subordinated debt)	(v)	**(183.6)**	(174.5)
Short-term loan	(vi)	**(200.0)**	(200.0)
Antucoya			
Project financing (senior debt)	(vii)	**(608.7)**	(630.2)
Shareholder loan (subordinated debt)	(viii)	**(330.4)**	(308.7)
Short-term loan	(ix)	**(30.0)**	(30.0)
Finance leases	(x)	**(16.2)**	-
Corporate and other items			
Long- term loan	(xi)	**(497.2)**	-
Finance leases	(xii)	**(25.1)**	(24.6)
Railway and other transport services			
Long-term loans	(xiii)	**(89.4)**	(119.1)
Finance leases	(xiv)	**(1.6)**	(2.9)
Preference shares	(xv)	**(2.5)**	(3.0)
Total		**(3,120.2)**	(2,755.1)

(i) Corporate loans at Los Pelambres are unsecured and US dollar denominated. These loans have a remaining term of 1 year and have an interest rate of LIBOR six-month rate plus margins of between 0.9% – 1.6%.

(ii) The short-term loan (PAE) 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 margin of between 0.05% - 0.16%.

(iii) Finance leases at Los Pelambres are US dollar denominated, comprising $62.2 million at an interest of LIBOR six-month rate plus 3.43% with a remaining duration of 8.4 years.

(iv) Senior debt at Centinela is US dollar denominated, comprising $743.8 million in respect of syndicated loans. These loans are for a remaining term of 3.5 years and have an interest rate of LIBOR six-month rate plus 1%. The loans are subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained.

The Group has used interest rate swaps to swap the floating rate interest for fixed rate interest. At 31 December 2016 the current notional amount hedged of the senior debt at Centinela was $70 million.

(v) The long-term subordinated debt is US dollar denominated, provided to Centinela by Marubeni Corporation with a duration of 5.5 years and weighted average interest rate of LIBOR six-month rate plus 3.75%. Long term subordinated debt provided by Group companies to Centinela has been eliminated on consolidation

(vi) The short-term loan (PAE) is US dollar denominated, comprising a range of working capital loans for an average period of 1 year and have an interest rate of LIBOR six-month plus margins of between 0.1% - 0.3%

(vii) Senior debt at Antucoya is US dollar denominated, comprising $608.7 million in respect of syndicated loans. These loans are for a remaining term of 10.5 years and have an interest rate of LIBOR six-month rate plus 1.9%.

(viii) The long-term subordinated debt is US dollar denominated, provided to Antucoya by Marubeni with duration of 10.5 years and an interest rate of LIBOR six-month rate plus 3.65%. Long-term subordinated debt provided by Group companies to Antucoya has been eliminated on consolidation.

(ix) The short-term loan 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 0.9%

(x) Finance leases at Antucoya are US dollar denominated, with a maximum remaining duration of 7 years and with an average interest rate of approximately LIBOR six-month rate plus 2.0%.

(xi) The long term loan at Corporate (Antofagasta plc) of $497.2 million has variable interest rate of LIBOR six-month rate plus 1.5% with a duration of five years.

(xii) Finance leases at Corporate and other items are denominated in Unidades de Fomento (i.e. inflation-linked Chilean pesos) and have a remaining duration of 11.5 years and are at fixed rates with an average interest rate of 5.29%.

(xiii) Long-term loans at Railway and other transport services are US dollar denominated, mainly comprise a loan for $89.4 million with a duration of 3.5 years and with an interest rate of LIBOR six-month rate plus 0.48%.The Group has used interest rate swaps to swap the floating rate interest for fixed rate interest. At 31 December 2016 the current notional amount hedged of the long-term debt at Railway and other transport services was $90.0 million.

(xiv) Finance leasing at Railway and other transport services are Chilean peso denominated, with a maximum remaining duration of 1.5 years and with a fixed interest rate of 4.8%

(xv) The preference shares are sterling-denominated and issued by the Company. There were 2 million shares of £1 each authorised, issued and fully paid at 31 December 2016. 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.

Maturity of borrowings

	At 31.12.2016	At 31.12.2015
	$m	$m
Short-term borrowings	**(836.8)**	(758.9)
Medium and long-term borrowings	**(2,283.4)**	(1,996.2)
Total	**(3,120.2)**	(2,755.1)

At 31 December 2016 $29.1 million (2015 - $38.4 million) of the borrowings has fixed rate interest and $3,091.1million (2015 - $2,716.7 million) has floating rate interest. The Group periodically enters into interest rate derivative contracts to manage its exposure to interest rates. As explained in Note 6, these include interest rate swaps which have the effect of converting $160.0 million of floating rate borrowings into fixed rate borrowings. Details of any derivative instruments held by the Group are given in Note 6.

19. Post-employment benefit obligation

	Year ended 31.12.2016	Year ended 31.12.2015
	$m	$m
Balance at the beginning of the year	**(86.9)**	(103.0)
Current service cost	**(15.5)**	(16.6)
Actuarial gains	**7.8**	2.3
Interest cost	**(4.4)**	(4.1)
Charge capitalised	**(0.5)**	(3.6)
Reclassification	**1.3**	(0.3)
Paid in the year	**12.2**	14.0
Disposal	**-**	8.9
Foreign currency exchange difference	**(6.2)**	15.5
Balance at the end of the year	**(92.2)**	(86.9)

The post-employment benefit obligation relates to the provision for severance indemnities which are payable when an employment contract comes to an end, in accordance with normal employment practice in Chile and other countries in which the Group operates. The severance indemnity obligation is treated as an unfunded defined benefit plan, and the calculation is based on valuations performed by an independent actuary.

20. Decommissioning & restoration and other long term provisions

	Year ended 31.12.2016	Year ended 31.12.2015
	$m	$m
Balance at the beginning of the year	**(394.0)**	(434.3)
Charge to operating profit in the year	**(9.3)**	(25.8)
Unwind of discount to net interest in the year	**(5.5)**	(5.0)
Capitalised adjustment to provision	**(16.9)**	35.7
Reclassification	**(1.1)**	-
Utilised in the year	**3.7**	30.1
Disposal	**35.8**	1.5
Foreign currency exchange difference	**(4.8)**	3.8
Balance at the end of the year	**(392.1)**	(394.0)

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 2024 until 2059 based on current mine plans.

During the year ended 31 December 2016, the decommissioning and restoration provisions at the Group's mining operations decreased by a net total of $1.9 million.

21. Deferred tax assets and liabilities

	Year ended 31.12.2016	Year ended 31.12.2015
	$m	$m
Net position at the beginning of the year	**(951.6)**	(875.2)
Charge to tax on profit in year	**(48.7)**	(83.0)
Deferred tax recognised directly in equity	**(2.1)**	1.4
Deferred tax credit relating to exceptional impairment provisions	**204.9**	-
Reclassification	**3.0**	(0.8)
Disposal	**(3.7)**	8.8
Foreign currency exchange difference	**0.1**	-
Net position at the end of the year	**(798.1)**	(951.6)
Analysed between:		
Deferred tax assets	**82.8**	124.6
Deferred tax liabilities	**(880.9)**	(1,076.2)
Net position	**(798.1)**	(951.6)

The deferred tax balance of $798.1 million (2015 - $951.6 million) includes liabilities of $878.8 million (2015 - $965.0 million) due in more than one year. All amounts are shown as non-current on the face of the balance sheet as required by IAS 12.

22. Share capital and share premium

There was no change in share capital or share premium in the year ended 2016 or 2015.

23. Other reserves and retained earnings

	Year ended 31.12.2016	Year ended 31.12.2015
	$m	$m
Hedging reserves[1]		
At 1 January	**(44.1)**	(36.2)
Parent and subsidiaries net cash flow hedge fair value (losses)/gains	**(2.4)**	0.1
Parent and subsidiaries net cash flow hedge gains transferred to the income statement	**4.1**	3.5
Share of other comprehensive gains/(losses) of equity accounted units, net of tax	**3.1**	(10.2)
Share of other comprehensive gains of equity accounted units, net of tax transferred to the income statement	**31.6**	-
Tax on the above	**(1.1)**	(1.3)
At 31 December	**(8.8)**	(44.1)
Available for sale revaluation reserves[2]		
At 1 January	**(12.9)**	(10.7)
Gain/(losses) on available for sale investment	**1.7**	(3.2)
Losses on available for sale securities transferred to the income statement	**-**	1.0
At 31 December	**(11.2)**	(12.9)
Foreign currency translation reserves[3]		
At 1 January	**(2.3)**	(0.5)
Currency translation reclassified on disposal	**-**	(1.8)
Tax on the above	**-**	-
At 31 December	**(2.3)**	(2.3)
Total other reserves per balance sheet	**(22.3)**	(59.3)
Retained earnings[4]		
At 1 January	**6,416.4**	5,932.1
Parent and subsidiaries profit for the year	**269.3**	614.0
Equity accounted units' loss after tax for the year	**(111.3)**	(5.8)
Actuarial gains[5]	**5.1**	4.5
Tax relating to components of other comprehensive income	**(0.3)**	(1.2)
Total comprehensive income for the year	**6,579.2**	6,543.6
Dividends paid	**(30.6)**	(127.2)
At 31 December	**6,548.6**	6,416.4

(1) The hedging reserve records gains or losses on cash flow hedges that are recognized initially in equity (through other comprehensive income), as described in note 6.
(2) The available for sale revaluation reserves record fair value gains or losses relating to available for sale investment, as described in note 15.
(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) Retained earnings and movements in reserves of subsidiaries include those arising from the Group's share of associates and joint operations.
(5) Actuarial gains or losses relating long – term employee benefits, as described in note 19.

24. Reconciliation of profit before tax to net cash inflow from operating activities

	Year ended 31.12.2016	Year ended 31.12.2015
	$m	$m
Profit before tax from continuing operations	**284.6**	242.8
Profit before tax from discontinued operations	**35.1**	875.6
Depreciation and amortisation	**578.4**	576.1
Net loss on disposals	**19.7**	10.2
Provision against carrying value of assets	**456.6**	-
Profit on disposal of discontinued operations	**(35.1)**	(859.0)
Net finance expense	**71.1**	39.2
Net share of results from associates and joint ventures	**111.3**	5.8
Decrease in inventories	**3.9**	60.5
(Increase)/decrease in debtors	**(124.9)**	137.7
Increase/(decrease) in creditors and provisions	**56.6**	(230.6)
Cash flows from operations	**1,457.3**	858.3

25. Analysis of changes in net debt

	At 1.1.2016	Cash flows	Other	Exchange	**At 31.12.2016**
	$m	$m	$m	$m	**$m**
Cash and cash equivalents	807.5	(103.1)	-	11.9	**716.3**
Liquid investments	924.1	408.1	-	-	**1,332.2**
Total cash and cash equivalents and liquid investments	1,731.6	305.0	-	11.9	**2,048.5**
Bank borrowings due within one year	(753.4)	215.0	(275.8)	-	**(814.2)**
Bank borrowings due after one year	(1,963.3)	(460.7)	225.6	-	**(2,198.4)**
Finance leases due within one year	(5.5)	1.5	(18.5)	-	**(22.5)**
Finance leases due after one year	(29.9)	29.7	(80.3)	(2.1)	**(82.6)**
Preference shares	(3.0)	0.1	(0.1)	0.5	**(2.5)**
Total borrowings	(2,755.1)	(214.4)	(149.1)	(1.6)	**(3,120.2)**
Net debt	(1,023.5)	90.6	(149.1)	10.3	**(1,071.7)**

Net debt

Net debt at the end of each year was as follows:

	At 31.12.2016	At 31.12.2015
	$m	$m
Cash, cash equivalents and liquid investments	**2,048.5**	1,731.6
Total borrowings	**(3,120.2)**	(2,755.1)
	(1,071.7)	(1,023.5)

26. Litigation and Contingent liabilities

Antofagasta plc or its subsidiaries is subject to various claims which arise in the ordinary course of business. None of these claims are currently expected to result in any material loss to the Group. Details of the principal claims in existence either during, or at the end of, the period and the current status of these claims are set out below:

Los Pelambres – Cerro Amarillo Waste Dump

In 2004, Los Pelambres received all of the required authorisations from the Chilean government to deposit waste-rock from its mining activities in its current location (the “Cerro Amarillo Waste Dump”). According to the then official Chilean maps (1996), this area was located entirely within Chile. In 2007, Chile modified the official maps in this area without making the changes public.

In February 2012, a binational border commission, established to clarify the exact position of the Chile/Argentina border, determined accurately the location of the border in the area of the Cerro Amarillo Waste Dump, showing that part of the Cerro Amarillo Waste Dump was located in Argentina.

In May 2014, Xstrata Pachón S.A. (“Xstrata Pachón”), a subsidiary of Glencore plc and the holder of the mining properties on the Argentinian side of the border, filed a claim against Los Pelambres before the Federal Court of San Juan, Argentina, alleging that Los Pelambres had unlawfully deposited waste-rock on its property.

Xstrata Pachón has also filed a criminal complaint before a different Federal Court of San Juan alleging that when Los Pelambres was depositing rock on the Cerro Amarillo Waste Dump it violated several Argentinian laws relating to the misappropriation of land, unlawful appropriation of water bodies and that people’s health was in jeopardy from the alleged contamination that the Cerro Amarillo Waste Dump might generate.

In both cases, Los Pelambres has submitted preliminary objections to the Argentinian courts.

In the civil case, a final decision on these preliminary objections is still pending and substantive arguments will not be made until and unless these preliminary objections are finally rejected.

In April 2016, in accordance with a preliminary measure required by the Federal Court of San Juan, Los Pelambres and the Province of San Juan entered into an agreement pursuant to which Los Pelambres agreed to implement a preventative process to isolate any environmental impacts of the Cerro Amarillo Waste Dump, regularly monitor underground and surface waters, and undertake other additional actions requested by the Province.

In November 2016, the Province set aside the agreement. Notwithstanding this, between November 2016 and January 2017, Los Pelambres removed the truck tyres that had previously been stored at the Cerro Amarillo Waste Dump as had been agreed.

In February 2017, at the Province of San Juan’s request, Los Pelambres filed a provisional action plan to close the Cerro Amarillo Waste Dump with the civil courts, which is currently subject to review by the parties to the proceedings and the judge.
In the criminal proceedings, current and former directors and officers of Los Pelambres are in the process of providing testimony as named co-defendants in this case.

Twin Metals Minnesota – Federal Mineral Leases MNES-1352 and MNES-1353

On 8 March 2016, the Solicitor of the Department of the Interior issued a legal opinion concluding that the Bureau of Land Management (BLM) has discretion to deny Twin Metals’ application for renewal of federal mineral leases MNES-1352 and MNES-1353. The United States Forest Service (USFS) declined to consent to renewal of the leases on 14 December 2016, and BLM rejected Twin Metals’ application to renew the leases the next day.

The BLM’s denial relied on the Solicitor’s Opinion’s conclusion that it had discretion to deny the renewal, and BLM took the view that USFS consent was required to renew the leases. According to BLM, because the USFS refused consent, BLM was required to reject the lease renewal application.

The USFS decision was based on the potential environmental impacts of sulphide-ore copper mining in the Boundary Waters watershed. The USFS decision did not discuss the terms and conditions of the leases, nor did it address Twin Metals’ legal rights to the leases.

On 12 September 2016, Twin Metals filed a complaint in the U.S. District Court in Minnesota against the United States, the U.S. Department of the Interior, Secretary of the Interior Sally Jewell, Solicitor Hilary C. Tompkins, and BLM. Twin Metals brought claims under the Quiet Title Act (QTA) and the Administrative Procedure Act (APA) seeking to secure its rights to the two federal mineral leases. Following the USFS withholding of consent and BLM's denial of renewal, Twin Metals filed an amended complaint on 3 January 2017, adding the U.S. Department of Agriculture, Secretary of Agriculture Thomas J. Vilsack, the USFS, and Chief of the USFS Thomas L. Tidwell as defendants. The amended complaint seeks similar relief under the QTA and APA, and also requests that the court overturn the government's denial of the leases.

The government has not yet responded to the amended complaint.

27. Related party transactions

a) Joint ventures

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 2016 the Group contributed $10.0 million (2015 - $4.0 million) to Tethyan.

The Group has a 50.1% interest in Energía Andina, which is a joint venture with Origin Energy Geothermal Chile Limitada for the evaluation and development of potential sources of geothermal and solar energy. The balance due from Energía Andina SA to the Group at 31 December 2016 was nil (2015 – nil). During the year ended 31 December 2016 the Group contributed $1.0 million to Energia Andina (2015 - $1.3 million).

The Group´s has a 50% interest in Minera Zaldivar, acquired on 1 December 2015 (see Note 14), which is a joint venture with Barrick Gold Corporation. Antofagasta is the operator of Zaldivar from 1 December 2015 onwards.

b) Associates

The Group has a 40% interest in Inversiones Hornitos SA. The Group paid $112.6 million (2015 – $130.1 million) to Inversiones Hornitos in relation to the energy supply contract at Centinela. During 2016 the Group received dividends from Inversiones Hornitos S.A. for $10.1 million (2015 – $12.1 million).

The Group has a 30% interest in Parque Eólico El Arrayán SA ("El Arrayán"). The Group paid $38.1 million (2015 – $42.0 million) to El Arrayan in relation to the energy supply contract at Los Pelambres. During 2016 were a capital decrease of $0.9 million.

The Group has a 40% interest in Alto Maipo SpA ("Alto Maipo"). During 2016 the Group made provisions for capital contributions to Alto Maipo of $36 million (2015 – $42.8 million). The balance due from Alto Maipo to the Group at 31 December 2016 was nil after provision (2015 –$229.7 million) representing loan financing with an interest rate of LIBOR six-months plus 4.25%.

c) Other related parties

The ultimate parent company of the Group is Metalinvest Establishment, which is controlled by the E. Abaroa Foundation, in which members of the Luksic family are interested. The Company's subsidiaries, in the ordinary course of business, enter into various sale and purchase transactions with companies also controlled by members of the Luksic family, including Banco de Chile SA, Madeco SA and Compañía Cervecerías Unidas SA, which are subsidiaries of Quiñenco SA, a Chilean industrial and financial conglomerate the shares of which are traded on the Santiago Stock Exchange. These transactions, all of which were on normal commercial terms, are in total not considered to be material.

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, a company controlled by the Luksic family, which continues to hold the remaining 49% of Antomin 2 and Antomin Investors. The Group is responsible for any exploration costs relating to the properties held by these entities. During the year ended 31 December 2016 Group incurred $1.0 million (2015 – $4.2 million) of exploration work at these properties.

28. Currency translation

Assets and liabilities denominated in foreign currencies are translated into dollars and sterling at the year ended rates of exchange. Results denominated in foreign currencies have been translated into dollars at the average rate for each year.

	2016	2015
Year ended rate	$1.2185=£1; $1 = Ch$669.47	$1.4828=£1; $1 = Ch$710.16
Average rates	$1.3593=£1; $1 = Ch$676.80	$1.5284=£1; $1 = Ch$654.47

29. Distribution

The Annual Report and Financial Statements for the year ended 31 December 2016, together with the Notice of the 2017 Annual General Meeting, will be posted to all shareholders in April 2017. The Annual General Meeting will be held at Church House Conference Centre, Dean's Yard, Westminster, London SW1P 3NZ from 10.00 a.m. on Wednesday 24 May 2017.

30. Production and Sales Statistics (not subject to audit or review)

See notes following Note 30 (b).

a) Production and sales volumes for copper, gold and molybdenum

	Production		Sales	
	Year ended 31.12.2016	Year ended 31.12.2015	**Year ended 31.12.2016**	Year ended 31.12.2015
	000 tonnes	000 tonnes	**000 tonnes**	000 tonnes
Copper				
Los Pelambres	**355.4**	363.2	**351.6**	366.0
Centinela	**236.2**	221.1	**227.6**	224.4
Antucoya	**66.2**	12.2	**66.6**	9.2
Michilla	**-**	29.4	**0.9**	30.8
Zaldivar	**51.7**	4.4	**51.7**	5.5
Group total	**709.4**	630.3	**698.5**	635.9
Gold	**000 ounces**	000 ounces	**000 ounces**	000 ounces
Los Pelambres	**57.8**	51.4	**62.8**	53.4
Centinela	**213.0**	162.5	**208.6**	165.8
Group total	**270.9**	213.9	**271.4**	219.2
Molybdenum	**000 tonnes**	000 tonnes	**000 tonnes**	000 tonnes
Los Pelambres	**7.1**	10.1	**7.2**	9.9
Silver	**000 ounces**	000 ounces	**000 ounces**	000 ounces
Los Pelambres	**2,585.8**	2,451.9	**2,701.9**	2,281.9
Centinela	**1,313.0**	1,028.5	**1,159.0**	1,055.1
Group total	**3,898.8**	3,480.3	**3,860.9**	3,337.0

b) Cash costs per pound of copper produced and realised prices per pound of copper and molybdenum sold

	Cash costs		Realised prices	
	Year ended 31.12.2016	Year ended 31.12.2015	**Year ended 31.12.2016**	Year ended 31.12.2015
	$/lb	$/lb	**$/lb**	$/lb
Copper				
Los Pelambres	**1.06**	1.23	**2.35**	2.24
Centinela	**1.19**	1.85	**2.32**	2.33
Antucoya	**1.83**	-	**2.30**	-
Michilla	**-**	2.14	**-**	2.49
Zaldivar	**1.55**	1.73	**-**	-
Group weighted average (net of by-products)	**1.20**	1.50		
Group weighted average (before deducting by-products)	**1.54**	1.81		
Group weighted average (before deducting by-products and excluding tolling charges from concentrate)	**1.33**	1.58		
Cash costs at Los Pelambres comprise:				
On-site and shipping costs	**1.09**	1.24		
Tolling charges for concentrates	**0.27**	0.27		
Cash costs before deducting by-product credits	**1.36**	1.51		
By-product credits (principally molybdenum)	**(0.30)**	(0.28)		
Cash costs (net of by-product credits)	**1.06**	1.23		
Cash costs at Centinela comprise:				
On-site and shipping costs	**1.53**	2.07		
Tolling charges for concentrates	**0.22**	0.20		
Cash costs before deducting by-product credits	**1.75**	2.27		
By-product credits (principally gold)	**(0.56)**	(0.42)		
Cash costs (net of by-product credits)	**1.19**	1.85		
LME average			**2.21**	2.50
			$	$
Gold				
Los Pelambres			**1,253**	1,141
Centinela			**1,257**	1,159
Group weighted average			**1,256**	1,155
Market average price			**1,248**	1,160
Molybdenum				
Los Pelambres			**6.8**	5.7
Market average price			**6.5**	6.7
Silver				
Los Pelambres			**17.4**	15.4
Centinela			**17.7**	15.4
Group weighted average			**17.5**	15.5
Market average price			**17.1**	15.4

Notes to the production and sales statistics

(i) The production and sales figures represent the actual amounts produced and sold, not the Group's share of each mine. The Group owns 60% of Los Pelambres, 70% of Centinela, 70% of Antucoya and owned 99.9% of Michilla prior to disposal.

(ii) Los Pelambres produces copper and molybdenum concentrates, Centinela produces copper concentrate and copper cathodes and Antucoya produces copper cathodes. The figures for Los Pelambres, Centinela and Antucoya are expressed in terms of payable metal contained in concentrate and in cathodes. Los Pelambres and Centinela are also credited for the gold and silver contained in the copper concentrate sold. Antucoya produces cathodes with no by-products, as did Michilla.

(iii) Cash costs are a measure of the cost of operational production expressed in terms of cents per pound of payable copper produced. Cash costs are stated net of by-product credits and include tolling charges for concentrates at Los Pelambres and Centinela. Cash costs exclude depreciation, financial income and expenses, hedging gains and losses, exchange gains and losses and corporate tax for all four operations.

(iv) Realised copper prices are determined by comparing revenue from copper sales (grossing up for tolling charges for concentrates) with sales volumes for each mine in the period. Realised molybdenum and gold prices are calculated on a similar basis. Realised prices reflect gains and losses on commodity derivatives, which are included within revenue.

(v) The totals in the tables above may include some small apparent differences as the specific individual figures have not been rounded.

(vi) The production information in Note 30(a) and the cash cost information in Note 30(b) are derived from the Group's Q4 2016 production report, published on January 25, 2017.

31. Alternative performance measures

This preliminary results announcement 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 accounts. 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) EBTIDA

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 operational earnings performance of the business, excluding the impact of the historic cost of property, plant & equipment or the particular financing structure adopted by the business.

At 31 December 2016

	Los Pelambres	Centinela	Antucoya	Zaldívar	Exploration and evaluation	Corporate and other items	**Mining**	**Railway and other transport services**	**Total**
	$m	$m	$m	$m	$m	$m	**$m**	**$m**	**$m**
Operating profit/(loss)	**484.9**	**246.0**	**(213.4)**	**-**	**(44.3)**	**(62.3)**	**410.9**	**56.1**	**467.0**
Depreciation and amortisation	195.7	299.4	62.7	-	-	5.2	**563.0**	15.4	**578.4**
Loss on disposals	0.2	17.1	-	-	-	0.6	**17.9**	1.8	**19.7**
Provision against the carrying value of assets	241.0	-	215.6	-	-	-	**456.6**	-	**456.6**
EBITDA from subsidiaries	**921.8**	**562.5**	**64.9**	**-**	**(44.3)**	**(56.5)**	**1,448.4**	**73.3**	**1,521.7**
Proportional share of the EBITDA from associates and JV	(0.8)	-	-	85.1	-	5.7	**90.0**	14.4	**104.4**
Total EBITDA	**921.0**	**562.5**	**64.9**	**85.1**	**(44.3)**	**(50.8)**	**1,538.4**	**87.7**	**1,626.1**

At 31 December 2015

	Los Pelambres	Centinela	Antucoya	Zaldívar	Exploration and evaluation	Corporate and other items	**Mining**	**Railway and other transport services**	**Total**
	$m	$m	$m	$m	$m	$m	**$m**	**$m**	**$m**
Operating profit/(loss)	**555.0**	**(131.0)**	**–**	**–**	**(101.9)**	**(75.1)**	**247.0**	**42.0**	**289.0**
Depreciation and amortisation	**191.6**	**367.6**	**-**	**-**	**-**	**3.1**	**562.3**	**13.8**	**576.1**
Loss on disposals	**2.7**	**1.8**	**-**	**-**	**-**	**4.4**	**8.9**	**2.6**	**11.5**
EBITDA from subsidiaries	**749.3**	**238.4**	**-**	**-**	**(101.9)**	**(67.6)**	**818.2**	**58.4**	**876.6**
Proportional share of the EBITDA from associates and JV	**(0.6)**	**-**	**-**	**6.8**	**-**	**6.9**	**13.1**	**20.4**	**33.5**
Total EBITDA	**748.7**	**238.4**	**-**	**6.8**	**(101.9)**	**(60.7)**	**831.3**	**78.8**	**910.1**

b) Cash costs

Cash costs are a measure of the cost of operational 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 lb 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).

	At 31.12.2016	At 31.12.2015
	$m	$m
Reconciliation of cash costs excluding tolling charges and by-product revenues:		
Total Group operating cost (Note 4)	**3,154.7**	2,936.7
Less:		
Total – Depreciation and amortisation (Note 4)	**(578.4)**	(576.1)
Total – Loss on disposal (Note 4)	**(19.7)**	(11.5)
Total – Provision against the carrying value of asset (Note 4)	**(456.6)**	-
Elimination of non-mining operations		
Corporate and other items – Total operating cost (Note 4)	**(56.5)**	(67.6)
Exploration and evaluation – Total operating cost (Note 4)	**(44.3)**	(101.9)
Railway and other transport services – Total operating cost (Note 4)	**(86.9)**	(94.0)
Closure provision and other expenses not included within cash cost	**(53.4)**	(75.4)
Total cost relevant to the mining operations' cash cost	**1,858.9**	2,165.0
Copper sales volumes – excluding Antucoya Q1 2016/full year 2015 & Zaldivar (tonnes)	**634,000**	621,200
Cash costs excluding tolling charges and by-product revenues ($ per tonne)	**2,932**	3,485
Cash costs excluding tolling charges and by-product revenues ($ per lb)	**1.33**	1.58
Reconciliation of cash costs before deducting by-products:		
Tolling charges - copper - Los Pelambres (Note 5)	**192,200,000**	198,800,000
Tolling charges - copper - Centinela (Note 5)	**108,900,000**	95,200,000
Tolling charges - copper – total	**301,100,000**	294,000,000
Copper sales volumes – excluding Antucoya Q1 2016/full year 2015 & Zaldivar (tonnes)	**634,000**	621,200
Tolling charges ($ per tonne)	**475**	473
Tolling charges ($ per lb)	**0.22**	0.22
Cash costs excluding tolling charges and by-product revenues ($ per lb)	**1.33**	1.58
Tolling charges ($ per lb)	**0.22**	0.22
Cash costs before deducting by-products (S per lb)	**1.54**	1.81

b) Cash costs (continued)

Reconciliation of cash costs (net of by-products):		
Gold revenue - Los Pelambres (Note 4)	**78,500,000**	60,700,000
Gold revenue - Centinela (Note 4)	**261,200,000**	191,300,000
Molybdenum revenue - Los Pelambres (Note 4)	**94,000,000**	105,300,000
Silver revenue - Los Pelambres (Note 4)	**46,100,000**	34,500,000
Silver revenue - Centinela (Note 4)	**20,000,000**	15,900,000
Total by-product revenue	**499,800,000**	407,700,000
Copper sales volumes – excluding Antucoya Q1 2016/full year 2015 & Zaldivar (tonnes)	**634,000**	621,200
Tolling charges ($ per tonne)	**788**	656
Tolling charges ($ per lb)	**0.35**	0.30
Cash costs before deducting by-products (S per lb)	**1.54**	1.81
By-product revenue ($ per lb)	**(0.35)**	(0.30)
Cash costs (net of by-products) ($ per lb)	**1.20**	1.50

The totals in the tables above may include some small apparent differences as the specific individual figures have not been rounded.

c) Attributable cash, cash equivalents & 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 tend to be at the level of the individual operations, and hence only a proportion is attributable to the equity holders of the Company.

		2016			**2015**	
	Total amount	**Attributable share**	**Attributable amount**	**Total amount**	**Attributable share**	**Attributable amount**
	$m		**$m**	**$m**		**$m**
Cash, cash equivalents and liquid investments:						
Los Pelambres	143.0	60%	85.8	248.8	60%	149.3
Centinela	384.0	70%	268.8	598.8	70%	419.1
Antucoya	152.9	70%	107.0	138.6	70%	97.0
Corporate	1,328.1	100%	1,328.1	531.5	100%	531.5
Railway and other transport services	40.5	100%	40.5	213.9	100%	213.9
Total (Note 25)	2,048.5		1,830.2	1,731.6		1,410.8
Borrowings:						
Los Pelambres (Note 18)	(391.7)	60%	(235.0)	(372.3)	60%	(223.4)
Centinela (Note 18)	(1,127.4)	70%	(789.2)	(1,264.3)	70%	(885.0)
Antucoya (Note 18)	(985.3)	70%	(689.7)	(968.9)	70%	(678.2)
Corporate (Note 18)	(524.8)	100%	(524.8)	(27.6)	100%	(27.6)
Railway and other transport services (Note 18)	(91.0)	100%	(91.0)	(122.0)	100%	(122.0)
Total (Note 18 and 25)	(3,120.2)		(2,329.7)	(2,755.1)		(1,936.2)
Net debt	(1,071.7)		(499.5)	(1,023.5)		(525.4)