4 September 2020

South32 Limited
(Incorporated in Australia under the *Corporations Act 2001* (Cth))
(ACN 093 732 597)
ASX / LSE / JSE Share Code: S32 ADR: SOUHY
ISIN: AU000000S320
south32.net

2020 ANNUAL REPORT

South32 Limited (ASX, LSE, JSE: S32; ADR: SOUHY) (South32) today releases its 2020 Annual Report, Corporate Governance Statement and Appendix 4G. These documents are also available online at https://www.south32.net/investors-media/investor-centre/annual-reporting-suite.

The 2020 Sustainable Development Report has also been published on our website at https://www.south32.net/investors-media/investor-centre/annual-reporting-suite.

The Notice of Annual General Meeting will be available on the South32 website, the ASX Market Announcements Platform, and the National Storage Mechanism for LSE and JSE purposes no later than 30 September 2020.

About South32

South32 is a globally diversified mining and metals company. Our purpose is to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources. We produce bauxite, alumina, aluminium, energy and metallurgical coal, manganese, nickel, silver, lead and zinc at our operations in Australia, Southern Africa and South America. With a focus on growing our base metals exposure, we also have two development options in North America and several partnerships with junior explorers around the world.

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Further information on South32 can be found at www.south32.net.

Authorised for release by Nicole Duncan, Company Secretary

JSE Sponsor: UBS South Africa (Pty) Ltd
4 September 2020

SOUTH32

ANNUAL REPORT

About us

SOUTH32 IS A GLOBAL MINING AND METALS COMPANY

We produce bauxite, alumina, aluminium, energy and metallurgical coal, manganese, nickel, silver, lead and zinc at our operations in Australia, Southern Africa and South America. With a focus on growing our base metals exposure, we also have two development options in North America and several partnerships with junior explorers around the world.

Making a difference

Our **purpose** is to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources.

Find out how **we make a difference** on page 20

Optimise, Unlock, Identify

Our purpose is underpinned by a simple **strategy** which is focused on optimising the performance of our operations, unlocking their potential and identifying new opportunities to create value for all our stakeholders.

Discover more about **Our strategy** on page 10

Care, Trust, Togetherness and Excellence

While our strategy outlines what we do to achieve our purpose, our **values** of care, trust, togetherness and excellence guide how we do it. Every day, our values shape the way we behave and the standards we set for ourselves and others.

Discover more about **Our people** on page 27 of our Sustainable Development Report

The photos used throughout our reporting may have been taken before the social distancing requirements in response to COVID-19.

See the documents that make up the rest of our reporting suite at *https://www.south32.net/investors-media/investor-centre/annual-reporting-suite*, including:

Corporate Governance Statement
Our corporate governance practices and a description of our approach to responsible and ethical behaviour.

Sustainable Development Report
An overview of how our business-wide processes support our sustainability objectives, how we manage our most important sustainability topics and progress made during the 2020 financial year.

(1) In this Annual Report, references to 'joint arrangements' mean operations that are not wholly owned by South32, such as joint ventures and joint operations. Joint arrangements are classified in accordance with AASB 11 Joint Arrangements.

Total Recordable Injury Frequency (TRIF)

9% reduction

FY19 **10% reduction**

Scope 1 greenhouse gas emissions FY15 baseline[3]

10% below

FY19 **9% below**

Community investment [1]

US$24.5m

FY19 **US$17.3m**

Payment of taxes and royalties

US$751m

FY19 **US$981m**

Dividends returned in respect of FY20

US$155m

FY19 **US$480m**

Underlying EBITDA[2]

US$1,185m

FY19 **US$2,197m**

HIGHLIGHTS

- Record production at Australia Manganese ore, Hillside Aluminium and Brazil Alumina;
- Finished the year with a net cash balance of US$298 million, having generated free cash flow from operations, including distributions from our manganese equity accounted investments, of US$583 million; and
- US$269 million allocated to our on-market share buy-back program as part of our ongoing capital management program.
- Advanced initiatives to reshape the portfolio by progressing the divestments of SAEC and TEMCO manganese alloys smelter and placed the Metalloys manganese alloy smelter on care and maintenance;
- Progressed the pre-feasibility study for the Taylor deposit at Hermosa and published a Mineral Resource estimate for the Clark deposit; and
- Created additional growth options for our portfolio including forming the Ambler Metals Joint Venture with Trilogy Metals.

(1) Community investment consists of direct investment, in-kind support and administrative costs, see page 20.
(2) This is a non-IFRS measure. For an explanation of how South32 uses non-IFRS measures, see page 32.
(3) Our short-term carbon emission reduction target is to stay below our FY15 Scope 1 carbon emission baseline in FY21.

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RESOURCES AND RESERVES

INFORMATION

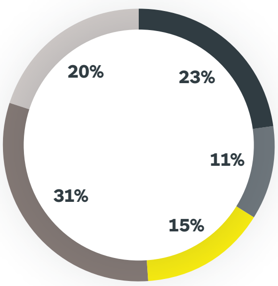
www.south32.net

DIVERSIFIED PORTFOLIO WITH A BIAS TO BASE METALS

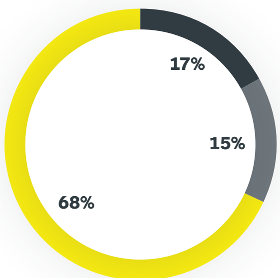
- Office
- Upstream operations
- Downstream processing facilities
- Divestment or placed on care and maintenance
- Development option
- Exploration partnership/project
- South32 investment

FY20 Key Commodity Underlying EBITDA

US$1,650m(1)



By Commodity
- Alumina
- Aluminium
- Metallurgical coal
- Manganese ore
- Base & precious metals



By Geography
- Africa
- Americas
- Australia

See **Segment Reporting in Note 4 to the financial statements** for more information

(1) Includes manganese on a proportional consolidation basis and excludes South Africa Energy Coal (-US$108 million), manganese alloys (-US$21 million), the Brazil Alumina aluminium smelter (-US$10 million), Hermosa (-US$5 million), Group and unallocated costs (-US$38 million) and statutory adjustments (-US$283 million).

OUR COMMODITIES

We mine metallurgical coal and manganese ore which are used to produce steel and we produce alumina, aluminium, ferronickel, silver, lead and zinc, which have applications in industry, transport and consumer goods. We have operations in Australia, Southern Africa and South America and a geographically diverse customer base.

Discover more about **Our business model** on page 8

PORTFOLIO OUTLOOK

We are actively reshaping and improving our portfolio by embedding growth options with a bias to base metals, where we expect to see growth as the world transitions to a lower carbon economy. We are on a pathway to exit our lower returning businesses, including energy coal and manganese alloys, which is expected to improve margins and lift return on invested capital.

Discover more about **Our strategy** on page 10

RESILIENCE IN UNPRECEDENTED TIMES

This year has been a year like no other. The world has been united in the shared experience of COVID-19; a pandemic that has required us to adapt what we do and how we do it to address the risk to our people and to our business. Too many of our colleagues, family members and friends have been personally impacted by the crisis and we have worked hard to support those affected.

At the outset Graham and his management team moved to deploy South32's crisis and emergency protocols, guided by three imperatives: keeping our people safe and well, maintaining safe and reliable operations and supporting the communities we work with.

Meeting this challenge has called for extraordinary efforts from the entire workforce and the Board is deeply grateful to each and every member of the South32 team for the way they have handled the crisis.

Sadly, our year also saw the death of one of our colleagues, Duncan Mankhedi Ngoato, a Diesel Mechanic Assistant who worked with Modi Mining, a contractor at South Africa Energy Coal. Following Mr Ngoato's death an investigation was undertaken to establish the cause and, most importantly, how we can ensure it does not happen again. The Board has reviewed the findings of that investigation and has heard directly from management on the steps that have been taken in response.

It has been our practice to report fatalities that occur where South32 has control of the work or the location where that work is performed. For the FY20 reporting period and beyond we will also disclose fatalities for contractor activities associated with our operations that take place in locations where we do not have control. No loss of life is acceptable. I express my heartfelt condolences to the families, friends and colleagues of those who have died.

In January we farewelled our Board colleague Dr Xolani Mkhwanazi who passed away after a brief illness. Xolani joined our Board in 2015 and enriched our work in so many ways. He was a champion for South Africa and was instrumental in the formation of South32 as a stand-alone entity. I was fortunate to have worked with Xolani for nearly 15 years. Throughout that time he exemplified the values that guide our work and was held in the highest regard by all who knew him. Xolani's contributions went well beyond our industry, being recognised for his role in the re-building of post-apartheid South Africa. We are all the poorer for his loss.

Despite volatile prices, our strong operating performance delivered Underlying earnings before interest, tax, depreciation and amortisation of US$1.2 billion and free cash flow of US$583 million[1]. The Group's statutory profit declined to a loss of US$65 million in FY20 following the recognition of impairment and restructuring charges totaling US$115 million (US$94 million after tax) in relation to our equity accounted manganese alloy smelters.

We ended the financial year with a net cash balance of US$298 million, having returned US$424 million to our shareholders in respect of the period. This included US$323 million returned to shareholders as part of our ongoing capital management program, with US$269 million allocated to our on-market share buy-back program and US$53.5 million returned in the form of a special dividend.

As part of our response to COVID-19 we moved quickly to preserve the strength of our balance sheet by suspending our on-market share buy-back. Our capital management program is 92 per cent complete and at the time of writing our buy-back remains suspended given the ongoing uncertainties brought about by COVID-19. The Board has extended the buy-back period to 3 September 2021.

In December 2019, we welcomed Guy Lansdown to the Board. Guy is a civil engineer with extensive experience in project development and mining. He has expertise in early and late stage greenfield and brownfield project development and delivery around the world, particularly in the Americas. His appointment supports our growing presence in that region as we continue to advance our exploration and development projects in the region. Before international air travel was suspended, in addition to the full Board site tours, Guy was also able to visit Mozal Aluminum in Mozambique and Cannington in Australia. We are delighted to have Guy as part of our team and look forward to working with him.

The Board's commitment to regularly visit our operations and offices around the world was also interrupted by COVID-19 travel restrictions. We did manage to complete visits to Hillside Aluminium in Richards Bay, South Africa and the corporate office in Johannesburg, South Africa, along with Illawarra Metallurgical Coal in New South Wales, Australia and look forward to resuming these important visits as soon as we are able.

> "Shareholders can be confident that we will continue to preserve our strong balance sheet and focus on creating long-term value."

(1) Free cash flow includes distributions from manganese equity accounted investments of US$313 million.

Since COVID-19, the Board has met virtually and with increased frequency to deal with the emerging issues for our business. Rather than cancel our interactions with the site teams, we have held virtual sessions with the teams at GEMCO in Australia's Northern Territory and Hillside Aluminium in South Africa. Both operations have risen to their very real challenges in ensuring their people and communities remain safe and well. Like all their colleagues around the world they are to be commended for their efforts.

Many of our operations have longstanding relationships with Indigenous Peoples and local communities. In October 2018 we launched our first Reconciliation Action Plan (RAP) to document our formal reconciliation journey with Aboriginal and Torres Strait Islander communities. We were proud to launch our Innovate RAP in September 2020, which raises the bar on our previous commitments as we work towards embedding reconciliation activities in our core business practices and decision-making. Our Innovate RAP represents the next phase of our work and documents our support for the establishment of a First Nations Voice to be enshrined in the Australian Constitution, as outlined in the Uluru Statement From The Heart.

At Cerro Matoso in Colombia, following extensive engagement with community and government institutions, we reached agreement with 15 groups including seven Indigenous, two Afro-Colombian and six non-Indigenous communities covering engagement, investment and environmental management. These agreements build on our positive relationships in the region and provide a strong foundation to work in partnership to create healthier and stronger communities.

We know we can only be successful when communities and broader society share in the benefits of what we do. We have continued to support our communities with investments of US$24.5 million focused on four key areas aligned to community need: education and leadership, health and social wellbeing, economic participation, and natural resource resilience.

Since formation South32 has been committed to the mitigation of our impact on the environment. During the year we progressed our work to meet our goal of net zero emissions from our operations by 2050. Our Scope 1 and 2 emissions were 23.3 million tonnes CO_2 equivalent and we are on-track to hold our Scope 1 emissions at or below FY15 levels until FY21. We recognise that if we are to meet our commitment for net zero emissions by 2050 then we need a plan to take us there. We have started work on our next set of targets for the period FY22 to FY26 which will be released in our FY21 reporting. We have also progressed decarbonisation studies at Worsley Alumina and Illawarra Metallurgical Coal – the operations where we are targeting substantial reductions in our Scope 1 emissions.

We recognise that a broad range of stakeholders want to understand our rationale for joining industry associations and how we might address divergent positions on material topics. For the first time, we have published Our Approach to Industry Associations which outlines our view on the important role these groups provide to understand, learn and contribute to industry best practice, while also providing an avenue to engage in and influence matters affecting our industry.

I am pleased to see the launch of the Global Industry Standard on Tailings Management, following extensive consultation as part of the global tailings review which was co-convened by the International Council on Mining and Metals. I commend everyone who was involved in delivering this critically important Standard for our industry that establishes requirements for the robust management of tailings storage facilities.

Looking ahead, uncertainty is likely to persist in global markets for some time and we expect to face our share of challenges as the world continues to respond to COVID-19. Shareholders can be confident that we will continue to preserve our strong balance sheet and focus on creating long-term value. Graham and his team are positioning us for further growth and success as we meet these challenges.

On behalf of the Board, I would like to thank our shareholders and of course our people. This year has demonstrated the commitment and resilience of the entire South32 team. They have shown what can be achieved when we confront a challenge together and in a way that aligns with our values. I thank one and all for their ongoing support.

Karen Wood
Chair

FOCUSING ON WHAT MATTERS MOST

This year marked our five-year anniversary as South32, providing an opportunity to reflect on all that we have achieved to deliver on our strategy and build a strong company that is well positioned for the future.

Sadly, in May this year, one of our colleagues was fatally injured while working at the Ifalethu colliery in South Africa Energy Coal. It is devastating that Duncan Mankhedi Ngoato went to work at one of our operations and did not return home to his family. Our response included providing support to Mr Ngoato's family, conducting a full investigation in conjunction with his employer Modi Mining and sharing the learnings across our business and with his employer to prevent a similar tragedy occurring again.

Historically, we have reported fatalities that occur where South32 has control of the activities or location. This year, we have also disclosed fatalities for contractor activities that are associated with our operations, but that take place in locations where we do not have control. In FY20 two people from our contracting companies tragically lost their lives in separate offsite incidents during transport of our product to the shipping ports. These incidents were associated with our Cerro Matoso and South Africa Manganese operations. We worked closely with the contractors to support their employees, conduct thorough investigations and implement the findings for both incidents. We are committed to continually improving our systems and processes and influencing the organisations we work with so that everyone goes home safe and well.

Our continuing focus on improving safety across our business saw our Total Recordable Injury Frequency decrease by nine per cent year-on-year. However, there is still more to do. We are increasing capability to manage safety risk across the organisation, sharing learnings and continuously improving the way we work.

In January we lost our Board colleague, Dr Xolani Mkhwanazi, who passed away following a short illness. Dr X, as he was known to so many of us, was an inspirational leader who made an outstanding contribution to South32 from his appointment as one of the first Directors of the company in 2015. I know he will be missed by all who knew him and South32 will not be the same without him.

The COVID-19 pandemic has had a significant impact on our business. We immediately focused our response on keeping our people safe and well, maintaining safe and reliable operations and supporting our communities; all of which are critical to protecting the future of our business. We developed and implemented critical controls designed to protect our people and minimise the risk of exposure to COVID-19, including screening and testing, additional cleaning and hygiene measures, and adjustments to work routines to enable appropriate social distancing.

> "With the impact of COVID-19 we focused our response on keeping our people safe and well, maintaining safe and reliable operations and supporting our communities."

To create space for our teams to focus on the work that matters most, we reviewed our priorities and stopped work that was not business-critical. We developed community response plans at all sites and pledged US$7 million to support our local communities as they prepare, prevent, respond and recover from the health and economic impacts of the COVID-19 pandemic.

Given the market uncertainty created by COVID-19, we moved quickly to ensure the business would remain resilient in a volatile pricing environment for our commodities. We reduced our planned sustaining capital expenditure and are pursuing cost efficiencies and further simplification across the Group.

Measures taken by governments to slow the spread of COVID-19 resulted in some of our operations being placed into temporary care and maintenance or operating at a reduced rate from March 2020, particularly in South Africa where our manganese and export coal production was impacted. In response, we revised production guidance for several operations.

Despite the impact of COVID-19, we delivered a strong operating result for the year. Australian Manganese ore, Hillside Aluminium and Brazil Alumina achieved production records while Worsley Alumina delivered a further two per cent increase as the refinery progressed towards sustainable production at nameplate capacity.

In FY20, we made good progress reshaping our portfolio. In November 2019 we signed a binding conditional agreement for the sale of South Africa Energy Coal to Seriti Resources and, subject to a number of material conditions being satisfied, the transaction remains on-track for completion in the December 2020 half year. Following an extensive review, we have placed our Metalloys manganese alloy smelter on care and maintenance which preserves the option to pursue divestment of the business as a going concern. We progressed the review of Tasmanian Electro Metallurgical Company manganese alloys smelter and, in August 2020, we entered into a binding conditional agreement for the sale of the smelter to an entity within GFG Alliance.

Our strategy of building a pipeline of development options by partnering in early stage greenfield exploration projects saw us acquire a 50 per cent interest in the Ambler Metals Joint Venture, after we exercised our option with Trilogy Metals. The Upper Kobuk Mineral Projects in Alaska comprises the high-grade polymetallic Arctic Deposit, the Bornite Deposit and an attractive regional exploration holding. We agreed several new greenfield exploration partnerships during FY20, further building our pipeline of base metals opportunities.

Work on our development options continued to advance in FY20. At the Hermosa project, we progressed the pre-feasibility study for the Taylor Deposit and published our initial Mineral Resource estimate for the Clark Deposit. We now expect to complete the pre-feasibility study in the December 2020 quarter after COVID-19 restrictions in Arizona had an impact on timelines. A feasibility study for the Eagle Downs project is progressing, with a final investment decision expected by the end of the calendar year.

Alongside initiatives to improve our operational performance and build our development pipeline, we continue to improve our environmental and social performance. In FY20 we became a signatory to the United Nations Global Compact (UNGC), a voluntary CEO-led initiative focused on corporate sustainability, and we are implementing the Ten Principles. We continue to support the UNGC and remain committed to the initiative and its principles.

We progressed decarbonisation studies at Illawarra Metallurgical Coal and Worsley Alumina – the sites where we are targeting substantial reductions in our Scope 1 emissions. At the Hermosa project, we completed the remediation of two million tonnes of tailings from a legacy mine to reduce the risk of run-off contaminating local waterways.

In FY20 we continued to implement community investment plans at all operations and invested US$24.5 million in community initiatives and activities. We developed a framework to measure and enhance the impact of our investments across the areas of education, economic participation, health and social wellbeing, and natural resource resilience. We also provide disaster relief in times of crisis for our communities and in FY20 we donated A$1 million to support relief efforts linked to the Australian bushfires.

Wherever we operate, we engage the local Indigenous communities and ensure that site work programs take account of areas of cultural significance and the views of our traditional and local communities. In late FY20, we commenced a review of our approach to cultural heritage management to identify any opportunities to strengthen or enhance our systems and processes.

In Colombia, we transferred over 390 hectares of land to seven Indigenous Councils of the Zenú community and the Black Community Council of Bocas de Uré for sustainable agriculture.

Despite the challenges presented by COVID-19, we ended FY20 with a strong balance sheet, improved performance at several operations, and solid progress on reshaping our business for the future. We are focused on delivering our strategy and maintaining the strong position of the company in the face of volatile markets.

When I look back at all we have achieved over the last five years, it's clear that South32 has evolved into a successful, stand-alone company that delivers on its purpose and strategy. Together we've experienced highlights and challenges, built strong relationships and made a real difference. That would not have been possible without the collective efforts of our people and I would like to thank everyone for their contribution.

As the impact of COVID-19 continues to be felt around the world, the ability of our people and communities to adapt and keep going is a credit to their resilience. I am proud to lead this great company.

Graham Kerr
Chief Executive Officer

CREATING LONG-TERM VALUE

As a global mining and metals company, we create value by producing commodities that are used in all aspects of modern life. Our operations and development options are diversified by commodity and geography. We work to minimise the impact of our operations and aim to create enduring social, environmental and economic value.

Our pipeline of development options and early stage exploration partnerships is central to our strategy to further reshape and improve our portfolio and create long-term value.

Our operations focus on safe and reliable production, minimising their impact and continually improving their competitiveness to maximise return on investment.

MINE
- Bauxite[1]
- Energy coal[2]
- Lead
- Manganese ore
- Metallurgical coal
- Nickel ore[1]
- Silver
- Zinc

REFINE
- Alumina

SMELT
- Aluminium
- Ferronickel
- Manganese alloy[2]

Our marketing team generates revenue from the sale of our commodities and purchases raw materials. They also build a view of commodities and their markets that informs our strategy, business planning and investment decisions.

Construction | **Transport** | **Energy** | **Consumer goods**

Our strategy guides how we optimise our business, unlock its full value and identify ways to create value for all stakeholders.

For more information on **Progress against our strategy** in FY20, see page 12

(1) We mine and refine bauxite to produce alumina; we mine nickel ore to produce ferronickel.
(2) A binding conditional agreement was signed in FY20 for the sale of South Africa Energy Coal and, subject to a number of material conditions being satisfied, is on-track for completion in H1 FY21. The Metalloys manganese alloy smelter was placed on care and maintenance in July 2020 and a binding conditional agreement was signed for the sale of the Tasmanian Electro Metallurgical Company Pty Ltd manganese alloys smelter in August 2020.

MINE

Manganese ore and metallurgical coal are essential materials to produce steel for construction of buildings and infrastructure. We are the world's largest producer of manganese ore from our operations in Australia and South Africa.

Lead, silver and zinc from our Cannington mine have a range of applications, including batteries, renewable energy generation, construction and consumer electronics.

Energy coal is used for power generation. We primarily supply coal to domestic power stations that are close to our mines in South Africa. We sell some energy coal on the seaborne market.(2)

REFINE

Alumina is used to produce aluminium. Worsley Alumina and Brazil Alumina refine bauxite which is used to produce alumina. Approximately 50 per cent of the production from Worsley Alumina is shipped to our aluminium smelters in South Africa and Mozambique and we sell 50 per cent plus our share of production from Brazil Alumina on the seaborne market. Worsley Alumina is one of the world's largest and lowest cost alumina producers.

SMELT

Aluminium has a range of applications including in the automotive sector where it can reduce the carbon footprint of a vehicle. Aluminium is infinitely recyclable and also used in construction and consumer goods like electronics and household items. Hillside Aluminium in South Africa is the largest aluminium smelter in the southern hemisphere.

Ferronickel is used to make stainless steel which is used to produce household items, surgical instruments and vehicle parts. Cerro Matoso mines nickel ore which is smelted in electric arc furnaces to produce ferronickel.

Manganese alloy is used in the production of steel.(2)

770
kilograms of metallurgical coal is used to make one tonne of steel

7%
of global lead production comes from Cannington

60%
of all zinc consumed goes towards protecting steel from corrosion

Approximately
20%
of the manganese ore seaborne market is supplied by our joint venture

Approximately
65%
of global lead production is used in automotive batteries

More than
66%
of nickel production is used to produce stainless steel

Our strengths, capabilities and key differentiators

We have a strong focus on safety, operational performance, capital discipline and developing future opportunities for our business.

- We focus on safety; stable and predictable performance; and cost competitiveness. We have robust systems and an integrated approach to risk management across the business;
- We are structured for agile decision-making and have an entrepreneurial mindset that allows us to respond quickly to changes in the market; and
- This combination means we are well positioned to identify and pursue future growth options for our business with a bias towards the base metals that will remain essential to people's daily lives for years to come.

We build an inclusive workplace which enables continuous improvement.

- We have a shared purpose and work with integrity and in line with our values; and
- We trust in our teams and there is a strong dialogue with leadership, empowering decision-making at a local level.

We aim to be trusted by our stakeholders because we deliver on our commitments.

- We aim to create value through our social and environmental performance and build relationships based on trust and transparency; and
- Our approach is to engage all stakeholders who have an interest in our business to understand their perspectives and identify ways we can work together and create long-term value.

A STRATEGY TO ACHIEVE OUR PURPOSE

At South32 we believe that, when done sustainably, the development of natural resources can change people’s lives for the better.

This is integral to our **purpose** – to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources.

Our purpose is underpinned by one simple yet powerful **strategy**:

OPTIMISE

We **optimise** our business by working safely, minimising our impact, consistently delivering stable and predictable performance, and continually improving our competitiveness.

UNLOCK

We **unlock** the full value of our business through our people, innovation, projects and technology.

IDENTIFY

We **identify** and pursue opportunities to sustainably reshape our business for the future, and create enduring social, environmental and economic value.

Our strategy outlines what we do to achieve our purpose and our values of Care, Trust, Togetherness and Excellence guide how we do it. Our values shape the way we behave and the standards we set for ourselves and others.

Our values

Care
We care about people, the communities we're a part of and the world we depend on.

Trust
We deliver on our commitments and rely on each other to do the right thing.

Togetherness
We value difference and we openly listen and share, knowing that together we are better.

Excellence
We are courageous and challenge ourselves to be the best in what matters.

We deliver on our purpose and strategy by aligning our workforce behind seven 'breakthroughs' that shape our business plans across South32, enabling us to focus and work together on what's important. Our FY20 commitments and performance against those commitments to deliver our strategy is summarised on the following pages.

We adapted some of our plans due to COVID-19 in the second half of FY20, which included stopping or deferring some activities to allow our people to focus on our response to COVID-19 and the work that matters most. Our ongoing COVID-19 response is built around keeping our people safe and well, maintaining safe and reliable operations, and supporting our communities. Some of the steps taken to protect our workforce and help our communities are described in the following pages where we report progress on delivering our strategy.

With the uncertainty and volatility in markets caused by COVID-19, we responded quickly to protect our strong financial position by adjusting our capital expenditure priorities and suspending the remaining portion of our on-market share buy-back. We have also heightened our focus on reducing costs, optimising production and managing counterparty and supply chain risk, to ensure the business remains resilient in a volatile environment for commodity prices and currencies.

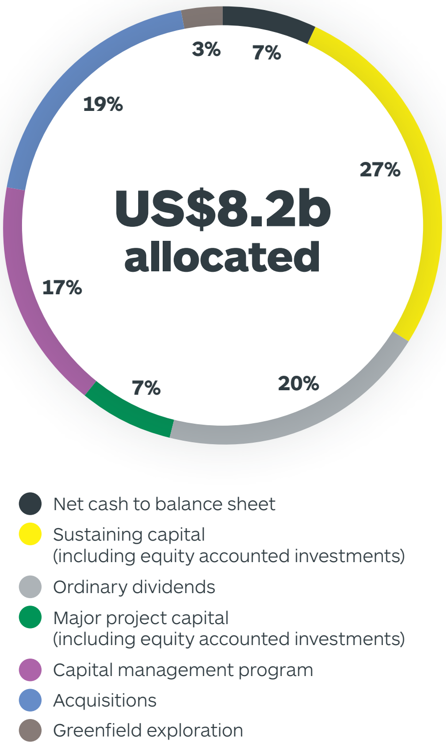
RISK FRAMEWORK AND CORPORATE GOVERNANCE

We are governed by robust risk management and corporate governance frameworks. For more information, see pages 24-31 for risk management and our Corporate Governance Statement which can be found at *www.south32.net*.

CAPITAL MANAGEMENT FRAMEWORK

Our capital allocation priorities are to maintain safe and reliable operations and an investment grade credit rating throughout the cycle. We intend to distribute a minimum 40 per cent of underlying earnings in respect of each six-month period as ordinary dividends. We encourage internal competition for excess capital, which can include further investment in new projects, acquisitions, greenfield exploration, share buy-backs or special dividends.

Capital allocation
(Capital allocation since FY16)



OPTIMISE OUR BUSINESS

Working safely

OUR FY20 COMMITMENTS:

- A 15 per cent reduction in TRIF compared to FY19;
- A 1:3 ratio of significant hazards identified to significant events, which encourages the reporting of hazards; and
- A 10 per cent reduction in potential material occupational exposures[1] from the FY19 baseline.

PROGRESS DURING THE YEAR:

We were deeply saddened by the fatal injury to one of our colleagues, Duncan Mankhedi Ngoato, a Diesel Mechanic Assistant for Modi Mining, following an incident at the Ifalethu colliery at South Africa Energy Coal (SAEC) on 27 May 2020. We immediately responded with support to Mr Ngoato's family, friends and colleagues. A detailed investigation into this incident was undertaken, led by a member of our Senior Leadership Team, with the results reviewed by the Chief Executive Officer, management team and Board. The key learnings have been shared across our operations and the contractor's business to prevent a similar tragedy occurring again.

Tragically, two people were also fatally injured in off-site incidents within our contractors' road transport activities, which were associated with our operations.

We reduced our TRIF to 4.2 during FY20, a reduction of nine per cent compared to FY19. This continues our trend of improved year-on-year TRIF performance since FY17 but did not meet our FY20 target of a 15 per cent reduction year-on-year.

In FY20, our hazard reporting improved through an increase in focus on the identification, reporting and control of fatality risk. We achieved a ratio of 1:4 significant hazards identified to significant events.

Our indicator of potential material occupational exposures >100 per cent of the Occupational Exposure Limit (OEL) increased overall. This was due to re-baselining of potential material exposures at Khutala and Worsley Alumina following a review of hygiene management practices.

In response to the COVID-19 pandemic we took a number of steps to protect our employees and contractors, including the rapid development and implementation of a series of critical controls. Measures included screening and testing, creation of isolation facilities, modifications to ensure physical distancing, increased cleaning regimes, additional personal protective equipment and educational campaigns for our workforce. We also developed and implemented mental health and wellbeing tools for our people in direct response to the unique challenges associated with COVID-19.

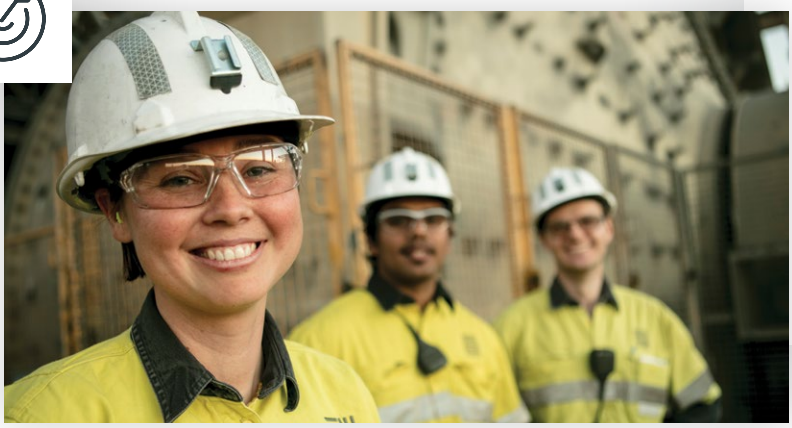
(1) Material occupational exposures include potential exposure to carcinogens and coal dust.

TRIF

4.2

Total recordable illness frequency (TRILF)

1.4



"We are increasing capability to manage safety risk across the organisation, sharing learnings and continuously improving the way we work."

Graham Kerr, CEO

OPTIMISE OUR BUSINESS

Stable and predictable performance while minimising impact

OUR FY20 COMMITMENTS:

- Production within 95 – 105 per cent of budget;
- Controllable cash cost within US$50 million of FY20 budget;
- Capital expenditure within five per cent of capital budget;
- Achieve Scope 1 and 2 emissions at or below the 24,672ktCO_2e forecast, and stay on-track to meet our FY21 Scope 1 target.
- Implement Community Investment Plans for each operation and collect data to measure positive social impact.

PROGRESS DURING THE YEAR:

In FY20 we achieved production at 98 per cent of budget despite some of our operations temporarily being placed on full or partial care and maintenance in response to COVID-19 and restrictions in several jurisdictions where we operate.

We achieved controllable cash cost savings of US$68 million against the budget, which was mainly driven by actions taken to preserve cash during the COVID-19 pandemic, lower functional expenditure, and lower caustic consumption at Worsley Alumina.

Sustaining capital was proactively reduced in response to market conditions. Major project capital was 101 per cent of budgeted expenditure.

In FY20, our Scope 1 and 2 emissions were 23,250kt CO_2-e and we are on-track to hold our Scope 1 emissions at or below our FY15 levels in FY21. We have started work to develop our next emissions targets which will commence in FY22.

We continued with study activities that will support delivery of our contextual water target at Worsley Alumina, a specific, time-bound commitment which aims to deliver an intended outcome, while also progressing also progressing operational water strategies at Illawarra Metallurgical Coal and Hotazel Manganese Mines (HMM). In addition, we revised our target at Mozal Aluminium to better reflect the immediate water needs of the local communities, with a similar review of the Hillside Aluminium target planned for FY21.

We continued to implement community investment plans at all operations and invested US$24.5 million in community initiatives and activities during FY20. This included US$7 million pledged to support our communities' response to the COVID-19 pandemic.

During FY20 we developed a community investment impact measurement framework to measure the impact of our investments across the areas of education, economic participation, health and social wellbeing, and natural resource resilience. The framework is being applied to existing and new community investment partnerships in FY21. This will help us to consistently improve our approach to community investment and enhance our impact.

We undertook work to further improve the effectiveness of our community complaints and grievances process.

Our internal processes to manage cultural heritage are integrated across the business so that site work programs take account of areas of cultural significance and the views of our traditional and local communities. In late FY20, we commenced a review of our approach to cultural heritage management to identify opportunities to strengthen or enhance our approach.

(1) Our short-term carbon emission reduction target is to stay below our FY15 Scope 1 carbon emission baseline in FY21.

Production vs budget

98%

FY20 Scope 1 greenhouse gas emissions below FY15 baseline(1)

10%

FY20 community investment

US$24.5m

UNLOCK THE VALUE OF OUR BUSINESS

Our people are connected and engaged

OUR FY20 COMMITMENTS:

- Meet our measurable objectives to increase the representation of employees and leaders who are women;
- Meet our measurable objectives for representation of Black People in our South African workforce and leadership; and
- A two per cent increase in employee engagement against the FY19 baseline.

PROGRESS DURING THE YEAR:

Overall representation of women increased by one per cent across our business year-on-year to 19 per cent. Representation of women on our Board was 37.5 per cent and on our Lead Team was 44 per cent, consistent with our target. Women made up 36 per cent of our Senior Leadership Team, and 18 per cent of our Operational Leadership Teams. While we did not achieve our targets of 40 per cent and 20 per cent respectively, this will remain a focus area in FY21.

Representation of Black People in our workforce and management in South Africa is 83 per cent. While we did not meet our target of 85 per cent, it represented a one per cent increase compared to FY19.

We conducted our annual survey to measure employee engagement; however, analysis of the findings was delayed and simplified due to the focus on the COVID-19 response. The overall results indicate that engagement has remained stable at 60 per cent with participants reporting a positive overall employee experience and an increase in perceptions of leadership capability by two per cent.

In response to the COVID-19 pandemic, we rolled out a range of wellbeing initiatives and support tools to help our people and their families. These included a dedicated mental health and wellbeing intranet site, expanding our domestic violence support page, a dedicated COVID-19 channel on our internal social network to boost connectedness, increased engagement by the Lead Team and access to health and wellbeing experts.

In FY20 we completed our Leadership Capability Program after gathering insights and building targeted development plans for 1,320 leaders across our business. The insights gained have been used to develop a Leadership Fundamentals Program that will be rolled out in FY21.

We successfully renegotiated collective agreements at Hillside Aluminium, Mozal Aluminium and Cannington Port Operations.

Percentage of employees who are women

19%

Participants in leadership capability program

1,320

The COVID-19 pandemic has presented a unique global challenge with the potential to impact both the mental and physical wellbeing of our people. To proactively manage this, we've taken steps to enhance and expand our approach and support our people when they've needed it most.

UNLOCK THE VALUE OF OUR BUSINESS

Project execution

OUR FY20 COMMITMENTS:

- Progress the pre-feasibility study for Hermosa and the feasibility study for Eagle Downs; and
- Unlock the value in our portfolio by delivering on key projects across our operations.

PROGRESS DURING THE YEAR:

We progressed the pre-feasibility study for the Taylor Deposit at the Hermosa project. The Mineral Resource estimate for the Taylor Deposit was updated to 167Mt in July 2020 in support of the current pre-feasibility study. In May 2020, we reported the first Mineral Resource estimate for the Clark Deposit in accordance with the JORC Code and have commenced a scoping study to advance our understanding of the processing and end-market opportunities for the deposit.

We progressed the feasibility study for Eagle Downs Metallurgical Coal, with the completion of the remaining resource quality drilling. We are working with our joint venture partner to complete the current studies ahead of an expected final investment decision in H1 FY21.

We invested US$14 million in FY20 to progress study and permitting work and invest in critical path activities for the Dendrobium Next Domain (DND) project, which, while subject to regulatory approvals, has the potential to extend the mine life to approximately FY36. External approvals are progressing and we expect to make a final investment decision in H2 FY21. Following extensive engagement with local stakeholders, we published our Environmental Impact Statement in FY20 and received 720 submissions from members of the public with over 80 per cent indicating support for the project.

We invested US$122 million in the Klipspruit Life Extension (KPSX) project at SAEC, which will sustain production at the Klipspruit colliery for more than 20 years. The project is close to completion and remains on schedule and budget.

Technology and innovation unlock value

OUR FY20 COMMITMENTS:

- Implement South32's approach to innovation, improvement and technology;
- Implement Technology Enabler programs focused on adoption of critical technology across South32;
- Implement cyber security improvements to reduce material risk across South32; and
- Establish and commence delivery of South32's value-driven Innovation Portfolio.

PROGRESS DURING THE YEAR:

We responded quickly and effectively to the COVID-19 pandemic by enabling smooth adoption of remote working, the acceleration of cyber security improvements to manage risks of remote access to systems, and the implementation of COVID-19 response tools and applications to support our workforce.

We have implemented an integrated approach to innovation, improvement and technology focused on accelerating delivery of value across the business.

We have established multiple Technology Enabler Programs (TEPs) which are designed to set direction and accelerate adoption and improvement in technology. Our TEPs include cyber security, connectivity, video-conferencing, improving business processes through the deployment of a new enterprise resource planning system, and the use of data science to drive decisions and unlock value.

We actively manage cyber security and data centre risks. In FY20 we began implementing a multi-year program to further strengthen our approach to identifying and addressing cyber security risks.

We set up and began delivery of a strategy-aligned, value-focused, innovation portfolio called Innovate32 which is based on a defined approach for investment and delivery of innovation across the business.

IDENTIFY OPPORTUNITIES

Create enduring social, environmental and economic value

OUR FY20 COMMITMENTS:

- Progress decarbonisation prefeasibility studies for Worsley Alumina and Illawarra Metallurgical Coal; and
- Develop a three-year plan for strategic community investment.

PROGRESS DURING THE YEAR:

We progressed our decarbonisation prefeasibility studies for Worsley Alumina and Illawarra Metallurgical Coal, where we are targeting substantial reductions in our Scope 1 emissions.

We have focused our decarbonisation studies at Worsley Alumina on energy and water efficiencies related to our mud washing and settling processes. We are also progressing a study that aims to build flexibility into our fuel and energy supply mix, with the potential to substantially reduce the operation's emissions.

At Illawarra Metallurgical Coal, our gas drainage system improvement efficiency project is in the execution phase and we achieved post drainage capture efficiency of 56.5 per cent in FY20. The captured methane is either flared or directed to third party to generate power. Both activities significantly reduce the amount of CO_2-e released into the atmosphere by converting methane to CO_2, providing an abatement of approximately 88.7 kilotonnes of CO_2-e in FY20.

We completed the remediation of two million tonnes of tailings from a historic mine at our Hermosa project, designing a dry stack tailings storage facility and water treatment system to reduce the risk of run-off from the legacy tailings contaminating local waterways.

We developed a three-year strategic community investment plan; however, with the emergence of COVID-19 in the second half of FY20, we put some of these activities on hold, and reallocated the funding to support our communities through the pandemic.

Through the South32 Global Community Investment Fund, we pledged US$7 million to the areas that need it most. Our COVID-19 community investment plans cover prevention, preparedness, response and recovery and our support has included the provision of water, essential hygiene and medical supplies, public health awareness and education campaigns, building capacity in local healthcare systems and supporting those who are unable to access critical goods and services. We also donated to the Solidarity Fund in South Africa and the Royal Flying Doctor Service, Foodbank and Lifeline in Australia.

Our strategic community investment plan in FY20 was focused on establishing a national program for Indigenous secondary school scholarships and employment pathways in Australia and scoping community-owned water projects in Mozambique and an Indigenous Leadership and Governance Program at Groote Eylandt Mining Company Pty Ltd (GEMCO).

In Australia, we are continuing our reconciliation journey with our next level 'Innovate' Reconciliation Action Plan (RAP), which was launched at the beginning of FY21. Since launching our Reflect RAP in FY19, we have built reconciliation objectives into our community investment framework and engagement plans and developed an Indigenous Participation plan at GEMCO. Commitments in our Innovate RAP include growing our Aboriginal and Torres Strait Islander workforce by five per cent year-on-year and increasing the procurement of goods and services from Aboriginal and Torres Strait Islander businesses by 10 per cent year-on-year.

Read more about our **approach to climate change** in our Sustainable Development Report

Pledged

US$7m

to the COVID-19 community response

IDENTIFY OPPORTUNITIES

Sustainably reshape our business for the future

OUR FY20 COMMITMENTS:

- Progress divestment of SAEC;
- Complete the review of our manganese alloy smelters; and
- Assess the option to form a joint venture for Upper Kobuk Mineral Projects.

PROGRESS DURING THE YEAR:

FY20 saw the signing of a binding conditional agreement for the sale of SAEC to Seriti Resources. Subject to a number of material conditions being satisfied, the transaction is on-track for completion in H1 FY21.

We progressed the review of options for our manganese alloy smelters – Metalloys in South Africa and Tasmanian Electro Metallurgical Company (TEMCO) in Australia.

Metalloys has been placed on care and maintenance, which preserves the option to pursue divestment of the business as a going concern. The move to care and maintenance led to a restructure of the workforce which concluded in July 2020.

In August 2020, GEMCO entered into a binding conditional agreement for the sale of TEMCO to an entity within GFG Alliance. Completion of the transaction is subject to approval from Australia's Foreign Investment Review Board.

We partner with companies to fund early stage greenfield exploration opportunities in base metals and invested US$15 million in FY20. After an initial exploration partnership between South32 and Trilogy Metals to advance both parties' geological understanding of the Upper Kobuk Mineral Projects, we exercised our option to acquire a 50 per cent interest and formed the Ambler Metals Joint Venture with Trilogy Metals. The project is in Alaska and comprises the high-grade polymetallic Arctic Deposit, the Bornite Deposit and an attractive regional exploration holding.

During FY20 we continued to expand our global exploration footprint. We funded greenfield exploration in Australia, Peru, Colombia, Argentina, Ireland, Sweden, Mexico and the United States. Our exploration expenditure for FY20 was US$64 million (FY19: US$76 million) of which US$27 million related to brownfield and US$37 million related to greenfield (FY19: US$23 million and US$53 million respectively).[1]

(1) Please refer to page 144 for Our exploration, research and development.

"Our strategy of building a pipeline of development options by partnering in early stage greenfield exploration projects saw us acquire a 50 per cent interest in the Ambler Metals Joint Venture."

Graham Kerr, CEO

MAXIMISING RETURNS AND BUILDING A SUSTAINABLE BUSINESS

Milestones that made us who we are today

2015

- Legal Day One of South32
- Set our capital management framework
- Joined the International Council on Mining & Metals (ICMM)
- Established values and policies that set our expectations regarding how we will work together and behave towards each other, including our Code of Business Conduct and our Risk Management Framework

2016

- Published our first five-year short-term target, to keep our Scope 1 emissions in FY21 below our FY15 baseline
- Paid our first dividend
- Improved the performance of our operations with controllable cost savings of US$386 million and annual production records at five operations in FY16
- Signed a land access agreement with the Anindilyakwa Land Council for further mining and exploration on Groote Eylandt

2017

- Commenced on-market share buy-back as part of our capital management program
- Released our first report outlining our approach to climate change in response to the recommendations of the Task Force on Climate-related Financial Disclosures
- Invested US$1.8 million in addressing the pay equity gap
- Commenced a leadership development program for more than 1,300 of our leaders
- Approved a 4.3 billion South African rand investment to extend the life of the Klipspruit colliery at SAEC

Over five years...

Total community investment to date	Dividends paid	Total payment of taxes and royalties	Total investment in addressing the pay equity gap
US$93m	**US$1.9b**	**US$3.4b**	**US$3m**

2018

- Completed the acquisition of Arizona Mining (Hermosa); one of the most exciting base metals projects in the industry
- Acquired a 50 per cent interest in the Eagle Downs Metallurgical Coal project
- Simplified our functional model realising annual savings of US$50 million from FY20
- Outlined our vision for reconciliation in our first Reconciliation Action Plan

2019

- Implemented a risk and event management tool to enhance our capability to identify, assess, remedy and proactively manage risk across our organisation
- Completed decarbonisation concept studies for Worsley Alumina and Illawarra Metallurgical Coal
- Signed a binding conditional agreement for the sale of SAEC to Seriti Resources
- Detailed our approach to tailings management in support of ICMM's Global Tailings Review to develop an international standard for tailings management

2020

- Formed the Ambler Metals Joint Venture for the Upper Kobuk Mineral Projects in north-west Alaska
- Supported our communities with disaster relief and pledging US$7 million for our COVID-19 community response
- Actively overseeing more than 20 greenfield projects across seven countries, to build our pipeline of development options
- Delivered a strong operating result for FY20 despite the impacts of the COVID-19 pandemic
- Concluded the review of our manganese alloys smelters, reaching an agreement to divest TEMCO and placing Metalloys on care and maintenance

MAKING A DIFFERENCE NOW AND FOR GENERATIONS TO COME

We're committed to creating value through environmental and social leadership. We work hard to be responsible stewards of the environment and treat natural resources with care so that they are available for future generations. We care about the people and groups who are interested in what we do and want to have a say, or who are impacted by our operations.

Our community investment in FY20[1]

US$24.5m

(1) Community investment consists of direct investment, in-kind support and administrative costs and includes US$5.6 million in community investment made through our corporate functions, US$17 million in community investment made through operations (see pages 42 to 51 for further information) and US$1.8 million in community investment made through Hermosa.

At South32 we believe that, when done sustainably, the development of natural resources can change people's lives for the better. From providing jobs and business opportunities, contributing to governments through paying taxes and royalties, developing local suppliers and supporting community programs we can make a significant contribution to the way people live and work.

Supporting our diverse communities

There is broad socio-economic diversity across the various communities, regions and countries in which we work.

We understand the value of creating opportunities for everyone in our communities. Our work includes supporting increased female participation in science, technology, engineering and mathematics, recognising the traditional rights and values of Indigenous Peoples, respecting cultural heritage and supporting the South African Government's transformation objectives.

Read more about our **approach to human rights** in our Sustainable Development Report

Building relationships based on trust

Delivering on our commitments and being a trusted partner is essential to the way we operate.

We do this by listening to our stakeholders and communities to understand what's important to them and addressing concerns through local complaints and grievance processes. We manage our impacts and maximise benefits to our communities by developing tailored plans based on local socio-economic research.

Read more about our **work with communities** at *www.south32.net*

Governance and transparency

In line with our Code of Business Conduct, we are committed to the highest standards of integrity and accountability and conduct our business in a way that respects human rights.

This includes transparency in how community investment is allocated, supporting sound governance of partner organisations, sourcing responsibly, and encouraging capacity building so resources reach those who need it most.

Read more about our **community investment approach** at *www.south32.net*

Investing in what matters most

Wherever we operate, we recognise our responsibility to support our communities by investing in local programs. We focus on four areas, which reflect the priorities of our communities and are aligned with the relevant United Nations Sustainable Development Goals.

Education and leadership

Quality education is the foundation of economic and social prosperity and supports the development of emerging and future community leaders.

150
More than 150 Aboriginal students on Groote Eylandt participated in the Polly Farmer Foundation to improve educational outcomes.

150
Scholarships provided to local people from diverse ages and backgrounds with the opportunity to advance their education in Colombia.

Economic participation

Economic opportunity and participation ensure that local and regional economies are resilient now and sustainable into the future.

600
More than 600 farmers in Mozambique participated in a program to optimise production and strengthen agricultural value chains.

90
More than 90 businesses participated in our Enterprise and Supplier Development programs in South Africa to develop and empower small local businesses to be financially and operationally independent.

Good health and social wellbeing

Health and social wellbeing are integral to sustainable development and contribute to vibrant communities.

500
More than 500 families have been able to build and renew their own houses in Colombia.

350
community members took part in a rehabilitation program to support prisoners and their families to reintegrate into society in South Africa.

US$7m

pledged to support our communities through COVID-19.

We are supporting our local communities as they prepare, prevent, respond and recover from the health and economic impacts of the COVID-19 pandemic. We've established a South32 Global Community Investment Fund, pledging US$7 million to the areas that need it most. We continue to work with local authorities and non-government partners to:

- supply water, essential hygiene and medical supplies;
- run public health education campaigns;
- support those at risk who are unable to access critical goods and services;
- strengthen health systems; and
- support community socio-economic recovery.

Natural resource resilience

Communities that live in balance with their natural environments are resilient and sustainable.

100

More than 100 communities in Africa have improved access to water and sanitation services.

A$1m

donated to organisations dealing with the Australian bushfire crisis.

MANAGING OUR RISKS TO PROTECT OUR PEOPLE AND MAXIMISE VALUE

Risk management is fundamental to maximising the value of our business and informing its strategic direction. Effective risk management enables us to identify priorities, allocate resources, demonstrate due diligence in discharging legal and regulatory obligations, and meet the standards and expectations of our stakeholders.

Our approach to risk management is governed by our risk management framework, which has been in place since the inception of our company in 2015. The minimum mandatory requirements for the management of risks that have a material impact on our purpose, strategy and business plans are defined in our material risk management standard.

The framework and the standard are delivered through the System of Risk Management which is aligned to the principles of the International Standard for Risk Management AS/NZS ISO 31000:2018. This approach applies to all employees, Directors and contractors of the company and its subsidiaries. Our risks are regularly assessed and managed at both a company-wide strategic level and at a material tactical level for operations, functions and projects.

MATERIAL RISKS

Our System of Risk Management and assurance processes are based on the three lines of defence model and aim at managing our material risks. It enables us to:

- Provide stable and consistent processes, tools and routines to identify and regularly assess the most impactful risks and opportunities;
- Ensure predictable outcomes and prevent unforeseen events with material impacts;
- Ensure risks are well understood and managed at all levels of the organisation; and
- Eliminate risks where appropriate or improve our processes using a risk-based approach.

Risks assessed as material are routinely reported to the South32 Lead Team and reviewed by the Risk and Audit Committee as well as the Sustainability Committee; assisting the Board to carry out its role in overseeing our risk management and assurance practices. Our reliance on data that supports the management of our material risks has been significantly improved, with the introduction of our new risk management tool, Global360. This software connects data relating to the management of our risks, events, hazards and assurance actions, providing transparency of real-time status of our risks and controls and improving our rate of decision-making and responses. Aside from helping us manage our operations and functions, reliable data on material risks significantly contributes towards the management of our strategic risks. This provides insight into trends and emerging themes that can trigger a review of our business plans or inform a change in strategic direction.

STRATEGIC RISKS

Our strategic risks and associated management response are evaluated every year. The review process is informed by external and internal events that could have a potential impact on our organisation, as well as emerging themes across our material risks. In FY20, we identified 13 strategic exposures that could influence our plans and the sustainability of our business. With the interruption of COVID-19 we have focused our response on three key areas – keeping our people safe and well, maintaining safe and reliable operations, and supporting our communities, all of which are critical to protecting the future of our business.

Ensuring that our people go home safe and well

A safe and healthy working environment is fundamental to living our values.

RISK EXPOSURE TREND 2020

↑

OPPORTUNITIES

Ensuring that our people go home safe and well drives the culture we aspire to and meets societal expectations, as well as our expectations of each other.

THREATS

The impact of not having a safe working environment can be devastating for our employees, contractors and communities. It can alter lives, impact shareholder returns, stakeholder confidence and ultimately our licence to operate.

OUR RESPONSE INCLUDES:

- In everything we do, we focus on the health and safety of our people, contractors and communities;
- We have a system of risk management, comprehensive health and safety policies, systems and standards with associated performance requirements designed to prevent and mitigate potential exposure to health and safety risks;
- We engage, develop and train our people to ensure our work is well designed and executed;
- We investigate actual and potential significant events, put controls in place, and share our learnings across the organisation – so that everyone can benefit;
- We continuously improve our work environment to make it safer and more productive for our people; and
- We have an independent assurance function that reviews our risk register and the associated controls, to test how effective they are.

Actions by government, political risks and/or tax authorities

When changes in legislation, regulation and/or policy impact our strategic goals and the way we work, we aim to effectively manage this uncertainty.

This includes uncertainty surrounding direct and indirect taxes, and royalties where we operate, as well as around broader policy decisions and regulatory changes, relating but not limited to:

- Nationalisation of mineral resources;
- Renegotiation or nullification of contracts;
- Leases, permits or agreements; and
- Environmental performance.

RISK EXPOSURE TREND 2020

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OPPORTUNITIES

Proactive engagement leading to strong relationships with governments provides mutual understanding of drivers for decision-making. This increases clarity around policy and regulatory environments, enables appropriate and tailored responses to issues, and provides investment certainty.

THREATS

Legislation adverse to our business and regulatory or policy decisions taken by governments can result in operational disruption, affect future planning or in extreme cases lead to cessation of operations.

OUR RESPONSE INCLUDES:

- We have the specialised knowledge we need through employment or consulting, including tax management capability, tax advice, and external relations advice;
- We monitor political activity in all jurisdictions we operate in;
- We engage with our key stakeholders in all jurisdictions where we operate and identify them through active mapping and developing engagement plans;
- We work through selected industry associations to influence how the industry is positioned;
- We monitor policy, legislative and regulatory changes and we also engage with relevant authorities; and
- We produce an annual Tax Transparency and Payments to Governments Report, which shows how we meet our regulatory tax obligations.

Portfolio composition

Our objective is to outperform by offering our shareholders exposure to high-quality operations in commodities with a strong and sustainable outlook, in jurisdictions where we believe we can operate into the future – in line with our values.

RISK EXPOSURE TREND 2020

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OPPORTUNITIES

We invest for value in our preferred commodities and jurisdictions. We do this by progressing our internal development options, by acquiring exploration opportunities, development projects or existing operations and by divesting non-preferred exposures that we believe will not generate an acceptable shareholder return.

THREATS

If we don't invest in a disciplined way or divest non-preferred exposures for value, we could reduce shareholder returns. Climate change, and the transition to a low-carbon economy, may present both risks and opportunities for our portfolio commodity composition. This is discussed under 'Climate change resilience' on page 30.

OUR RESPONSE INCLUDES:

- We keep our strategy front of mind as it informs the decisions we make about portfolio composition. We formally evaluate our strategic positioning annually with the Board and provide updates throughout the year;
- We have a dedicated greenfields exploration team focused on building a pipeline of low-cost, high-quality resource development options;
- We apply a rigorously developed and independently verified Commodity Price Protocol (CPP) process, to develop long-term views for our portfolio commodities and foreign exchange rates for the jurisdictions we operate in;
- We maintain a life of operations planning process. By evaluating the embedded options in our operations, we can progress with organic options at the right time;
- We follow strong due diligence processes for acquisitions and new business ventures;
- We apply a standardised valuation methodology with consistent key macroeconomic assumptions;
- We have a mature and independent peer review process, which we rigorously follow to inform key investment decisions; and
- We actively manage portfolio change with dedicated specialists to deliver integration and separation benefits.

Global economic uncertainty, volatility and liquidity

Our aim is to manage risks related to uncertain and changing macroeconomic conditions. We do the same when it comes to the volatility in commodity, currency and debt capital markets, given how much they can impact our earnings, balance sheet and growth goals.

RISK EXPOSURE TREND 2020

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OPPORTUNITIES

We retain a strong balance sheet, investment grade credit rating and capital discipline to enhance our resilience through economic cycles. This approach also provides greater financial flexibility when market conditions are favourable, which in turn allows us to create strong competition for capital. By investing selectively in our existing operations and growth opportunities, or increasing returns to shareholders we aim to maximise total shareholder returns over time.

THREATS

A significant deterioration in economic conditions, market demand and falling commodity prices, and/or an adverse movement in exchange rates has the potential to significantly reduce profitability, cash flow and total shareholder returns.

OUR RESPONSE INCLUDES:

- Our diverse portfolio strengthens our resilience to the disruption of any one commodity, geography or operation;
- We prioritise a strong balance sheet and an investment grade credit rating, so that we remain in control through economic cycles;
- We test our financial strength across a range of scenarios, including a depressed demand and pricing environment. We also maintain a minimum liquidity buffer;
- We adjust our capital management plans according to market conditions;
- We maintain strong relationships with high-quality customers and suppliers from all around the world;
- We mostly sell our products with reference to floating, market-based prices, which are broadly inversely correlated with floating global currency markets and the input costs we're exposed to; and
- We carry out an annual review of commodity prices, which we use to inform our operational plans.

Unexpected major events or natural catastrophes

Our operations and transport networks can be disrupted by events such as pandemics, unexpected natural disasters or major process failures.

RISK EXPOSURE TREND 2020

↑

OPPORTUNITIES

Delivering an outstanding performance in health, safety, environment and communities enhances our operational and business resilience.

THREATS

Failure to manage major unexpected events or natural catastrophes could result in a significant event or other long-term damage that could harm the Group's financial performance and/or licence to operate. The role of climate change in increasing the frequency and/or severity of natural catastrophes is also addressed under 'Climate change resilience' on page 30.

OUR RESPONSE INCLUDES:

- When facing potential catastrophes, we put safety and wellbeing at the heart of everything we do;
- We use a strong system of risk management in design, construction and operation phases, to analyse risks and design plans that prevent or limit business impacts;
- We have business continuity and disaster recovery plans in place with trigger action response scenarios. We've tested these to make sure we can respond rapidly to major events and safely restore our operations and protect the health of people and the communities in which we operate;
- We have governance functions independent of the operations that provide assurance against our own comprehensive internal standards including equipment integrity, tailings dams management and technical stewardship;
- We maintain insurance against many, but not all, potential losses or liabilities arising from operating risks (this may not fully cover all financial losses); and
- We work with external experts, relevant industry bodies and technology suppliers, to provide additional assurance and input.

Key talent identification, attraction and retention

Our ability to identify, attract and retain key talent and develop capabilities is fundamental to delivering our strategic priorities.

RISK EXPOSURE TREND 2020

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OPPORTUNITIES

Defined talent management processes can help lift performance and better enable us to deliver on our strategy.

THREATS

Failure to manage talent and develop the right capabilities within our business can ultimately erode shareholder value.

OUR RESPONSE INCLUDES:

- We focus on enhancing our offering to employees and potential employees to distinguish ourselves in the market through effective approaches to talent and recruitment management, remuneration, skills development and succession planning;
- We continually seek ways to better engage and empower our workforce, including leading flexibility policies and a focus on ensuring we maintain an inclusive workplace;
- Our dedication to 'making a difference' inspires our people;
- We identify key talent and provide them with experience and growth through time in critical roles;
- Our strategic planning process identifies capability requirements for the future;
- We work to strengthen our reputation and status in the community as an employer of choice through community engagement programs; and
- We continue to improve our long-term workforce planning and talent management program across the organisation.

Evolving culture of the organisation

We recognise the value of a strong culture as a critical enabler to how we deliver our purpose and strategy.

RISK EXPOSURE TREND 2020

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OPPORTUNITIES

Proactively and deliberately shaping our culture will help us to deliver on our purpose and strategy while being guided by our values.

THREATS

A misaligned culture can result in organisational underperformance, and financial and reputational damage.

OUR RESPONSE INCLUDES:

- We are working to better understand the gap between what our culture is and what we want it to be – and to have a clear approach to help us close any gaps;
- We continue to develop an inclusive and diverse workplace where our people reflect the countries and communities in which we operate;
- Our Board monitors and assesses culture through Operation visits; staff engagements; endorsement and tracking of inclusion and diversity metrics, employee engagement results, and Speak Up data;
- We are making sure our ways of working (systems, symbols and behaviours) are aligned to our aspired culture; and
- We identify and deploy effective levers to deliberately shape our culture in an ever-evolving world.

Predictable operational performance

Predictable operational performance improves our ability to keep our people safe, meet our regulatory and social obligations, reliably provide quality products to our customers and deliver shareholder returns.

RISK EXPOSURE TREND 2020

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OPPORTUNITIES

We mature our operating system to control the operations and processes that deliver value. We spend capital annually to sustain our production capacity to create value and we invest in high-return projects and improve the reliability of our production capability.

THREATS

If we can't safely achieve our production targets and mitigate rising unit costs, it will impact directly on our profits and cash flow, as well as our ability to meet our commitments to our stakeholders.

OUR RESPONSE INCLUDES:

- We carry out rigorous quality assurance programs over our operations, marketing and logistics;
- We review our asset health and integrity on a regular basis;
- We reconcile the performance of our Mineral Resource and Ore Reserve quality against production on an annual basis;
- We carry out rigorous modelling and reviews of our geotechnical drilling data;
- We operate within target inventory operating windows and regularly review our internal scheduling and operational planning;
- We monitor raw material supply contracts and implement early detection procedures at load ports;
- We utilise long-term and short-term planning, scheduling and verification processes;
- We carry out operational resource planning and regularly review our productivity metrics;
- We apply structured work design processes for critical or high value tasks; and
- We apply verification systems to ensure we're compliant with work standards.

Maintain competitiveness through innovation and technology

Technology and innovation are advancing at a rapid pace. Companies who are unable to effectively leverage technology and innovation will find themselves falling behind in shareholder returns.

RISK EXPOSURE TREND 2020

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OPPORTUNITIES

To stay competitive, we will position our organisation to effectively identify, adopt and sustain technology and innovation that delivers shareholder returns.

THREATS

Failure to keep pace with and leverage, advances in technology could result in reduced shareholder returns. Cyber security incidents could pose multiple risks including disruption to operations, theft, disclosure or corruption of information.

OUR RESPONSE INCLUDES:

- We are continuously improving our approach to innovation, improvement and technology;
- We are delivering specific programs focused on adoption and improvement of critical technology capabilities across multiple time horizons including cyber security, data science, automation and mobility;
- We have a clear, value-based, ‘portfolio’ approach to testing and scaling up innovation across the group;
- We have rigorous internal standards and processes (technology ‘ways of working’);
- We benchmark our digital operations’ performance against industry best practice and have organised the coordination and integration of technology advances into South32’s growth portfolio;
- We actively manage cyber security and data centre risks through our system of risk management and have increased our cyber security controls in response to COVID-19 and an increase in remote working;
- We monitor customer satisfaction and manage customer support; and
- We follow a rigorous assurance process for our approach to innovation, improvement and technology.

Security of supply of logistics chain and critical services

Together with our customers and suppliers we manage the inbound and outbound supply chains. Critical categories include raw materials, energy, water, gas, heavy mobile equipment, tyres and logistics (which includes road, rail, air and shipping).

RISK EXPOSURE TREND 2020

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OPPORTUNITIES

By securing commercially competitive terms, we capitalise on market opportunities while supporting the safe and reliable performance of our operations.

THREATS

Failure to secure commercially acceptable terms could disrupt our operations, increase operating costs and damage our reputation. Pandemic has potential to disrupt in and out bound supply chains. Climate change has potential to increase frequency and/or severity of extreme weather events which may threaten our supply chain, logistics and critical services. This is addressed under 'Climate change resilience’ on page 30.

OUR RESPONSE INCLUDES:

- We have a business continuity plan that ensures we optimise existing supply chains and identify alternate sources for critical supplies;
- We build strong strategic partnerships with Tier 1 suppliers on a long-term, mutually beneficial basis;
- We have a clearly defined transformation strategy and enterprise and supplier development program in South Africa aimed at building and growing small and medium enterprises; and
- We actively review and manage payment terms to support small and local businesses in all jurisdictions.

Maintain, realise or enhance the value of our resources and reserves

We exist to realise the potential of the resources and reserves we are entrusted to develop.

We work to continually optimise our operations through sound technical and economic understanding of our resources and reserves.

RISK EXPOSURE TREND 2020

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OPPORTUNITIES

We continue to enhance our understanding of our resources and reserves. We leverage this enhanced understanding through the annual business planning cycle to investigate additional opportunities to add value to our business.

THREATS

If we fail to continually optimise our operations and projects, it will have a significant impact on shareholder returns and ultimately, the sustainability of the company.

OUR RESPONSE INCLUDES:

- We report Mineral Resources and Ore Reserves (including Coal Resources and Coal Reserves) in accordance with the JORC Code as required in Chapter 5 of the ASX Listing Rules;
- We apply an annual business planning standard and process, structured to maximise value throughout the life of our operations;
- Our capital prioritisation, capital allocation and planning processes prioritise the highest-value options across our portfolio;
- We apply a rigorous project development process that includes independent peer review of project risks and approval tollgates; and
- Our closure standard ensures that our full-life-of-operations value incorporates closure and rehabilitation liabilities.

Climate change resilience

South32 has been actively addressing risks associated with climate change for several years. By using climate change scenarios, we can identify opportunities and threats to our portfolio and operations.

We assess these risks through a framework that includes policy, market and physical factors.

RISK EXPOSURE TREND 2020

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OPPORTUNITIES

We regularly assess our customer and broader stakeholder preferences, as well as developments in policy and competitive technologies, to ensure our products remain in demand and resilient. Our pipeline of development options and exploration programs include commodities with a favourable outlook in a low carbon future, with a bias to base metals.

THREATS

Failure to build the resilience of our business to the physical impacts of climate change, reduce our emissions and respond to changes in policy and technology could negatively impact our supply chain, business continuity and access to key inputs (such as water), our communities, costs, legal exposure, demand for our products, stakeholder confidence and ultimately shareholder returns. Refer to related risks of 'Security of supply of logistics chain and critical services', 'Unexpected major events or natural catastrophes' and 'Portfolio composition'.

OUR RESPONSE INCLUDES:

- We seek to understand our portfolio performance in a range of future climate scenarios, considering both opportunities and threats;
- We identify potential controls in the short, medium and long-term to improve the climate change resilience of our portfolio;
- We support the Paris Agreement objectives and are committed to achieving net zero carbon emissions by 2050;
- We identify and implement greenhouse gas reduction projects and energy planning, with our emissions reduction targets linked to remuneration;
- We use climate modelling data to inform us of the level of risk to our operational plans;
- We prioritise our land management efforts to improve resilience, including minimising land disturbance and maximising rehabilitation efforts; and
- We're transparent in our disclosure of climate change-related opportunities and threats in our annual reporting, which is aligned to the recommendations of the Task Force on Climate-related Financial Disclosures. Further detail on this risk and its management is detailed in our Sustainable Development Report.

Evolving stakeholder expectations

There are evolving expectations of mining and metals companies by employees, government, investors, lenders, host communities and broader society. Our stakeholders may have divergent views and wants.

We actively engage our stakeholders to understand and respond to their views and identify ways we can create social, environmental and economic value.

RISK EXPOSURE TREND 2020

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OPPORTUNITIES

We undertake proactive, collaborative and transparent engagement with our stakeholders, to build relationships based on trust and shared understanding. Our ongoing licence to operate will be supported through recognition of our contribution to our stakeholders and broader society.

THREATS

Failure to achieve stakeholder support could damage our reputation and negatively impact our licence to operate, limiting our ability to grow our business in existing and new jurisdictions, and impacting our ability to access funding for new or existing operations.

OUR RESPONSE INCLUDES:

- Our purpose and strategy expressly balance economic outcomes with social and environmental outcomes, now and into the future. In the decisions we take, we look to minimise impact and create enduring social, environmental and economic value for all our stakeholders;
- We undertake internal and external stakeholder analysis and engagement on a wide range of financial, environmental, social and governance (ESG) issues. Our approach is aligned with the ICMM Mining Principles and Global Reporting Initiative Sustainability Reporting Standards;
- We recognise that mineral resources are managed by governments on behalf of their citizens. We proactively engage with governments to keep public policymakers informed and we advocate for our positions. We monitor policy and political developments;
- We always aim to build strong, honest and meaningful relationships with local communities, so that we're ready to listen to their concerns. We regularly complete and review community perception surveys, social baseline studies and impact and opportunity assessments;
- We have a rigorous process to understand the expectations of our shareholders on a wide range of issues informed by regular engagement; and
- We transparently report on our risks, opportunities, regulatory obligations, commitments and areas where we're working that are relevant to our stakeholders.

DELIVERING STRONG OPERATING RESULTS AND PROTECTING OUR BALANCE SHEET

We set production records at three operations, lowered Operating unit costs at nine out of our ten operations and took decisive action to protect our balance sheet.

The Group uses both International Financial Reporting Standards (IFRS) and non-IFRS financial measures such as underlying measures of earnings, effective tax rate (ETR), return on invested capital (ROIC), cash flow and net debt, to assess the Group's performance. The Directors believe that the non-IFRS measures are important when assessing the underlying financial and operating performance of the Group and its operations. The meanings of individual non-IFRS measures used in this report are set out in the Glossary on page 156.

Underlying earnings, Underlying EBIT and Underlying EBITDA are included on page 96 in note 4 to the financial statements. We believe that Underlying earnings, Underlying EBIT and Underlying EBITDA provide useful information, but should not be considered as an indication of, or an alternative to, profit/(loss) after tax as an indicator of actual operating performance or as an alternative to cash flow as a measure of liquidity.

In discussing the operating results of the Group, the focus is on Underlying earnings and ROIC. Underlying earnings is the key measure that is used by the Group to assess its performance, make decisions on the allocation of resources and assess senior management's performance.

In addition, the performance of each of the Group's operations and operational management is assessed based on Underlying EBIT. Management uses this measure because financing structures and tax regimes differ across the Group's operations and substantial components of tax and interest charges are levied at a Group level rather than an operational level.

In order to calculate Underlying earnings, Underlying EBIT and Underlying EBITDA, the following items are adjusted as applicable each period, irrespective of materiality:

- Exchange rate (gains)/losses on restatement of monetary items;
- Impairment losses/(reversals);
- Net (gains)/losses on disposal and consolidation of interests in businesses;
- (Gains)/losses on non-trading derivative instruments and other investments measured at fair value;
- Major corporate restructures; and
- Earnings adjustments included in profit/(loss) of equity accounted investments.

In addition, South32 management retains the discretion to adjust for other significant non-recurring items that are not considered reflective of the underlying performance of the Group's operations.

FINANCIAL KEY PERFORMANCE INDICATORS FOR FY20

Financial highlights

US$M	FY20	FY19	Change
Revenue(1)	**6,075**	7,274	(16%)
Profit/(loss) before tax and net finance cost	**261**	887	(71%)
Profit/(loss) after tax and net finance cost	**(65)**	389	n/a
Basic earnings per share (US cents)(2)	**(1.3)**	7.7	n/a
Ordinary dividends per share (US cents)(3)	**2.1**	7.9	(73%)
Special dividends per share (US cents)(4)	**1.1**	1.7	(35%)
Other financial measures			
Underlying EBITDA	**1,185**	2,197	(46%)
Underlying EBITDA margin	**21.9%**	33.9%	(12.0%)
Underlying EBIT	**446**	1,440	(69%)
Underlying EBIT margin	**8.4%**	22.2%	(13.8%)
Underlying earnings	**193**	992	(81%)
Basic Underlying earnings per share (US cents)(2)	**3.9**	19.7	(80%)
ROIC	**2.2%**	10.7%	(8.5%)
Ordinary shares on issue (million)	**4,846**	5,006	(3.2%)

(1) Revenue includes revenue from third party products and services.

(2) FY20 basic earnings per share is calculated as profit/(loss) after tax divided by the weighted average number of shares for FY20 (4,892 million). FY20 basic Underlying earnings per share is calculated as Underlying earnings divided by the weighted average number of shares for FY20. FY19 basic earnings per share is calculated as profit/(loss) after tax divided by the weighted average number of shares for FY19 (5,048 million). FY19 basic Underlying earnings per share is calculated as Underlying earnings divided by the weighted average number of shares for FY19.

(3) FY20 ordinary dividends per share is calculated as H1 FY20 ordinary dividend announced (US$54 million) divided by the number of shares on issue at 31 December 2019 (4,900 million) plus H2 FY20 ordinary dividend announced (US$48 million) divided by the number of shares on issue at 30 June 2020 (4,846 million). FY19 ordinary dividends per share is calculated as H1 FY19 ordinary dividend announced (US$258 million) divided by the number of shares on issue at 31 December 2018 (5,051 million) plus H2 FY19 ordinary dividend announced (US$140 million) divided by the number of shares on issue at 30 June 2019 (5,006 million).

(4) FY20 special dividends per share is calculated as H1 FY20 special dividend announced (US$54 million) divided by the number of shares on issue at 31 December 2019 (4,900 million). FY19 special dividends per share is calculated as FY19 special dividend announced (US$86 million) divided by the number of shares on issue at 31 December 2018 (5,051 million).

EXTERNAL FACTORS AND TRENDS AFFECTING THE GROUP'S RESULT

The following describes the main external factors and trends that have had a material impact on the Group's financial position and results of operations. Details of the Group's most significant risk factors and how they are mitigated can be found in Risk management on pages 24 to 31 of the Annual Report.

Management monitors particular trends arising from external factors with a view to managing the potential impact on the Group's future financial position and results of operations.

Commodity prices and changes in product demand and supply

South32 produces metals and ores, prices of which are driven by global demand and supply for each of these commodities. Commodity prices were generally lower in FY20 compared to FY19 as most physical markets weakened on the back of heightened macroeconomic uncertainty and the COVID-19 pandemic. The prices that the Group obtains for its products are a key driver of business performance, and fluctuations in these markets affects its results, including cash flows and shareholder returns.

Estimated impact on Underlying EBIT of a +/- 10% change in commodity price

US$M	FY20
Aluminium(1)	**177**
Alumina	**150**
Manganese ore(2)	**83**
Metallurgical coal	**79**
Energy coal(3)	**58**
Nickel	**45**
Silver	**19**
Lead	**17**
Manganese alloy(2)(3)	**16**
Zinc	**9**

(1) Aluminium sensitivity shown without any associated increase in alumina pricing.

(2) The sensitivity impacts for manganese ore and manganese alloy are on a pre-tax basis. The Group's manganese operations are reported as an equity accounted investment. As a result, the profit after tax for manganese is included in the Underlying EBIT of South32.

(3) A binding conditional agreement was signed in FY20 for the sale of SAEC and, subject to a number of material conditions being satisfied, is on-track for completion in H1 FY21. The Metalloys manganese alloy smelter was placed on care and maintenance in July 2020 and a binding conditional agreement was signed for the sale of the TEMCO manganese alloys smelter in August 2020.

Financial and operational performance summary continued

The following table shows the quoted market prices of the Group's most significant commodities in FY20 and FY19. These prices differ from the realised prices on the sale of production due to contracts to which the Group is a party, differences in quotational periods, quality of products, delivery terms and the range of quoted prices that are used for contracting sales in different markets.

Quoted commodity prices

	Average price			Closing price		
Year ended 30 June	FY20	FY19	Change	FY20	FY19	Change
Alumina[1] (US$/t)	**277**	435	(36%)	**262**	321	(18%)
Aluminium (LME Cash)[2] (US$/t)	**1,678**	1,921	(13%)	**1,602**	1,774	(10%)
Energy coal[3] (US$/t)	**67.6**	86.3	(22%)	**50.1**	64.3	(22%)
Metallurgical coal[4] (US$/t)	**143.9**	204.9	(30%)	**116.0**	193.5	(40%)
Manganese ore[5] (US$/dmtu)	**4.96**	6.68	(26%)	**5.02**	5.74	(13%)
Manganese alloy[6] (US$/t)	**1,046**	1,150	(9%)	**1,013**	1,150	(12%)
Nickel (LME Cash)[2] (US$/t)	**14,009**	12,353	13%	**12,790**	12,665	1%
Silver[7] (US$/toz)	**16.9**	15.0	13%	**17.8**	15.2	17%
Lead (LME Cash)[2] (US$/t)	**1,901**	1,998	(5%)	**1,789**	1,914	(7%)
Zinc (LME Cash)[2] (US$/t)	**2,211**	2,657	(17%)	**2,057**	2,581	(20%)

(1) Platts Alumina Index (PAX) Free on Board (FOB) Australia – market price assessment of calcined metallurgical/smelter grade alumina.
(2) LME Cash represents the Official Seller price for nickel, zinc and lead and the A.M. Official price for aluminium.
(3) Richards Bay Coal Terminal (RBCT) FOB (API4).
(4) Platts Low-Vol Hard Coking Coal Index FOB Australia – representative of high-quality hard coking coals.
(5) Metal Bulletin manganese ore 44 per cent Mn CIF Tianjin China.
(6) Bulk Ferro Alloy high-carbon ferromanganese (HCFeMn) Western Europe DDP.
(7) Daily London Bullion Market Association (LBMA) Silver Fix.

The following summarises the pricing trends of our most significant commodities for FY20. The price change reflects the average of FY20 over FY19.

Alumina: The average FOB Australia price for the year was 36 per cent lower than FY19. Weakness in global aluminium demand, particularly in the automotive and broader transportation sectors, and new alumina supply in China exerted downward pressure on the market.

Aluminium: The average LME cash settlement price for the year was 13 per cent lower than FY19. The price decline was driven by growing global production, weaker demand in end-use sectors such as transport and construction, and lower raw material costs.

Energy coal: The FY20 average API4 FOB Richards Bay price was 22 per cent lower than FY19 as lower import demand from major seaborne markets weighed on the price.

Metallurgical coal: The FY20 average Platts Premium Low-Vol Hard Coking Coal price was 30 per cent lower than FY19. Prices fell due to lower import demand from major seaborne markets, particularly outside of China, as pig iron output declined.

Manganese: The average Manganese Ore Metal Bulletin 44 per cent CIF China price was 26 per cent lower than FY19. While Chinese demand remained a key driver, both persistent oversupply of ferro alloys in China and the recovery of seaborne ore supply following an easing of COVID-19 related lockdown measures impacted the supply demand balance. The Western Europe spot high carbon ferromanganese average price declined nine per cent during FY20 due to softness in steel demand outside of China.

Nickel: The FY20 average LME cash settlement price was 13 per cent higher than FY19. The price increase was largely driven by strong Chinese stainless steel production and anticipation of supply tightness associated with Indonesia's ban on nickel ore exports from 1 Jan 2020 onwards.

Silver: The FY20 average LBMA silver price was 13 per cent higher than FY19. Stronger investment demand associated with heightened macroeconomic uncertainty and central bank stimulus, coupled with lower mine production, drove the market higher in FY20.

Lead: The FY20 average LME cash settlement price was five per cent lower than FY19. Continued weakness in the global automotive sector and heightened macroeconomic uncertainty weighed on the market.

Zinc: The FY20 average LME cash settlement price was 17 per cent lower than FY19. Rising smelter output and weak demand exerted downward pressure on the market.

Other external factors

Weak global demand, coupled with ample supply, led to a general fall in energy prices in FY20. Oil prices were approximately 25 per cent lower in FY20 compared to FY19. This contributed to deflationary pressure in mining costs.

Carbon prices generally increased in FY20 compared to FY19. Both our Australian and South African operations are subject to emissions reporting and domestic carbon liability regimes. Carbon pricing policies and associated regulatory mechanisms may restrict emissions or increase costs for companies with liable emissions.

Exchange rates

The Group is exposed to exchange rate risk on foreign currency sales, purchases and expenses, as no active currency hedging is undertaken. As the majority of sales are denominated in US dollars, and the US dollar plays a dominant role in the Group's business, funds borrowed and held in US dollars provide a natural hedge to currency fluctuations. Operating costs and costs of locally-sourced equipment are influenced by fluctuations in local currencies, primarily the Australian dollar, Brazilian real, Colombian peso, Euro and South African rand.

The Group is also exposed to exchange rate translation risk in relation to net monetary liabilities, being foreign currency denominated monetary assets and liabilities, including debt, tax and other long-term liabilities. Details of the exposure to foreign currency fluctuations are set out in note 19 to the financial statements on pages 117 to 125.

The following table indicates the estimated impact on FY20 Underlying EBIT of a change in the significant currencies to which the Group is exposed against the US dollar. The sensitivities give the estimated impact on Underlying EBIT based on the exchange rate movement in isolation. The sensitivities assume all variables except for exchange rates remain constant. There is an inter-relationship between currencies and commodity prices where movements in exchange rates can cause movements in commodity prices and vice versa. This is not reflected in the sensitivities below. These sensitivities should therefore be used with care.

Estimated impact on Underlying EBIT of a +/-10% change in producer currencies relative to the US dollar

US$M	FY20
Australian dollar(1)	**188**
South African rand(1)	**116**
Colombian peso	**19**
Brazilian real	**11**

(1) The sensitivity impacts for manganese ore and manganese alloy are on a pre-tax basis. The Group's manganese operations are reported as an equity accounted investment As a result, the profit after tax for manganese is included in the Underlying EBIT of South32.

The following table shows the average and period end closing exchange rates of the most significant currencies that affect the Group's results:

Exchange rates(1)

	Average value			Closing value		
Year ended 30 June	FY20	FY19	Change	FY20	FY19	Change
Australian dollar(2)	**0.67**	0.72	(7%)	**0.69**	0.70	(1%)
Brazilian real(3)	**4.47**	3.86	(16%)	**5.48**	3.83	(43%)
Colombian peso(3)	**3,542**	3,125	(13%)	**3,759**	3,197	(18%)
Euro(4)	**1.11**	1.14	(3%)	**1.12**	1.14	(2%)
South African rand(3)	**15.66**	14.19	(10%)	**17.26**	14.17	(22%)

(1) Positive per cent change in FX indicates strengthening currency relative to US$.
(2) Displayed as US$ to A$ based on common convention.
(3) Displayed as local currency to US$.
(4) Displayed as US$ to € based on common convention.

Global risk sentiment, economic conditions, central bank policies and commodity prices continued to be key drivers of currency markets. In FY20, producer currencies generally weakened against the US dollar amid the COVID-19 pandemic and ensuing global recession. Heightened macroeconomic uncertainty bolstered US dollar strength given its safe haven status. Emerging market currencies (i.e. the rand, peso and real) depreciated materially, reflecting weaker prospects of economic recovery from the COVID-19 pandemic. In addition, domestic challenges also played a role in exerting downward pressure on emerging market currencies, such as in South Africa. Conversely, a strong iron ore price continued to support Australia's fiscal budget while the country's relatively successful early response to COVID-19 engendered confidence in the economy, both of which led to a sharp rebound in the country's currency in late FY20.

2020 financial year summary

OUR RESPONSE TO COVID-19

Our response to COVID-19 is focused on keeping our people well, maintaining safe and reliable operations and supporting our communities through the pandemic.

Given the extraordinary circumstances and volatility caused by the pandemic we have been quick to act to protect our strong financial position. During the year we re-designed and re-prioritised our capital expenditure programs, maintained strong control over our operating costs and suspended our on-market share buy-back.

We continue to monitor the impact of the pandemic closely, deferring non-critical activity and ensuring our operations run safely, as we adjust to its different phases across the jurisdictions where we operate.

Looking to next financial year we are taking further action as we continue to navigate a period of potential extended market volatility and lower commodity prices. We expect cost efficiencies and further simplification of our Group, combined with higher volumes to result in lower Operating unit costs across the majority of our operations.

Accordingly, our FY21 production, Operating unit cost and capital expenditure guidance is subject to further potential impacts from COVID-19.

PERFORMANCE SUMMARY

The Group's statutory profit after tax declined by US$454 million to a loss of US$65 million in FY20 following the recognition of impairment and restructuring charges totalling US$115 million (US$94 million post-tax) in relation to our equity accounted manganese alloy smelters.

Underlying earnings decreased by 81 per cent to US$193 million as volatile macro economic conditions impacted the prices of our key commodities and we experienced a temporary increase in our Underlying ETR. Despite the deterioration in commodity markets we delivered a strong operating result. We recorded sequentially lower Operating unit costs at the majority of our operations, delivered US$50 million in annual savings, compared to FY18, across the Group through the simplification of our functional support structures and took action to protect our strong balance sheet.

Looking ahead, while the volatile macro economic conditions and uncertainty of the current health crisis pose a significant challenge to the industry we are well placed entering FY21. We expect to deliver a further reduction in capital expenditure and Operating unit costs across our operations by pursuing efficiencies to offset the impact of a weaker US dollar. In addition, by exiting low returning businesses and further simplifying the Group's functional structures and footprint we expect to deliver another US$50 million in annualised savings from FY22, compared to FY20.

Specific highlights for FY20 included:

- Record production at Australia Manganese ore, Hillside Aluminium and Brazil Alumina;
- Successfully returning to a three longwall configuration at Illawarra Metallurgical Coal;
- Unlocking additional value at Hermosa with a first time Mineral Resource estimate for the Clark Deposit, commencing a scoping study on emerging end-market opportunities in battery technology, and subsequent to the end of the year, announcing an updated Mineral Resource estimate for the Taylor Deposit as we progress its pre-feasibility study;
- Creating additional growth options for our portfolio, forming the Ambler Metals Joint Venture with Trilogy Metals, releasing first time Mineral Resource estimates for the Arctic and Bornite Deposits and commencing a pre-feasibility study for Arctic;
- Signing a binding conditional agreement for the sale of SAEC with Seriti Resources Holdings Proprietary Limited that, subject to a number of material conditions being satisfied, is on-track for completion in H1 FY21; and
- Placing the Metalloys manganese alloy smelter on care and maintenance, and subsequent to the end of the year, entering into a binding conditional agreement to divest our TEMCO manganese alloys smelter.

We finished the year with a net cash balance of US$298 million, having generated free cash flow from operations, including distributions from our manganese equity accounted investments, of US$583 million.

Notwithstanding the volatile external environment, our strong financial position and disciplined approach to capital management supported the return of US$424 million to our shareholders in respect of the period including:

- The payment of a US$53.5 million fully franked interim dividend in respect of H1 FY20, the Board resolving to pay a US$48 million fully franked final dividend in respect of H2 FY20; and
- US$323 million as part of our ongoing capital management program, with US$269 million allocated to our on-market share buy-back program and US$53.5 million returned in the form of a fully franked special dividend.

Having expanded our capital management program by US$180 million to US$1.43 billion in February 2020, the Board responded to the uncertainty caused by the pandemic and suspended our on-market share buy-back program on 27 March 2020 with US$121 million remaining. The Board has extended the execution window for the remaining program by 12 months, to 3 September 2021, maintaining the flexibility to re-commence the program as COVID-19 related operational risks subside and our financial performance improves.

EARNINGS

The Group's statutory profit after tax declined by US$454 million to a loss of US$65 million in FY20. Consistent with our accounting policies, various items are excluded from the Group's statutory profit to derive Underlying earnings including: exchange rate gains on restatement of monetary items (US$72 million pre-tax); losses on non-trading derivative instruments and other investments measured at fair value (US$149 million pre-tax); loss associated with earnings adjustments included in our equity accounted investments (US$108 million); exchange rate gains associated with the Group's non US dollar denominated net debt (US$6 million pre-tax), and the tax expense for all pre-tax earnings adjustments and exchange rate variations on tax balances (US$79 million). Further information on these earnings adjustments is included on page 100.

The Group generated Underlying EBITDA of US$1.2 billion, for an operating margin of 22 per cent. A deterioration in commodity markets was the primary driver of the significant decline in profitability, reducing Revenue by US$1.6 billion. Our continued focus on costs across the Group meant Operating unit costs remained well controlled. The general strengthening of the US dollar against our producer currencies, a reduction in price-linked costs and the ongoing realisation of savings across our labour, energy and materials usage combined to offset inflation and lower the Group's cost base, excluding third party product cost and our manganese equity accounted investments on a proportional consolidation basis, by six per cent in FY20. Depreciation and amortisation decreased by a modest US$18 million to US$739 million, meaning that Underlying EBIT decreased by US$1.0 billion (or 69 per cent) to US$446 million. Underlying earnings declined by US$799 million (or 81 per cent) to US$193 million as the de-recognition of tax assets at SAEC, associated with its potential divestment, led to a temporary increase in our Underlying ETR.

Operating costs

FY20 and FY19 comparative underlying operating costs are set out below, excluding earnings adjustment items impacting operating costs. Earnings adjustment items are detailed on page 100 in note 4(b)(i) to the financial statements.

US$M	FY20	FY19
Operating cash costs	**4,711**	4,971
Third party commodity purchases	**585**	801
Depreciation and amortisation expense	**739**	757
Total operating costs included in Underlying EBIT	**6,035**	6,529

Capital expenditure

Capital expenditure continues to be scrutinised in every location as we seek to optimise the performance of our business and sustainably grow ROIC, without compromising the safety or reliability of our operations. We have re-designed and re-prioritised expenditure in FY20 in response to the uncertainty and conditions imposed by the pandemic, with our sustaining capital, excluding equity accounted investments, of US$425 million 17 per cent below the original guidance of US$515 million.

US$M	FY20	FY19
Sustaining capital comprising Stay-in-business, Minor discretionary and Deferred stripping (including underground development)	**425**	433
Major project capital expenditure	**251**	219
Intangibles and the capitalisation of exploration expenditure	**69**	58
Total capital expenditure (excluding equity accounted investments)	**745**	710
Equity accounted investment capital expenditure (including intangibles and capitalised exploration)	**91**	96
Total capital expenditure (including equity accounted investments)	**836**	806

Total capital expenditure, excluding equity accounted investments, increased by US$35 million to US$745 million. Major project capital expenditure, excluding equity accounted investments, was US$32 million higher at US$251 million as we continued to invest in our growth and life extension projects. Expenditure includes US$104 million at the Hermosa project as we completed the voluntary remediation program, increased the size of our landholdings in the region and established early works surface infrastructure, and a further US$122 million was invested at SAEC as we progressed the KPSX project, advancing it to 97 per cent completion.

Sustaining capital expenditure, excluding equity accounted investments, decreased by US$8 million to US$425 million. Increased spend on Intangibles and capitalisation of exploration expenditure reflects a greater investment in technology to support our operations (US$36 million) and exploration activity across our portfolio (US$33 million), including US$19 million of exploration at Hermosa. Total capital expenditure associated with our manganese equity accounted investments declined by US$5 million to US$91 million.

Net finance cost

The Group's Underlying net finance cost, excluding equity accounted investments, was US$145 million in FY20, and largely reflects the unwinding of the discount applied to our closure and rehabilitation provisions (US$102 million) and interest on lease liabilities (US$51 million), primarily at Worsley Alumina.

Tax expense

The Group's Underlying income tax expense, which excludes tax associated with equity accounted investments, was US$108 million for an Underlying ETR of 116 per cent in FY20. The elevated Underlying ETR was mostly driven by the loss made at SAEC, following the de-recognition of tax assets associated with its potential divestment. Following its divestment we expect the Underlying ETR to more closely reflect the corporate tax rates applicable to the Group. The primary corporate tax rates applicable to the Group for FY20 include: Australia 30 per cent, South Africa 28 per cent, Colombia 33 per cent, Mozambique zero per cent and Brazil 34 per cent. The Colombian corporate tax rate is 32 per cent for the year ended 31 December 2020 and will decrease on an annual basis by a per cent each year, stabilising at 30 per cent from 1 January 2022. The Mozambique operations are subject to a royalty on revenues instead of income tax.

The Underlying income tax expense for our manganese equity accounted investments was US$163 million, including royalty-related taxation of US$56 million at GEMCO, for an Underlying ETR of 43.7 per cent (FY19: 42.2 per cent). The higher Underlying ETR in FY20 was mostly driven by the higher proportion of profit in our Australian business and associated royalty expenses.

CASH FLOW

The Group generated free cash flow from operations of US$270 million and received US$313 million in (net) distributions from our manganese equity accounted investments in FY20 despite a 20 per cent reduction in the average realised prices for our commodities. While cash generation was impacted by the lagged effect of income tax payments from the prior period's profitability, a strong focus on controlling working capital more than offset a small increase in capital expenditure as we continued our investment in our growth and life extension projects.

Free cash flow from operations, excluding equity accounted investments

US$M	FY20	FY19
Profit/(loss)	**261**	887
Non-cash items	**927**	1,335
(Profit)/loss from equity accounted investments	**(100)**	(467)
Change in working capital	**287**	(129)
Cash generated	**1,375**	1,626
Total capital expenditure, excluding equity accounted investments, including intangibles and capitalised exploration	**(745)**	(710)
Operating cash flows before financing activities and tax, and after capital expenditure	**630**	916
Interest (paid)/received	**(25)**	1
Income tax (paid)/received	**(335)**	(346)
Free cash flow from operations	**270**	571

Working capital unwound by US$287 million as lower realised prices and receipt of the insurance award for the Klipspruit dragline outage that occurred in the prior year contributed to a US$367 million decline in trade and other receivables. Tight management of our receivables through the current market uncertainty meant debtor days remained broadly unchanged at 23 (FY19: 24 days). Our focus on ensuring our business remains resilient extended to our management of inventory, which we drew down to normalised levels, bringing a further US$208 million benefit. Lower trade and other payables and provisions partially offset the above, declining by US$184 million and US$104 million respectively, as input prices fell for raw material supplies purchased by our aluminium smelters and we continued our investment in progressive rehabilitation at SAEC.

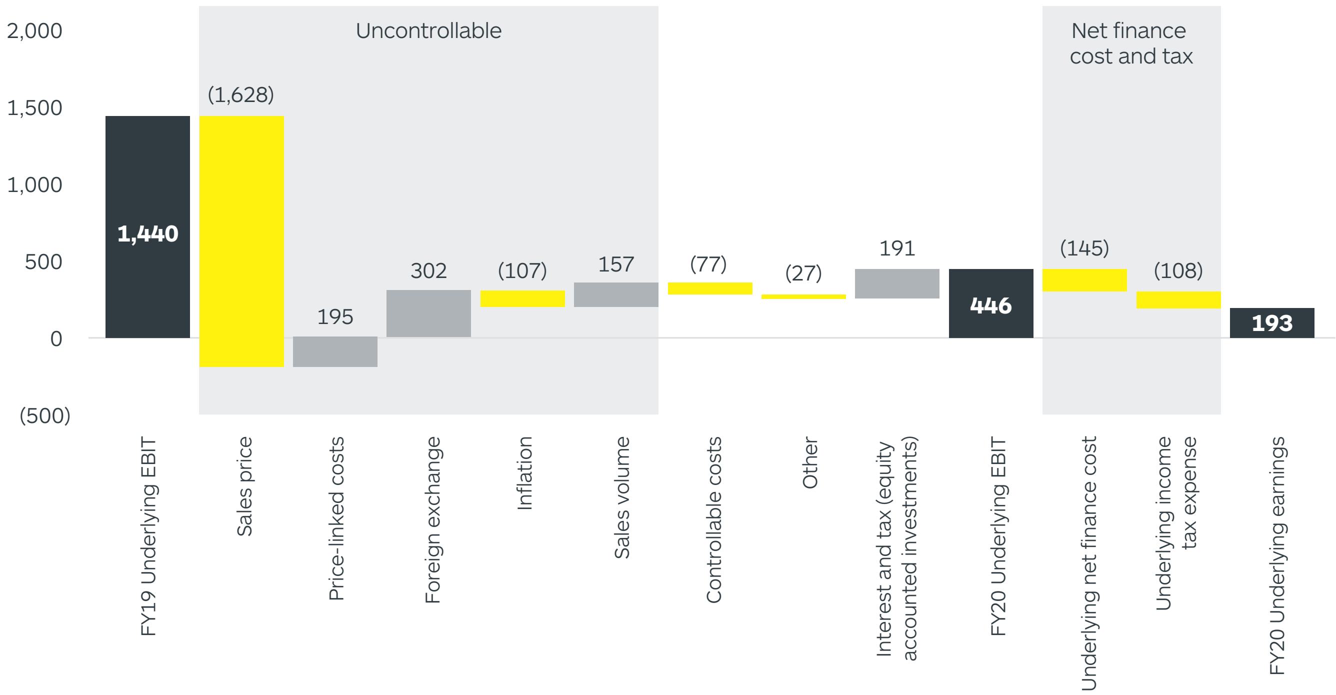
Working capital movement reconciliation

US$M	FY20	FY19
Trade and other receivables	**367**	6
Inventories	**208**	(58)
Trade and other payables	**(184)**	(13)
Provisions and other liabilities	**(104)**	(64)
Working capital movement	**287**	(129)

EARNINGS ANALYSIS

The following key factors influenced Underlying EBIT in FY20, relative to FY19.

Reconciliation of movements in Underlying EBIT (US$M)(1)(2)(3)



(1) Sales price variance reflects the revenue impact of changes in commodity prices, based on the current period's sales volume. Price-linked costs variance reflects the change in royalties together with the change in input costs driven by changes in commodity prices or market traded consumables. Foreign exchange reflects the impact of exchange rate movements on local currency denominated costs and sales. Volume variance reflects the revenue impact of sales volume changes, based on the comparative period's sales prices. Controllable costs variance represents the impact from changes in the Group's controllable local currency cost base, including the variable cost impact of production volume changes on expenditure, and period-on-period movements in inventories. The controllable cost variance excludes earnings adjustments.

(2) Underlying net finance cost and Underlying income tax expense are actual FY20 results, not year-on-year variances.

(3) South32's ownership share of operations is as follows: Worsley Alumina (86 per cent share), Hillside Aluminium (100 per cent), Mozal Aluminium (47.1 per cent share), Brazil Alumina (Alumina 36 per cent share, Aluminium 40 per cent share), SAEC (100 per cent), Illawarra Metallurgical Coal (100 per cent), Australia Manganese (60 per cent share), South Africa Manganese (60 per cent share), Cerro Matoso (99.9 per cent share), Cannington (100 per cent), Hermosa (100 per cent), and Eagle Downs Metallurgical Coal (50 per cent share).

Earnings analysis	US$M	Commentary
FY19 Underlying EBIT	**1,440**	
Change in sales price	(1,628)	Lower average realised prices for our commodities, including: Alumina (-US$468 million). Manganese ore (-US$397 million). Metallurgical coal (-US$363 million). Aluminium (-US$271 million). Energy coal (-US$101 million).
Net impact of price-linked costs	195	Lower caustic soda prices at Worsley Alumina (+US$44 million) and Brazil Alumina (+US$20 million). Lower aluminium smelter raw material costs (+US$41 million), including pitch and coke. Lower royalties (+US$38 million), primarily at South Africa Manganese and Illawarra Metallurgical Coal. Lower LME-linked electricity costs at Hillside Aluminium (+US$23 million). Lower electricity costs (+US$13 million), primarily at Mozal Aluminium and Cerro Matoso.
Change in exchange rates	302	South African rand (+US$138 million). Australian dollar (+US$113 million). Colombian peso (+US$27 million).
Inflation	(107)	Southern Africa (-US$57 million). Australia (-US$28 million).
Change in sales volume	157	Higher volumes at: Illawarra Metallurgical Coal (+US$173 million). Brazil Alumina (+US$88 million). Cannington (+US$45 million). Partially offset by lower volumes at: South Africa Manganese (ore -US$44 million, alloy -US$20 million). SAEC (-US$104 million).
Controllable costs	(77)	Drawdown in inventory to normalised levels (-US$284 million), primarily at Illawarra Metallurgical Coal, SAEC, Hillside Aluminium, Cannington and Mozal Aluminium. Costs to respond to COVID-19 (-US$16 million). Partially offset by: Cost efficiencies (+US$188 million) captured across our business, including labour, energy, smelter pot relining and caustic soda consumption. Lower production volumes (+US$35 million), primarily at SAEC.
Other	(27)	Includes: Lower EBIT on third party product. Proceeds from Mining Lease relinquishment at Illawarra Metallurgical Coal in prior year. Offset by: One-off benefit from settling a historical royalty claim at South Africa Manganese.
Interest and tax (equity accounted investments)	191	Lower profitability from a weaker price environment for our jointly controlled manganese operations.
FY20 Underlying EBIT	**446**	

Further analysis of operations performance is outlined on pages 42 to 51.

BALANCE SHEET AND CAPITAL MANAGEMENT

The Group's FY19 net cash position reduced by US$140 million to US$364 million on 1 July 2019 following the adoption of AASB 16 Leases. While the Group generated free cash flow from operations, including distributions from our manganese equity accounted investments, of US$583 million during FY20, our net cash balance decreased to US$298 million as we returned US$246 million to shareholders in the period by way of dividends and directed US$269 million to our on-market share buy-back program.

We took decisive action in H2 FY20 in response to the pandemic to protect our strong balance sheet, reducing sustaining capital expenditure and suspending our on-market share buy-back program. We continue to manage our financial position to ensure we retain the right balance of flexibility, efficiency and prudence with additional liquidity available via an undrawn US$1.45 billion revolving credit facility. Reflecting our strong financial position and consistent with our commitment to maintain an investment grade credit rating, Standard and Poor's and Moody's reaffirmed their respective BBB+ and Baa1 credit ratings for the Group.

Our capital management framework remains unchanged and we continue to believe that the combination of high operating leverage and undue financial leverage delivers a sub-optimal outcome for shareholders. Given the strength of our net cash position and available franking credits, the Board has resolved to pay a fully franked final dividend of US 1 cent per share (US$48 million), representing 77 per cent of Underlying earnings in respect of H2 FY20. Reflecting the prudent management of our balance sheet and disciplined allocation of capital, we suspended our on-market share buy-back on 27 March 2020 in response to the uncertainty caused by the pandemic. The Board has extended the execution window for the remaining US$121 million of our current program by 12 months, to 3 September 2021, maintaining the flexibility to re-commence the on-market share buy-back as COVID-19 related operational risks subside, and our financial performance improves.

NET DEBT AND SOURCES OF LIQUIDITY

Our policies on debt and treasury management are as follows:

- Commitment to maintain an investment grade credit rating;
- Diversification of funding sources; and
- Generally maintain borrowings and excess cash in US dollars.

Gearing and net debt

The table below presents net cash/(debt) and net assets of the Group, based on the balance sheet as at 30 June 2020:

US$M	FY20	FY19
Cash and cash equivalents	**1,315**	1,408
Current external debt	**(355)**	(313)
Non-current external debt	**(662)**	(591)
Net cash	**298**	504
Net assets	**9,562**	10,168

Given the net cash position of the Group, a gearing ratio is not presented.

Funding sources

In addition to cash flow from operations as a primary source of funding, the Group at the time of writing, has a committed US$1.45 billion revolving credit facility which is a standby arrangement to the Group's US dollar commercial paper program and is not subject to financial covenants at the Group's current credit rating. Certain financing facilities in relation to specific operations are the subject of financial covenants that vary from facility to facility; however, these are considered normal for such facilities.

As at 30 June 2020, the Group's cash and cash equivalents on hand were US$1.3 billion. Details of our major standby arrangement are as follows:

US$M	Available FY20	Used FY20
Revolving credit facility[(1)]	**1,500**	-

(1) The Group has an undrawn revolving credit facility which is a standby arrangement to the US commercial paper program. This facility was extended in July 2020 by one year to February 2023 and the size of the facility reduced to US$1.45 billion.

Additional information regarding the maturity profile of the Group's debt obligations and details of our major standby agreement is included in note 19 to the financial statements on pages 117 to 125.

OPERATIONS ANALYSIS

A summary of the underlying performance of the Group's operations is presented below and more detailed analysis is presented on pages 42 to 51.

Operations table (South32 share)(1)

	Revenue		Underlying EBIT	
US$M	FY20	FY19	FY20	FY19
Worsley Alumina	**1,118**	1,619	**160**	541
Brazil Alumina	**399**	566	**(15)**	160
Hillside Aluminium	**1,276**	1,439	**103**	(75)
Mozal Aluminium	**508**	556	**(24)**	(21)
South Africa Energy Coal	**822**	1,037	**(155)**	(46)
Illawarra Metallurgical Coal	**924**	1,135	**52**	359
Australia Manganese	**763**	1,095	**328**	638
South Africa Manganese	**342**	553	**54**	188
Cerro Matoso	**519**	489	**107**	40
Cannington	**476**	467	**105**	104
Third party products and services(2)	**583**	815	**(17)**	5
Inter-segment/Group and unallocated(3)	**(550)**	(857)	**(68)**	(78)
Total	**7,180**	8,914	**630**	1,815
Equity accounting adjustment(4)	**(1,105)**	(1,640)	**(184)**	(375)
South32 Group	**6,075**	7,274	**446**	1,440

(1) South32's ownership share of operations is as per footnote (3) on page 38.
(2) FY20 third party products and services sold comprise US$42 million for aluminium, US$14 million for alumina, US$276 million for coal, US$165 million for freight services, US$86 million for aluminium raw materials and nil for manganese. Underlying EBIT on third party products and services comprise US$2 million for aluminium, (US$4 million) for alumina, (US$15 million) for coal, (US$2 million) for freight services, US$2 million for aluminium raw materials and nil for manganese. FY19 third party products and services sold comprise US$57 million for aluminium, US$2 million for alumina, US$392 million for coal, US$239 million for freight services, US$116 million for aluminium raw materials and US$9 million for manganese. Underlying EBIT on third party products and services comprise nil for aluminium, US$2 million for alumina, US$9 million for coal, (US$5 million) for freight services, (US$1 million) for aluminium raw materials and nil for manganese.
(3) Group and unallocated Underlying EBIT includes Hermosa (-US$5 million).
(4) The equity accounting adjustment reconciles the proportional consolidation of the South32 manganese operations to the treatment of the manganese operations on an equity accounted basis (including third party product).

WORSLEY ALUMINA

Location: **Western Australia, Australia**
South32 share: **86%**

South32 holds an 86 per cent interest in Worsley Alumina, while Japan Alumina Associates (Australia) Pty Ltd owns 10 per cent and Sojitz Alumina Pty Ltd owns four per cent.

Bauxite is mined near the town of Boddington, 130 kilometres south-east of Perth. It is transported by overland conveyor to the alumina refinery near Collie and turned into alumina powder, before being transported by rail to Bunbury Port. It is then shipped to smelters around the world, including South32's Hillside Aluminium and Mozal Aluminium smelters in Africa.

South32 share	FY20	FY19
Alumina production (kt)	**3,886**	3,795
Alumina sales (kt)	**3,782**	3,857
Realised alumina sales price (US$/t)	**296**	420
Operating unit cost (US$/t)	**210**	238

South32 share (US$M)	FY20	FY19
Revenue	**1,118**	1,619
Underlying EBITDA	**322**	702
Underlying EBIT	**160**	541
Net operating assets	**2,789**	2,831
Sustaining capital expenditure	**48**	57
Exploration expenditure	**-**	1
Exploration expensed	**-**	1

SAFETY

TRIF was 10.9 for Worsley Alumina in FY20, a 29 per cent decrease year-on-year.

VOLUMES

Worsley Alumina saleable production increased by two per cent (or 91kt) to 3,886kt in FY20, as the refinery benefitted from improved calciner availability.

OPERATING COSTS

Operating unit costs decreased by 12 per cent in FY20 to US$210/t as the refinery benefitted from lower caustic soda prices (FY20: US$366/t, FY19: US$489/t) and consumption rates (FY20: 93kg/t, FY19: 98kg/t), and lower renegotiated energy prices.

FINANCIAL PERFORMANCE

Underlying EBIT decreased by 70 per cent (or US$381 million) in FY20 to US$160 million as a 30 per cent decrease in the average realised price of alumina (-US$469 million) and lower sales volumes (-US$32 million) were partially offset by lower caustic soda costs (price and consumption, +US$53 million), a weaker Australian dollar (+US$35 million) and lower renegotiated energy prices (+US$25 million).

The average realised price for alumina sales was a modest premium to the PAX on a volume weighted M-1 basis in FY20. Price realisations in H2 FY20 were inline with market indices as a result of specific legacy supply contracts with our Mozal Aluminium smelter that reset each calendar year. Contracts with the smelter are linked to the LME aluminium price and alumina indices on an M-1 basis, with caps and floors embedded within specific contracts. All other alumina sales were at market-based prices.

CAPITAL EXPENDITURE

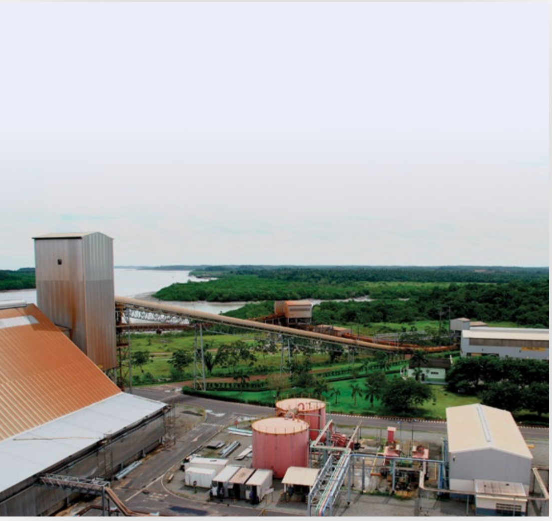
Sustaining capital expenditure decreased by US$9 million in FY20 to US$48 million as we continued to invest in additional bauxite residue disposal capacity and improvements in processing infrastructure.

COMMUNITY INVESTMENT

We invested US$0.3 million in communities around Worsley Alumina in FY20, with a focus on education and training opportunities, environmental projects, and projects that encourage economic diversification.

BRAZIL ALUMINA

Location: **Pará and Maranhão, Brazil**
South32 share: **Alumina - 36%, Aluminium - 40%**
South32 investment: **Bauxite - 14.8%**



South32 holds 14.8 per cent interest in the non-operated bauxite mine MRN, a 36 per cent share of the non-operated Alumar alumina refinery and a 40 per cent share in the Alumar aluminium smelter, which is currently on care and maintenance.

The MRN mine is an open-cut strip mining operation. Mined ore is hauled to primary crushers and then transported by conveyor belt to the beneficiation plant. The bauxite produced from the MRN mine is sold to its shareholders. South32's share of bauxite produced from the MRN mine is supplied to the Brazil Alumina refinery. Together with our partners at MRN we continue to progress the life extension project's pre-feasibility study. The project has the potential to extend the life of the mine by more than 20 years at a relatively low capital cost.

The alumina produced from the refinery is exported through the Alumar Port.

South32 share	FY20	FY19
Alumina production (kt)	**1,383**	1,255
Alumina sales (kt)	**1,392**	1,240
Realised alumina sales price (US$/t)	**287**	456
Alumina Operating unit cost (US$/t)	**244**	270

South32 share (US$M)	FY20	FY19
Revenue	**399**	566
Alumina	**399**	566
Other income	**-**	3
Underlying EBITDA	**50**	219
Alumina	**60**	231
Aluminium	**(10)**	(12)
Underlying EBIT	**(15)**	160
Alumina	**(5)**	172
Aluminium	**(10)**	(12)
Net operating assets/(liabilities)	**568**	687
Alumina	**584**	696
Aluminium	**(16)**	(9)
Sustaining capital expenditure	**34**	26

VOLUMES

Brazil Alumina saleable production increased by 10 per cent (or 128kt) to a record 1.38Mt in FY20 as the refinery achieved improved performance in steam generation, enabling the benefits of the De-bottlenecking Phase One project to be realised.

OPERATING COSTS

Operating unit costs decreased by 10 per cent in FY20 to US$244/t as higher production volumes and lower caustic soda prices (FY20: US$324/t, FY19: US$503/t) and consumption rates, were partially offset by an increase in bauxite costs as we sourced third party material due to a temporary shortfall in supply from MRN.

FINANCIAL PERFORMANCE

Alumina Underlying EBIT decreased by 103 per cent (or US$177 million) in FY20 to a loss of US$5 million as a 37 per cent decline in the average realised price of alumina (-US$237 million), higher bauxite costs (-US$20 million) and a drawdown of inventory (-US$10 million) were partially offset by higher sales volumes (+US$70 million) and lower caustic soda costs (price and consumption, +US$23 million).

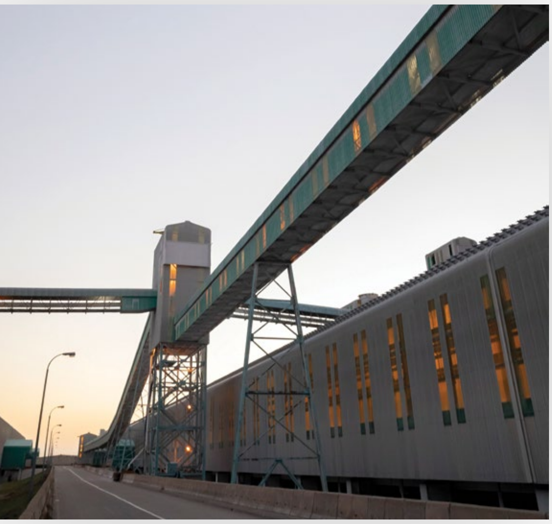
Aluminium Underlying EBIT increased by US$2 million in FY20 to a loss of US$10 million as we incurred costs to maintain the smelter on care and maintenance and recognised a provision related to our electricity contract with Eletronorte that was terminated in December 2015.

CAPITAL EXPENDITURE

Sustaining capital expenditure increased by US$8 million in FY20 to US$34 million, as we continued to invest in bauxite residue disposal capacity.

HILLSIDE ALUMINIUM

Location: **KwaZulu-Natal, South Africa**
South32 share: **100%**



The Hillside Aluminium smelter is located in Richards Bay in the South African province of KwaZulu-Natal and is 100 per cent owned and operated by South32 with a solid metal production capacity of 720,000 tonnes per year.

Hillside Aluminium is the largest aluminium smelter in the southern hemisphere. The smelter produces high-quality, primary aluminium for the export and domestic markets.

To support the development of the downstream aluminium industry in South Africa a portion of liquid metal is supplied to Hulamin, a local company that produces products for the domestic and export markets.

South32 share	FY20	FY19
Aluminium production (kt)	**718**	715
Aluminium sales (kt)	**723**	707
Realised sales price (US$/t)	**1,765**	2,035
Operating unit cost (US$/t)	**1,531**	2,045

South32 share (US$M)	FY20	FY19
Revenue	**1,276**	1,439
Underlying EBITDA	**169**	(7)
Underlying EBIT	**103**	(75)
Net operating assets	**794**	1,027
Sustaining capital expenditure	**13**	19

SAFETY

TRIF was 1.1 for Hillside Aluminium in FY20, a 27 per cent decrease year-on-year.

VOLUMES

Hillside Aluminium saleable production increased by 3kt to a record 718kt in FY20 as the smelter continued to test its maximum technical capacity, despite the impact to production from increased load-shedding.

OPERATING COSTS

Operating unit costs decreased by 25 per cent in FY20 to US$1,531/t as the smelter benefitted from lower raw material input prices, lower aluminium price-linked power costs and a major workforce restructure that was concluded in June 2019. Alumina, coke, pitch and aluminium tri-fluoride accounted for 54 per cent of the smelter's cost base in FY20 (FY19: 58 per cent).

The smelter sources alumina from our Worsley Alumina refinery with prices linked to the PAX on an M-1 basis, while its power is sourced from Eskom under separate contracts for its three potlines. We have been engaging with Eskom on a new pricing arrangement for the smelter, agreeing a new tariff to cover power supplied for a 10-year period. The new tariff is South African rand-based, with a rate of escalation linked to the South Africa Producer Price Index. While the new tariff is being considered for approval by the National Energy Regulator of South Africa, we have entered into an interim arrangement for power supply with Eskom.

FINANCIAL PERFORMANCE

Underlying EBIT increased by US$178 million in FY20 to US$103 million as a 13 per cent decrease in the average realised price of aluminium (-US$198 million) was more than offset by lower raw material input costs (+US$239 million), increased sales volumes (+US$35 million), a weaker South African rand (+US$31 million), lower aluminium price-linked power costs (+US$23 million) and lower labour costs (+US$22 million) following the major workforce restructure concluded in June 2019. Pot relining activity also reduced (+US$23 million) in FY20, with 65 pots relined at a cost of US$248 thousand per pot (FY19: 171 pots at US$249 thousand per pot).

CAPITAL EXPENDITURE

Sustaining capital expenditure decreased by US$6 million in FY20 to US$13 million.

COMMUNITY INVESTMENT

We invested US$2.0 million in communities around Hillside Aluminium in FY20, with a focus on local skills and economic development, crime prevention and strengthening healthcare services.

MOZAL ALUMINIUM

Location: **Maputo, Mozambique**
South32 share: **47.1%**

South32 has a 47.1 per cent share of Mozal Aluminium, while Mitsubishi Corporation, through MCA Metals Holding GmbH, holds 25 per cent, Industrial Development Corporation of South Africa Limited holds 24 per cent and the Government of the Republic of Mozambique holds 3.9 per cent (through preference shares). Mozal Aluminium is located 20 kilometres west of Mozambique's capital city Maputo and has a solid metal production capacity of 580,000 tonnes (on a 100% basis) per year.

Mozal Aluminium is the only aluminium smelter in Mozambique and the second largest aluminium smelter in Africa. It produces standard aluminium ingots.

To support the development of the downstream aluminium industry in Mozambique a portion of liquid metal is supplied to Midal Cables, a local company that produces products for the domestic and export markets.

South32 share	FY20	FY19
Aluminium production (kt)	**268**	267
Aluminium sales (kt)	**279**	268
Realised sales price (US$/t)	**1,821**	2,075
Operating unit cost (US$/t)	**1,785**	2,026

South32 share (US$M)	FY20	FY19
Revenue	**508**	556
Underlying EBITDA	**10**	13
Underlying EBIT	**(24)**	(21)
Net operating assets	**436**	534
Sustaining capital expenditure	**11**	19

SAFETY

TRIF was 0.8 for Mozal Aluminium in FY20, a two per cent decrease year-on-year.

VOLUMES

Mozal Aluminium saleable production increased by 1kt to 268kt in FY20 as the smelter continued to test its maximum technical capacity, despite the impact to production from increased load-shedding.

OPERATING COSTS

Operating unit costs decreased by 12 per cent in FY20 to US$1,785/t as raw material input costs decreased for alumina, coke, pitch and aluminium tri-fluoride, which combined to account for 46 per cent of the smelter's cost base (FY19: 49 per cent).

The smelter sources alumina from our Worsley Alumina refinery with approximately 50 per cent priced as a percentage of the LME aluminium index under a legacy contract and the remainder linked to the PAX on an M-1 basis, with caps and floors embedded within specific contracts that reset each calendar year.

FINANCIAL PERFORMANCE

Underlying EBIT decreased by US$3 million in FY20 to a loss of US$24 million as a 12 per cent decrease in the average realised price of aluminium (-US$74 million) and an increase in pot relining costs (-US$3 million) were partially offset by lower raw material prices (+US$42 million), increased sales volumes (+US$26 million) and reduced labour and contractor charges (+US$8 million). 112 pots were relined across FY20 at a cost of US$278 thousand per pot (FY19: 103 pots at US$234 thousand per pot).

CAPITAL EXPENDITURE

Sustaining capital expenditure decreased by US$8 million in FY20 to US$11 million. The smelter continues to roll out the AP3XLE energy efficiency technology in its pot relining program

COMMUNITY INVESTMENT

We invested US$1.5 million in communities around Mozal Aluminium in FY20, with a focus on education and employment, health and wellbeing and planning for sustainable development.

SOUTH AFRICA ENERGY COAL

Location: **Mpumalanga, South Africa**
South32 share: **100%**[(1)]

Located near the towns of eMalahleni and Middelburg in the South African province of Mpumalanga, SAEC is 100 per cent owned and operated by South32. The operation consists of Khutala colliery, Klipspruit colliery and the Wolvekrans Middelburg Complex (WMC) as well as three processing plants.

From April 2018, we have managed SAEC as a stand-alone business separately from the rest of the South32 Group. A binding conditional agreement for the sale of SAEC to Seriti Resources was signed in November 2019 that, subject to a number of material conditions being satisfied, is expected to close in H1 FY21.

South32 share	FY20	FY19
Energy coal production (kt)	**22,672**	24,979
Domestic sales (kt)[(2)]	**12,638**	15,035
Export sales (kt)[(2)]	**9,715**	9,875
Realised domestic sales price (US$/t)[(2)]	**25**	24
Realised export sales price (US$/t)[(2)]	**53**	69
Operating unit cost (US$/t)[(3)]	**42**	40

South32 share (US$M)	FY20	FY19
Revenue[(4)]	**822**	1,037
Underlying EBITDA	**(108)**	42
Underlying EBIT	**(155)**	(46)
Net operating assets/ (liabilities)	**(365)**	(373)
Capital expenditure	**164**	213
Major	**122**	123
Sustaining	**42**	90

SAFETY

TRIF was 1.6 for SAEC in FY20, a 22 per cent decrease year-on-year. Sadly one fatality was recorded at SAEC, for more information see page 12.

VOLUMES

SAEC saleable production decreased by nine per cent (or 2.3Mt) to 22.7Mt in FY20 with the operation closing loss-making pits in H1 FY20 to maximise margins, before COVID-19 restrictions further impacted activity during the June 2020 quarter.

OPERATING COSTS

Operating unit costs increased by five per cent in FY20 to US$42/t as the impact of lower sales volumes and costs to support the Klipspruit dragline's return to full utilisation, more than offset savings from reduced activity in loss-making pits and a weaker South African rand.

FINANCIAL PERFORMANCE

Underlying EBIT decreased by US$109 million in FY20 to a loss of US$155 million as lower average export realised prices (-US$156 million), lower sales volumes (-US$104 million), costs to support the increase in activity at Klipspruit (-US$49 million) and inventory movements (-US$45 million) more than offset savings from the closure of loss-making pits at the WMC (+US$90 million), higher average domestic realised prices (+US$78 million) and a weaker South African rand (+US$67 million).

CAPITAL EXPENDITURE

Sustaining capital expenditure decreased by US$48 million in FY20 to US$42 million as we deferred expenditure at the WMC and reduced activity at Klipspruit following the completion of work to recover from the dragline outage in FY19.

We also invested US$122 million in Major project capital expenditure in FY20 as we progress the KPSX project towards completion.

COMMUNITY INVESTMENT

We invested US$5.0 million in communities around SAEC in FY20, including in education, health, community infrastructure and supporting local economic development.

(1) During FY20 South32 acquired the eight per cent interest in SAEC previously owned by a Broad-Based Black Economic Empowerment (B-BBEE) consortium. This transaction was undertaken ahead of the proposed sale of SAEC to Seriti Resources, subject to a number of material conditions being satisfied.
(2) Volumes and prices do not include any third party trading that may be undertaken independently of equity production.
(3) Operating unit cost is revenue less Underlying EBITDA, excluding third party sales, divided by sales volumes.
(4) SAEC revenue includes domestic and export sales.

ILLAWARRA METALLURGICAL COAL

Location: **New South Wales, Australia**
South32 share: **100%**

Located in the southern coalfields of New South Wales, Illawarra Metallurgical Coal is 100 per cent owned by South32 and operates two underground metallurgical coal mines, Appin mine and Dendrobium mine, and West Cliff and Dendrobium coal preparation plants. Illawarra Metallurgical Coal also manages the Port Kembla Coal Terminal (PKCT) on behalf of a consortium of partners. Illawarra Metallurgical Coal produces premium-quality, hard coking coal for steelmaking and energy coal. The product is processed at the coal preparation plants before being transported to the PKCT for distribution to domestic and international customers.

South32 share	FY20	FY19
Metallurgical coal production (kt)	**5,549**	5,350
Energy coal production (kt)	**1,457**	1,297
Metallurgical coal sales (kt)[1]	**5,842**	5,044
Energy coal sales (kt)[1]	**1,442**	1,262
Realised metallurgical coal sales price (US$/t)	**145**	209
Realised energy coal sales price (US$/t)	**51**	66
Operating unit cost (US$/t)[2]	**93**	94

South32 share (US$M)	FY20	FY19
Revenue[3]	**924**	1,135
Underlying EBITDA	**243**	542
Underlying EBIT	**52**	359
Net operating assets	**1,356**	1,410
Capital expenditure	**199**	138
Major	**14**	5
Sustaining	**185**	133
Exploration expenditure	**16**	9
Exploration expensed	**7**	3

SAFETY

TRIF was 16.9 for Illawarra Metallurgical Coal in FY20, a four per cent increase year-on-year.

VOLUMES

Illawarra Metallurgical Coal saleable production increased by five per cent (or 359kt) to 7.0Mt in FY20 as the Dendrobium and Appin longwalls continued to perform strongly, with the operation returning to a three longwall configuration in the June 2020 quarter.

OPERATING COSTS

Operating unit costs decreased by one per cent in FY20 to US$93/t as the benefit of increased sales volumes and a weaker Australian dollar were partially offset by a drawdown of finished goods and run of mine inventory.

FINANCIAL PERFORMANCE

Underlying EBIT decreased by US$307 million in FY20 to US$52 million as lower average realised prices (-US$385 million), a drawdown of inventory (-US$104 million) and lower other income (-US$31 million) were partially offset by stronger sales volumes (+US$174 million), a weaker Australian dollar (+US$32 million), the benefit of coal wash diversion (+US$8 million) and lower spend on consultants (+US$8 million).

CAPITAL EXPENDITURE

Sustaining capital expenditure increased by US$52 million in FY20 to US$185 million as we invested in infrastructure improvements and increased our underground development rates at Appin, ahead of the return to a three longwall configuration.

We also invested US$14 million in FY20 to progress the feasibility study for the DND project. While still subject to regulatory approvals, the project has the potential to extend the life of Dendrobium to approximately FY36.

COMMUNITY INVESTMENT

We invested US$0.7 million in communities around Illawarra Metallurgical Coal in FY20, with a focus on education, health, community support and services, and local economic development.

(1) Volumes and prices do not include any third party trading that may be undertaken independently of equity production.
(2) Operating unit cost is revenue less Underlying EBITDA, excluding third party sales, divided by sales volumes.
(3) Illawarra Metallurgical Coal revenue includes metallurgical coal and energy coal sales revenue.

AUSTRALIA MANGANESE

Location: **Northern Territory and Tasmania, Australia**
South32 share: **60%**

Australia Manganese consists of GEMCO in the Northern Territory and TEMCO in Tasmania. South32 owns 60 per cent of GEMCO and Anglo American Plc holds the remaining 40 per cent. TEMCO is wholly owned by GEMCO.

GEMCO is an open-cut strip mining operation, producing high-grade manganese ore and is located in close proximity to Asian export markets. Using mainly ore shipped from GEMCO, TEMCO produces high-carbon ferromanganese, silicomanganese and sinter, primarily using hydroelectric Australia power.

South32 share	FY20	FY19
Manganese ore production (kwmt)	**3,470**	3,349
Manganese alloy production (kt)	**110**	154
Manganese ore sales (kwmt)	**3,440**	3,438
External customers	**3,300**	3,094
TEMCO	**140**	344
Manganese alloy sales (kt)	**116**	151
Realised external manganese ore sales price (US$/dmtu, FOB)[(1)(2)]	**4.39**	6.35
Realised manganese alloy sales price (US$/t)[(1)]	**940**	1,311
Ore Operating unit cost (US$/dmtu)[(2)(3)]	**1.55**	1.59
Alloy Operating unit cost (US$/t)[(3)]	**905**	947

On 13 August 2020, a binding conditional agreement was reached to divest TEMCO manganese alloys smelter with completion subject to Australian's Foreign Investment Review Board approval.

South32 share (US$M)	FY20	FY19
Revenue[(4)]	**763**	1,095
Manganese ore	**668**	930
Manganese alloy	**109**	198
Intra-segment elimination	**(14)**	(33)
Underlying EBITDA	**400**	698
Manganese ore	**396**	643
Manganese alloy	**4**	55
Underlying EBIT	**328**	638
Manganese ore	**329**	588
Manganese alloy	**(1)**	50
Net operating assets	**242**	316
Manganese ore	**293**	303
Manganese alloy	**(51)**	13
Sustaining capital expenditure	**67**	65
Exploration expenditure	**2**	2
Exploration expensed	**1**	1

SAFETY

TRIF was 5.9 for Australia Manganese in FY20, a 30 per cent decrease year-on-year.

VOLUMES

Australia Manganese saleable ore production increased by four per cent (or 121kwmt) to a record 3,470kwmt in FY20, with the operation returning to full production following the removal of temporary roster changes in response to COVID-19 restrictions during the June 2020 quarter. Manganese alloy saleable production decreased by 29 per cent (or 44kt) to 110kt in FY20 as one of the four furnaces at TEMCO remained offline.

OPERATING COSTS

FOB manganese ore Operating unit costs decreased by three per cent in FY20 to US$1.55/dmtu as equipment productivity and the optimisation of volumes from our low-cost PC02 circuit mitigated a further increase in strip ratio (FY20: 5.4, FY19: 4.5).

Manganese alloy Operating unit costs decreased by four per cent to US$905/t in FY20 as the operation benefitted from lower raw material input costs.

FINANCIAL PERFORMANCE

Underlying EBIT decreased by 49 per cent (or US$310 million) in FY20 to US$328 million as lower realised prices (-US$297 million), lower alloy sales volumes (-US$40 million) and one-off costs incurred to respond to temporary COVID-19 restrictions (-US$7 million) were partially offset by lower energy, coke and freight costs (+US$22 million).

Our average realised price for external sales of Australian ore was a seven per cent discount to the high-grade 44 per cent manganese lump ore index in FY20 as we responded to market demand with an increased contribution of PC02 fines (FY20: 12 per cent, FY19: 10 per cent) and other secondary products.

CAPITAL EXPENDITURE

Sustaining capital expenditure increased by US$2 million in FY20 to US$67 million as we continued to invest in additional tailings storage capacity and complete site infrastructure upgrades at GEMCO.

COMMUNITY INVESTMENT

We invested US$1.1 million in communities around GEMCO and TEMCO in FY20, with a focus on education, local economic development and community wellbeing at TEMCO, and supporting education and health programs for Aboriginal and Torres Strait Islander peoples at GEMCO.

(1) Realised ore prices are calculated as external sales revenue less freight and marketing costs, divided by external sales volume. Realised alloy prices are calculated as sales revenue, including sinter revenue, divided by alloy sales volume. Ore converted to sinter and alloy, and sold externally, is eliminated as an intracompany transaction.

(2) Australia Manganese FY20 average manganese content of ore sales was 44.6 per cent on a dry basis (FY19: 45.9 per cent). 95 per cent of FY20 external manganese ore sales (FY19: 95 per cent) were completed on a CIF basis. FY20 realised FOB ore prices and Operating unit costs have been adjusted for freight and marketing costs of US$46 million (FY19: US$47 million), consistent with our FOB cost guidance.

(3) FOB ore Operating unit cost is revenue less Underlying EBITDA, freight and marketing costs, divided by ore sales volume. Alloy Operating unit cost is revenue less Underlying EBITDA divided by alloy sales volume and includes costs associated with sinter sold externally.

(4) Revenues associated with sales from GEMCO to TEMCO are eliminated as part of the consolidation.

SOUTH AFRICA MANGANESE

Location: **Northern Cape and Gauteng, South Africa**
South32 share: **Ore - 44.4%, Alloy - 60%**

South Africa Manganese consists of two manganese mines and the Metalloys manganese alloy smelter which was placed on care and maintenance in July 2020.

Hotazel Manganese Mines (HMM) is located in the Kalahari Basin. South32 holds a 60 per cent interest in Samancor Holdings (Pty) Ltd and Anglo American Plc holds the remaining 40 per cent. Samancor indirectly owns 74 per cent of HMM, which gives South32 its ownership interest of 44.4 per cent. The remaining 26 per cent of HMM is owned by B-BBEE entities.

South32 holds an effective 60 per cent interest in Samancor Manganese (Pty) Ltd (Metalloys manganese smelter).

South32 share	FY20	FY19
Manganese ore production (kwmt)	**1,878**	2,187
Manganese alloy production (kt)	**53**	69
Manganese ore sales (kwmt)	**1,865**	2,113
External customers	**1,772**	1,990
Metalloys	**93**	123
Manganese alloy sales (kt)	**55**	73
Realised external manganese ore sales price (US$/dmtu, FOB)(1)(2)	**3.76**	5.57
Realised manganese alloy sales price (US$/t)	**909**	1,068
Ore Operating unit cost (US$/dmtu)(2)(3)	**2.25**	2.69
Alloy Operating unit cost (US$/t)(3)	**1,364**	1,178

South32 share (US$M)	FY20	FY19
Revenue(4)	**342**	553
Manganese ore(5)	**305**	488
Manganese alloy	**50**	78
Intra-segment elimination	**(13)**	(13)
Underlying EBITDA	**81**	215
Manganese ore(5)	**106**	223
Manganese alloy	**(25)**	(8)
Underlying EBIT	**54**	188
Manganese ore(5)	**88**	205
Manganese alloy	**(34)**	(17)
Net operating assets	**237**	312
Manganese ore(5)	**281**	253
Manganese alloy	**(44)**	59
Sustaining capital expenditure	**23**	30
Exploration expenditure	**1**	-
Exploration expensed	**1**	-

SAFETY

TRIF was 2.6 for South Africa Manganese in FY20, a five per cent decrease year-on-year.

VOLUMES

South Africa Manganese saleable ore production decreased by 14 per cent (or 309kwmt) to 1,878kwmt in FY20 as we responded to weaker market conditions during H1 FY20, reducing our use of higher cost trucking and undertaking an extended maintenance shut at our underground Wessels mine. Both the open pit Mamatwan and underground Wessels mines were placed on temporary care and maintenance during the nationwide COVID-19 lockdown in the June 2020 quarter, before returning to full capacity when lockdown restrictions were lifted.

Manganese alloy saleable production decreased by 23 per cent (or 16kt) to 53kt in FY20 as we completed the strategic review of our alloy business prior to placing the Metalloys smelter on care and maintenance in July 2020.

OPERATING COSTS

FOB manganese ore Operating unit costs decreased by 16 per cent in FY20 to US$2.25/dmtu as a weaker South African rand, lower price-linked royalties and the one-off benefit from settling a historical royalty claim more than offset lower sales volumes.

Manganese alloy Operating unit costs increased by 16 per cent in FY20 to US$1,364/t in-line with the decline in sales volumes.

FINANCIAL PERFORMANCE

Underlying EBIT decreased by 71 per cent (or US$134 million) in FY20 to US$54 million as lower average realised prices (-US$130 million) and reduced sales volumes (-US$81 million), were partially offset by a weaker South African rand (+US$20 million), lower price-linked royalties (+US$16 million), and reduced activity delivering lower spend on the opportunistic trucking of ore (+US$16 million), contractors (+US$10 million) and maintenance (+US$5 million).

Our average realised price for external sales of South African ore was a six per cent discount to the medium grade 37 per cent manganese lump ore index (FOB Port Elizabeth, South Africa) in FY20 as the contribution of our lower quality fines product increased (FY20: 13 per cent, FY19: six per cent) in response to market conditions throughout the year.

CAPITAL EXPENDITURE

Sustaining capital expenditure decreased by US$7 million in FY20 to US$23 million with the Metalloys smelter placed on care and maintenance.

COMMUNITY INVESTMENT

We invested US$2.3 million in communities around South Africa Manganese in FY20, with a focus on education, health and local economic development.

(1) Volumes and prices do not include any third party trading that may be undertaken independently of equity production. Realised ore prices are calculated as external sales revenue less freight and marketing costs, divided by external sales volume. Ore converted to alloy, and sold externally, is eliminated as an intracompany transaction. Manganese ore sales are grossed-up to reflect a 60 per cent accounting effective interest.

(2) South Africa Manganese FY20 average manganese content of ore sales was 40.1 per cent on a dry basis (FY19: 40.5 per cent). 72 per cent of FY20 external manganese ore sales (FY19: 74 per cent) were completed on a CIF basis. FY20 realised FOB ore prices and operating costs have been adjusted for freight and marketing costs of US$33 million (FY19: US$40 million), consistent with our FOB cost guidance.

(3) FOB ore Operating unit cost is revenue less Underlying EBITDA, freight and marketing costs, divided by ore sales volume. Alloy Operating unit cost is revenue less Underlying EBITDA divided by alloy sales volumes.

(4) Revenues associated with sales from HMM to Metalloys are eliminated as part of the consolidation.

(5) Consistent with the presentation of South32's segment information, South Africa Manganese ore production and sales have been reported at 60 per cent. South32 has a 44.4 per cent ownership interest in HMM. 26 per cent of HMM is owned by a B-BBEE consortium comprising Ntsimbintle Mining (nine per cent), NCAB Resources (seven per cent), Iziko Mining (five per cent) and HMM Education Trust (five per cent). The interests owned by NCAB Resources, Iziko Mining and HMM Education Trust were acquired using vendor finance with the loans repayable via distributions attributable to these parties, pro rata to their share in HMM. Until these loans are repaid, South32's interest in HMM is accounted at 54.6 per cent.

CERRO MATOSO

Location: **Córdoba, Colombia**
South32 share: **99.9%**

Cerro Matoso is an integrated nickel laterite mine and smelter located in the Cordoba area of northern Colombia, consisting of a truck and shovel open-cut mine and a processing plant. South32 owns 99.9 per cent of Cerro Matoso. Current and former employees own 0.02 per cent, with the balance of shares held in a reserve account following a buy-back.

Cerro Matoso is a major producer of nickel contained in ferronickel which is used to make stainless steel. Ore mined is blended with ore from stockpiles, which is then dried in rotary kilns and smelted in two electric arc furnaces where ferronickel is produced.

South32 share	FY20	FY19
Ore mined (kwmt)	**2,839**	2,278
Ore processed (kdmt)	**2,761**	2,738
Ore grade processed (%, Ni)	**1.65**	1.66
Payable nickel production (kt)	**40.6**	41.1
Payable nickel sales (kt)	**40.6**	41.2
Realised nickel sales price (US$/lb)	**5.80**	5.38
Operating unit cost (US$/lb)[(1)]	**3.69**	3.99
Operating unit cost (US$/t)[(2)]	**120**	132

South32 share (US$M)	FY20	FY19
Revenue	**519**	489
Underlying EBITDA	**189**	127
Underlying EBIT	**107**	40
Net operating assets	**425**	479
Sustaining capital expenditure	**39**	32
Exploration expenditure	**4**	10
Exploration expensed	**2**	8

SAFETY

TRIF was 3.7 for Cerro Matoso in FY20, a 40 per cent increase year-on-year.

VOLUMES

Cerro Matoso payable nickel production decreased by one per cent (or 0.5kt) to 40.6kt in FY20 as the operation achieved a higher rate of plant utilisation and throughput, partially offsetting planned lower ore feed grades.

OPERATING COSTS

Operating unit costs decreased by eight per cent in FY20 to US$3.69/lb as a result of a weaker Colombian peso and the realisation of ongoing benefits from our energy procurement and utilisation approach.

FINANCIAL PERFORMANCE

Underlying EBIT increased by US$67 million in FY20 to US$107 million with an eight per cent rise in the average realised nickel price (+US$38 million), a weaker Colombian peso (+$27 million) and lower electricity costs (+US$9 million) partially offset by lower sales volumes (-US$8 million).

CAPITAL EXPENDITURE

Sustaining capital expenditure increased by US$7 million in FY20 to US$39 million as long lead items were purchased for the major furnace refurbishment scheduled for the December 2020 quarter.

COMMUNITY INVESTMENT

We invested US$3.8 million in communities around Cerro Matoso in FY20, with a focus on providing access to land for ethnic communities (in-kind donation of 390 hectares) and supporting education.

(1) Operating unit cost is revenue less Underlying EBITDA, excluding third party sales, divided by sales volumes.
(2) Cerro Matoso Operating unit cost per tonne is revenue less Underlying EBITDA divided by ore processed. Periodic movements in finished product inventory may impact Operating unit costs as related marketing costs may change.

CANNINGTON

Location: **Queensland, Australia**
South32 share: **100%**

Located in north-west Queensland, Cannington is 100 per cent owned by South32 and is one of the world's largest producers of silver and lead.

Cannington consists of an underground hard rock mine and surface processing facility, a road-to-rail transfer facility and a concentrate handling and ship loading facility at the Port of Townsville.

Silver, lead and zinc are extracted from the ore using grinding, sequential flotation and leaching techniques that produce high-grade, marketable lead and zinc concentrates with a high silver content.

South32 share	FY20	FY19
Ore mined (kwmt)	**2,792**	2,725
Ore processed (kdmt)	**2,839**	2,495
Ore grade processed (g/t, Ag)	**156**	184
Ore grade processed (%, Pb)	**4.7**	5.0
Ore grade processed (%, Zn)	**3.3**	3.0
Payable zinc equivalent production (kt)(1)	**238.0**	218.2
Payable silver production (koz)	**11,792**	12,201
Payable lead production (kt)	**110.4**	101.4
Payable zinc production (kt)	**66.7**	51.6
Payable silver sales (koz)	**12,109**	13,034
Payable lead sales (kt)	**108.1**	101.5
Payable zinc sales (kt)	**68.7**	47.6
Realised silver sales price (US$/oz)	**16.5**	14.4
Realised lead sales price (US$/t)	**1,648**	1,754
Realised zinc sales price (US$/t)	**1,416**	2,122
Operating unit cost (US$/t ore processed)(2)	**113**	123

South32 share (US$M)	FY20	FY19
Revenue	**476**	467
Underlying EBITDA	**155**	161
Underlying EBIT	**105**	104
Net operating assets	**214**	243
Sustaining capital expenditure	**52**	55
Exploration expenditure	**4**	4
Exploration expensed	**4**	3

SAFETY

TRIF was 2.9 for Cannington in FY20, a 64 per cent decrease year-on-year.

VOLUMES

Cannington payable zinc equivalent production increased by nine per cent (or 19.8kt) to 238.0kt in FY20 as planned higher zinc grades more than offset lower silver and lead grades, and the operation drew down run of mine stocks to a normalised level following the Queensland flood event in FY19. The drawdown and further improvement in underground mine performance supported the realisation of efficiencies in mill throughput, resulting in a 14 per cent lift in ore processed during FY20.

OPERATING COSTS

Operating unit costs decreased by eight per cent to US$113/t in FY20 as the benefits of a weaker Australian dollar, increased mill throughput and savings from the insourcing of activity more than offset inventory movements.

FINANCIAL PERFORMANCE

Underlying EBIT increased by one per cent (or US$1 million) in FY20 to US$105 million as higher sales volumes (+US$45 million), a weaker Australian dollar (+US$16 million), lower freight expenditure (+US$5 million) and a reduction in contractor costs (+US$5 million) offset lower average realised prices (-US$36 million) and inventory movements from higher sales and the drawdown of run of mine stocks (-US$43 million).

CAPITAL EXPENDITURE

Sustaining capital expenditure decreased by US$3 million in FY20 to US$52 million.

COMMUNITY INVESTMENT

We invested US$0.5 million in communities around Cannington in FY20, with a focus on education, community wellbeing and support for the economic recovery from COVID-19.

(1) Payable zinc equivalent (kt) was calculated by aggregating revenues from payable silver, lead and zinc, and dividing the total revenue by the price of zinc. FY19 realised prices for zinc (US$2,122/t), lead (US$1,754/t) and silver (US$14.4/oz) have been used for FY19 and FY20.
(2) Cannington Operating unit cost is revenue less Underlying EBITDA divided by ore processed. Periodic movements in finished product inventory may impact Operating unit costs as related marketing costs may change.

THIRD PARTY PRODUCT SALES

The Group differentiates the sale of its production from the sale of third party products due to a significant difference in profit margin earned on these sales. The table below shows the breakdown between the Group's production and third party products:

US$M	FY20	FY19
Group Production		
Revenue	**5,492**	6,468
Related operating costs (net of other income)	**(5,237)**	(5,483)
Group production Underlying EBIT	**255**	985
Margin on Group production	**4.6%**	15.2%
Third party products		
Revenue	**583**	806
Related operating costs (net of other income)	**(600)**[1]	(801)
Third party Underlying EBIT	**(17)**	5
Margin on third party products	**(2.9%)**	0.6%

(1) Includes depreciation and amortisation.

The Group engages in third party trading for the following reasons:

- To ensure a consistent supply of materials to its customers;
- As a result of production variability and occasional shortfalls from the Group's operations; and
- To enhance value through product blending and supply chain optimisation.

Outlook

PRODUCTION

We delivered a strong operating result in FY20 despite the challenging backdrop, implementing measures to keep our people safe and well, and maintaining safe and reliable operations. While all guidance is subject to further potential impacts from COVID-19, we expect to increase production at the majority of our operations in FY21.

Production guidance (South32's share)[1]

	FY20	FY21e[2]	FY22e[2]	Key guidance assumptions
Worsley Alumina				
Alumina production (kt)	**3,886**	3,965	3,965	Refinery to achieve nameplate capacity with further improvement in calciner availability.
Brazil Alumina (non-operated)				
Alumina production (kt)	**1,383**	1,370	1,390	Planned maintenance during FY21.
Hillside Aluminium				
Aluminium production (kt)	**718**	720	720	Smelter to continue to test its maximum technical capacity following record FY20 production. Guidance remains subject to load-shedding.
Mozal Aluminium				
Aluminium production (kt)	**268**	273	273	Benefits of the AP3XLE energy efficiency project to be realised. Guidance remains subject to load-shedding.
Illawarra Metallurgical Coal				
Total coal production (kt)	**7,006**	↓7,700	7,300	FY21 includes the optimisation of Appin's dual longwall operation for capital, labour and equipment productivity to maximise value, rather than volume.
Metallurgical coal production (kt)	**5,549**	↓6,400	6,300	
Energy coal production (kt)	**1,457**	↑1,300	1,000	Saleable coal production is expected to decline to 7.3Mt in FY22, with metallurgical coal production largely unchanged and lower value energy coal volumes expected to decline with an extra longwall move at Dendrobium, before normalising in FY23.
Australia Manganese				
Manganese ore production (kwmt)	**3,470**	3,500	3,500	Low-cost PC02 circuit to continue to operate above nameplate capacity, supporting secondary product volumes.
South Africa Manganese				
Manganese ore production (kwmt)	**1,878**	2,000	Subject to demand	Sales of lower-quality fines product and use of higher-cost trucking to continue, subject to market conditions. FY22 guidance subject to market demand.

Production guidance (South32's share)[1] continued

	FY20	FY21e[2]	FY22e[2]	Key guidance assumptions
Cerro Matoso				
Ore to kiln (kt)	**2,761**	2,400	2,850	Ore to kiln volumes to benefit following planned furnace refurbishment, scheduled for the December 2020 quarter.
Payable nickel production (kt)	**40.6**	33.5	38.6	
Cannington				
Ore processed (kdmt)	**2,839**	↑2,700	2,650	
Payable zinc equivalent production (kt)[3]	**332.6**	330.8	301.1	Ore processed (kdmt) to continue to benefit from improved performance in the underground mine.
Payable silver production (koz)	**11,792**	↑11,800	10,500	Payable metal production expected to reflect an increase to mill throughput and grades.
Payable lead production (kt)	**110.4**	↑113.9	103.0	
Payable zinc production (kt)	**66.7**	↑60.7	58.8	

	FY20	FY21e[2]	Key guidance assumptions
South Africa Energy Coal[4]			
Total coal production (kt)	**22,672**	10,500 – 12,500	
Domestic coal production (kt)	**12,552**	6,500 – 7,800	Continue to adjust volumes to maximise margins.
Export coal production (kt)	**10,120**	4,000 – 4,700	

(1) South32's ownership share of operations is as per footnote (3) on page 38.
(2) The denotation (e) refers to an estimate or forecast year.
(3) Payable zinc equivalent (kt) was calculated by aggregating revenues from payable silver, lead and zinc, and dividing the total revenue by the price of zinc. FY20 realised prices for zinc (US$1,416/t), lead (US$1,648/t) and silver (US$16.5/oz) were used for FY20, FY21e and FY22e.
(4) Guidance provided for H1 FY21 with divestment on-track for completion in H1 FY21, subject to the satisfaction of a number of material conditions.

COSTS AND CAPITAL EXPENDITURE

In FY20 we embedded cost savings across our operations despite the implementation of COVID-19 controls focused on keeping our people well, and maintaining safe and reliable operations. The realisation of benefits from our optimisation of labour, energy and materials usage contributed to lower Operating unit costs across the majority of our operations.

We continue to pursue cost efficiencies in our business to offset the impact of a stronger Australian dollar and the potential for an extended period of volatility and lower commodity prices. This focus is expected to contribute to the further reduction in Operating unit costs across the majority of our operations in FY21. Although guidance is not provided for our downstream processing operations, Operating unit costs are expected to benefit from the lagged effect of a reduction in raw material prices, particularly alumina.

Operating unit cost performance and guidance[1][2]

	FY19	FY20	FY21e[3][4]	Commentary
Worsley Alumina (US$/t)	238	**210**	205	**FY19 versus FY20:** Higher volumes, lower caustic soda prices and consumption rates, and lower renegotiated energy prices. **FY21 key guidance assumptions:** Higher volumes and the reduction of contractor rates and activity, partially offset by higher planned caustic consumptions rates and a stronger Australian dollar.
Brazil Alumina (non-operated) (US$/t)	270	**244**	Not provided	**FY19 versus FY20:** Higher volumes and lower caustic soda prices and consumption rates, partially offset by a temporary increase in bauxite costs. **FY21 key guidance assumptions:** Not provided but expected to benefit from lower bauxite, caustic soda and energy prices.
Hillside Aluminium (US$/t)	2,045	**1,531**	Not provided	**FY19 versus FY20:** Lower raw material input prices, lower aluminium price-linked power costs and the benefit from a major workforce restructure concluded in June 2019. **FY21 key guidance assumptions:** Not provided but combined tailwinds of lower alumina prices and a weaker South African rand are expected to mitigate higher power costs.
Mozal Aluminium (US$/t)	2,026	**1,785**	Not provided	**FY19 versus FY20:** Lower raw material input prices, including alumina and energy. **FY21 key guidance assumptions:** Not provided but expected to benefit from the further insourcing of activity and the combined tailwinds of lower alumina prices and a weaker South African rand.
Illawarra Metallurgical Coal (US$/t)	94	**93**	84	**FY19 versus FY20:** Higher volumes and weaker Australian dollar partially offset by the drawdown of finished goods and run of mine inventory. **FY21 key guidance assumptions:** Higher volumes and an associated increase in productivity partially offset by a stronger Australian dollar.

Financial and operational performance summary continued

Operating unit cost performance and guidance[1][2] continued

	FY19	FY20	FY21e[3][4]	Commentary
Australia Manganese ore (FOB) (US$/dmtu)	1.59	**1.55**	1.48	**FY19 versus FY20:** Equipment productivity and the optimisation of volumes from our low cost PC02 circuit mitigated a further increase in strip ratio. **FY21 key guidance assumptions:** Expected improvement in yield due to favourable ore characteristics and lower contractor and labour spend, partially offset by a stronger Australian dollar.
South Africa Manganese ore (FOB) (US$/dmtu)	2.69	**2.25**	2.25	**FY19 versus FY20:** Weaker South African rand, lower price-linked royalties and the one-off benefit from settling a historical royalty claim partially offset by lower sales volumes. **FY21 key guidance assumptions:** Higher volumes and a weaker South African rand, offset by the prior period's realisation of a one-off royalty benefit and a planned increase in trucking volumes.
Cerro Matoso (US$/t)[5] (US$/lb)	132 3.99	**120** **3.69**	121 3.97	**FY19 versus FY20:** Weaker Colombian peso and the realisation of ongoing benefits from our energy optimisation strategy. **FY21 key guidance assumptions:** Weaker Colombian peso, lower price-linked royalties and the continued benefit of our energy optimisation strategy, more than offset by lower production volumes from planned furnace outage.
Cannington (US$/t)[6]	123	**113**	111	**FY19 versus FY20:** Weaker Australian dollar, increased mill throughput and further insourcing of activity with efficiencies partially offset by inventory movements. **FY21 key guidance assumptions:** Insourcing of activity and the continued benefit of lower negotiated energy contracts, partially offset by a stronger Australian dollar and lower mill throughput.
South Africa Energy Coal[7] (US$/t)	40	**42**	36 – 39	**FY19 versus FY20:** Impact of lower sales volumes and costs to support the Klipspruit dragline's return to full utilisation, more than offset savings from reduced activity in loss-making pits and a weaker South African rand. **H1 FY21 key guidance assumptions:** Guidance range reflects our intent to adjust volumes to maximise margins and a weaker South African rand.

(1) South32's ownership share of operations is as per footnote (3) on page 38.
(2) Operating unit cost is revenue less Underlying EBITDA, excluding third party sales, divided by sales volumes. Operating cost is revenue less Underlying EBITDA excluding third party sales.
(3) FY21 Operating unit cost guidance includes royalties (where appropriate) and the influence of exchange rates, and includes various assumptions for FY21, including: an alumina price of US$250/t; an average blended coal price of US$103/t for Illawarra Metallurgical Coal; a manganese ore price of US$4.83/dmtu for 44 per cent manganese product; a nickel price of US$5.78/lb; a thermal coal price of US$56/t (API4) for SAEC; a silver price of US$18.20/troy oz; a lead price of US$1,788/t (gross of treatment and refining charges); a zinc price of US$2,102/t (gross of treatment and refining charges); an AUD:USD exchange rate of 0.69; a USD:ZAR exchange rate of 17.68; a USD:COP exchange rate of 3,665; and a reference price for caustic soda; all of which reflected forward markets as at June 2020 or our internal expectations.
(4) The denotation (e) refers to an estimate or forecast year.
(5) US dollar per tonne of ore to kiln. Periodic movements in finished product inventory may impact Operating unit costs.
(6) US dollar per tonne of ore processed. Periodic movements in finished product inventory may impact Operating unit costs.
(7) Guidance provided for H1 FY21 with divestment on-track for completion in H1 FY21, subject to the satisfaction of a number of material conditions.

Capital expenditure

Sustaining capital expenditure, excluding equity accounted investments, is expected to decline by US$50 million (or 12 per cent) to US$375 million in FY21. Savings are expected to be realised from the re-design and re-prioritisation of activity across our operations in response to market conditions. Expenditure at Illawarra Metallurgical Coal is expected to decrease by US$35 million (or 19 per cent) as we reduce the level of spend on underground development to typical levels, following the substantial investment in prior periods. Sustaining capital expenditure associated with our manganese equity accounted investments is expected to decrease by US$15 million (or 17 per cent) to US$75 million as we complete site infrastructure improvement projects and lower spend at our alloy smelters.

Major project capital expenditure is expected to decline by US$96 million (or 38 per cent) to US$155 million in FY21 with SAEC's KPSX project expected to be completed in H1 FY21. Modest expenditure is anticipated at Eagle Downs Metallurgical Coal, ahead of an expected final investment decision in H1 FY21. Hermosa guidance includes development studies, surface and decline infrastructure to advance the project prior to completing the Taylor Deposit's pre-feasibility study. We expect to provide updated FY21 capital expenditure guidance for Hermosa with the pre-feasibility study outcomes in the December 2020 quarter. External approvals for DND are progressing and we expect to make a final investment decision in H2 FY21. Guidance of US$64 million for DND includes critical path mine development, ventilation infrastructure and other long lead time equipment associated with the life extension project.

Capital expenditure guidance (South32's share)[1][2]

US$M	FY19	FY20	FY21e[3]
Worsley Alumina	57	**48**	57
Brazil Alumina	26	**34**	27
Hillside Aluminium	19	**13**	18
Mozal Aluminium	19	**11**	8
Illawarra Metallurgical Coal	133	**185**	150
Australia Manganese	65	**67**	58
South Africa Manganese	30	**23**	17
Cerro Matoso	32	**39**	36
Cannington	55	**52**	39
South Africa Energy Coal	90	**42**	40[4]
Group and unallocated	2	**1**	-
Sustaining capital expenditure (including equity accounted investments)	528	**515**	450
Equity accounting adjustment[5]	(95)	**(90)**	(75)
Sustaining capital expenditure (excluding equity accounted investments)	433	**425**	375
Hermosa	85	**104**	60
Illawarra Metallurgical Coal – DND	5	**14**	64
Eagle Downs Metallurgical Coal	6	**11**	7
South Africa Energy Coal	123	**122**	24[4]
Major project capital expenditure	219	**251**	155
Capital expenditure (including equity accounted investments)	747	**766**	605

(1) South32's ownership share of operations is as per footnote (3) on page 38.
(2) Capital expenditure comprises sustaining capital expenditure and Major project capital expenditure. Sustaining capital expenditure comprises Stay-in-business, Minor discretionary and Deferred stripping (including underground development) capital expenditure.
(3) The denotation (e) refers to an estimate or forecast year.
(4) Guidance for SAEC is for H1 FY21.
(5) The equity accounting adjustment reconciles the proportional consolidation of the South32 manganese operations to the treatment of the manganese operations on an equity accounted basis.

Other expenditure guidance

Group and unallocated costs, excluding greenfield exploration, of US$80 million are expected in FY21 as we continue to pursue savings through our exit of low-returning businesses and ongoing simplification of the Group's functional structures and footprint.

We have a prospective portfolio of greenfield exploration partnerships targeting base metals in Australia, the Americas and Europe. FY21 guidance for greenfield exploration expenditure to progress these early stage projects is US$18 million (FY20: US$15 million).

In addition, US$50 million of exploration expenditure, excluding equity accounted investments, is expected to be capitalised in FY21 (FY20: US$33 million). This includes US$29 million at Hermosa (FY20: US$19 million) and US$10 million (South32 share) at our Ambler Metals Joint Venture.

Depreciation and amortisation, and tax expense

Depreciation and amortisation (excluding equity accounted investments and SAEC) is expected to reduce to approximately US$683 million in FY21 (FY20: US$692 million). Depreciation and amortisation for our manganese equity accounted investments is expected to reduce to US$96 million (FY20: US$99 million). We also expect depreciation and amortisation for SAEC of US$12 million in H1 FY21.

Our geographical earnings mix will continue to have a significant bearing on our Underlying ETR given differing country tax rates, while the impact of intragroup agreements, exploration expenditure in foreign entities and other permanent differences will continue to be magnified when margins are compressed or losses are incurred in specific jurisdictions. Until it is sold, SAEC is expected to have an ETR of zero per cent, with all tax assets de-recognised and no benefit to be recorded for losses prior to sale. This will continue to influence the Group's Underlying ETR should SAEC make a loss prior to the planned timing of its divestment in H1 FY21. While it is therefore difficult to predict our Underlying ETR we do expect it to decline in FY21 (FY20: 116 per cent). Following SAEC's divestment, we expect our Underlying ETR to more closely reflect the primary corporate tax rates applicable to the Group.

Board of Directors

Ms Karen Wood
BEd, LLB (Hons), 64
Chair and Independent Non-Executive Director
Appointed 1 November 2017
(Chair from 12 April 2019)

Chair of the Nomination and Governance Committee
Location: Australia

During her career, Ms Wood has attained executive and leadership skills which she brings to her role as Chair of South32. She has comprehensive experience in public policy, social performance, community, people, remuneration and regulatory and legal compliance.

She has held various senior global leadership roles with BHP, including Group Company Secretary, Chief People Officer and President Corporate Affairs. She was a member of BHP's leadership team and served as Chair of The Global Ethics Advisory Panel, the Disclosure Committee and as Chief Governance Officer.

Ms Wood gained extensive expertise as a key adviser to BHP's Board and CEO on matters of governance, composition of leadership teams, development and succession planning, organisational design and culture, remuneration structures and stakeholder relations. Following the merger between BHP Limited and Billiton Plc in 2001, she established the multi-jurisdictional governance framework for the merged entity. Ms Wood joined BHP as Group Company Secretary in 2001 and retired in 2014.

Before joining BHP, Ms Wood held the role of General Counsel and Company Secretary with Bonlac Foods Limited.

Ms Wood's governance experience is broadened by her membership of the Takeovers Panel (Australia) from 2000 to 2012 and her roles with the Australian Securities and Investment Commission (Business Consultative Panel) and the Australian Federal Government's Business Regulatory Advisory Group.

Following her retirement from BHP, Ms Wood chaired the BHP Foundation, where she oversaw grant provisions for not-for-profit organisations to deliver large, long-term global programs in the areas of natural resource governance, human capability and social inclusion, and conserving and sustainably managing natural environments.

She is currently a Non-Executive Director of Djerriwarrh Investments Limited (and member of the Audit Committee), a member of Chief Executive Women, member of the 30% Club Australia and a Fellow of Monash University.

Current ASX listed directorships:

- Djerriwarrh Investments Limited: Independent Non-Executive Director since July 2016.

Other Directorships and Offices:

- Board Member and Member of the Audit & Risk Management Committee, State Library Board of Victoria;
- Council Member, State Library of Victoria Foundation Council;
- Vice President, Melbourne Cricket Club;
- Director, Robert Salzer Foundation; and
- Member, Business Council of Australia (Chairman's Group).

Mr Graham Kerr
BBus, FCPA, 49
Chief Executive Officer since October 2014
Managing Director, appointed 21 January 2015

Location: Australia

Mr Kerr has been our Chief Executive Officer since October 2014 and is responsible for running all parts of our business. He led South32 through the Demerger from BHP in 2015 and its public listing in three countries and has overseen the development and implementation of our strategy.

Mr Kerr is passionate about health, safety and sustainability, with a strong track record in global resource development. He joined BHP in 1994 and was appointed Chief Financial Officer in November 2011. Previously, Mr Kerr was President of Diamonds and Specialty Products and worked in a wide range of operational and commercial roles across BHP.

As President of Diamonds and Specialty Products, Mr Kerr was accountable for the Ekati Diamond Mine in Canada, the Richards Bay Minerals Joint Venture in South Africa, diamonds exploration in Angola, the Corridor Sands Project in Mozambique and the development of BHP's potash portfolio in Canada. Prior to that Mr Kerr held the positions of Chief Financial Officer Stainless Steel Materials, Vice President Finance Diamonds and Finance Director for the Canadian Diamonds Company, all for BHP. In 2004 Mr Kerr left BHP for a two-year period when he was General Manager Commercial for Iluka Resources Ltd.

Mr Kerr holds a Business degree from Edith Cowan University and studied at Deakin University to become a Certified Practicing Accountant.

Other Directorships and Offices:

- Chair, CEOs for Gender Equity.

Mr Frank Cooper AO
BCom, FCA, FAICD, 64
Independent Non-Executive Director
Appointed 7 May 2015

Chair of the Risk and Audit Committee
Location: Australia

Mr Cooper's combined experience gives him a uniquely rich understanding of the challenges and mechanisms of operating in different cultural and political environments. He brings this to South32, alongside a strong focus on organisational philosophy, values and standards.

Mr Cooper is a chartered accountant with over 35 years of experience in the finance and accounting profession. His prior appointments include Partner at Ernst & Young, Partner at PricewaterhouseCoopers, and Managing Partner for Arthur Andersen in Perth, during which time he specialised in the mining, energy and utility sectors.

Mr Cooper is currently a Non-Executive Director of Woodside Petroleum Limited (including Chair of the Audit & Risk Committee and member of the Human Resources & Compensation Committee and Nominations & Governance Committee). Until 2006, he was a Director of Alinta Infrastructure Limited and Alinta Funds Management Limited.

Mr Cooper was awarded an Officer of the Order of Australia in 2014 and was named West Australian of the Year in the Professions category in 2015. Mr Cooper is also a Fellow of the Australian Institute of Company Directors and Chartered Accountants Australia and New Zealand.

Current ASX listed directorships:
- Woodside Petroleum Limited: Independent Non-Executive Director since February 2013.

Other Directorships and Offices:
- Commissioner and Chairman, Insurance Commission of Western Australia;
- President, WA Council of the Australian Institute of Company Directors;
- Member, ASIC Director Advisory Panel;
- Pro Chancellor, University of Western Australia;
- Trustee, St John of God Health Care;
- Director, St John of God Australia Limited; and
- Advisor, Azure Capital.

Guy Lansdown
BSc (Engineering (Civil)), MSc (Engineering (Project Management)), 59
Independent Non-Executive Director
Appointed 2 December 2019

Location: Mexico

Mr Lansdown complements the South32 Board with his extensive experience in early and late stage greenfield and brownfield project development and delivery, together with his strong technical background and strategic leadership abilities.

Mr Lansdown is a civil engineer with over 35 years' experience in project development and mining, including as an executive at Newmont Mining Corporation where he was most recently Executive Vice President Discovery and Development. In that role he led Newmont's exploration and major project development.

During his 20-year career with Newmont Mining Corporation, Mr Lansdown held many senior positions, including Senior Vice President of Project Development and Technical Services USA, Vice President of Project Development USA, Executive Manager Boddington Australia, Operations Manager Minera Yanacocha Peru and Engineering and Development Director Australia.

Prior to joining Newmont, Mr Lansdown held various roles contributing to his global business experience, including Associate and Projects Manager at Knight Piesold in the USA and a Director of Projects at Group Five in South Africa. He has worked in North and South America, Asia, Australia and Africa.

Mr Lansdown is currently President and Director of his US consulting company Project Excellence Inc., which offers a range of services including strategic planning, project development, organisational design and independent project reviews.

He is also President and Director of two charities, Un Futuro Mejor Inc. and Fundación Lansdown A.C., which provide opportunities for disadvantaged youth in Mexico to reach their full potential.

Other Directorships and Offices:
- President and Director, Project Excellence Inc.;
- President and Director, Un Futuro Mejor Inc.; and
- President and Director, Fundación Lansdown A.C.

Dr Xiaoling Liu
BEng (Extractive Metallurgy), PhD (Extractive Metallurgy), FAusIMM, FTSE, GAICD, 63
Independent Non-Executive Director
Appointed 1 November 2017

Location: Australia

Dr Liu is a metallurgical engineer with a 26-year career at the Rio Tinto Group. Dr Liu's strong operational, technical, strategic, marketing and risk management skills are an important contribution to the South32 Board.

Dr Liu's roles at Rio Tinto included General Manager and Managing Director positions in smelting operational management. She held other senior positions, including Managing Director Technical Services where she led Rio Tinto's global technical services unit, and President and Chief Executive Officer where she led the Borate business with integrated mining, processing, and supply chain operations in the United States, Europe and Asia.

Since her retirement from Rio Tinto in 2014, Dr Liu has held the positions of Non-Executive Director Newcrest Mining Limited (including as a member of the Human Resources & Remuneration Committee, Audit & Risk Committee and Nominations Committee), and Non-Executive Director Incitec Pivot Limited (including as a member of Audit & Risk Committee and HSEC Committee). She was previously a Non-Executive Director of Iluka Resources Limited until April 2019. These roles have contributed to Dr Liu's skills and experience in remuneration, acquisition and divestment.

Dr Liu has been the Chancellor, Queensland University of Technology since January 2020. She held the office of Director, Melbourne Business School until October 2019. She has also served as a board member of the California Chamber of Commerce and Vice President of the Board of the Australian Aluminium Council.

Dr Liu is a Fellow of the Australian Academy of Technological Science and Engineering, a Fellow of the Australasian Institute of Mining and Metallurgy and a member of Chief Executive Women.

Current ASX listed directorships:

- Newcrest Mining Limited: Independent Non-Executive Director since September 2015; and
- Incitec Pivot Limited: Independent Non-Executive Director since November 2019.

Previous ASX listed directorships:

- Iluka Resources Limited: Independent Non-Executive Director February 2016 until April 2019.

Other Directorships and Offices:

- Chancellor, Queensland University of Technology, since January 2020.

Dr Ntombifuthi (Futhi) Mtoba
CA(SA), DCom (Honoris Causa), BCompt (Hons), HDip Banking Law, BA (Econ)(Hons), BA (Arts), 65
Independent Non-Executive Director
Appointed 7 May 2015

Location: South Africa

Dr Mtoba is a chartered accountant with an extensive career in business and community engagement in South Africa. In addition, she brings valuable sustainability and environmental experience to the South32 Board.

Dr Mtoba joined Deloitte and Touche South Africa in 1988, specialising in financial services. She became one of the first African Black women to be appointed as a Partner by one of the Big Four accounting firms and was later appointed the first African woman Deputy Chairman and then Chairman of Deloitte Southern Africa.

Dr Mtoba has been a member of the International Monetary Fund Advisory Group of Sub-Saharan Africa, the World Economic Forum Global Advisory Council, the B20 Financing Growth and Infrastructure Task Force and the B20 Transparency Task Team. She was also the first woman president of the Association for the Advancement of Black Accountants of Southern Africa.

Additionally, she has served as Board member and Chair of the Investment Committee of the Public Investment Corporation Limited, President of Business Unity South Africa, and board member of the Public Accountants and Auditors Board, the South African Institute of Chartered Accountants, the New Partnership for Africa's Development Business Foundation and African Union Foundation.

Dr Mtoba is engaged in the regional and global community. During the year, Dr Mtoba was appointed as a Director of the International Women's Forum (South Africa). She is a former board member of the United Nations Global Compact.

For her contributions, Dr Mtoba has received numerous awards, most recently Most Outstanding Leadership Women of the Year (Africa Economy Builders, 2018). She is also a Harvard Advanced Leadership Initiative Fellow (2017).

Other Directorships and Offices:

- Lead Independent Director and Audit Committee Chair, Discovery Bank Limited;
- Director, Discovery Bank Holdings Limited;
- Chair of Council, University of Pretoria;
- Founding Trustee, ZMDT;
- Trustee and Audit Committee Chair, Nelson Mandela Foundation; and
- Trustee and Audit Committee Chairman, National Education Collaboration Trust (NECT).

Mr Wayne Osborn
Dip Elect Eng, MBA, FAICD, FTSE, 68
Independent Non-Executive Director
Appointed 7 May 2015

Chair of the Remuneration Committee
Location: Australia

Mr Osborn brings over 40 years of experience from the mining, resources and manufacturing sectors to the South32 Board.

Mr Osborn was Managing Director of Alcoa in Australia from 2001 until 2008, leading an integrated business comprised of bauxite mining, alumina refining, coal mining, power generation and aluminium smelting. This included operations in Victoria and Western Australia. His prior role at Alcoa included accountability for its Asia-Pacific manufacturing operations in China, Japan, Korea and Australia. He joined Alcoa in 1979 after working as an engineer in the iron ore and telecommunications sector.

Since 2008, Mr Osborn has worked as a Non-Executive Director in the mining, construction and energy industries. He was also Chairman of the Australian Institute of Marine Science, Chairman of the Western Australia Branch of the Australia Business Arts Foundation and Vice President of the Chamber of Commerce and Industry, Western Australia.

Mr Osborn is currently a Non-Executive Director of Wesfarmers Limited (including membership of the Remuneration Committee and the Nomination Committee).

He has been awarded a WA Business Leader Award in 2007 for his work with the Australian Business Arts Foundation and an Australian Institute of Company Directors excellence award in 2018.

Mr Osborn is a Fellow of the Australian Academy of Technological Sciences and Engineering and International Fellow of the Explorers Club (New York).

Current ASX listed directorships:

– Wesfarmers Limited: Independent Non-Executive Director since March 2010.

Mr Keith Rumble
BSc, MSc (Geology), 66
Independent Non-Executive Director
Appointed 27 February 2015

Chair of the Sustainability Committee
Location: South Africa

Mr Rumble has more than 40 years of experience in the resources industry, specifically in titanium and platinum mining. He also has experience as a principal investor and private equity fund manager in Russia, India and other emerging markets. This combination of skills and knowledge are a valuable contribution to the South32 Board.

Mr Rumble has held various leadership roles including CEO of SUN Mining (a wholly-owned entity of the SUN Group), CEO of Impala Platinum (Pty) Ltd and CEO of Rio Tinto Iron and Titanium Inc in Canada. He also worked for Verref, a division of the Anglo American Corporation, prior to joining Richards Bay Minerals in 1980, working in smelting and metallurgy, progressing to General Manager and later CEO in 1996.

Mr Rumble has been a Non-Executive Director of a variety of private companies, including Platinum Mining Corporation of India PLC, Barplats Holdings Limited, Western Platinum (Pty) Limited, Eastern Platinum (Pty) Limited and Sarplat Investments Limited. He was also an independent Non-Executive Director at BHP Billiton plc and BHP Limited and at JSE-listed Aveng Limited.

In November 2019, Mr Rumble retired as a Member of Board of Governors, Rhodes University and was appointed an Honorary Life Governor (Rhodes University).

Mr Rumble completed the Stanford (US) Executive Program in 1990.

Other Directorships and Offices:

– Director, South32 South Africa Energy Coal Holdings (Pty) Ltd;
– Director, Acetologix Pty Limited;
– Director, Enzyme Technologies (Pty) Limited;
– Director, Elite Wealth (Pty) Limited; and
– Trustee, World Wildlife Fund, South Africa.

Directors' report

This report is presented by our Directors, together with the Group's Financial report, for the financial year ended 30 June 2020.

The report is prepared in accordance with the requirements of the Corporations Act, with the following information forming part of the report:

- Operating and financial review on the inside front cover to page 55;
- Director biographical information on pages 56 to 59 and Company Secretary biographical information on page 64;
- Remuneration report on pages 66 to 87;
- Note 19(a) Financial risk management objectives and policies on pages 117 to 120;
- Note 20 Share capital on page 126;
- Note 21 Auditor's remuneration on page 127;
- Note 23 Employee share ownership plans on pages 128 to 131;
- Directors' declaration on page 138;
- Auditor's independence declaration on page 139;
- Shareholder information on pages 153 to 155; and
- Corporate directory (inside back cover).

DIRECTORS AND MEETINGS

At the date of this report, the Directors in office were:

Karen Wood
Appointed 1 November 2017

Graham Kerr
Appointed 21 January 2015

Frank Cooper AO
Appointed 7 May 2015

Guy Lansdown
Appointed 2 December 2019

Dr Xiaoling Liu
Appointed 1 November 2017

Dr Ntombifuthi (Futhi) Mtoba
Appointed 7 May 2015

Wayne Osborn
Appointed 7 May 2015

Keith Rumble
Appointed 27 February 2015

You can find information about our Directors' qualifications, experience, special responsibilities and other directorships on pages 56 to 59.

The following person was also a Director during FY20:

Dr Xolani Mkhwanazi
From 2 July 2015 to 4 January 2020

Dr Xolani Mkhwanazi passed away on 4 January 2020, following a short illness.

Board and Committee meetings and Director attendance

In FY20, we held 22 Board meetings, of which 10 were scheduled Board meetings.

Our annual Board meeting schedule includes six face-to-face Board and Committee meetings (Programs). Each Program is scheduled for three days and usually includes time for a site visit to an operation or a professional development activity. At least one Program every year includes a strategy session. In FY20 this was included in the April 2020 Program.

As part of the Board schedule, four Board teleconferences were held in FY20, specifically to consider financial results and corporate reporting approvals.

During 2020, eight Board meetings were held in addition to the annual schedule to receive regular updates on management's response to COVID-19, oversee pandemic response plans, and consider business critical issues and continuous disclosure obligations. An additional four Board meetings were also convened on short notice to consider other business matters and items for approval.

Because we operate around the world, we schedule our Programs in our main geographic areas. Due to the COVID-19 pandemic travel disruptions, we adapted to a virtual Program format from mid-March 2020. Prior to travel restrictions, three Programs were held in Australia and one in South Africa.

You will find the number of Board and Committee meetings, as well as the Directors who attended them, in Table 1.1.

Our Chair sets the agenda for each meeting, with the CEO and the Company Secretary. The meetings typically include:

- Minutes of the previous meeting;
- Matters arising;
- Report from our Chair;
- CEO's report;
- Finance report;
- Commercial report;
- HSEC report;
- Board Committee Chair reports;
- Continuous disclosure checkpoint;
- Reports on major projects and strategic matters; and
- Closed sessions with Directors and closed sessions with Non-Executive Directors only.

Our Board also receives monthly reports from each of the CFO and CSO to keep Directors informed of our financial and production outcomes and sustainability matters. Our Board also receives periodic reports on operational and other important business matters including global political and market updates, market research and investor relations activities.

Table 1.1 Board and Committee meeting attendance in FY20

Director	Board		Nomination and Governance Committee[1]		Remuneration Committee		Risk and Audit Committee		Sustainability Committee	
	Eligible[2]	Attended[3]	Eligible[2]	Attended[3]	Eligible[2]	Attended[3]	Eligible[2]	Attended[3]	Eligible[2]	Attended[3]
K Wood	22	22	6	6	5	5	-	10	7	7
G Kerr (CEO)	22	22	-	6	-	5	-	10	-	7
F Cooper	22	22	6	6	5	5	10	10	-	7
X Liu[4]	22	21	6	6	-	5	10	10	7	7
G Lansdown[5]	13	13	4	4	-	3	5	5	4	4
X Mkhwanazi[6]	10	8	-	2	-	2	-	4	4	2
N Mtoba[4]	22	20	6	6	-	5	10	10	-	7
W Osborn[4]	22	21	6	6	5	5	-	10	7	7
K Rumble	22	22	6	6	5	5	-	10	7	7

Member Chair

(1) Karen Wood was appointed Chair of the Nomination and Governance Committee in December 2019, replacing Wayne Osborn who remained a member of the Committee.
(2) Indicates the number of meetings held during the period the Director was a member of the Board or Committee.
(3) Indicates the number of meetings the Director attended during FY20.
(4) The Director attended all scheduled meetings in FY20 and was unable to attend a meeting outside of the regular Board schedule, which were convened on short notice.
(5) Guy Lansdown commenced as a Non-Executive Director on 2 December 2019.
(6) Dr Xolani Mkhwanazi ceased as a Non-Executive Director on 4 January 2020. Dr Xolani Mkhwanazi passed away on 4 January 2020, following a short illness.

All Non-Executive Directors have a standing invitation to attend Committee meetings, with the consent of the relevant Committee Chair. In practice, all Directors generally attend all meetings. Their attendance is included in Table 1.1 above.

From time to time, our Board creates other committees to address important matters and areas of focus for the business.

PRINCIPAL ACTIVITIES, STATE OF AFFAIRS AND REVIEW OF OPERATIONS

Principal activities

In FY20, the principal activities of the Group were mining and metal production, from a portfolio of assets that included alumina, aluminium, bauxite, energy coal, metallurgical coal, manganese ore, manganese alloy, nickel, silver, lead and zinc.

There were no significant changes in the Group's principal activities during the year.

State of affairs

There were no significant changes in the Group's state of affairs during the year, other than as set out in the Operating and financial review and Shareholder information on the inside front cover to page 55, and pages 153 to 155 respectively.

Review of operations

We've set out a review of the Group's FY20 operations in the Operating and financial review on pages 32 to 55. It includes likely developments in the Group's operations in future financial years and expected results.

Dividends

We paid the following dividends during FY20:

Dividend	Total dividend	Payment date
Final dividend of US 2.8 cents per share (fully franked) for the year ended 30 June 2019	US$139 million	10 October 2019
Interim dividend of US 1.1 cents per share (fully franked) for the half year ended 31 December 2019	US$53.5 million	2 April 2020
Special dividend of US 1.1 cents per share (fully franked)	US$53.5 million	2 April 2020

Matters since the end of the financial year

On 14 July 2020, the Group extended the expiry date of the undrawn revolving credit facility by one year to February 2023, providing the Group with access to US$1.45 billion in liquidity.

On 13 August 2020, the Group announced that Groote Eylandt Mining Company Pty Ltd had entered into a binding conditional agreement for the sale of its shareholding in the Tasmanian Electro Metallurgical Company Pty Ltd to an entity within GFG Alliance. Completion of the transaction is subject to approval from Australia's Foreign Investment Review Board.

On 20 August 2020, the Directors resolved to pay a fully franked final dividend of US 1 cent per share (US$48 million) in respect of the 2020 financial year. The dividend will be paid on 8 October 2020. The dividend has not been provided for in the consolidated financial statements and will be recognised in the 2021 financial year.

Following the decision to suspend the on-market share buy-back program on 27 March 2020, the Group announced, on 20 August 2020, a 12-month extension to the program's execution window to 3 September 2021.

No other matters or circumstances have arisen since the end of the financial year that have significantly affected, or may significantly affect, the operations, results of operations or state of affairs of the Group in subsequent accounting periods.

REMUNERATION AND SHARE INTERESTS

Table 1.2 Directors' relevant interests in South32 Limited shares

Director	Number of shares in which a relevant interest is held as at the date of this Directors' report
K Wood	367,825
G Kerr (CEO)[1]	9,143,904
F Cooper	128,010
G Lansdown	nil
X Liu	60,000
N Mtoba	69,386
W Osborn	125,704
K Rumble	161,380

(1) At the date of this Directors' report, Graham Kerr's total interest includes 3,618,010 South32 Limited ordinary shares and 5,525,894 rights over South32 Limited ordinary shares held under the South32 Equity Incentive Plan.

Rights and options over South32 Limited shares

No rights or options over South32 Limited ordinary shares are held by any of our Non-Executive Directors.

Our Chief Executive Officer and Managing Director, Graham Kerr, holds rights over South32 Limited ordinary shares, granted under the South32 Equity Incentive Plan. You can find more details about this in the Remuneration report on page 79.

The total number of rights over South32 Limited ordinary shares on issue as at 30 June 2020 is set out in note 23 Employee share ownership plans to the financial statements on page 128 to 131.

No options or rights have been granted since the end of FY20.

As of the date of this report, the total number of rights over South32 Limited ordinary shares on issue is 52,613,301. The Remuneration report contains details of rights on issue. No shares have been issued on vesting of rights during or since the end of FY20.

COMPANY SECRETARIES

Nicole Duncan BA (Hons), LLB, MAICD, FGIA, FCG

Nicole Duncan is the Chief People and Legal Officer of South32 Limited. She was appointed as Company Secretary on 21 January 2015. You can find out more about Nicole on page 64.

Melanie Williams LLB, GCertCorpMgt, MAICD, FGIA

Melanie Williams is our Vice President Legal (Corporate) and Company Secretariat. She was appointed Company Secretary on 9 August 2016. Before working at South32, Melanie was Company Secretary and General Counsel at Tap Oil Limited, worked as Counsel with an international law firm and held legal and financial roles with Qatar Petroleum and Woodside Petroleum.

She holds a Bachelor of Laws from the University of Western Australia and a Graduate Certificate of Corporate Management from Deakin University and the Finance and Treasury Association.

INDEMNITIES AND INSURANCE

We support and hold harmless Directors and employees, including employees appointed as Directors of a Group company, who incur personal liability to others as a result of working for us (while acting in good faith), to the extent we are able under law.

Rule 10.2 of the South32 Constitution requires that we indemnify each Director and each Company Secretary on a full indemnity basis and to the extent permitted by law against liability incurred by them in their capacity as an officer of any member of the Group. The Directors and the Company Secretaries named in this report have the benefit of this indemnity (as do individuals who formerly held one of these positions).

As permitted by our Constitution, South32 Limited has entered into Deeds of Indemnity, Access and Insurance with each of our Directors, Company Secretaries and the CFO under which we agree to indemnify those persons on a full indemnity basis and to the extent permitted by law. We're insured against amounts that we may be liable to pay to Directors, Company Secretaries and Officers of the Group (as defined by the Corporations Act) by way of indemnity.

Our insurance policy also covers Directors, Company Secretaries and relevant employees against certain liabilities (including legal costs) they may incur in carrying out their duties. Due to confidentiality obligations and undertakings of the insurance policy, we can't disclose any further details about the premium or policy.

During FY20 and as at the date of this Directors' report, no indemnity in favour of a current or former Director or Officer of the Group, has been called on.

CORPORATE GOVERNANCE

Under ASX Listing Rule 4.10.3, ASX listed entities are required to benchmark their corporate governance practices against the third edition of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations (ASX Recommendations).

While the fourth edition of the ASX Recommendations, released on 27 February 2019, do not come into effect for South32 until the first full financial year commencing 1 July 2020, we do comply with all relevant fourth edition ASX Recommendations.

Our Corporate Governance Statement is available at *https://www.south32.net/who-we-are/risk-governance*. It also contains the information required under the UK Financial Conduct Authority's Disclosure Guidance and Transparency Rules (DTR).

AUDITOR

Our External Auditor has provided an independence declaration in accordance with the Corporations Act, which is set out on page 139 and forms part of this report.

The External Auditor also provides our Directors with an independent assurance conclusion. This relates to certain sustainability information, and is in accordance with the International Standards on Assurance Engagements *ISAE 3000 Assurance Engagement other than the Audits and Reviews of Historical Financial Information* and *ISAE 3410 Assurance of Greenhouse Gas Statements*.

We've included a copy of the External Auditor's assurance report in the Sustainable Development Report, please visit *www.south32.net*.

NON-AUDIT SERVICES

All non-audit services provided by our External Auditor are considered and approved in accordance with the process set out in our Provision of Non-Audit Services Policy.

No non-audit services were undertaken by, and no amounts paid to, our External Auditor. Refer to note 21 Auditor's remuneration to the financial statements.

POLITICAL DONATIONS AND COMMUNITY INVESTMENT

Our Code of Business Conduct sets out our approach to political donations and community investment.

In FY20, we didn't contribute funds to any politician, elected official or candidate for public office in any country. Our representatives attend political functions that charge an attendance fee, and where attendance is approved beforehand in accordance with our internal approval requirements. We record the details of attendances and the relevant costs at a corporate level.

In FY20, we contributed US$24.5 million for the purposes of supporting community programs that comprised direct investment, in-kind support and administrative costs. For more information on our community investment, please visit *www.south32.net*.

PROCEEDINGS ON BEHALF OF SOUTH32

No proceedings have been brought or intervened in on our behalf, nor any application made under section 237 of the Corporations Act.

ENVIRONMENTAL PERFORMANCE

Performance in relation to environmental regulation

We classify environmental incidents based on actual and potential impact type as defined by our internal material risk management standards.

In FY20, we had no environmental events that resulted in a major impact to the environment.

Fines and prosecutions

In FY20, we recorded no fines or prosecutions relating to environmental performance.

ROUNDING OF AMOUNTS

We've applied the Australian Securities and Investments Commission (ASIC) Corporations (Rounding in Financial/ Directors' Reports) Instrument 2016/191 to this report. This means the amounts in the financial statements have been rounded to the nearest million US dollars, unless stated otherwise.

RESPONSIBILITY STATEMENT

The Directors state that to the best of their knowledge:

a) The consolidated financial statements and notes on pages 89 to 137 were prepared in accordance with applicable accounting standards, give a true and fair view of the assets, liabilities, financial position and profit and loss of the Group and the undertakings included in the consolidation taken as a whole; and

b) The Directors' report includes a fair review of the development and performance of the business and the position of the Group and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties they face.

This Directors' report and Responsibility statement is made in accordance with a resolution of the Board.

Karen Wood
Chair

Graham Kerr
Chief Executive Officer
and Managing Director

Date: 3 September 2020

Lead Team

Graham Kerr BBUS, FCPA, 49
Chief Executive Officer and Managing Director
See page 56 for Graham Kerr's qualifications and experience.

Simon Collins BE (Mining), MBA, 47
Chief Development Officer
Simon Collins has been our Chief Development Officer since October 2018. He is responsible for Greenfields Exploration, Industry and Project Evaluation, Acquisitions and Divestments, Integration and Separation, Brazil Alumina and the Hermosa project. He also represents South32 on the Board of Directors of Ambler Metals LLC.

Simon brings over 25 years' experience in the resources industry in senior leadership and business development roles. Before joining South32, he worked for BHP for more than a decade, providing leadership to the business development teams in Belgium, the United Kingdom, Singapore and Australia. He began his career in mine operations in Australia and South Africa.

Simon holds a Master of Business Administration from London Business School and a Bachelor of Engineering (Mining) from the University of New South Wales.

Nicole Duncan BA (Hons), LLB, MAICD, FGIA, FCG, 48
Chief People and Legal Officer, Company Secretary
Nicole Duncan became our Chief People Officer in July 2017, having been Chief Legal Officer and Company Secretary where she played a key role in our establishment, Demerger and listing. She's responsible for Human Resources functions, as well as Company Secretariat, Legal and Business Integrity teams.

Before joining us, Nicole was Vice President, Company Secretariat for BHP. She was also Vice President Supply, Group Information Management from 2011 to 2013. During her legal career, she's worked in various BHP roles in Australia, the United States and the Netherlands.

Nicole graduated from the Australian National University with a Bachelor of Laws and a Bachelor of History (Hons).

Jason Economidis MBA (Executive), 51
Chief Operating Officer
In July 2020, Jason Economidis became our Chief Operating Officer with accountability for Australia Manganese, Cannington, Illawarra Metallurgical Coal and Worsley Alumina. Prior to this, Jason was Vice President Operations at Illawarra Metallurgical Coal.

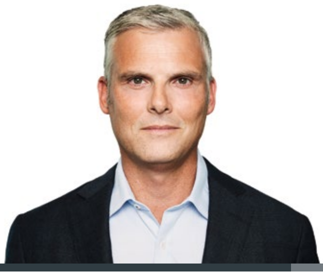
Jason is an experienced mining executive having worked in the sector in Australia and overseas for more than 25 years. He joined South32 from Orica, where he held the position of Vice President Coal and was responsible for 25 mining operations across Queensland and New South Wales. Jason has held several other senior positions in the industry including General Manager of the Coppabella and Moorvale Complex for Peabody Energy, Chief Operating Officer of Vale Coal Australia, and General Manager of Goonyella-Riverside and Caval Ridge as well as Vice President Health, Safety, Environment and Community for BHP.

Jason holds a Master of Business Administration (Executive) from the Australian Graduate School of Management.

Mike Fraser BCom, MBL, 55
Chief Operating Officer
Mike Fraser became our Chief Operating Officer in April 2018, having been President and Chief Operating Officer for the Africa region from January 2015. He's responsible for the Group's aluminium and manganese operations in Africa and the Cerro Matoso operation in Colombia. He's also responsible for SAEC.

Before joining us, Mike was President, Human Resources with BHP. Before this, he was Asset President of Mozal Aluminium in Mozambique. He's also worked in various roles in BHP's coal, manganese and aluminium businesses. During his career, Mike held leadership roles in a large internationally diversified industrial business, and has worked in the United Kingdom, South Africa, Mozambique and Australia.

Mike holds a Master of Business Leadership and a Bachelor of Commerce from the University of South Africa.



Brendan Harris BSc, CPA, 48

Chief Commercial Officer

Brendan Harris became our Chief Commercial Officer in January 2020 and is responsible for Commodity Marketing and Supply functions.

Previously, he was our inaugural Chief Financial Officer, looking after Financial Reporting, Management Reporting, Treasury, Business Evaluation, Tax, Corporate Affairs, Investor Relations, Risk and Assurance, and Brazil Alumina and played a key role in our establishment, Demerger and listing.

Before joining us, Brendan was Head of Investor Relations at BHP, based in the United Kingdom and then Australia, having been Vice President Investor Relations Australasia. During his career, he also held roles in investment banking, including Executive Director Metals and Mining Research at Macquarie Equities.

Brendan holds a Bachelor of Science in Geology and Geophysics from Flinders University.

Rowena Smith BCom, 53

Chief Sustainability Officer

Rowena Smith became our Chief Sustainability Officer in August 2017, having been Vice President Supply in the Australia region. She's responsible for Health, Safety, Environment, Sustainability, Risk and Assurance.

Before joining us, Rowena worked with BHP Nickel West as Head of Resource Planning and Development. In her 14 years with BHP, she also held senior roles in marketing and operations, including General Manager, Kwinana Nickel Refinery. Before this, she worked in operational leadership roles within Rio Tinto's aluminium smelting business.

Rowena holds a Bachelor of Commerce from the University of Western Australia.

Vanessa Torres BSc (Chemical), MEng, DEng, 50

Chief Technical Officer

Vanessa Torres became our Chief Technical Officer in July 2020. She is responsible for innovation and technology, projects (including Eagle Downs), technical stewardship and global business services.

Vanessa joined South32 in August 2018 as Chief Technology Officer. Before this, she was Vice President Operational Infrastructure for BHP Western Australia Iron Ore. She has over 28 years of global mining experience across Australia, Canada, Brazil, Peru and New Caledonia, and has held various senior roles at BHP and Vale in strategy, projects, business development, and operations.

Vanessa holds Doctorate and Master degrees in Minerals Engineering from the University of Sao Paulo, and a Bachelor of Science from the Federal University of Minas Gerais, Brazil. She was also a Visiting Scholar at the University of British Columbia, Canada, where her research focused on the application of Artificial Intelligence to the mining industry.

Katie Tovich BCom, CA, GAICD, 50

Chief Financial Officer

Katie Tovich became our Chief Financial Officer in May 2019, having been Vice President Corporate Affairs and Investor Relations, as well as Head of Treasury. She's responsible for Financial Reporting, Management Reporting, Treasury, Business Evaluation, Tax, Investor Relations, Group Assurance, and Corporate Affairs including Community.

Katie brings more than 25 years of global experience in the resources sector. Before joining us, she held senior finance and marketing roles at BHP in Australia and Asia, including Vice President Corporate Finance, Head of Finance Worsley Alumina and Vice President Finance Marketing – Carbon Steel Materials. Earlier in her career, she held finance and marketing leadership positions at WMC Resources Limited in Australia and North America.

Katie holds a Bachelor of Commerce from the University of Tasmania and is a member of Chartered Accountants Australia and New Zealand.

LETTER FROM OUR REMUNERATION COMMITTEE CHAIR

Dear Shareholders,

On behalf of the Board, I'm pleased to present the Remuneration report for the year ended 30 June 2020.

This report aims to describe, in a simple and transparent way, our approach to remunerating Executive key management personnel (KMP) and the key principles that underpin our Reward Framework, as well as remuneration for our Non-Executive Directors.

We believe that our Reward Framework is fit for purpose throughout the business cycle, and allows the Board to find the right balance between remuneration outcomes that reward and incentivise our Executives while also reflecting overall business performance and the shareholder experience.

COVID-19 AND OUR PERFORMANCE

FY20 has challenged us all in ways we could never have imagined. The Board, Lead Team and all employees across the Group have responded quickly to the COVID-19 pandemic, implementing controls to keep our people safe and well, maintain safe and reliable operations, and support our communities. In fact, our teams have never worked harder. The collaboration they have demonstrated and their agility in adapting to new ways of working has been outstanding.

This enabled the Group to deliver a strong operating result for the period, despite government measures impacting a number of operations, particularly in South Africa where our manganese and export coal production were temporarily shut down. Australia Manganese ore, Hillside Aluminium and Brazil Alumina all delivered record production in FY20.

The early response to protect the company's financial position, including re-prioritising capital expenditure, maintaining control of operating costs and optimising production has ensured the business remains resilient. South32 has also not applied for a government-funded wage subsidy program in any jurisdiction in which we operate.

While the Board is proud of the manner in which the Group has responded to COVID-19 and is confident in the Group's position to face a period of continued economic uncertainty, it recognises that some of the key financial outcomes have impacted the shareholder experience for FY20.

One of the key benefits of the South32 Reward Framework is that it is sufficiently flexible to enable the Board to reward Executives for delivering strong performance in areas within their control, while still ensuring that overall reward outcomes are appropriate in years where the shareholder experience does not reflect the underlying operating performance.

SHORT-TERM INCENTIVE

As the intent of the Short-Term Incentive (STI) is to focus our Executives on what they can influence in the performance year, we remove the impacts of external factors such as commodity prices and foreign exchange. The Business Modifier component of the STI provides the Board with flexibility to recognise factors impacting performance beyond those specifically captured in the Business Scorecard, including alignment with the shareholder experience, to ensure Executives can be rewarded for delivering strong performance throughout the cycle. We believe this is a fair and consistent approach.

Notwithstanding that it has been necessary for South32 to redirect our focus in certain areas in response to the pandemic, which has meant that a number of Scorecard metrics were not met and we have not adjusted our FY20 Business Scorecard.

As outlined above (and more detail on STI outcomes on page 75), we achieved strong operating performance, cost outcomes that were better than target and reduced capital expenditure.

While our overall safety performance has improved year-on-year, in May 2020, we experienced the tragic loss of one of our colleagues, Duncan Mankhedi Ngoato, in an incident at SAEC. This does not reflect the company we want to be and we remain committed that our people return home safe and well every day.

While the overall Business Scorecard outcome was marginally short of Target at 91 per cent (61 per cent of maximum) the Board considered the fatality, the impact of the global economic environment on our financial performance and the experience of our shareholders and exercised its discretion to apply a Business Modifier that reduced STI outcomes to between 42 per cent to 51 per cent of maximum.

LONG-TERM INCENTIVE (VESTING)

The LTI is the component of Executive remuneration most closely linked to the shareholder experience as it rewards Executives for delivery of returns to shareholders that exceed peer benchmarks over a four-year period.

We believe this has been achieved this year. Just as shareholders were impacted by the drop in share price, Executives were impacted in their LTI vesting outcome.

At the end of January 2020, our Total Shareholder Return (TSR) for the performance period for the FY17 LTI was tracking at a return to shareholders of 104 per cent and was outperforming both the world and the sector indices. By the end of June 2020, due to external factors including the decline in commodity prices, our share price had declined by 30 per cent. As a result, the plan that was due to vest this year, failed to meet the threshold levels of performance required for vesting.

LONG-TERM INCENTIVE (GRANT)

The impact of the current global economic environment on our share price means that the grant price for the FY21 LTI is substantially lower than last year. While the medium to longer-term impacts of COVID-19 remain unclear, the Board is conscious that Executives should not receive a windfall gain from a pandemic-impacted share price at the start of the performance period. To overcome this, the Board has determined that the maximum value the CEO may receive from the FY21 LTI at the time of vesting will be limited to twice the face value of the award at grant (see further details on page 83). Any value above that level will be forfeited or, in exceptional circumstances and at the Board's discretion, be deferred for a further period.

LOOKING FORWARD

The Board has confidence in the integrity of the Reward Framework and believes it incorporates the necessary flexibility to continue to balance rewarding our Executives for performance and recognising the interests of stakeholders, notwithstanding the ongoing uncertainty in global markets.

Executives will not receive an increase to Fixed Remuneration in FY21 and Fees for the Non-Executive Directors will also remain unchanged.

Our FY21 STI Business Scorecard will continue to focus our Executives and colleagues across the globe on our business priorities in response to COVID-19, including implementing controls to keep our people safe and well, maintain safe and reliable operations, and support our communities.

In what has been a year without comparison, we thank you, our shareholders, for your ongoing support.

Wayne Osborn
Chair, Remuneration Committee

FY20 AT A GLANCE

Four-Year Total Shareholder Return[1]	Underlying EBIT	Total Recordable Injury Frequency
56.5%	**US$446m**	**9% reduction**

Total Shareholder Return[1]

Diagram 1.1 – South32 TSR relative to comparator groups

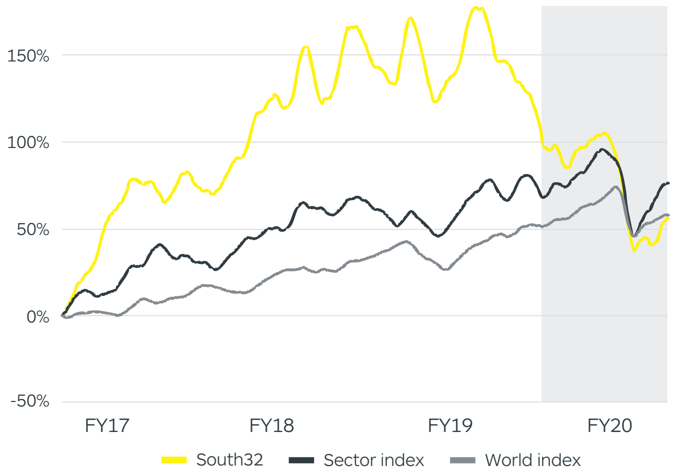
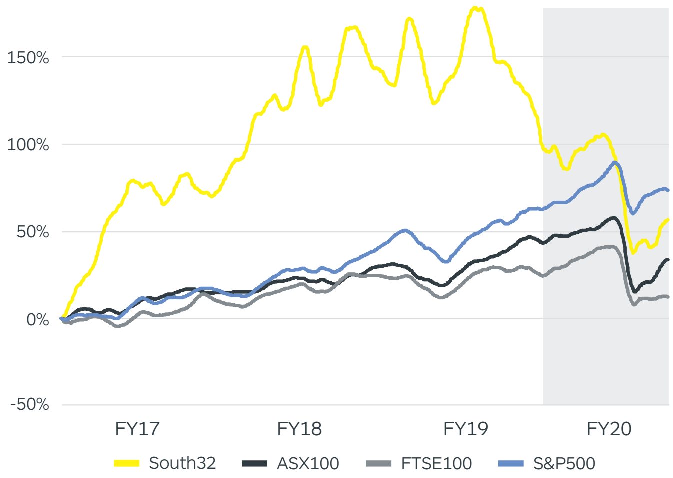


Diagram 1.2 – South32 TSR relative to key indices (AUD)



(1) Rolling 22-day average

Overview of business performance

The following table outlines historic business performance outcomes.

Table 1.1 – Business performance

Performance measures[1]	FY20	FY19	FY18	FY17	FY16[2]
Underlying EBIT (US$M)	**446**	1,440	1,774	1,648	356
Underlying earnings (US$M)	**193**	992	1,327	1,146	138
Closing net cash/(debt) (US$M)	**298**	504	2,041	1,640	312
Movement in adjusted ROIC (percentage point)[3]	**0.0**	(1.4)	(6.8)	(1.1)	1.8
Closing share price on 30 June (A$)	**2.04**	3.18	3.61	2.68	1.54
Dividends/special dividends paid (USc)	**5.0**	13.0	13.7	4.6	-
TRIF (per million hours worked)	**4.2**	4.6[4]	5.1	6.1	7.7

(1) The financial information in this table has not been prepared in accordance with IFRS. Refer to page 100 of the Annual Report for a reconciliation to statutory earnings.
(2) The closing share price on 30 June 2015 was A$1.79.
(3) The movement in adjusted ROIC is by reference to the previous performance period and removes the effect of changes in commodity prices, commodity price linked costs, market traded consumables, foreign exchange rates and movements in the Group's Underlying ETR, including our manganese equity accounted investments on a proportional consolidated basis, divided by the sum of fixed assets (excluding any rehabilitation asset, the impairment of SAEC and our equity accounted manganese alloy smelters, and unproductive capital associated on Major project capital) and inventories.
(4) Figure has been restated since it was previously reported due to a reclassification or recalculation of data.

SOUTH32 RESPONSE TO COVID-19 IN RELATION TO EXECUTIVE REMUNERATION

Impact of COVID-19 on South32 in FY20

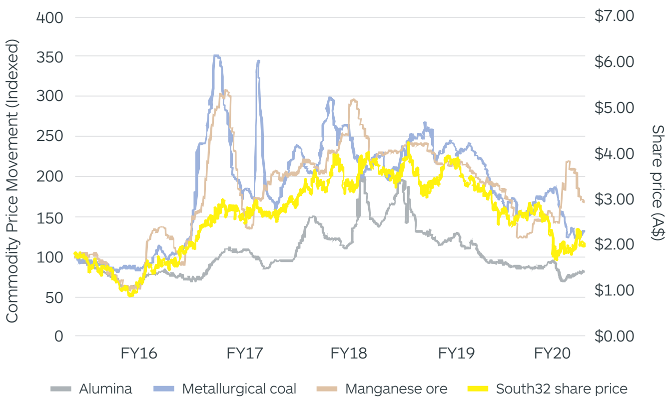
South32 took early action to address the COVID-19 pandemic. We quickly adapted our plans to allow our people to focus on business-critical activities and the COVID-19 response and, as a result, some activities were deferred or stopped. Our actions included adjusting our capital expenditure priorities, heightening our focus on reducing costs, optimising production, managing counterparty and supply chain risk and suspending the remaining portion of our on-market share buy-back. These actions enabled us to deliver a strong operating outcome in FY20 and maintain our strong financial position. We have not applied for a government-funded wage subsidy program in any jurisdiction in which we operate[(1)]. For further information see progress against our strategy on pages 10 to 17 and our FY20 Business Scorecard on page 75.

While the actions outlined above have been effective in mitigating the operational impacts of COVID-19, our financial outcomes, including earnings and share price performance, have been impacted by external factors. In particular, the volatility in global economic markets created by COVID-19 coincided with a deterioration in commodity prices, directly impacting our financial performance and share price. Diagram 1.3, shows a strong correlation between key commodity prices and the South32 share price.

The South32 Remuneration Framework has been designed to enable the Board to balance motivating and rewarding our Executives for delivering strong performance in areas within their control and ensuring remuneration outcomes are aligned with the overall shareholder experience.

In response to the challenges of COVID-19, South32 has applied a number of interventions across elements of Executive Remuneration, as outlined in the table below.

Diagram 1.3 – Key commodity prices vs. South32 share price



(1) All employers in Singapore received an automatic payment as part of the Jobs Support Scheme. South32 did not make an application for these funds.

Executive Remuneration aligned to FY20 performance

FY21 Fixed Remuneration	No increase will be applied to Fixed Remuneration for FY21. See page 64 for details on our **Lead Team**
FY20 STI	Despite COVID-19, we delivered a strong operating performance and solid outcomes against the Business Scorecard. The Board considered the fatality at South African Energy Coal and the decline in earnings and our share price during FY20, and applied the Business Modifier of between 15 and 30 per cent to the Executives. See page 74 for details on our **FY20 STI outcomes**
FY17 LTI	At the end of January 2020, the FY17 LTI plan was on-track to vest against both comparator groups. However, the decline in the South32 share price from late February to the end of the financial year, meant the FY17 LTI fell short of the performance hurdles relative to the MSCI World and the Global Mining Indices. Although our TSR outcome was 56.5 per cent over the four years, it was below threshold, resulting in all rights in relation to this plan lapsing. See page 78 for our **LTI outcomes**
FY21 LTI	Given the impact of deteriorating commodity prices on the South32 share price in the grant year and the continuing uncertainty and volatility in global economic markets, the Board determined that the maximum value the CEO may receive for the FY21 LTI at the time of vesting will be limited to twice the face value at the time of grant. Any value above that level will be forfeited or, in exceptional circumstances and at the Board's discretion, deferred for a further period. This vesting cap is in addition to the Board's general discretion to reduce the vesting outcome, if appropriate, to reflect the performance of the Group over the vesting period. The limit applied to the CEO at that time will inform the Board's application of discretion with regard to the vesting value for the other KMP. See page 83 for our **FY21 LTI grant**

ACTUAL PAY FOR EXECUTIVE KMP IN FY20

We disclose actual pay to provide our shareholders with a better understanding of cash and other benefits our Executive KMP receive in the performance year.

The amount of actual pay is likely to vary substantially, either up or down, from Target Remuneration (see page 72) because a significant portion of our pay is 'at risk' and based on demanding performance measures.

The realised value of the LTI awards for South32 Executives is based on relative TSR over a four-year performance period, compared to world and sector indices, and helps align actual pay outcomes and the shareholder experience. While LTI is only one component of the Remuneration Framework, it represents a significant portion of overall remuneration and because it is delivered fully in equity, offers additional upside where strong share price growth is achieved. Accordingly, there is a good correlation between CEO actual pay and share price performance, as shown in Diagram 1.4.

While the LTI is designed to ensure that a significant portion of Executive reward is directly aligned to the shareholder experience, the STI is primarily focused on the performance of management during the financial year and measures outcomes within management's control. The STI is discussed on page 74.

The actual pay for Executive KMP in FY20 is tabled below. This includes:

- Fixed Remuneration earned in FY20 (includes pension/superannuation);
- Other cash and non-monetary benefits earned in FY20;
- Total FY20 STI earned (including cash and deferred rights) based on performance during this financial year (details on page 77); and
- LTI awards that vested based on performance and/or service conditions to 30 June 2020 (details on page 79).

Diagram 1.4 – South32 share price vs. CEO Actual pay (A$'000)

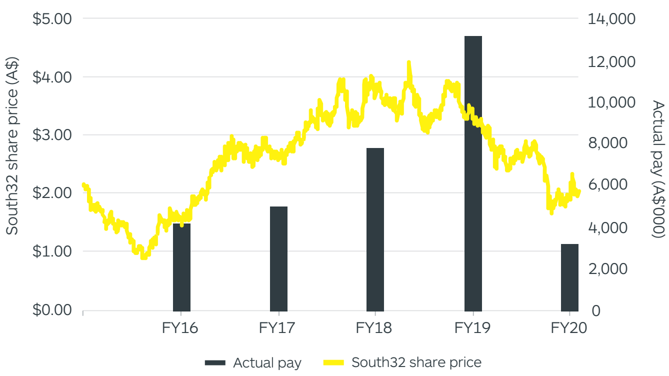


Table 1.2 – Actual Pay in respect of FY20 (A$'000)

Executive KMP		Fixed Remuneration	Other[1]	STI Cash	STI Deferred	S32 LTI[2]	Replacement Award[3]	Actual Pay
Mr Graham Kerr	**FY20**	**1,815**	**21**	**690**	**690**			**3,216**
Chief Executive Officer	FY19	1,770	29	924	924	9,548		13,195
Mrs Katie Tovich[4]	**FY20**	**830**	**10**	**383**	**383**	**154**		**1,760**
Chief Financial Officer	FY19	601	8	292	72	1,182		2,155
Mr Mike Fraser	**FY20**	**1,000**	**40**	**380**	**380**			**1,800**
Chief Operating Officer	FY19	988	31	474	474	4,360	1,828	8,155
Mr Paul Harvey[5]	**FY20**	**810**	**41**	**748**				**1,599**
Chief Operating Officer	FY19	790	38	446	446	1,957		3,677

(1) Other benefits include insurances and tax advice provided to Executive KMP.
(2) Value of LTI is based on a closing share price on 30 June 2020 of A$2.04 (FY20) and 30 June 2019 of A$3.18 (FY19) and includes share price growth.
(3) Replacement awards refer to the BHP awards that were cancelled and replaced with South32 awards in FY15.
(4) As Katie Tovich joined the Lead Team in May 2019, her FY19 remuneration is based on her prior role for 10 months of the year. Management Share Plan (retention) awards granted to Katie Tovich prior to her appointment as a member of KMP vested (see page 78).
(5) On 30 June 2020, Paul Harvey stepped down as Chief Operating Officer to pursue opportunities outside the company. Termination benefits for Paul Harvey (not detailed in the table above) include payment in lieu of 6 months' notice plus an additional payment totalling A$470,000. As Paul Harvey was a member of the South32 Defined Benefit Plan (as set out on page 84) his Fixed Remuneration presented above includes a notional company contribution to the Plan of 9.5 per cent. STI awarded to Paul Harvey will be paid entirely in cash in September 2020 per the STI Plan Rules relating to cessation of employment.

OUR REWARD FRAMEWORK

The pages of the Remuneration report that follow (together with Table 1.1 – Business Performance) have been prepared in accordance with section 300A of the *Corporations Act 2001* (Cth) (Act) and audited as required by section 308(3C) of the Act. These sections relate to those persons who were KMP of South32 during FY20, being the Executive KMP named on page 69 and the Non-Executive Directors of South32.

Remuneration governance

The roles and responsibilities of our Board, Remuneration Committee, management and external advisors in relation to remuneration for Executive KMP and employees at South32 are outlined below.

BOARD	Our Board maintains overall responsibility for overseeing the remuneration policy, and the principles and processes that underpin it. They approve the remuneration arrangements for our CEO and Non-Executive Directors. Changes to the Director fee pool are approved by shareholders.
REMUNERATION COMMITTEE	The Remuneration Committee approves reward arrangements for our Lead Team and oversees the remuneration and benefits framework for all employees in South32. By taking advice from other Board Committees (such as Sustainability, and Risk and Audit Committees), the Remuneration Committee helps our Board to oversee remuneration policy, its specific application to the CEO, Executives and Non-Executive Directors and, in general, our employees. They make sure our remuneration arrangements are equitable and aligned to the long-term interests of shareholders, while operating within our risk framework and supporting our purpose and values.
CEO AND MANAGEMENT	Our CEO makes recommendations to the Remuneration Committee regarding our Lead Team, and how the remuneration policy and framework applies to all our employees. Our Management provides information and recommendations for the Remuneration Committee, to help them consider and implement the approved arrangements.
EXTERNAL ADVISORS	We may engage external advisors either directly by the Remuneration Committee, or through management. They provide information on remuneration-related issues, including benchmarking information and market data. There were no remuneration recommendations received by the Remuneration Committee from external advisors in relation to KMP in FY20.

We seek information and analyses from a range of data sources. This allows us to make decisions that are informed, objective, weighted and aligned to the requirements of the company and consistent with our Guiding Principles.

Reward practices and outcomes

Our Guiding Principles

Purpose and Strategy

We align short-term and long-term performance measures to our strategy and purpose. This includes our commitment to:

- Making sure everyone goes home safe and well at the end of every shift;
- Delivering operational excellence;
- Meeting key strategic priorities; and
- Achieving sector-leading total shareholder returns.

The way we work

Our culture is at the core of how we deliver our strategy and purpose. You'll see it reflected in our values, the way we work, the decisions we take, the courage we show in challenging situations and the legacy we leave.

Supporting this is a strong belief that culture can be actively shaped through a focus on what we prioritise, what we measure, what we reward and who we appoint.

Shareholders

Our reward framework ensures Executives and management are focused on delivering superior total shareholder returns.

We do this through share ownership and LTI performance measures aligned to the shareholder experience.

We value our stakeholder feedback, so we regularly check-in with investors and proxy advisors.

Performance

We ensure our reward outcomes are aligned to performance by providing a large part of Executive pay 'at risk' based on challenging financial and non-financial measures.

STI outcomes reflect performance over the financial year, while LTI outcomes reflect performance over a four-year period.

Market

We ensure our reward is competitive and allows us to attract and retain talented Executives.

In balance with these principles, we benchmark our reward levels with consideration of similar-sized companies in the ASX, as well as our global mining peer group.

Components of our reward

OUR INTENTION	Attract and retain talented Executives to lead South32	The majority of pay at risk reflects our commitment to pay for performance and deliver value to shareholders	
		Reward business and individual performance in the financial year	Reward business and individual performance in the financial year
COMPONENT	**FIXED REMUNERATION**	**SHORT-TERM INCENTIVE**	**LONG-TERM INCENTIVE**

THE WHY

Fixed Remuneration: Fixed Remuneration is set with reference to the median of our peer groups, reflecting each Executive KMP's responsibilities, location, skills and experience.

Short-term incentive: To focus efforts on outcomes that are a priority for us in the financial year and motivate Executive KMP to achieve challenging performance objectives.

As our STI reflects performance during the year, the STI measures outcomes within management's control.

Long-term incentive: LTI is aligned to the shareholder experience and delivery of lasting, industry-leading total shareholder returns.

THE HOW

Fixed Remuneration: Base salary and superannuation.

Short-term incentive: 50 per cent paid in cash annually. 50 per cent in rights to South32 shares, deferred for two years.

Long-term incentive: Rights to South32 shares, subject to TSR performance measured over a four-year period, relative to two comparator groups.

OUR APPROACH IN FY20

Fixed Remuneration: Our peer groups are:

– An ASX peer group based on companies with half to double our market capitalisation (excluding foreign domiciled and Real Estate Investment Trusts); and
– A global mining peer group of 14 companies with a similar market capitalisation, commodity mix and/or geographic spread (see below).

Short-term incentive: Quantum (% of Fixed Remuneration):

	Target Value	Max. Value
All Executive KMP	120%	180%

Business Scorecard:
The Business Scorecard reflects a balance of financial and non-financial measures that are a priority for us in the financial year.

The financial measures remove the impact of commodity prices and foreign exchange to ensure that we reward the items management can control.

Business Modifier:
As Scorecard measures do not always reflect overall performance over the year, and to mitigate any unintended reward outcomes, the Board has the discretion to apply a Modifier to the Business Scorecard outcome. The Modifier may be applied to Executive KMP on an individual or group basis, having regard to the perspectives of stakeholders including employees, shareholders and communities.

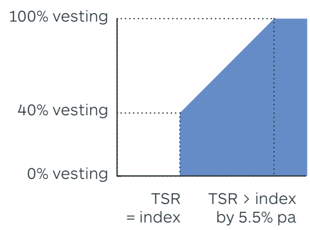
Individual Performance and Behaviours:
The Board also considers an Executive KMP's individual performance, taking into account their areas of responsibility and how outcomes have been achieved (including alignment with our values).

Long-term incentive: The quantum is determined on Face Value as a percentage of Fixed Remuneration:

	Face Value	Target Value
CEO	300%	120%
Other KMP	200% to 250%	80% to 100%

Comparator groups:
– Two-thirds relative to a mining sector index (IHS Markit Global Mining Index with constrained weighting by company and sector); and
– One-third relative to a world index (Morgan Stanley Capital International (MSCI) World Index).

Vesting:



There is no retesting if the performance condition is not met at the end of the performance period.

MINIMUM SHAREHOLDING REQUIREMENT

A Minimum Shareholding Requirement (MSR), equal to 100 per cent of Fixed Remuneration for Executive KMP, drives a long-term focus and alignment with our shareholders. The MSR applies to all Executive KMP and must be obtained within five years of appointment as a KMP.

See page 86 for current shareholding of our Executive KMP.

OUR SERVICE CONTRACTS

Contracts are entered into by Executive KMP in their personal capacity. The key terms are consistent for all Executive KMP, and include:

– No fixed term;
– Six months' notice by either party or payment by the company in lieu of notice; or
– Termination without notice for serious misconduct; or
– Two months' notice by the Executive where a fundamental change occurs that materially diminishes their status, duties, authority or terms and conditions (receiving payment in lieu of six months' notice).

The maximum payment in lieu of notice won't exceed six months' Fixed Remuneration. Executive KMP will be subject to several post-employment restraints for a period of up to six months after their employment with the Group ends. Shareholder approval was granted at the 2018 Annual General Meeting (AGM) in relation to termination benefits for Executive KMP for a further three years.

OUR GLOBAL PEER GROUP

Agnico Eagle Mines; Alcoa; Anglo American; Antofogasta; Barrick Gold; Boliden AB; Eramet SA; First Quantum Minerals; Fortescue Metals Group; Freeport McMoRan; Newcrest Mining; Newmont GoldCorp Corporation; Teck Resources; Vedanta

TARGET REMUNERATION FOR FY20

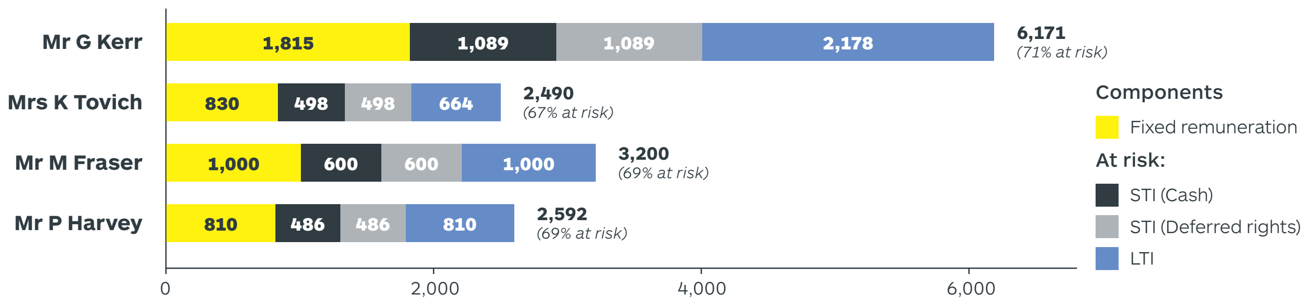
Target Remuneration for each Executive KMP is determined by the South32 Reward Framework (see page 70). This Framework outlines the key factors the Board takes into consideration in setting executive reward and the strategic drivers of pay at South32.

It is important to ensure remuneration levels fairly reflect the responsibilities and contribution of the Executives while ensuring that outcomes are aligned to performance and to the creation of shareholder value. As a result, a significant portion of our Executive remuneration is at risk and based on demanding performance measures.

Target Remuneration, as outlined below, assumes on-target performance for the STI and, for the LTI, considers the difficulty of achieving performance hurdles and anticipated share price volatility. The figures reflected in the graph below are therefore based on STI paid at 100 per cent of target and LTI that is 40 per cent of the Face Value (see page 71 for details on Face Value).

Based on these principles, the annualised Target Remuneration for the Executive KMP for a full year is summarised below.

Diagram 1.5 – FY20 Target Remuneration (A$'000)



Target remuneration relative to peer groups (unaudited)

The diagrams alongside illustrate the moderate approach adopted by South32 in positioning CEO Fixed Remuneration and Total Reward compared to peer groups, being the ASX peer group and the Global Mining Sector peer group (see page 71). The level of Fixed Remuneration for the CEO is below the median of both our peer groups.

As an additional reference, and based on markets in which we compete for executive talent, we have also included supplementary peer groups reflecting companies on the LSE and NYSE that are half to double the market capitalisation of South32.

Diagram 1.6 – CEO Fixed Remuneration vs. Peers

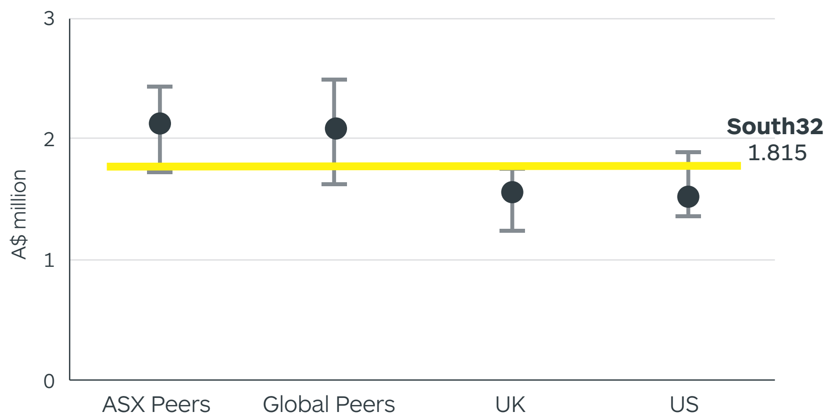
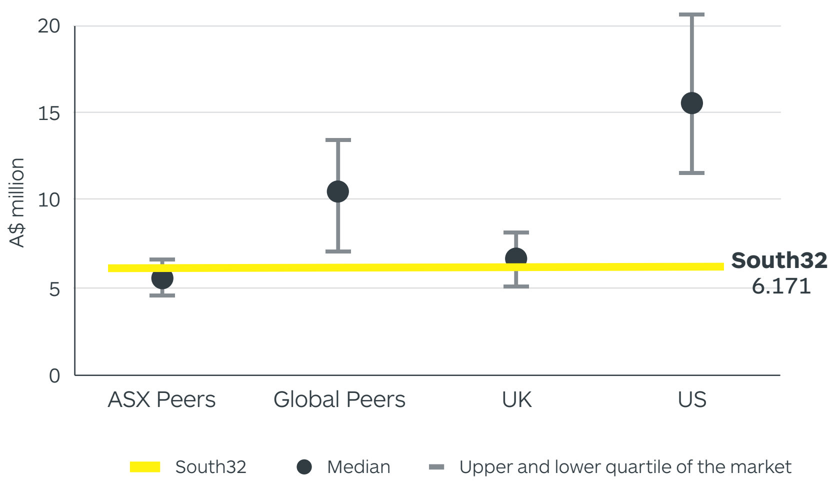


Diagram 1.7 – CEO Total Reward vs. Peers

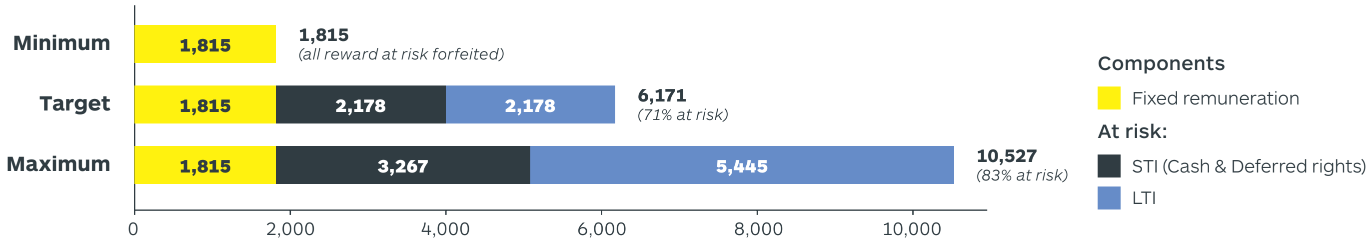


Range of possible remuneration outcomes

As actual business and individual achievement over the performance period determines reward outcomes, the amount of remuneration received by an Executive each year will vary.

The diagram below illustrates the range of possible remuneration outcomes for the CEO, based on several performance outcome scenarios.

Diagram 1.8 – Range of remuneration outcomes (A$'000)



In the **Minimum** scenario, no STI or LTI is paid. The CEO would receive Fixed Remuneration, inclusive of superannuation, of A$1.815 million.

Target outcomes would be achieved where the business meets the challenging STI performance hurdles, resulting in STI being paid at Target levels (i.e. 67 per cent of maximum opportunity, or 120 per cent of Fixed Remuneration, with half deferred into shares) and the LTI meeting the TSR performance threshold and 40 per cent of shares vesting. Future share price movements are not included in the value of the Deferred STI or the LTI.

To deliver an **Outstanding** outcome for the STI (i.e. at maximum STI, or 180 per cent of Fixed Remuneration, with half deferred into shares) South32 would need to meet the robust stretch targets across all metrics in the Scorecard. For the LTI to vest in full, the South32 TSR will need to outperform both the sector index and the world index, each by more than 23.9 per cent over the four-year performance period. Future share price movements are not included in the value of the Deferred STI or the LTI.

FIXED REMUNERATION FOR FY20

As disclosed in our 2019 Remuneration report, Fixed Remuneration for Graham Kerr increased by 2.5 per cent to A$1,815,000, effective 1 September 2019 – this was first time we had increased Graham's pay since 2015. As Katie Tovich was only appointed to the role of CFO in May 2019, her remuneration remained unchanged from FY19 levels. Increases for Mike Fraser and Paul Harvey are also outlined below.

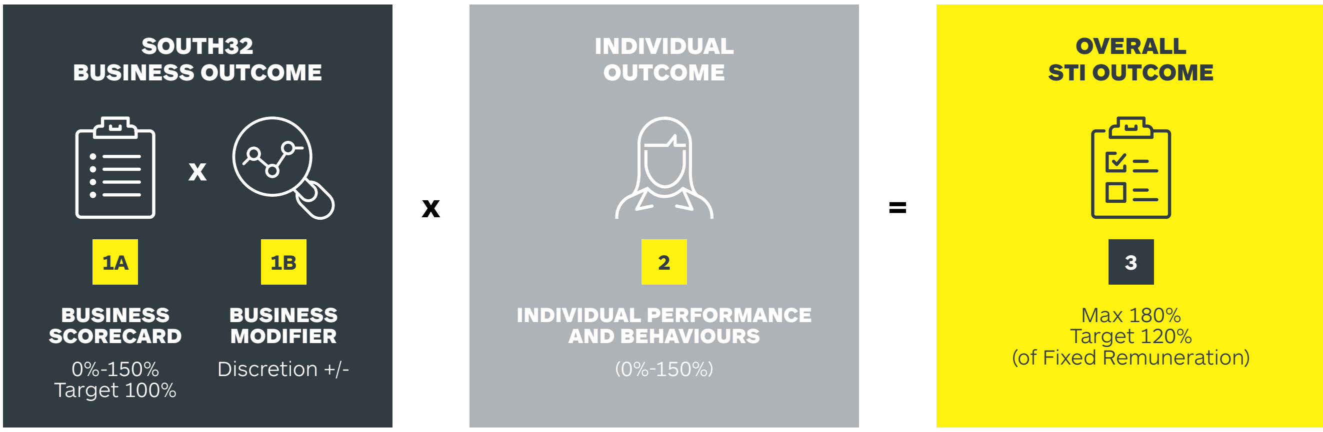
Table 1.3 – Fixed Remuneration for Executive KMP in FY20, effective 1 September 2019

Executive KMP	FY19 Fixed Remuneration (A$)	FY20 Fixed Remuneration (A$)	Increase %
Mr G Kerr	1,770,000	**1,815,000**	2.5
Mrs K Tovich	830,000	**830,000**	-
Mr M Fraser	988,000	**1,000,000**	1.2
Mr P Harvey	790,000	**810,000**	2.5

SHORT-TERM INCENTIVE FOR FY20

Determining STI awards

Diagram 1.9 – Determination of STI awards



As outlined in Components of our reward (page 71), the STI is intended to focus and reward our Executive KMP for delivering on our key priorities to ensure success for South32 both in the financial year and into the future. The overall STI outcome is determined from three key inputs – the Business Scorecard, the Business Modifier and individual performance and behaviours.

The Business Scorecard, approved by the Board before the financial year begins, includes a balanced range of measures that consider both our financial and non-financial performance and helps our Executive KMP focus on outcomes that are within their control and are a priority in that year.

The Business Modifier provides discretion to the Board to modify STI outcomes in consideration of events that may occur during the year and that may impact Scorecard outcomes or are not included in the Scorecard (for example, fatalities recorded).

Individual performance is measured based on delivery against the operations', projects' or functions' business plans. Our people are also assessed on demonstrated behaviour aligned with our values i.e. both on what is achieved and how it is achieved.

What this means in practice

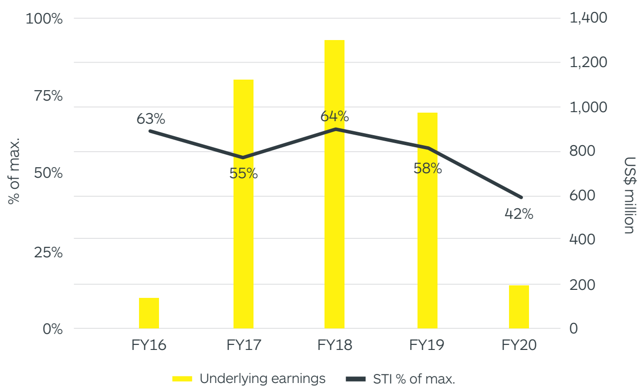
Excluding the impact of external factors from the STI performance measures means that the Business Scorecard outcomes will not always mirror financial outcomes. However, the Board has designed the STI to ensure that Executives are rewarded for delivering strong performance across areas within their control throughout the cycle.

Figure 1.10 demonstrates the integrity with which the Board has maintained this approach to STI Outcomes over the past five years.

FY20 STI outcome

For FY20, management responded quickly to the pandemic, which enabled strong overall operational and cost performance for the financial year, and this has been recognised in the Business Scorecard outcomes. The Board has, however, applied discretion and reduced the overall Business Outcome through the Modifier in recognition of the fatality at SAEC, the shareholder experience (in particular the significant decline in earnings and deterioration in share price) and the challenges of the current environment for all our stakeholders.

Diagram 1.10 – CEO STI outcome vs. Underlying earnings



1A FY20 Business Scorecard

Table 1.4 – FY20 Business Scorecard outcomes

Scorecard measure	Weight	Performance	Outcome (Target = 25%)
			Zero / Target / Maximum
SUSTAINABILITY	**25%**		**21%**
Safety: A 15 per cent reduction in total recordable injury frequency (TRIF) compared to FY19. A 1:3 ratio of significant hazards identified to significant events.		**Good** 9 per cent reduction in TRIF compared to FY19, which was short of our target of 15 per cent. Outcomes were impacted by government COVID-19 restrictions, including the temporary shut down at some South African operations. We achieved a ratio of 1:4 of significant hazards identified to significant events, which was better than our target. While our overall safety performance has improved , in May 2020, we experienced the tragic loss of one of our colleagues, Duncan Mankhedi Ngoato, in an incident at SAEC. This fatality was recognised in our STI through the Business Modifier (see page 76 for details).	
Health: 10 per cent reduction in potential material occupational exposures from the FY19 baseline, plus plans in place to reduce the number of workers exposed above the OEL by a further 10 per cent in FY21.		**Poor** Potential material exposures increased overall due to re-baselining of potential material exposures some operations. We achieved OEL reductions at Hillside Aluminium, and exposure reduction measures were implemented as planned at Cerro Matoso and Wessels.Addtional projects have been identified at a number of sites.	
Environment: Scope 1 and 2 emissions below 24,672kt CO_2-e and stay on-track to meet our FY21 Scope 1 target. Progress decarbonisation prefeasibility studies.		**Excellent** In FY20, our Scope 1 and 2 emissions were 23,250kt CO_2-e, 6 per cent below target. On-track to hold our Scope 1 emissions at or below our FY15 levels in FY21. We progressed our decarbonisation prefeasibility studies at Worsley Alumina and Illawarra Metallurgical Coal.	
Community: Develop plans for strategic community investment. Implement investment plans for each operation and collect data to report social impact.		**Fair** Developed a three-year strategic investment plan, however some activities were put on hold due to COVID-19. We continued to implement community investment plans at all operations and invested US$24.5 million, including US$7 million pledged to support our communities' through COVID-19. We developed a framework to measure the impact of our investments.	
FINANCIAL: PRODUCTION, COST AND CAPITAL EXPENDITURE	**25%**		**26%**
Production: 95 – 105 per cent of revenue equivalent production.		**Good** Overall, the business (excluding non-operated operations) has achieved 98 per cent of revenue equivalent production in FY20, despite COVID-19 restrictions.	
Cost: Within US$50 million of FY20 budget (adjusted for FX, price-linked and other costs).		**Good** Cost savings of US$68 million (excludes non-operated entities), mainly driven by actions taken to preserve cash during the COVID-19 pandemic, lower functional expenditure, and lower caustic consumption at Worsley Alumina.	
Capital Expenditure: within five per cent of FY20 sustaining capital expenditure budget (adjusted for FX) and major project capital tracking within five per cent of budget (adjusted for FX).		**Good** Sustaining capital proactively reduced in response to market conditions. Major project capital achieved 101 per cent of budgeted expenditure.	
FINANCIAL: ADJUSTED ROIC	**25%**		**23%**
Achieve budget FY20 **Adjusted ROIC**, consistent with our cost, production and capital expenditure targets.		**Good** Adjusted ROIC of 10.7 per cent reflects adjustments for loss making production at SAEC and HMM. Given COVID-19, a good outcome against a budget of 10.9 per cent.	
STRATEGIC PRIORITIES	**25%**		**21%**
Continue to implement the **Risk Management** System plus provide second line assurance over 15 per cent of material and strategic risks.		**Good** A positive decrease in the number of critical controls with a rating of 'Deficient' and the number of risks rated 'Requiring significant improvement'. Second line assurance was largely on-track. Achieved notwithstanding refocus in response to COVID-19 in the last quarter.	
Be on-track to complete the divestment of **South Africa Energy Coal** by 12 months from agreement date.		**Fair** Progressing with the divestment as planned. Ongoing positive engagement with key stakeholders. On-track to complete 1H FY21 subject to satisfaction of material conditions.	
Commence the implementation of the **South32 Operating System** to create an integrated way of working.		**Fair** On-track but roll-out paused until FY21 due to our response to COVID-19.	
Progress **Portfolio** options including Trilogy, review of manganese smelters, Hermosa and Eagle Downs prefeasibility studies.		**Fair** Ambler Metals JV formed in February 2020. Metalloys manganese smelter on care and maintenance and the review was still progressing for TEMCO at year-end. Hermosa behind schedule due to Arizona lock down for COVID-19. Eagle Downs progressing to plan.	
Meet FY20 **Diversity and Inclusion** targets plus increase **Employee Engagement** from FY19 baseline.		**Fair** Representation of women on our Board met our target, but we did not meet our targets for women in our Senior Leadership and Operational Leadership Teams, or Black People in South Africa. Our employee engagement remained stable, although the survey was impacted by our response COVID-19.	
SUBTOTAL	**100%**		**91%**

1B FY20 Business Modifier

The Business Scorecard reflects the key focus areas of the business in the financial year, with metrics that are aligned to our purpose and strategy and are within management's control. As the metrics are set at the start of the performance year, the Business Modifier allows the Board to consider the impact of any event or action during the year that is not fully factored into the Business Scorecard.

In applying the Business Modifier, the Board has absolute discretion to adjust the Scorecard outcome up or down, or to apply it to the Executive KMP on an individual or a group basis. As it is not formulaic, the Board's discretion to apply a Business Modifier ensures that STI outcomes reflect overall business performance, including both what has been delivered and how it has been achieved.

Factors that are considered in the Business Modifier include, but are not limited to, fatalities and other significant safety issues, as well as the management of risk, governance, culture and reputational issues and alignment to the shareholder experience. Table 1.5 summarises the application of the Business Modifier since FY16.

Table 1.5 – Application of the Business Modifier by the Board (multiplier applied to the Business Scorecard outcome)

		FY16	FY17	FY18	FY19	FY20
Application of the Business Modifier	CEO:	-24%	-2.5%	-15%	No modifier applied	**-30%**
	COO Africa:	-40%	-5%	-15%		**-30%**
	Other Executive KMP:	-10%	-	-5%		**-15%**
		Four fatalities in South Africa	One fatality in South Africa	One fatality in South Africa and impact of suspension of Appin mine in FY17.	-	**One fatality in South Africa and decline in earnings and share price**

The Board considered a number of factors with regard to the Business Modifier for FY20.

In May 2020, one of our colleagues, Duncan Mankhedi Ngoato, was fatally injured following an incident at SAEC. Our overall safety performance has improved year-on-year but we have not met our commitment that everyone returns home safe and well every day.

In response to COVID-19, management responded quickly to deploy South32's crisis and emergency protocols focused on keeping our people safe and well, maintaining safe and reliable operations, and supporting our communities. We adapted our ways of working at every site, which enabled operations to continue, government regulations permitting, resulting in a strong operating result for the period, despite volatile commodity prices.

Steps were also taken early to protect the company's strong financial position including re-designing and re-prioritising capital expenditure programs, implementing additional controls around operating costs, optimising production, managing counterparty and supply chain risk, and suspension of the on-market share buy-back.

These actions have ensured the business remained resilient, notwithstanding volatile commodity prices and resulted in the Adjusted ROIC outcome remaining steady at 10.7 per cent for the year.

Unadjusted ROIC, however, was substantially lower, at 2.2 per cent, reflecting the impact of commodity prices and foreign exchange, both factors outside the control of management, but more closely aligned to the experience of our shareholders.

On balance, and with consideration for the total reward outcomes, including for salary and LTI, the Board determined to apply a negative Business Modifier to reflect the fatality, the FY20 shareholder experience (in particular the significant decline in earnings and deterioration in share price compared to FY19) and the challenges of the current environment for all our stakeholders.

For the CEO and the COO responsible for SAEC where the fatality occurred, a Modifier of negative 30 per cent has been applied. For the rest of the KMP, a Modifier of negative 15 per cent has been applied to determine the overall STI outcome.

2 FY20 individual performance

As part of our response to COVID-19 we stopped or deferred all non-critical work to allow our people to focus on the work that matters most in the current context. This impacted employee roles, accountabilities and delivery against some KPIs.

While performance conversations and ongoing check-ins between managers and employees continued, for FY20 we decided that we would not differentiate outcomes for operations, projects, functions or for individual employees, with all eligible employees receiving the Overall South32 Business Outcome(2). As a result, for FY20 no Individual performance outcomes will apply in the calculation of the overall STI outcome, including for the CEO and Lead Team.

(2) For the application to all employees, reduced STI outcomes have been applied in circumstances of disciplinary action during FY20.

3 Overall FY20 STI outcomes

Overall STI outcomes for FY20 are determined through our Board's assessment of the Business and Individual Outcomes, as outlined in Table 1.6. Target STI for all Executive KMP is 120 per cent of Fixed Remuneration.

Table 1.6 – STI earned by Executive KMP in respect of FY20 performance

Executive KMP	Business Scorecard outcome % (1A)	Modifier +/- % (1B)	Individual outcome % (2)	Overall STI Outcome % of Target (1A x 1B)	Total STI Awarded (A$'000)	Cash(1) (A$'000)	Deferred Rights(1) (A$'000)	Percentage of maximum STI Awarded %	Percentage of maximum STI Forfeited %
Mr G Kerr	91	70	-	63.4	**1,380**	690	690	**42**	58
Mrs K Tovich	91	85	-	76.9	**766**	383	383	**51**	49
Mr M Fraser	91	70	-	63.4	**760**	380	380	**42**	58
Mr P Harvey(2)	91	85	-	76.9	**748**	748	-	**51**	49

(1) Half of the STI will be paid in cash in September 2020, with the remaining half deferred into rights to South32 shares that will be granted in or around December 2020 and will be due to vest in August 2022. The rights remain subject to continued service with the South32 Group. The minimum possible total value of the rights for future financial years is therefore nil (see page 80 for terms and conditions relating to South32's equity plans).

(2) STI awarded to Paul Harvey will be paid entirely in cash in September 2020 per the STI Plan Rules relating to cessation of employment as a 'good leaver'.

LONG-TERM INCENTIVE FOR FY20

FY17 LTI and Management Share Plan Performance Award

Our FY17 LTI was tested for vesting subject to service and performance conditions to 30 June 2020. This award is subject to TSR performance conditions over four years, with two-thirds relative to a mining sector index (the IHS Markit Global Mining Index) and one third relative to a world index (the MSCI World Index). The four-year period for this award was from 1 July 2016 to 30 June 2020.

We granted Katie Tovich the FY17 Management Share Plan (MSP) Performance Award before her appointment as a member of KMP. These awards have the same performance and vesting conditions as our LTI Awards.

For the LTI and MSP Awards to vest in full, they would need to outperform both indices by at least 23.9 per cent over the performance period (5.5 per cent per annum cumulative).

Given that our TSR failed to meet the threshold level of performance required against both comparator indices (see Diagram 1.11 and Table 1.7), these awards lapsed in full in August 2020.

Diagram 1.11 – Indicative TSR performance: South32 vs comparators

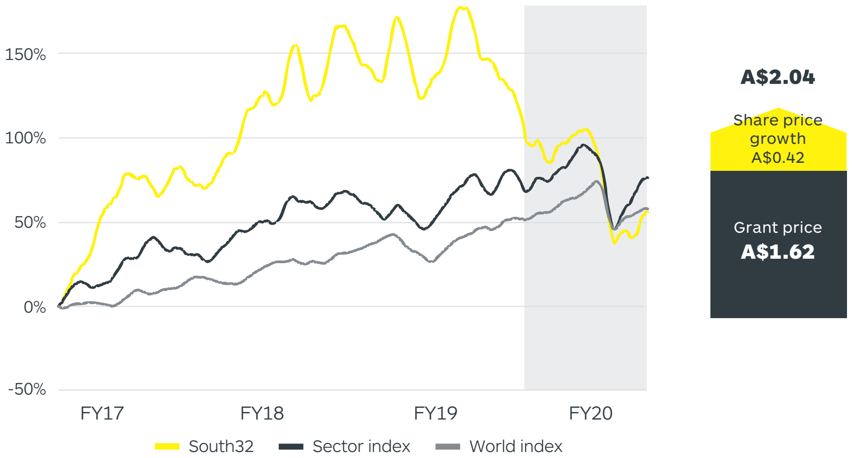


Diagram 1.12 – Vesting outcome

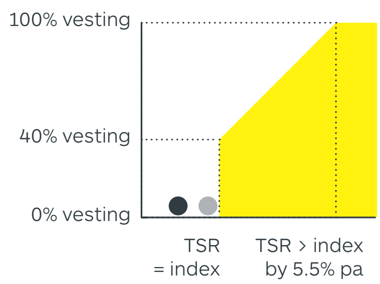


Table 1.7 – South32 LTI Award vesting outcome

	TSR performance[1]		Outperformance for 100% vesting		Vesting outcome	Index weighting	Weighted vesting outcome
	Index (A)	South32 (B)	Required	Achieved (B-A)	(C)	(D)	(C x D)
Sector Index	76.5%	56.5	+23.9%	(20.0%)	0%	2/3	**0%**
World Index	57.9%		+23.9%	(1.4%)	0%	1/3	**0%**
							0%

(1) TSR Performance reflects the one-month average return from 30 June 2016 at the start of the performance period, to the one-month average return to 30 June 2020 at the end of the performance period.

FY18 Management Share Plan Retention Award

We granted the FY18 MSP Retention Award to Katie Tovich before she became a member of KMP. Given the retention-focused objective of this award, the vesting conditions are service-based (with a service condition to 30 June 2020) and with no performance conditions. As the service condition was met, our Board approved this award to vest in full in August 2020. The structure of the Management Share Plan is detailed on page 86.

LTI outcomes in FY20

Table 1.8 – South32 LTI awards vested or lapsed/forfeited

Executive KMP	Award	Number of rights granted	Number of rights vested	Number of rights lapsed/ forfeited	Value at grant[(1)] (A$'000)	Value lapsed/ forfeited[(2)] (A$'000)	Value of share price movement[(3)] (A$'000)	Value at vesting[(4)] (A$' 000)
Mr G Kerr	FY17 LTI	3,277,777	-	3,277,777	5,310	5,310	-	-
Mrs K Tovich	FY17 MSP Performance	300,740	-	300,740	487	487	-	-
	FY18 MSP Retention	75,725	75,725	-	198	-	(44)	154
Mr M Fraser	FY17 LTI	1,496,913	-	1,496,913	2,425	2,425	-	-
Mr P Harvey	FY17 LTI	956,790	-	956,790	1,550	1,550	-	-

(1) 'Value at grant' is the number of rights granted multiplied by the grant determination price in June 2016 of A$1.62 (FY17 LTI/FY17 MSP Performance) and June 2017 of A$2.62 (FY18 MSP Retention), based on the Volume Weighted Average Price (VWAP) over the last 10 trading days in June of the respective year.
(2) 'Value lapsed/forfeited' is the number of rights lapsed/forfeited based on performance relative to the performance measures, multiplied by the grant determination price of A$1.62 (FY17 LTI/FY17 MSP Performance).
(3) 'Value of share price movement' is the number of shares that vested, multiplied by the difference between the grant determination price (being A$2.62 for the FY18 MSP Retention) and the share price at 30 June 2020 of A$2.04. This reflects the value added/(lost) due to the change in share price since the start of the performance period.
(4) 'Value at Vesting' is the number of shares that vested in August 2020, multiplied by the closing share price of South32 shares on 30 June 2020 of A$2.04.

LTI granted in FY20

As part of our FY20 LTI Plan, we granted performance rights to Executive KMP in December 2019. These have a four-year performance period and are subject to performance hurdles (outlined on page 71).

Shareholders approved, under ASX Listing Rule 10.14, the grant of rights for the CEO at the AGM on 24 October 2019.

Table 1.9 – FY20 LTI grants

		Reward determination[(1)] (calculated at the start of the performance period 1 July 2019)				Grant (December 2019)
Executive KMP		Face value (% of Fixed Remuneration)	Face value (A$'000)	Target value[(2)] (% of Fixed Remuneration)	Target value[(2)] (A$'000)	Number of rights granted[(3)]
Mr G Kerr		300	5,445	120	2,178	**1,696,261**
Mrs K Tovich[(4)]	FY20 LTI	200	1,660	80	664	**517,133**
	FY20 Transitional Performance Award	50	415	20	166	**129,283**
Mr M Fraser		250	2,500	100	1,000	**778,816**
Mr P Harvey		250	2,025	100	810	**630,841**

(1) The grant of awards is based on the Face Value as outlined in Components of our reward (see page 71).
(2) The Target Value considers the difficulty of achieving performance hurdles and anticipated share price volatility.
(3) The number of rights granted to Executive KMP in December 2019 is calculated by dividing the Face Value by the VWAP of South32 shares traded on the ASX over the last 10 trading days of June 2019 (Grant Price), being A$3.21. The Fair Value at grant for accounting purposes, as calculated by PwC, was A$0.92 per right for the FY20 LTI and A$0.85 per right for the FY20 Transitional LTI Award.
(4) The Transitional LTI Award for Katie Tovich was granted to cover the gap in vesting in 2022 due to her transition from the Management Share Plan (three-year retention rights and four-year performance rights) to the Executive LTI Plan (four-year performance rights). Additional details on page 86.

Terms and conditions of rights awarded under equity plans

TYPE OF EQUITY	We deliver deferred STI and LTI awards (including Transitional Performance awards) in the form of share rights. These are rights to receive fully paid ordinary shares in South32 Limited[1] subject to meeting specific performance and vesting conditions (Rights). If the Rights vest, no consideration or exercise price is payable for the allocation of shares. As Rights are automatically exercised, they do not have an expiry date.
DIVIDEND AND VOTING RIGHTS	Rights carry no entitlement to voting, dividends or dividend equivalent payments.
CESSATION OF EMPLOYMENT	Unless our Board determines otherwise: – Resignation or termination for cause: all unvested Rights lapse; – Death, serious injury, disability or illness that prevents continued employment or total permanent disability: all unvested Rights vest immediately; and – Other circumstances: a pro-rata portion of Rights to remain on foot subject to the Remuneration Committee's discretion to lapse.
CHANGE OF CONTROL	Our Board can determine the level of vesting (if any) having regard to the portion of the vesting period elapsed, performance to date against any applicable performance conditions and other factors they deem appropriate.
MALUS AND CLAWBACK	Our Board can reduce or clawback all vested and unvested STI and LTI awards in certain circumstances to ensure Executives don't obtain an inappropriate benefit. These circumstances are broad, and can include: – An Executive engaging in misconduct; – A material misstatement of our accounts results in vesting; – Behaviours of Executives that bring us into disrepute; and – Any other factor our Board deems justifiable.
RIGHTS TO PARTICIPATE IN NEW ISSUES	A participant can't take part in new issues of securities in relation to their unvested Rights. However, the relevant plan rules include specific provisions dealing with rights issues, bonus issues and corporate actions and other capital reconstructions. These provisions are intended to ensure that Rights holders aren't unfairly disadvantaged by corporate actions.

(1) References in this Remuneration report to 'South32 shares' are references to fully paid ordinary shares in South32 Limited.

NON-EXECUTIVE DIRECTOR REMUNERATION

Remuneration policy

As a global organisation, it's important that we offer competitive Director fees – to help us bring on the appropriate level of experience from a diverse global pool. These fees reflect the size, complexity and global nature of our company, and acknowledge the responsibilities of serving on our Board.

To ensure the independence of our Non-Executive Directors, their remuneration does not have an 'at risk' element.

We pay committee fees to recognise the additional responsibilities associated with participating on a Board Committee.

We pay a fixed fee to our Board Chair for all responsibilities, including participation on any Board Committees.

FY20 Non-Executive Director fees and fee pool

We review fees every year and may get external advice to help us do so. We based the review of FY20 fees on data provided by external consultants, which resulted in the Chair and Non-Executive Directors' fees increasing by 2.3 per cent (effective 1 September 2019). Committee fees remained unchanged.

The maximum aggregate amount we can pay our Non-Executive Directors is still A$3.9 million per annum (Fee Pool). Before making any changes to this, we'll always seek shareholder approval.

The table below outlines the fee levels for FY20.

Table 1.10 – FY20 Board fees (effective 1 September 2019)

Fee	Description	FY20 fees (A$ per annum)
	Board of Directors	
Board Fees	Chair of the Board	578,000
	Other Non-Executive Directors	189,250
	Risk and Audit, Remuneration, Sustainability Committees	
Committee Fees	Committee Chair(1)	46,000
	Members	23,000

(1) A temporary fee of A$25,000 per annum was provided for the Chair of the Nomination and Governance Committee in FY20. See footnotes to Table 1.11 on page 82.

Minimum shareholding requirements

Our Board is committed to each Non-Executive Director achieving a minimum shareholding level of one year's base fees to be accumulated over a reasonable period. You can find more details of their current shareholdings in Table 1.15.

Travel allowance

As a global organisation, our Board meetings are held in Australia, South Africa and other locations (head to page 60 for more details on this). For our Directors, site visits are an important part of our Board program, giving them:

- A better understanding of workplace culture through interactions with site-based employees;
- An improved understanding of local risks;
- A chance to participate in continuous education; and
- On-the-ground experience.

Meetings, site visits and other engagements take time and commitment, particularly if they're in remote locations. In these cases, we give our Directors an allowance to compensate for this additional commitment.

In FY20, this allowance changed and is no longer paid for domestic travel to regularly scheduled Board meetings. Otherwise, where air travel to a Board commitment is greater than three hours, but less than 10 hours to destination, a one-off allowance of A$7,840 per trip applies. Where air travel is greater than 10 hours to destination, the allowance per trip is A$16,800.

Given the impacts of COVID-19 on global travel, our Board had reduced opportunity for site visits this financial year compared to prior years and most Board meetings were held virtually in the second half of FY20. This is evident by the reduction in travel-related payments for FY20 compared to FY19, as outlined in Table 1.11.

FY20 Non-Executive Director remuneration

In Table 1.11, we've set out the statutory disclosures required under the Corporations Act and in accordance with Australian Accounting Standards, in respect of FY20 remuneration paid to Non-Executive Directors.

Table 1.11 – Non-Executive Director remuneration (A$'000)

			Short-term benefits			Post-employment benefits	
Non-Executive Director	FY20 term		Board & Committee fees	Non-monetary benefits(1)	Other cash allowances & benefits(2)	Superannuation	Total
Ms Karen Wood(3)	Full year	**FY20**	**555**	**-**	**41**	**21**	**617**
		FY19	282	-	73	21	376
Mr Frank Cooper AO	Full year	**FY20**	**237**	**-**	**25**	**21**	**283**
		FY19	232	-	49	21	302
Mr Guy Lansdown(4)	From 2 December 2019	**FY20**	**137**	**-**	**34**	**-**	**171**
		FY19	-	-	-	-	-
Dr Xiaoling Liu	Full year	**FY20**	**214**	**-**	**32**	**21**	**267**
		FY19	209	-	56	21	286
Dr Xolani Mkhwanazi(5,6)	To 4 January 2020	**FY20**	**130**	**2**	**34**	**2**	**168**
		FY19	259	2	84	4	349
Dr Ntombifuthi Mtoba	Full year	**FY20**	**208**	**2**	**50**	**3**	**263**
		FY19	204	2	84	4	294
Mr Wayne Osborn(7)	Full year	**FY20**	**272**	**-**	**49**	**21**	**342**
		FY19	232	-	65	21	318
Mr Keith Rumble(8)	Full year	**FY20**	**279**	**2**	**58**	**3**	**342**
		FY19	250	2	84	3	339
TOTAL		**FY20**	**2,032**	**6**	**323**	**92**	**2,453**
		FY19	1,668	6	495	95	2,264

(1) Includes assistance for tax return preparation in FY20.
(2) Includes travel allowance paid in FY20.
(3) Karen Wood was elected as Chair, effective 12 April 2019.
(4) Guy Lansdown joined the Board as an independent Non-Executive Director on 2 December 2019. FY19 and FY20 details reflect this appointment date.
(5) Xolani Mkhwanazi passed away on 4 January 2020 following a short illness. FY20 details reflects this.
(6) Xolani Mkhwanazi received remuneration of ZAR287,500 for his role as a Non-Executive Director of South32 SA Coal Holdings (Pty) Ltd during FY20. This figure is included in Board and Committee fees above based on a FX rate of AUD1:ZAR10.51.
(7) Fees for Wayne Osborn include a backpay for FY19 relating to his role as Chair of the Nomination and Governance Committee. The total payment relating to this role for the period 1 August 2018 to 31 December 2019 was A$35,417 (i.e. A$25,000 per annum).
(8) Keith Rumble received remuneration of ZAR262,889 for his role as a Non-Executive Director of South32 SA Coal Holdings (Pty) Ltd during FY20. This figure is included in Board and Committee fees above based on a FX rate of AUD1:ZAR10.51.

LOOKING FORWARD TO FY21

No major changes are proposed to the Reward Framework for FY21. The Board has confidence in the integrity of the Reward Framework and believes it incorporates the necessary flexibility to continue to balance rewarding our Executives for performance and recognising the interests of stakeholders notwithstanding the ongoing uncertainty in global markets. The Board believes it has a demonstrated track record of utilising the discretions available under the Framework to ensure remuneration outcomes for Executives remain in line with the Guiding Principles (see page 70), including alignment with the shareholder experience.

Fixed Remuneration

There will be no increase to Fixed Remuneration in FY21 for Executive KMP. The CEO's Fixed Remuneration will remain at A$1,815,000 per annum.

Jason Economidis was appointed as acting Chief Operating Officer on 1 July 2020, and details of his remuneration will be included in our FY21 Remuneration report.

Short-term incentive

The design of the STI will remain unchanged for FY21. Our Business Scorecard will be focused on our COVID-19 response in the first half of FY21, and maintaining safe, reliable and profitable operations.

Sustainability	Safety, health, environment and community	25%
Financial	Adjusted Return on Invested Capital	25%
	Production, cost and capital expenditure	25%
Strategic items	Key elements of the FY20 Business Plan	25%
X		
Business modifier	Applied at the discretion of the Board	
=		
South32 Business Outcome	This Business Outcome will reflect our performance over the financial year	

Long-term incentive

We are not changing the design of the LTI in FY21.

The comparator groups, against which our TSR performance will be measured, and the vesting conditions, will remain unchanged as outlined on page 71 .

We recognise that granting LTI rights in this environment, where share prices have declined over the financial year, requires careful consideration. We are aware of the impact that COVID-19 and the current economic climate has had on all our shareholders, communities and employees, and the potential for unintended windfall gains for Executives from a substantial recovery in our share price.

In light of the drop in the South32 share price since FY19 and the continuing market uncertainty, the Board has exercised its discretion to determine that, for the CEO, the value of the FY21 LTI that can be received in the year of vesting will be limited to twice the grant value of the award. As the grant value of the CEO's FY21 LTI award is A$5,445,000, this equates to a maximum value of A$10,890,000 at the time of vesting at the end of the four-year performance period.

Any value above that level that would otherwise be received based on testing against the performance conditions, will be forfeited or, in exceptional circumstances and at the Board's discretion, deferred for a further period. The discretion to defer vesting of a portion of the award in excess of the maximum value, would be exercised in accordance with our Guiding Principles (set out on page 70) with particular regard to alignment with the experience of our shareholders.

This vesting cap applies in addition to the general discretion the Board has to reduce the level of equity vesting in circumstances where it deems it appropriate (see 'terms and conditions of rights awarded under equity plans' on page 80 for further details). The Board has a track record of agreeing forfeiture to ensure reward levels are aligned to the South32 Reward Framework and philosophy.

The vesting outcome applied to the CEO at that time will inform the Board's application of discretion with regard to the vesting value for the other Executive KMP.

Director fees

There will be no increase to Non-Executive Director fees in FY21.

STATUTORY DISCLOSURES

Statutory remuneration table for Executive KMP

In the following table, we've set out the statutory disclosures required under the Corporations Act and in accordance with the Australian Accounting Standards. The amounts shown reflect the remuneration for each Executive that relates to their service as a KMP in FY20.

Table 1.12 – Statutory remuneration of Executive KMP in FY20 (A$'000)

		Short-term benefits			Post-employment benefits	Termination benefits	Other long-term benefits[3]	Share-based payments[4]		Total remuneration	Percentage of total remuneration which is performance tested
Executive KMP		Salary	Cash bonus[1]	Non-monetary benefits[2]	Superannuation			LTI	STI		
Mr G Kerr	**FY20**	**1,713**	**690**	**21**	**21**	**-**	**166**	**3,856**	**833**	**7,300**	**74%**
	FY19	1,577	924	29	21	-	164	3,386	878	6,979	74%
Mrs K Tovich[5]	**FY20**	**772**	**383**	**10**	**25**	**-**	**74**	**632**	**159**	**2,055**	**57%**
	FY19	122	72	1	20	-	12	98	5	330	53%
Mr M Fraser[6]	**FY20**	**888**	**380**	**40**	**21**	**-**	**91**	**1,794**	**451**	**3,665**	**72%**
	FY19	845	474	31	21	-	91	1,476	490	3,428	71%
Mr P Harvey[7,8]	**FY20**	**695**	**748**	**41**	**126**	**470**	**68**	**1,425**	**460**	**4,033**	**65%**
	FY19	656	446	38	123	-	68	1,279	404	3,014	71%
TOTAL	**FY20**	**4,068**	**2,201**	**112**	**193**	**470**	**399**	**7,707**	**1,903**	**17,053**	
	FY19	3,200	1,916	99	185	-	335	6,239	1,777	13,751	

(1) STI is provided half in cash (which is included in the cash bonus column of the table) in September 2020 following the end of the performance period and half in deferred rights (which is included in the share-based payments column of the table). The value of the deferred equity portion is amortised over the vesting period. STI awarded to Paul Harvey will be paid entirely in cash in September 2020 per the STI Plan Rules regarding cessation of employment.

(2) Non-monetary benefits are non-pensionable and include such items as insurances and personal tax assistance.

(3) Other long-term benefits is the accounting expense of annual and long-service leave accrued in FY20.

(4) The related awards were not actually provided to the Executive KMP during FY20. The figures are calculated in accordance with Australian Accounting Standards and are the amortised fair values of equity and equity-related instruments that have been granted to Executive KMP. Refer to Table 1.13 on page 85 in this report for information on awards outstanding during FY20.

(5) Katie Tovich was appointed as a member of KMP on 1 May 2019. Previously, Katie Tovich was appointed to the role of Vice President Corporate Affairs, a non-KMP role. Details above for FY19 have been pro-rated for time in the KMP role only.

(6) Salary for Mike Fraser includes backpay of A$14,158 relating to FY19 that was processed and paid in FY20.

(7) Paul Harvey was a member of the South32 Defined Benefit Superannuation Plan. The amount disclosed in Table 1.12 reflects the company contribution as calculated under AASB119 *Employee Benefits*. A more detailed explanation is provided below.

(8) Termination benefits for Paul Harvey include payment in lieu of 6 months' notice plus an additional payment totalling A$470,000. Shared-based payments for Paul Harvey reflect the accounting treatment of the 'good leaver' status applied to his equity awards on leaving South32.

Superannuation arrangements for Paul Harvey

Paul Harvey was a member of the South32 Defined Benefit Superannuation Plan. The Defined Benefit plan was in place before the Demerger and has been closed to new members since January 2002.

In line with other participants in the Defined Benefit plan, Paul Harvey's benefit is calculated as follows:

- 20 per cent x Final Average Salary x Membership Period x Benefit Factor.

Here's what this means:

- The Final Average Salary (which excludes any allowances and bonuses) is the average full-time equivalent of Paul Harvey's salary over the last three years, which was A$718,524;
- As at 30 June 2020, he had been a member of the plan for 28 years (Membership Period); and
- The Benefit Factor depends on age at the time of leaving South32, with the maximum Benefit Factor for persons aged 55 years and over being 1.00. Paul Harvey's Benefit Factor was 1.00 as at 30 June 2020.

Upon retirement (after preservation age), pension payments are determined by the trustee of the South32 Superannuation Plan on advice from the plan actuary, which may be subject to agreement with South32. The pension payments are not indexed. If a participant resigns or retires prior to preservation age there's no entitlement to the pension and the benefit reverts to a lump sum.

The superannuation amount disclosed in Table 1.12 above is Paul Harvey's FY20 service cost of A$126,000, calculated under AASB 119.

DETAILS OF RIGHTS HELD BY EXECUTIVE KMP

In the following table, we've set out more information about the rights over South32 shares held by Executive KMP, including the movements in rights held during FY20. See page 80 for terms and conditions about our Equity Incentive Plans.

Table 1.13 – Detail and movement of rights over South32 shares held by Executive KMP during FY20

Award[1]	Opening balance	Grant date	Granted in FY20[2]	Vested in FY20		Forfeited or other change in FY20[4]		Closing balance	Anticipated vesting date
Executive KMP	Number		Number	Number[3]	%	Number	%	Number	
Mr G Kerr	**12,019,673**		**2,048,358**	**3,274,568**	**66**	**1,664,067**	**34**	**9,129,396**	
FY19 Deferred STI (S)	-	6-Dec-19	352,097	-	-	-	-	352,097	Aug-21
FY20 LTI (P)	-	6-Dec-19	1,696,261	-	-	-	-	1,696,261	Aug-23
FY18 Deferred STI (S)	325,725	7-Dec-18	-	-	-	-	-	325,725	Aug-20
FY19 LTI (P)	1,450,819	7-Dec-18	-	-	-	-	-	1,450,819	Aug-22
FY17 Deferred STI (S)	272,055	13-Dec-17	-	272,055	100	-	-	-	Aug-19
FY18 LTI (P)	2,026,717	13-Dec-17	-	-	-	-	-	2,026,717	Aug-21
FY17 LTI (P)	3,277,777	2-Dec-16	-	-	-	-	-	3,277,777	Aug-20
FY16 LTI (P)	3,002,513	10-Dec-15	-	3,002,513	100	-	-	-	Aug-19
Replacement BHP FY15 LTIP Award (P)	1,664,067	29-Jun-15	-	-	-	1,664,067	100	-	Aug-19
Mrs K Tovich[5]	**1,132,420**		**673,934**	**371,604**	**100**	**-**	**-**	**1,434,750**	
FY19 Deferred STI (S)	-	6-Dec-19	27,518	-	-	-	-	27,518	Aug-21
FY20 LTI (P)	-	6-Dec-19	517,133	-	-	-	-	517,133	Aug-23
FY20 Transitional Performance Award (P)	-	6-Dec-19	129,283	-	-	-	-	129,283	Aug-22
FY19 MSP Retention (S)	55,725	7-Dec-18	-	-	-	-	-	55,725	Aug-21
FY19 MSP Performance (P)	139,314	7-Dec-18	-	-	-	-	-	139,314	Aug-22
FY18 MSP Retention (S)	75,725	13-Nov-17	-	-	-	-	-	75,725	Aug-20
FY18 MSP Performance (P)	189,312	13-Nov-17	-	-	-	-	-	189,312	Aug-21
FY17 MSP Retention (S)	120,296	17-Nov-16	-	120,296	100	-	-	-	Aug-19
FY17 MSP Performance (P)	300,740	17-Nov-16	-	-	-	-	-	300,740	Aug-20
FY16 MSP Performance (P)	251,308	16-Nov-15	-	251,308	100	-	-	-	Aug-19
Mr M Fraser	**6,101,715**		**959,540**	**2,029,104**	**72**	**798,618**	**28**	**4,233,533**	
FY19 Deferred STI (S)	-	6-Dec-19	180,724	-	-	-	-	180,724	Aug-21
FY20 LTI (P)	-	6-Dec-19	778,816	-	-	-	-	778,816	Aug-23
FY18 Deferred STI (S)	176,645	7-Dec-18	-	-	-	-	-	176,645	Aug-20
FY19 LTI (P)	674,863	7-Dec-18	-	-	-	-	-	674,863	Aug-22
FY17 Deferred STI (S)	170,648	13-Dec-17	-	170,648	100	-	-	-	Aug-19
FY18 LTI (P)	925,572	13-Dec-17	-	-	-	-	-	925,572	Aug-21
FY17 LTI (P)	1,496,913	2-Dec-16	-	-	-	-	-	1,496,913	Aug-20
FY16 LTI (P)	1,371,204	10-Dec-15	-	1,371,204	100	-	-	-	Aug-19
Replacement BHP FY15 LTIP Award (P)	1,285,870	29-Jun-15	-	487,252	38	798,618	62	-	Aug-19
Mr P Harvey	**3,112,532**		**800,636**	**1,046,417**	**100**	**927,181**	**49**	**1,939,750**	
FY19 Deferred STI (S)	-	6-Dec-19	169,795	169,795	100	-	-	-	Aug-21
FY20 LTI (P)	-	6-Dec-19	630,841	-	-	472,807	75	158,034	Aug-23
FY18 Deferred STI (S)	124,792	7-Dec-18	-	124,792	100	-	-	-	Aug-20
FY19 LTI (P)	539,617	7-Dec-18	-	-	-	269,624	50	269,993	Aug-22
FY17 Deferred STI (S)	136,342	13-Dec-17	-	136,342	100	-	-	-	Aug-19
FY18 LTI (P)	739,503	13-Dec-17	-	-	-	184,750	25	554,753	Aug-21
FY17 LTI (P)	956,790	2-Dec-16	-	-	-	-	-	956,790	Aug-20
FY17 Transitional Performance Award (P)	239,197	2-Dec-16	-	239,197	100	-	-	-	Aug-19
FY16 MSP Performance (P)	376,291	16-Nov-15	-	376,291	100	-	-	-	Aug-19

(1) Replacement awards refer to the BHP awards that were cancelled and replaced with South32 awards in FY15. At the time of vesting, the quantum of all awards that vest based on performance conditions will automatically convert to ordinary South32 shares for nil consideration in the participant's name. Any rights that do not vest will immediately lapse, hence there is no expiry date associated with the awards. (S) - Service only or (P) - Performance and Service conditions apply. As rights are subject to service and/or performance conditions, the minimum possible total value of rights granted under South32 Equity Plans for future financial years is nil and the maximum possible total value is the number of rights multiplied by the market price of South32 shares on the date of vesting.

(2) The fair value for awards granted in FY20 is the grant date fair value for accounting purposes being A$2.45 for the FY19 Deferred STI, A$0.92 for the FY20 LTI and A$0.85 for the FY20 Transitional Performance Award. Shareholders approved, under ASX Listing Rule 10.14, the grant of rights for the CEO at the AGM on 24 October 2019.

(3) Rights converted to ordinary South32 shares for nil consideration on 23 August 2019. The South32 closing share price on this date was A$2.46. Paul Harvey's FY18 and FY19 Deferred STI vested in full on termination per the STI Plan Rules relating to cessation of employment as a 'good leaver'.

(4) Following discussions between the Board and Graham Kerr, Graham volunteered to waive 100 per cent of his Replacement Award that vested. Mike Fraser also agreed to waive 50 per cent of his Replacement Award. The Board approved these outcomes. A pro-rata portion of Paul Harvey's FY18, FY19 and FY20 LTI was forfeited on termination, per 'good leaver' treatment under the Equity Incentive Plan Rules. The remaining portion of these awards will remain on foot, to be performance tested at the relevant time.

(5) Katie Tovich was appointed as a member of KMP on 1 May 2019.

Details of awards for Paul Harvey and Katie Tovich

Before becoming a member of KMP, Paul Harvey and Katie Tovich already held several awards. The details of these awards are outlined in Table 1.14 and includes a Transitional Performance Award (LTI) granted on appointment as a member of KMP.

Table 1.14 – Key terms and performance conditions of awards

Award	Key Terms and Performance Conditions
Management Share Plan	The Management Share Plan is our LTI plan for eligible management employees below Lead Team level. The Plan has two elements: – Retention rights with a three-year vesting period from 1 July to 30 June, vesting in August three years from grant provided employees remain employed by us; and – Performance rights with a four-year performance and service period from 1 July to 30 June, vesting in August four years from grant, subject to the same performance and vesting conditions as our LTI for Executive KMP (see page 71). There is no retesting if the performance condition is not met and any rights that don't vest will immediately lapse/be forfeited. Rights won't attract any entitlement to voting, dividends or dividend equivalent payments.
Transitional Performance Award	This one-off award is granted to cover the gap in vesting on appointment as a member of KMP and is due to the transition from the Management Share Plan (three-year retention rights and four-year performance rights) to the LTI for Executive KMP (four-year performance rights). This award is subject to the same TSR performance conditions as our LTI for Executive KMP (see Components of our Reward on page 71), namely two-thirds relative to a mining sector index (IHS Markit Global Mining Index) and one-third relative to a world index (MSCI Word Index), except this award has a three-year performance period, from 1 July 2016 to 30 June 2019 for Paul Harvey and from 1 July 2019 to 30 June 2022 for Katie Tovich. For the award to vest in full, it would need to outperform both indices by 17.4 per cent (5.5 per cent per annum cumulative). There is no retesting if the performance condition is not met and any rights that don't vest will immediately lapse/be forfeited. Rights won't attract any entitlement to voting, dividends or dividend equivalent payments.

SHAREHOLDINGS OF KMP

For Non-Executive Directors, the approach used to determine the Minimum Shareholding Requirement of one year's base fees, is the cost to the Non-Executive Director to acquire the shares. Apart from Guy Lansdown (who was appointed in December 2019), all Non-Executive Directors meet this requirement and the percentage of fees reflected in the table below is based on our share price at 30 June 2020.

Table 1.15 – South32 shares held directly, indirectly or beneficially by each KMP, including their related parties

	Held at 30 June 2019	Received on vesting of rights	Received as remuneration	Other net change(1)	Held at 30 June 2020	% of Fees/ fixed remuneration(2)
Non-Executive Directors						
Ms K Wood	367,825	-	-	-	367,825	130
Mr F Cooper AO	128,010	-	-	-	128,010	138
Mr G Lansdown(3)	-	-	-	-	-	-
Dr X Liu	60,000	-	-	-	60,000	65
Dr X Mkhwanazi(4)	34,337	-	-	18,900	53,237	57
Dr N Mtoba	69,386	-	-	-	69,386	75
Mr W Osborn	125,704	-	-	-	125,704	136
Mr K Rumble	125,680	-	-	37,500	163,180	174
Executive KMP						
Mr G Kerr	1,988,958	3,274,568	-	(1,971,241)	3,292,285	370
Mrs K Tovich(5)	160,167	371,604	-	(175,230)	356,541	88
Mr M Fraser	2,112,243	2,029,104	-	(913,098)	3,228,249	659
Mr P Harvey(6)	441,666	1,046,417	-	(353,363)	1,134,720	286

(1) Other net change includes purchases and sales of vested shares to cover tax liabilities. Refer to 30 August 2019 announcements for the CEO.
(2) Based on the closing share price of South32 shares as at 30 June 2020, of A$2.04.
(3) Guy Lansdown was appointed as a Non-Executive Director on 2 December 2019.
(4) Xolani Mkhwanazi passed away on 4 January 2020 following a short illness. Closing balance is as at this date.
(5) Katie Tovich was appointed as a member of KMP on 1 May 2019.
(6) Included in "Received on vesting of rights" in the table above for Paul Harvey is 294,587 rights that had vested at 30 June 2020 but were converted to shares subsequent to year-end.

ADDITIONAL INFORMATION

Transactions with KMP

During FY20, there were no transactions between KMP or their close family members and the South32 Group.

There are no amounts payable to any KMP at 30 June 2020.

There are no loans with KMP.

A number of Directors of the Group have control or joint control of other entities (also known as personal entities). There have been no transactions between those entities and no amounts were owed by or to the South32 Group during the year.

This Remuneration report was approved by our Board on 3 September 2020.

Financial report

Consolidated income statement
for the year ended 30 June 2020

US$M	Note	FY20	FY19
Revenue:			
Group production	4	**5,492**	6,468
Third party products and services	4	**583**	806
		6,075	7,274
Other income		**198**	245
Expenses excluding net finance cost	5	**(6,112)**	(7,099)
Share of profit/(loss) of equity accounted investments	26	**100**	467
Profit/(loss)		**261**	887
Comprising:			
Group production		**278**	882
Third party products and services		**(17)**	5
Profit/(loss)		**261**	887
Finance expenses		**(183)**	(151)
Finance income		**44**	67
Net finance cost	18	**(139)**	(84)
Profit/(loss) before tax		**122**	803
Income tax (expense)/benefit	6	**(187)**	(414)
Profit/(loss) after tax		**(65)**	389
Attributable to:			
Equity holders of South32 Limited		**(65)**	389
Profit/(loss) for the year attributable to the equity holders of South32 Limited:			
Basic earnings per share (cents)	8	**(1.3)**	7.7
Diluted earnings per share (cents)	8	**(1.3)**	7.6

The accompanying notes form part of the consolidated financial statements.

Consolidated statement of comprehensive income
for the year ended 30 June 2020

US$M	Note	FY20	FY19
Profit/(loss) for the year		**(65)**	389
Other comprehensive income			
Items that may be reclassified to the Consolidated Income Statement:			
Cash flow hedges:			
Transfer of net (gains)/losses recognised in equity		**-**	(5)
Total items that may be reclassified to the Consolidated Income Statement		**-**	(5)
Items not to be reclassified to the Consolidated Income Statement:			
Investments in equity instruments designated as fair value through other comprehensive income (FVOCI):			
Net fair value gains/(losses)		**(65)**	(26)
Tax benefit/(expense)		**20**	10
Equity accounted investments – share of other comprehensive income/(loss), net of tax	26	**21**	66
Gains/(losses) on pension and medical schemes	15	**2**	(3)
Tax benefit/(expense) recognised within other comprehensive income		**-**	1
Total items not to be reclassified to the Consolidated Income Statement		**(22)**	48
Total other comprehensive income/(loss)		**(22)**	43
Total comprehensive income/(loss)		**(87)**	432
Attributable to:			
Equity holders of South32 Limited		**(87)**	432

The accompanying notes form part of the consolidated financial statements.

Consolidated balance sheet
as at 30 June 2020

US$M	Note	FY20	FY19
ASSETS			
Current assets			
Cash and cash equivalents	16	**1,315**	1,408
Trade and other receivables	9	**531**	888
Other financial assets	19	**19**	108
Inventories	10	**735**	952
Current tax assets		**27**	7
Other		**36**	38
Total current assets		**2,663**	3,401
Non-current assets			
Trade and other receivables	9	**303**	290
Other financial assets	19	**172**	272
Inventories	10	**77**	68
Property, plant and equipment	11	**9,680**	9,596
Intangible assets	12	**248**	233
Equity accounted investments	26	**460**	688
Deferred tax assets	6	**123**	155
Other		**11**	12
Total non-current assets		**11,074**	11,314
Total assets		**13,737**	14,715
LIABILITIES			
Current liabilities			
Trade and other payables	14	**627**	880
Interest bearing liabilities	17	**355**	313
Other financial liabilities	19	**1**	-
Current tax payables		**9**	179
Provisions	15	**274**	312
Deferred income		**5**	4
Total current liabilities		**1,271**	1,688
Non-current liabilities			
Trade and other payables	14	**3**	1
Interest bearing liabilities	17	**662**	591
Deferred tax liabilities	6	**339**	334
Provisions	15	**1,899**	1,925
Deferred income		**1**	8
Total non-current liabilities		**2,904**	2,859
Total liabilities		**4,175**	4,547
Net assets		**9,562**	10,168
EQUITY			
Share capital	20	**13,943**	14,212
Treasury shares	20	**(49)**	(105)
Reserves		**(3,566)**	(3,490)
Retained earnings/(accumulated losses)		**(765)**	(448)
Total equity attributable to equity holders of South32 Limited		**9,563**	10,169
Non-controlling interests		**(1)**	(1)
Total equity		**9,562**	10,168

The accompanying notes form part of the consolidated financial statements.

Consolidated cash flow statement
for the year ended 30 June 2020

US$M	Note	FY20	FY19
Operating activities			
Profit/(loss) before tax		**122**	803
Adjustments for:			
Depreciation and amortisation expense		**739**	757
Impairments of property, plant and equipment		**-**	504
Employee share awards expense		**29**	38
Net finance cost		**139**	84
Share of (profit)/loss of equity accounted investments		**(100)**	(467)
(Gains)/losses on derivative instruments and other investments measured at fair value		**152**	35
Other non-cash or non-operating items		**7**	1
Changes in assets and liabilities:			
Trade and other receivables		**367**	6
Inventories		**208**	(58)
Trade and other payables		**(184)**	(13)
Provisions and other liabilities		**(104)**	(64)
Cash generated from operations		**1,375**	1,626
Interest received		**44**	71
Interest paid		**(69)**	(70)
Income tax (paid)/received		**(335)**	(346)
Dividends received		**1**	-
Dividends received from equity accounted investments		**349**	536
Net cash flows from operating activities		**1,365**	1,817
Investing activities			
Purchases of property, plant and equipment		**(676)**	(652)
Exploration expenditure		**(61)**	(74)
Exploration expenditure expensed and included in operating cash flows		**28**	46
Purchase of intangibles		**(36)**	(30)
Investment in financial assets		**(259)**	(411)
Acquisition of interest previously held by non-controlling interests		**(3)**	-
Acquisition of subsidiaries and jointly controlled entities, net of their cash		**(73)**	(1,507)
Cash outflows from investing activities		**(1,080)**	(2,628)
Proceeds from sale of property, plant and equipment and intangibles		**1**	5
Proceeds from financial assets		**206**	305
Distribution from equity accounted investments		**-**	6
Net cash flows from investing activities		**(873)**	(2,312)
Financing activities			
Proceeds from interest bearing liabilities		**31**	3
Repayment of interest bearing liabilities		**(55)**	(37)
Purchase of shares by ESOP Trusts		**(23)**	(99)
Share buy-back		**(269)**	(281)
Dividends paid		**(246)**	(657)
Net cash flows from financing activities		**(562)**	(1,071)
Net increase/(decrease) in cash and cash equivalents		**(70)**	(1,566)
Cash and cash equivalents, net of overdrafts, at the beginning of the financial year		**1,406**	2,970
Foreign currency exchange rate changes on cash and cash equivalents		**(21)**	2
Cash and cash equivalents, net of overdrafts, at the end of the financial year	16	**1,315**	1,406

The accompanying notes form part of the consolidated financial statements.

Consolidated statement of changes in equity
for the year ended 30 June 2020

	Attributable to equity holders of South32 Limited								
US$M	Share capital	Treasury shares	Financial assets reserve[1]	Employee share awards reserve[2]	Other reserves[3]	Retained earnings/ (accumulated losses)	Total	Non-controlling interests	Total equity
Balance as at 1 July 2019	**14,212**	**(105)**	**(9)**	**109**	**(3,590)**	**(448)**	**10,169**	**(1)**	**10,168**
Profit/(loss) for the year	**-**	**-**	**-**	**-**	**-**	**(65)**	**(65)**	**-**	**(65)**
Other comprehensive income/(loss)	**-**	**-**	**(45)**	**-**	**-**	**23**	**(22)**	**-**	**(22)**
Total comprehensive income/(loss)	**-**	**-**	**(45)**	**-**	**-**	**(42)**	**(87)**	**-**	**(87)**
Transactions with owners:									
Acquisition of interest previously held by non-controlling interests	**-**	**-**	**-**	**-**	**(3)**	**-**	**(3)**	**-**	**(3)**
Dividends	**-**	**-**	**-**	**-**	**-**	**(246)**	**(246)**	**-**	**(246)**
Shares bought back and cancelled	**(269)**	**-**	**-**	**-**	**-**	**-**	**(269)**	**-**	**(269)**
Accrued employee entitlements for unvested awards, net of tax	**-**	**-**	**-**	**21**	**-**	**-**	**21**	**-**	**21**
Employee share awards forfeited, net of tax	**-**	**-**	**-**	**(10)**	**-**	**-**	**(10)**	**-**	**(10)**
Purchase of shares by ESOP Trusts	**-**	**(23)**	**-**	**-**	**-**	**-**	**(23)**	**-**	**(23)**
Employee share awards vested and waived	**-**	**79**	**-**	**(39)**	**-**	**(42)**	**(2)**	**-**	**(2)**
Tax recognised for employee awards vested	**-**	**-**	**-**	**-**	**-**	**13**	**13**	**-**	**13**
Balance as at 30 June 2020	**13,943**	**(49)**	**(54)**	**81**	**(3,593)**	**(765)**	**9,563**	**(1)**	**9,562**
Balance as at 1 July 2018	14,493	(83)	164	88	(3,585)	(367)	10,710	(1)	10,709
Adjustments for transition to new accounting standards	-	-	(12)	-	-	10	(2)	-	(2)
Restated balance as at 1 July 2018	14,493	(83)	152	88	(3,585)	(357)	10,708	(1)	10,707
Profit/(loss) for the year	-	-	-	-	-	389	389	-	389
Other comprehensive income/(loss)	-	-	(16)	-	(5)	64	43	-	43
Total comprehensive income/(loss)	-	-	(16)	-	(5)	453	432	-	432
Transactions with owners:									
Dividends	-	-	-	-	-	(657)	(657)	-	(657)
Shares bought back and cancelled	(281)	-	-	-	-	-	(281)	-	(281)
Accrued employee entitlements for unvested awards, net of tax	-	-	-	49	-	-	49	-	49
Purchase of shares by ESOP Trusts	-	(99)	-	-	-	-	(99)	-	(99)
Employee share awards vested	-	77	-	(28)	-	(49)	-	-	-
Tax recognised for employee awards vested	-	-	-	-	-	17	17	-	17
Transfer of cumulative fair value gain on equity instruments designated as FVOCI	-	-	(145)	-	-	145	-	-	-
Balance as at 30 June 2019	14,212	(105)	(9)	109	(3,590)	(448)	10,169	(1)	10,168

(1) Represents the fair value movement in financial assets designated as FVOCI.
(2) Represents the accrued employee entitlements to share awards that have not yet vested.
(3) Primarily consists of the common control transaction reserve of US$3,569 million, which reflects the difference between consideration paid and the carrying value of assets and liabilities acquired, as well as the gains/losses on disposal of entities as part of the Demerger of the Group in 2015.

The accompanying notes form part of the consolidated financial statements.

Notes to financial statements – Basis of preparation

This section sets out the accounting policies that relate to the consolidated financial statements of South32 Limited (referred to as the Company) and its subsidiaries and joint arrangements (collectively, the Group) as a whole. Where an accounting policy, critical accounting estimate, assumption or judgement is specific to a note, these are described within the note to which they relate. These policies have been consistently applied to all periods presented, except as described in note 3 New standards and interpretations.

As the COVID-19 pandemic continues to impact the world, the Group's focus remains on keeping its people well, maintaining safe and reliable operations and supporting the communities where it operates through the health crisis. Even as the Group faces this challenge, it delivered a strong operating result, with annual production records at Australia Manganese ore, Hillside Aluminium and Brazil Alumina.

Given the extraordinary circumstances and volatility caused by the pandemic, the Group re-designed and re-prioritised its capital expenditure programs, maintained strong control over operating costs and suspended the on-market share buy-back. The Group generated US$1.4 billion net cash flows from operating activities during the year, finishing the period with net cash of US$298 million (cash and cash equivalents of US$1.315 million less lease liabilities of US$651 million and other interest bearing liabilities of US$366 million). The Group also has an undrawn US$1.45 billion revolving credit facility which supports its strong liquidity position.

The Group has considered the impact of COVID-19 on each of its significant accounting judgements and estimates. Key assumptions that underpin the assessment of indicators for impairment and impairment reversal of assets continue to be the Group's main area of estimation uncertainty, and are described in note 13 Impairment of non-financial assets. While no further significant estimates have been identified as a result of COVID-19, the pandemic has increased the level of uncertainty in all future cash flow forecasts applicable when considering the valuation of asset, liability and equity balances of the Group.

The consolidated financial statements of the Group for the year ended 30 June 2020 were authorised for issue in accordance with a resolution of the Directors on 3 September 2020.

1. REPORTING ENTITY

South32 Limited is a for-profit company limited by shares incorporated in Australia with a primary listing on the Australian Securities Exchange (ASX), a standard listing on the London Stock Exchange (LSE) and a secondary listing on the Johannesburg Stock Exchange (JSE).

The nature of the operations and principal activities of the Group are described in note 4 Segment information.

2. BASIS OF PREPARATION

The consolidated financial statements are a general purpose financial report which:

- Have been prepared in accordance with the requirements of the Corporations Act, Australian Accounting Standards and other authoritative pronouncements of the Australian Accounting Standards Board (AASB), International Financial Reporting Standards (IFRS) and other authoritative pronouncements of the International Accounting Standards Board (IASB);
- Have been prepared on a historical cost basis, except for derivative financial instruments and certain other financial assets and liabilities which are required to be measured at fair value;
- Are presented in US dollars, which is the functional currency of the Group's operations, and all values are rounded to the nearest million dollars (US$M or US$ million) unless otherwise stated, in accordance with ASIC Corporations Instrument 2016/191;
- Present reclassified comparative information where required for consistency with the current year's presentation;
- Adopt all new and amended accounting standards and interpretations issued by the AASB that are relevant to the operations of the Group and effective for reporting periods beginning on or after 1 July 2019. Refer to note 3 New standards and interpretations for further details; and
- Do not early adopt accounting standards and interpretations that have been issued or amended but are not yet effective as described in note 3 New standards and interpretations.

(a) Basis of consolidation

The consolidated financial statements comprise the financial statements of the Group. A list of significant controlled entities (subsidiaries) at year end is contained in note 25 Subsidiaries.

The financial statements of subsidiaries are prepared for the same reporting period as the parent entity, using consistent accounting policies.

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

(b) Foreign currency translation

The functional currency of the Group's operations is the US dollar as this is assessed to be the principal currency of the economic environments in which they operate.

Transactions denominated in foreign currencies are initially recorded in the functional currency using the exchange rate ruling at the date of the underlying transaction. Monetary assets and liabilities denominated in foreign currencies are translated using the rate of exchange at year end. Exchange gains or losses on retranslation are included in the Consolidated Income Statement, with the exception of foreign exchange gains or losses on foreign currency provisions for closure and rehabilitation which are capitalised in property, plant and equipment for operating sites.

The exchange rates used have been obtained from Bloomberg.

3. NEW STANDARDS AND INTERPRETATIONS

(a) New accounting standards and interpretations effective from 1 July 2019

The Group has changed some of its accounting policies as a result of new or revised accounting standards which became effective for the annual reporting period commencing on 1 July 2019. New policies and standards are:

AASB 16 Leases

The Group adopted AASB 16 from 1 July 2019 using the modified retrospective approach without restating comparative information. The Group applied the following practical expedients on transition:

- 'Grandfathering' previous lease assessments of existing contracts and applying the AASB 16 lease definition to contracts commencing or modified after 1 July 2019;
- Applying a single discount rate to a portfolio of leases with reasonably similar characteristics; and
- Accounting for leases as short-term where the lease term ends within 12 months of the date of initial application.

AASB 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and generally results in leases being recognised on the Consolidated Balance Sheet, as the distinction between operating and finance leases was removed.

On transition, lease liabilities of previously recognised operating leases (excluding short-term and low-value leases) were measured at the present value of the remaining lease payments, discounted at the lessee's incremental borrowing rate as at 1 July 2019. The weighted average rate applied was 8.2%. The right-of-use (ROU) assets were measured at an amount equal to the lease liabilities net of lease incentives received. For leases that were classified as finance leases under the previous standard (AASB 117 *Leases*), there were no changes to the carrying amounts of ROU assets and lease liabilities.

Under AASB 16, optional renewable periods are included in the lease term if it is reasonably certain that an extension will occur. In addition, variable lease payments linked to a rate or an index, such as inflation, are now required to be recognised within the lease liability and ROU asset when effective.

The Group recognises the interest expense on lease liabilities and depreciation expense on ROU assets in the Consolidated Income Statement. Lease liability repayments are recognised as a combination of principal and interest payments.

On transition, the Group recognised an additional US$135 million of ROU assets and US$140 million of lease liabilities. This included US$52 million of variable lease payments based on a rate or an index. The reconciliation of total operating lease commitments at 30 June 2019 to the lease liabilities recognised at 1 July 2019 is as follows:

US$M	
Operating lease commitments (30 June 2019)	123
Less: AASB 16 recognition exemption for short-term and low-value leases	(14)
Restated total operating lease commitments (30 June 2019)	109
Less: effect of discounting operating lease commitments using the incremental borrowing rate (30 June 2019)	(21)
Add: recognition of variable lease payments based on a rate or an index	52
Add: finance lease liabilities (30 June 2019)	543
Total lease liabilities recognised (1 July 2019)(1)	683

(1) Refer to the Group's leases policy in note 11 Property, plant and equipment under section (e) Leases.

(b) New accounting standards and interpretations issued but not effective

Certain new accounting standards and interpretations have been published that are not effective for the 30 June 2020 reporting period. The Group has reviewed these standards and interpretations, and concluded that none of the new or amended standards have a material affect on the Group's accounting policies, financial position or performance. The Group does not intend to early adopt any of the new standards or interpretations.

Notes to financial statements – Results for the year

This section focuses on the results and performance of the Group. This covers both profitability and the resultant return to shareholders via earnings per share.

4. SEGMENT INFORMATION

(a) Description of segments

The operating segments (also referred to as operations) are organised and managed separately according to the nature of products produced.

Certain members of the Lead Team (the chief operating decision makers) and the Board of Directors monitor the segment results regularly for the purpose of making decisions about resource allocation and performance assessment. The segment information for the manganese operations is presented on a proportional consolidation basis, which is the measure used by the Group's management to assess their performance.

The principal activities of each operating segment as the Group is currently structured are summarised as follows:

Operating segment	Principal activities
Worsley Alumina	Integrated bauxite mine and alumina refinery in Western Australia, Australia
Hillside Aluminium	Aluminium smelter in South Africa
Mozal Aluminium	Aluminium smelter in Mozambique
Brazil Alumina	Alumina refinery in Brazil
South Africa Energy Coal	Open-cut and underground energy coal mines and processing operations in South Africa
Illawarra Metallurgical Coal	Underground metallurgical coal mines in New South Wales, Australia
Eagle Downs Metallurgical Coal	Exploration and development of metallurgical coal deposit in Queensland, Australia
Australia Manganese	Integrated producer of manganese ore in the Northern Territory and alloy(1) in Tasmania, Australia
South Africa Manganese	Integrated producer of manganese ore and alloy(2) in South Africa
Cerro Matoso	Integrated laterite ferronickel mining and smelting complex in Colombia
Cannington	Silver, lead and zinc mine in Queensland, Australia
Hermosa	Base metals exploration and development option in Arizona, United States

(1) On 13 August 2020, the Group announced that Groote Eylandt Mining Company Pty Ltd (GEMCO) had entered into a binding conditional agreement for the sale of its shareholding in the Tasmanian Electro Metallurgical Company Pty Ltd (TEMCO) to an entity within GFG Alliance (GFG).
(2) After consideration of its future economic viability, the Group made the decision with its joint venture partner to place the Metalloys manganese smelter on care and maintenance.

All operations are operated by the Group except Brazil Alumina, which is operated by Alcoa.

(b) Segment results

Segment performance is measured by Underlying EBIT and Underlying EBITDA. Underlying EBIT is profit before net finance cost, tax and other earnings adjustment items including impairments. Underlying EBITDA is Underlying EBIT, before depreciation and amortisation. A reconciliation of Underlying EBIT, Underlying EBITDA and the Group's consolidated profit after tax is set out on the following pages. Segment revenue is measured on the same basis as in the Consolidated Income Statement.

The Group separately discloses sales of group production from sales of third party products and services because of the significant difference in profit margin earned on these sales.

It is the Group's policy that inter-segment transactions are made on a commercial basis.

Group and unallocated items/eliminations represent group centre functions and consolidation adjustments. Group financing (including finance expense and finance income) and income taxes are managed on a Group basis and are not allocated to operating segments.

Total assets and liabilities for each operating segment represent operating assets and liabilities which predominantly exclude the carrying amount of equity accounted investments, cash, interest bearing liabilities, tax balances and certain other financial assets and liabilities. The carrying amount of investments accounted for using the equity method represents the balance of the Group's investment in equity accounted investments, with no adjustment for cash, interest bearing liabilities, tax balances and certain other financial assets and liabilities of the equity accounted investment.

Revenue recognition

Revenue is measured based on the consideration specified in the contract with a customer and excludes amounts collected on behalf of third parties. Revenue is not reduced for royalties and other taxes payable from group production.

The following is a description of the principal activities from which the Group generates its revenue.

4. **SEGMENT INFORMATION** CONTINUED

(b) **Segment results** continued

Revenue recognition continued

Revenue from the sale of commodities

The Group primarily sells the following commodities: alumina, aluminium, energy coal, metallurgical coal, manganese ore, manganese alloy, ferronickel, silver, lead and zinc. The sales of these commodities are considered to be performance obligations as they are the contractual promises by the Group to transfer distinct goods to customers.

The transaction price allocated to each performance obligation is recognised as the performance obligation is satisfied. Satisfaction occurs when control of the promised commodity is transferred to the customer.

For the sale of commodities, revenue is therefore recognised at a point in time, net of treatment and refining charges (where applicable). The majority of the Group's sales agreements specify that title passes on the bill of lading date (the date the commodity is delivered to the shipping agent), and is assessed to be the point of time in which control over the commodity passes to the customer. For these sales, revenue is recognised on the bill of lading date. For certain sales (principally energy coal sales to adjoining power stations), title passes, and revenue is recognised when the goods have been delivered to the customer.

For certain commodities, the sales price is determined on a provisional basis at the date of sale and adjustments to the sales price subsequently occur based on movements in quoted market or contractual prices up to the date of final pricing. The period between provisional invoicing and final pricing is up to 180 days. Revenue on provisionally priced sales is recognised based on the estimated fair value of the total consideration receivable. The revenue adjustment mechanism embedded within provisionally priced sales arrangements has the characteristics of a commodity derivative. Accordingly, the fair value of the final sales price adjustment is re-estimated continuously and changes in fair value are disclosed separately as 'Other' revenue. In all cases, fair value is estimated by reference to forward market prices.

Revenue from the provision of freight services

The Group sells most of its commodities on either FOB or CIF Incoterms. In the case of CIF Incoterms, the Group is responsible for shipping services after the date at which control of the commodities passes to the customer at the port of loading. The provision of shipping services in these types of arrangements are a distinct service (and therefore a separate performance obligation) to which a portion of the transaction price should be allocated and recognised over time as the shipping services are provided. The Group also provides third party freight services which are recognised as the shipping service is provided.

The Group does not disclose sales revenue from freight services separately as it does not consider this necessary in order to understand the impact of economic factors on the Group.

4. SEGMENT INFORMATION CONTINUED

(b) Segment results continued

30 June 2020 US$M	Worsley Alumina	Hillside Aluminium	Mozal Aluminium	Brazil Alumina	South Africa Energy Coal	Illawarra Metallurgical Coal	Eagle Downs Metallurgical Coal	Australia Manganese[(1)]	South Africa Manganese[(1)]	Cerro Matoso	Cannington	Hermosa	Group and unallocated items/ elimination	Statutory adjustment[(1)]	Group
Revenue from customers	1,119	1,276	507	399	829	937	-	785	346	516	497	-	36	(1,131)	6,116
Other[(2)]	(1)	-	1	-	(7)	(13)	-	(22)	(4)	3	(21)	-	(3)	26	(41)
Total revenue	1,118	1,276	508	399	822	924	-	763	342	519	476	-	33	(1,105)	6,075
Group production	568	1,276	508	399	822	924	-	763	342	519	476	-	-	(1,105)	5,492
Third party products and services[(3)]	-	-	-	-	-	-	-	-	-	-	-	-	583	-	583
Inter-segment revenue	550	-	-	-	-	-	-	-	-	-	-	-	(550)	-	-
Total revenue	1,118	1,276	508	399	822	924	-	763	342	519	476	-	33	(1,105)	6,075
Underlying EBITDA	322	169	10	50	(108)	243	-	400	81	189	155	(5)	(38)	(283)	1,185
Depreciation and amortisation	(162)	(66)	(34)	(65)	(47)	(191)	-	(72)	(27)	(82)	(50)	-	(42)	99	(739)
Underlying EBIT	160	103	(24)	(15)	(155)	52	-	328	54	107	105	(5)	(80)	(184)	446
Comprising:															
Group production excluding exploration expensed	160	103	(24)	(15)	(162)	59	-	329	55	109	109	(5)	(48)	(387)	283
Exploration expensed	-	-	-	-	-	(7)	-	(1)	(1)	(2)	(4)	-	(15)	2	(28)
Third party products and services[(3)]	-	-	-	-	-	-	-	-	-	-	-	-	(17)	-	(17)
Share of profit/(loss) of equity accounted investments[(4)]	-	-	-	-	7	-	-	-	-	-	-	-	-	201	208
Underlying EBIT	160	103	(24)	(15)	(155)	52	-	328	54	107	105	(5)	(80)	(184)	446
Net finance cost															(145)
Income tax (expense)/ benefit															(108)
Underlying earnings															193
Earnings adjustments[(5)]															(258)
Profit/(loss) after tax															(65)
Exploration expenditure	-	-	-	-	-	16	2	2	1	4	4	19	16	(3)	61
Capital expenditure[(6)]	48	13	11	34	164	199	11	67	23	39	52	104	1	(90)	676
Equity accounted investments	-	-	-	-	21	3	-	-	-	-	-	-	-	436	460
Total assets[(7)]	3,379	1,058	531	663	655	1,617	184	608	438	623	457	1,894	2,430	(800)	13,737
Total liabilities[(7)]	590	264	95	95	1,020	261	10	366	201	198	243	36	1,559	(763)	4,175

(1) The segment information reflects the Group's interest in the manganese operations and is presented on a proportional consolidation basis, which is the measure used by the Group's management to assess their performance. The manganese operations are equity accounted in the consolidated financial statements. The statutory adjustment column reconciles the proportional consolidation to the equity accounting position.

(2) Other revenue predominantly relates to fair value movements on provisionally priced contracts.

(3) Revenue on third party products and services sold comprise of US$42 million for aluminium, US$14 million for alumina, US$276 million for coal, US$165 million for freight services and US$86 million for aluminium raw materials. Underlying EBIT on third party products and services sold comprise of US$2 million for aluminium, (US$4) million for alumina, (US$15) million for coal, (US$2) million for freight services and US$2 million for aluminium raw materials.

(4) Share of profit/(loss) of equity accounted investments includes the impacts of earnings adjustments to Underlying EBIT.

(5) Refer to note 4(b)(i) Earnings adjustments.

(6) Capital expenditure excludes the purchase of intangibles and capitalised exploration expenditure.

(7) Total assets and liabilities for each operating segment represent operating assets and liabilities, which predominantly exclude the carrying amount of equity accounted investments, cash, interest bearing liabilities, tax balances and certain other financial assets and liabilities.

4. SEGMENT INFORMATION CONTINUED

(b) Segment results continued

30 June 2019 US$M	Worsley Alumina	Hillside Aluminium	Mozal Aluminium	Brazil Alumina	South Africa Energy Coal	Illawarra Metallurgical Coal	Eagle Downs Metallurgical Coal	Australia Manganese[1]	South Africa Manganese[1]	Cerro Matoso	Cannington	Hermosa	Group and unallocated items/ elimination	Statutory adjustment[1]	Group
Revenue from customers	1,619	1,443	558	565	1,043	1,139	-	1,102	556	498	478	-	(39)	(1,650)	7,312
Other[2]	-	(4)	(2)	1	(6)	(4)	-	(7)	(3)	(9)	(11)	-	(3)	10	(38)
Total revenue	1,619	1,439	556	566	1,037	1,135	-	1,095	553	489	467	-	(42)	(1,640)	7,274
Group production	797	1,439	556	548	1,037	1,135	-	1,095	536	489	467	-	-	(1,631)	6,468
Third party products and services[3]	-	-	-	-	-	-	-	-	-	-	-	-	815	(9)	806
Inter-segment revenue	822	-	-	18	-	-	-	-	17	-	-	-	(857)	-	-
Total revenue	1,619	1,439	556	566	1,037	1,135	-	1,095	553	489	467	-	(42)	(1,640)	7,274
Underlying EBITDA	702	(7)	13	219	42	542	-	698	215	127	161	-	(53)	(462)	2,197
Depreciation and amortisation	(161)	(68)	(34)	(59)	(88)	(183)	-	(60)	(27)	(87)	(57)	-	(20)	87	(757)
Underlying EBIT	541	(75)	(21)	160	(46)	359	-	638	188	40	104	-	(73)	(375)	1,440
Comprising:															
Group production excluding exploration expensed	542	(75)	(21)	160	(47)	360	-	639	188	48	107	-	(47)	(823)	1,031
Exploration expensed	(1)	-	-	-	-	(3)	-	(1)	-	(8)	(3)	-	(31)	1	(46)
Third party products and services[3]	-	-	-	-	-	-	-	-	-	-	-	-	5	-	5
Share of profit/(loss) of equity accounted investments[4]	-	-	-	-	1	2	-	-	-	-	-	-	-	447	450
Underlying EBIT	541	(75)	(21)	160	(46)	359	-	638	188	40	104	-	(73)	(375)	1,440
Net finance cost															(118)
Income tax (expense)/ benefit															(330)
Underlying earnings															992
Earnings adjustments[5]															(603)
Profit/(loss) after tax															389
Exploration expenditure	1	-	-	-	-	9	1	2	-	10	4	18	31	(2)	74
Capital expenditure[6]	57	19	19	26	213	138	6	65	30	32	55	85	2	(95)	652
Equity accounted investments	-	-	-	-	14	3	-	-	-	-	-	-	-	671	688
Total assets[7]	3,468	1,304	644	795	736	1,710	172	679	524	697	493	1,777	2,498	(782)	14,715
Total liabilities[7]	637	277	110	108	1,109	300	9	363	212	218	250	39	1,656	(741)	4,547

(1) The segment information reflects the Group's interest in the manganese operations and is presented on a proportional consolidation basis, which is the measure used by the Group's management to assess their performance. The manganese operations are equity accounted in the consolidated financial statements. The statutory adjustment column reconciles the proportional consolidation to the equity accounting position.
(2) Other revenue predominantly relates to fair value movements on provisionally priced contracts.
(3) Revenue on third party products and services sold comprise of US$57 million for aluminium, US$2 million for alumina, US$392 million for coal, US$239 million for freight services and US$116 million for aluminium raw materials. Underlying EBIT on third party products and services sold comprise of nil for aluminium, US$2 million for alumina, US$9 million for coal, (US$5) million for freight services and (US$1) million for aluminium raw materials.
(4) Share of profit/(loss) of equity accounted investments includes the impacts of earnings adjustments to Underlying EBIT.
(5) Refer to note 4(b)(i) Earnings adjustments.
(6) Capital expenditure excludes the purchase of intangibles and capitalised exploration expenditure.
(7) Total assets and liabilities for each operating segment represent operating assets and liabilities, which predominantly exclude the carrying amount of equity accounted investments, cash, interest bearing liabilities, tax balances and certain other financial assets and liabilities.

4. SEGMENT INFORMATION CONTINUED

(b) Segment results continued

(i) Earnings adjustments

The following table shows earnings adjustments in determining Underlying earnings:

US$M	FY20	FY19
Adjustments to Underlying EBIT		
Exchange rate (gains)/losses on restatement of monetary items[1]	**(72)**	3
Impairment losses[1][2]	**-**	504
(Gains)/losses on non-trading derivative instruments and other investments measured at fair value[1][3]	**149**	35
Major corporate restructures[1]	**-**	28
Earnings adjustments included in (profit)/loss of equity accounted investments[4][5]	**108**	(17)
Total adjustments to Underlying EBIT	**185**	553
Adjustments to net finance cost		
Exchange rate variations on net debt	**(6)**	(34)
Total adjustments to net finance cost	**(6)**	(34)
Adjustments to income tax expense		
Tax effect of earnings adjustments to Underlying EBIT	**(18)**	56
Tax effect of earnings adjustments to net finance cost	**(2)**	10
Exchange rate variations on tax balances	**99**	18
Total adjustments to income tax expense	**79**	84
Total earnings adjustments	**258**	603

(1) Recognised in expenses excluding net finance cost in the Consolidated Income Statement. Refer to note 5 Expenses.
(2) Relates to impairment on property, plant and equipment included in the South Africa Energy Coal (SAEC) segment. Refer to note 13 Impairment of non-financial assets.
(3) Primarily relates to US$105 million (FY19: US$30 million) included in the Hillside Aluminium segment and US$36 million (FY19: US$5 million) included in the SAEC segment.
(4) Recognised in share of profit/(loss) of equity accounted investments in the Consolidated Income Statement. Refer to note 26 Equity accounted investments.
(5) Relates to US$51 million (FY19: (US$17) million) included in the Australia Manganese segment and US$57 million (FY19: nil) included in the South Africa Manganese segment. Of the US$108 million, impairment losses of US$40 million were recorded in the Australia Manganese segment after GEMCO entered into a binding conditional agreement for the sale of its shareholding in TEMCO, and US$49 million in the South Africa Manganese segment following the decision to place the Metalloys manganese smelter on care and maintenance.

(c) Geographical information

The geographical information below analyses Group revenue and non-current assets by location. Revenue is presented by the geographical location of customers and non-current assets are presented by the geographical location of the operations.

	Revenue from external customers		Non-current assets	
US$M	FY20	FY19	FY20	FY19
Australia	**463**	601	**5,610**	5,671
China	**537**	438	**-**	-
India	**269**	529	**-**	-
Italy	**158**	188	**-**	-
Japan	**363**	406	**-**	-
Middle East	**93**	182	**-**	-
Netherlands	**573**	437	**-**	-
North America	**305**	325	**1,967**	1,777
Other Asia	**290**	257	**-**	-
Rest of Europe	**406**	549	**4**	2
Singapore	**953**	1,090	**106**	91
South America	**4**	48	**1,107**	1,191
South Korea	**148**	199	**-**	-
Southern Africa	**862**	1,214	**1,985**	2,155
Switzerland	**483**	511	**-**	-
United Arab Emirates	**168**	300	**-**	-
Unallocated assets[1]	**-**	-	**295**	427
Total	**6,075**	7,274	**11,074**	11,314

(1) Primarily comprises of other financial assets and deferred tax assets.

5. EXPENSES

US$M	Note	FY20	FY19
Changes in inventories of finished goods and work in progress		**203**	(96)
Raw materials and consumables used(1)		**1,989**	2,324
Wages, salaries and redundancies		**864**	969
Pension and other post-retirement obligations		**75**	77
External services (including transportation)		**1,147**	1,279
Third party commodity purchases		**585**	801
Depreciation and amortisation	11, 12	**739**	757
Exchange rate (gains)/losses on restatement of monetary items		**(72)**	3
(Gains)/losses on derivative instruments and other investments measured at fair value(2)		**152**	35
Government and other royalties paid and payable		**165**	181
Exploration and evaluation expenditure incurred and expensed		**28**	46
Impairments of property, plant and equipment	11, 13	**-**	504
Lease rentals(3)		**40**	-
Operating lease rentals		**-**	46
All other operating expenses		**197**	173
Total expenses		**6,112**	7,099

(1) Raw materials and consumables used exclude realised losses on the settlement of derivative instruments related to electricity purchases of US$120 million (FY19: US$72 million).
(2) Includes (gains)/losses on non-trading derivative instruments and other investments measured at fair value of US$149 million (FY19:US$35 million). Refer to note 4(b)(i) Earnings adjustments.
(3) Includes short-term, low-value and variable lease rentals. Refer to note 3 New standards and interpretations.

6. TAX

Income tax expense comprises current and deferred tax and is recognised in the Consolidated Income Statement except to the extent that it relates to items recognised directly in the Consolidated Statement of Comprehensive Income.

(a) Income tax expense

US$M	FY20	FY19
Current income tax expense/(benefit)	**130**	313
Deferred income tax expense/(benefit)	**57**	101
Total income tax expense/(benefit)(1)	**187**	414

(1) IFRIC 23 *Uncertainty over Income Tax Treatments* became effective for the annual reporting period commencing 1 July 2019 and had no impact to the Group's accounting policies and positions.

Income tax expense/(benefit)

Income tax expense/(benefit) for the period is the tax payable on the current period's taxable income/(loss) based on the applicable income tax rate for each jurisdiction adjusted for changes in deferred tax assets and liabilities attributable to temporary differences and to unused tax losses. Current tax is calculated using the tax rates enacted or substantively enacted at period end, and includes any adjustment to tax payable in respect of previous years.

(b) Reconciliation of prima facie tax expense to income tax expense

US$M	FY20	FY19
(Profit)/loss before tax	**(122)**	(803)
Deduct: Profit from equity accounted investments	**(100)**	(467)
(Profit)/loss subject to tax	**(22)**	(336)
Income tax on profit/(loss) at standard rate of 30 per cent	**7**	101
Tax rate differential on non Australian income	**18**	61
Exchange variations and other translation adjustments	**99**	18
Withholding tax on distributed earnings	**-**	8
Derecognition of future tax benefits	**58**	111
Future tax benefits not recognised on impairments	**-**	107
Change in tax rates	**-**	(5)
Foreign exploration	**3**	7
Other	**2**	6
Total income tax expense/(benefit)	**187**	414

6. TAX CONTINUED

(b) Reconciliation of prima facie tax expense to income tax expense continued

Profit from equity accounted investments has been taxed in companies other than South32 Limited, being the companies whose results are disclosed as equity accounted investments in the consolidated financial statements.

Refer to note 26 Equity accounted investments for further details of the Group's equity accounted investments.

(c) Movement in deferred tax balances

The composition of the Group's net deferred tax asset and liability recognised in the Consolidated Balance Sheet and the deferred tax expense charged/(credited) to the Consolidated Income Statement is as follows:

	Deferred tax assets		Deferred tax liabilities		Deferred tax charged/(credited) to the Consolidated Income Statement	
US$M	FY20	FY19	FY20	FY19	FY20	FY19
Type of temporary difference						
Depreciation	**243**	264	**(375)**	(354)	**42**	121
Employee benefits	**49**	35	**10**	12	**(17)**	25
Closure and rehabilitation	**150**	139	**30**	46	**5**	(77)
Other provisions	**4**	3	**17**	23	**5**	-
Deferred charges	**(160)**	(161)	**-**	-	**(1)**	(18)
Non tax-depreciable fair value adjustments, revaluations and mineral rights	**(122)**	(121)	**(18)**	(36)	**(1)**	(4)
Tax-effected losses	**6**	6	**28**	51	**23**	11
Brazil deferral incentive[1]	**-**	-	**(43)**	(65)	**(16)**	30
Leases[2]	**(14)**	(17)	**2**	2	**(3)**	5
Other	**(33)**	7	**10**	(13)	**20**	8
Total	**123**	155	**(339)**	(334)	**57**	101

(1) The Group's Brazilian subsidiary has received a 75 per cent corporate income tax deferral due to the reinvestment of capital. The tax is deferred until earnings are repatriated from Brazil.
(2) Refer to note 3 New standards and interpretations.

Deferred tax is provided using the balance sheet liability method, providing for the tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for tax assessment or deduction purposes. The tax effect of certain temporary differences is not recognised, principally with respect to:

- Temporary differences arising on the initial recognition of assets or liabilities (other than those arising in a business combination or in a manner that initially impacted accounting or taxable profit);
- Temporary differences relating to investments and undistributed earnings in subsidiaries, joint ventures and associates to the extent that the Group is able to control its reversal and it is probable that it will not reverse in the foreseeable future; and
- Goodwill.

To the extent that an item's tax base is solely derived from the amount deductible under capital gains tax legislation, deferred tax is determined as if such amounts are not deductible in determining future assessable income.

A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the asset can be utilised. Deferred tax assets are reviewed at each balance sheet date and amended to the extent that it is no longer probable that the related tax benefit will be realised. Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same tax authority and the Group has both the right and the intention to settle its current tax assets and liabilities on a net or simultaneous basis.

(d) Unrecognised deferred tax assets and liabilities

The composition of the Group's unrecognised deferred tax assets and liabilities is as follows:

US$M	FY20	FY19
Unrecognised deferred tax assets		
Tax-effected losses[1]	**66**	36
Mineral rights	**620**	639
Impairment of investments in subsidiaries	**816**	813
Closure and rehabilitation	**225**	226
Depreciable assets	**148**	196
Other deductible temporary differences	**25**	17
Total unrecognised deferred tax assets	**1,900**	1,927
Unrecognised deferred tax liabilities		
Taxable temporary differences associated with investments and undistributed earnings in subsidiaries	**(45)**	(35)
Total unrecognised deferred tax liabilities	**(45)**	(35)

(1) Represents tax losses that have no expiry.

6. **TAX** CONTINUED

(e) Tax consolidation

South32 Limited and its 100 per cent owned Australian resident subsidiaries have formed a tax consolidated group with effect from 25 May 2015. South32 Limited is the head entity of the tax consolidated group. Members of the group have entered into a tax sharing agreement in order to allocate income tax expense to the wholly owned subsidiaries on a stand-alone basis. The tax sharing arrangement provides for the allocation of income tax liabilities between the entities should the head entity default on its tax payment obligations. The possibility of such a default is considered remote at the date of this report.

Members of the tax consolidated group have also entered into a tax funding agreement. The group has applied its allocation approach in determining the appropriate amount of current taxes to allocate to members of the tax consolidated group. The tax funding agreement provides for each member of the tax consolidated group to pay or receive a tax equivalent amount to or from the head entity in accordance with their notional current tax liability or current tax asset. Such amounts are reflected in amounts receivable from or payable to the head entity in their accounts and are settled as soon as practicable after lodgement of the consolidated return and payment of the tax liability.

Key estimates, assumptions and judgements

Deferred tax

Judgement is required in assessing whether deferred tax assets and certain deferred tax liabilities are recognised in the Consolidated Balance Sheet. Deferred tax assets are recognised only where it is considered more likely than not that they will be recovered, which is dependent on the generation of sufficient future taxable profits. Deferred tax liabilities arising from temporary differences in investments, caused principally by retained earnings held in foreign tax jurisdictions, are recognised unless repatriation of retained earnings can be controlled and are not expected to occur in the foreseeable future.

Assumptions about the generation of future taxable profits and repatriation of retained earnings depend on management's estimates of future cash flows. These depend on estimates of future production and sales volumes, commodity prices, reserves, operating costs, closure and rehabilitation costs, capital expenditure, dividends and other capital management transactions.

Uncertain tax matters

Judgements are required about the application of the inherently complex income tax legislation in Colombia, Brazil and South Africa. These judgements are subject to risk and uncertainty, hence there is a possibility that changes in circumstances will alter expectations, which may impact the amount of deferred tax assets and deferred tax liabilities recognised on the Consolidated Balance Sheet and the amount of other tax losses and temporary differences not yet recognised.

Where the final tax outcomes are different from the amounts that were initially recorded, these differences impact the current and deferred tax provisions in the period in which the determination is made. Measurement of uncertain tax and royalty matters considers a range of possible outcomes, including assessments received from tax authorities. Where management is of the view that potential liabilities have a low probability of crystallising, or it is not possible to quantify them reliably, they are disclosed as contingent liabilities.

7. DIVIDENDS

US$M	FY20	FY19
Prior year final dividend(1)	**139**	316
Interim dividend(2)	**53.5**	256
Special dividend(2)	**53.5**	85
Total dividends declared and paid during the year	**246**	657

(1) On 22 August 2019, the Directors resolved to pay a fully franked final dividend of US 2.8 cents per share (US$140 million) in respect of the 2019 financial year. The dividends were paid on 10 October 2019. In addition to the ESOP Trusts receiving dividends from South32 Limited, a total of 23,601,881 shares were bought back between the declaration and the ex-dividend dates, therefore reducing the dividends paid externally to US$139 million.

(2) On 13 February 2020, the Directors resolved to pay a fully franked interim dividend of US 1.1 cents per share (US$54 million) in respect of the 2020 half year and a fully franked special dividend of US 1.1 cents per share (US$54 million). The dividends were paid on 2 April 2020. In addition to the ESOP Trusts receiving dividends from South32 Limited, a total of 29,445,061 shares were bought back between the declaration and the ex-dividend dates, therefore reducing the interim dividend and special dividend paid externally to US$53.5 million respectively.

Franking Account

US$M	FY20	FY19
Franking credits at the beginning of the financial year	**261**	149
Credits arising from tax paid/payable by South32 Limited(1)	**24**	237
Credits arising from the receipt of franked dividends	**92**	152
Utilisation of credits arising from the payment of franked dividends	**(109)**	(277)
Total franking credits available at the end of the financial year(2)	**268**	261

(1) Includes the payment of the Australian FY20 income tax liability of US$17 million due in December 2020.

(2) The payment of the final franked FY20 dividend declared after 30 June 2020 will decrease the franking account balance by US$21 million. Refer to note 32 Subsequent events.

8. EARNINGS PER SHARE

Basic earnings per share (EPS) amounts are calculated based on profit or loss attributable to equity holders of South32 Limited and the weighted average number of shares outstanding during the year.

Dilutive EPS amounts are calculated based on profit or loss attributable to equity holders of South32 Limited and the weighted average number of shares outstanding after adjustment for the effects of all dilutive potential shares.

The following reflects the profit/(loss) and share data used in the basic and diluted EPS computations:

Profit/(loss) attributable to equity holders

US$M	FY20	FY19
Profit/(loss) attributable to equity holders of South32 Limited (basic)	**(65)**	389
Profit/(loss) attributable to equity holders of South32 Limited (diluted)	**(65)**	389

Weighted average number of shares

Million	FY20	FY19
Basic EPS denominator(1)	**4,892**	5,048
Shares contingently issuable under employee share ownership plans(2)(3)	**-**	57
Diluted EPS denominator	**4,892**	5,105

(1) The basic EPS denominator is the aggregate of the weighted average number of shares after deduction of the weighted average number of Treasury shares outstanding and shares permanently cancelled through the on-market share buy-back.
(2) Included in the calculation of diluted EPS are shares contingently issuable under employee share ownership plans.
(3) The diluted EPS calculation excludes 11,762,906 (FY19: nil) rights which are considered anti-dilutive and are subject to service and performance conditions.

Earnings per Share

US cents	FY20	FY19
Basic EPS	**(1.3)**	7.7
Diluted EPS	**(1.3)**	7.6

Notes to financial statements – Operating assets and liabilities

This section shows the assets used to generate the Group's trading performance and the liabilities incurred. Liabilities relating to the Group's financing activities are addressed in the capital structure and financing section, notes 16 to 20.

9. TRADE AND OTHER RECEIVABLES

US$M	FY20	FY19
Current		
Trade receivables	**379**	572
Loans to equity accounted investments(1)	**15**	36
Other receivables	**137**	280
Total current trade and other receivables(2)	**531**	888
Non-current		
Loans to equity accounted investments(1)	**177**	136
Interest bearing loans receivable from joint operations	**26**	33
Other receivables	**100**	121
Total non-current trade and other receivables(2)	**303**	290

(1) Refer to note 29 Related party transactions.
(2) Net of allowances for expected credit losses of US$6 million (FY19: US$7 million).

Trade receivables generally have terms of up to 30 days. Trade and other receivables, with the exception of provisionally priced contracts, are recognised initially at fair value and subsequently at amortised cost using the effective interest rate method, less an allowance for expected credit losses. Provisionally priced contracts included in trade receivables are measured at fair value through profit or loss (FVTPL).

10. INVENTORIES

US$M	FY20	FY19
Current		
Raw materials and consumables	**348**	366
Work in progress	**227**	347
Finished goods	**160**	239
Total current inventories	**735**	952
Non-current		
Raw materials and consumables	**54**	41
Work in progress	**23**	27
Total non-current inventories	**77**	68

Inventories carried at net realisable value as at 30 June 2020 was US$69 million (FY19: US$333 million). Inventory write-downs of US$33 million (FY19: US$17 million) were recognised in the year.

Inventories are valued at the lower of cost and net realisable value. Cost is determined primarily on the basis of average costs. For processed inventories, cost is derived on an absorption costing basis. Cost comprises the cost of purchasing raw materials and the cost of production, including attributable overheads. In respect of minerals inventory, quantities are assessed primarily through surveys and assays.

Notes to financial statements – Operating assets and liabilities continued

11. PROPERTY, PLANT AND EQUIPMENT

30 June 2020 US$M	Land and buildings ROU(1)	Land and buildings Other	Plant and equipment ROU(1)	Plant and equipment Other	Other mineral assets	Assets under construction	Exploration and evaluation	Total
Cost								
At the beginning of the financial year	**-**	**2,669**	**798**	**15,045**	**4,501**	**592**	**28**	**23,633**
AASB 16 transition adjustment(1)	**49**	**-**	**86**	**-**	**-**	**-**	**-**	**135**
Additions	**2**	**-**	**21**	**113**	**111**	**485**	**49**	**781**
Foreign exchange movements in closure and rehabilitation provisions(2)	**-**	**-**	**-**	**(175)**	**-**	**-**	**-**	**(175)**
Disposals	**-**	**(12)**	**-**	**(15)**	**-**	**-**	**-**	**(27)**
Acquisition of subsidiaries and jointly controlled entities(3)	**-**	**-**	**-**	**-**	**73**	**-**	**-**	**73**
Transfers and other movements	**-**	**79**	**-**	**228**	**2**	**(313)**	**4**	**-**
At the end of the financial year	**51**	**2,736**	**905**	**15,196**	**4,687**	**764**	**81**	**24,420**
Accumulated depreciation and impairments								
At the beginning of the financial year	**-**	**1,695**	**186**	**10,510**	**1,646**	**-**	**-**	**14,037**
Depreciation charge for the year	**13**	**74**	**55**	**463**	**115**	**-**	**-**	**720**
Disposals	**-**	**(3)**	**-**	**(14)**	**-**	**-**	**-**	**(17)**
At the end of the financial year	**13**	**1,766**	**241**	**10,959**	**1,761**	**-**	**-**	**14,740**
Net book value at 30 June 2020	**38**	**970**	**664**	**4,237**	**2,926**	**764**	**81**	**9,680**

(1) Refer to note 3 New standards and interpretations.
(2) Refer to note 15 Provisions.
(3) Refer to note 31 Acquisition of subsidiaries and jointly controlled operations.

Capital expenditure commitments as at 30 June 2020 were US$140 million (FY19: US$221 million).

30 June 2019 US$M	Land and buildings	Plant and equipment	Other mineral assets	Assets under construction	Exploration and evaluation	Total
Cost						
At the beginning of the financial year	2,641	15,468	2,686	335	2	21,132
Additions	2	166	93	595	28	884
Foreign exchange movements in closure and rehabilitation provisions	-	(57)	-	-	-	(57)
Disposals	(4)	(125)	(18)	-	-	(147)
Acquisition of subsidiaries and jointly controlled entities	6	12	1,738	65	-	1,821
Transfers and other movements	24	379	2	(403)	(2)	-
At the end of the financial year	2,669	15,843	4,501	592	28	23,633
Accumulated depreciation and impairments						
At the beginning of the financial year	1,620	9,820	1,496	-	-	12,936
Depreciation charge for the year	79	532	128	-	-	739
Impairments for the year	-	469	35	-	-	504
Disposals	(4)	(125)	(13)	-	-	(142)
At the end of the financial year	1,695	10,696	1,646	-	-	14,037
Net book value at 30 June 2019(1)	974	5,147	2,855	592	28	9,596

(1) Plant and equipment includes assets held under finance leases, in accordance with AASB 117, with a net book value of US$612 million.

(a) Property, plant and equipment

Property, plant and equipment is stated at cost less accumulated depreciation and impairment charges. Cost is the fair value of consideration given to acquire the asset at the time of its acquisition or construction and includes the direct cost of bringing the asset to the location and condition necessary for operation and its estimated future cost of closure and rehabilitation.

(b) Assets under construction

All assets included in assets under construction are reclassified to other categories in property, plant and equipment when the asset is available and ready for use in the location and condition necessary for it to be capable of operating in the manner intended.

11. PROPERTY, PLANT AND EQUIPMENT CONTINUED

(c) Exploration and evaluation expenditure

Exploration is defined as the search for mineral resources after the Group has obtained legal rights to explore in a specific area and includes topographical, geological, geochemical and geophysical studies and exploratory drilling, trenching and sampling.

Evaluation is defined as the determination of the technical feasibility and commercial viability of a particular prospect. Activities conducted during the evaluation phase include the determination of the volume and grade of the deposit, examination and testing of extraction methods and metallurgical or treatment process, surveys of transportation and infrastructure requirements, and market and finance studies.

Exploration and evaluation expenditure (including amortisation of capitalised licence and lease costs) is charged to the Consolidated Income Statement as incurred except in the following circumstances, in which case the expenditure may be capitalised:

- The exploration and evaluation activity is within an area of interest which was previously acquired as an asset acquisition or in a business combination and measured at fair value on acquisition; and
- The existence of a commercially viable mineral deposit has been established.

In addition, drilling costs incurred at a producing mine for the purpose of converting resources to proven and probable reserves or for further delineation of existing proven and probable reserves (infill drilling) may be capitalised when the following criteria is satisfied:

- The drilling occurs within the existing physical boundaries of the area defined as the reserve or resource; and
- The drilling costs must be incurred in resources which are economically recoverable.

Capitalised exploration and evaluation expenditure considered to be a tangible asset is recorded as a component of property, plant and equipment at cost less impairment charges. Otherwise, it is recorded as an intangible asset (such as certain licence and lease arrangements). In determining whether the purchase of an exploration licence or lease is an intangible asset or a component of property, plant and equipment, consideration is given to the substance of the item acquired and not its legal form. Licences or leases purchased which allow exploration over an extended period of time meet the definition of an intangible exploration lease asset where they cannot be reasonably associated with a known Mineral Resource.

(d) Other mineral assets

Other mineral assets comprise:

- Capitalised exploration, evaluation and development expenditure (including development stripping) for properties now in production;
- Mineral rights acquired; and
- Capitalised production stripping.

Development and production stripping

The process of removing overburden and other mine waste materials to access mineral deposits is referred to as stripping. In open-pit mining, stripping costs are accounted for separately for each component of an ore body. A component is a specific section within an ore body that is made more accessible by the stripping activity. The identification of components is dependent on the mine plan and will often comprise a separate pushback or phase identified in the plan.

There are two types of stripping activity:

- Development stripping is the initial overburden removal during the development phase to obtain access to a mineral deposit that will be commercially produced; and
- Production stripping is the interburden removal during the normal course of production activity. Production stripping commences after the first saleable minerals have been extracted from the component.

Development stripping costs are capitalised as a development stripping asset when:

- It is probable that future economic benefits associated with the asset will flow to the entity; and
- The costs can be measured reliably.

Production stripping can give rise to two benefits, being the extraction of ore in the current period and improved access to the ore body component in future periods. To the extent that the benefit is the extraction of ore, the stripping costs are recognised as an inventory cost. To the extent that the benefit is improved access to future ore, the stripping costs are recognised as a production stripping asset if the following criteria are met:

- It is probable that the future economic benefit (improved access to ore) will flow to the entity;
- The component of the ore body for which access has been improved can be identified; and
- The costs relating to the stripping activity can be measured reliably.

Production stripping costs are allocated between the inventory produced and the production stripping asset using a life-of-component waste to ore (or mineral contained) strip ratio. When the current strip ratio is greater than the life-of-component strip ratio a portion of the stripping costs is capitalised to the production stripping asset.

The development and production stripping assets are depreciated on a units of production basis based on the Ore Reserves of the relevant components.

11. PROPERTY, PLANT AND EQUIPMENT CONTINUED

(e) Leases

The Group has adopted AASB 16 with a date of initial application of 1 July 2019. The nature and impact of the key changes to the Group can be found in note 3 New standards and interpretations.

At inception of a contract, the Group assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Group recognises a ROU asset and a lease liability at the lease commencement date. The ROU asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and estimated future cost of closure or rehabilitation, less any lease incentives received. The ROU asset is subsequently measured at cost less accumulated depreciation, impairment charges and any adjustments for remeasurements of the lease liability.

The corresponding lease liability is included within interest bearing liabilities. The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the lessee's incremental borrowing rate. The lessee's incremental borrowing rate is the rate of interest that a lessee would have to pay to borrow over a similar term, and with similar security, the funds necessary to obtain an asset of a similar value to the ROU asset in a similar economic environment.

Lease payments included in the measurement of the lease liability comprise of the following:

- Fixed payments, including in-substance fixed payments;
- Variable lease payments that depend on a rate or an index, initially measured using the rate or index as at the commencement date;
- Amounts expected to be payable under a residual value guarantee; and
- The exercise price under a purchase option that the Group is reasonably certain to exercise, lease payments in an optional renewal period if the Group is reasonably certain to exercise an extension option and penalties for early termination of a lease if the Group is reasonably certain to terminate early.

The lease liability is subsequently measured at amortised cost using the effective interest rate method. It is remeasured when there is a change in future lease payments arising from a change in a rate or an index, if there is a change in the Group's estimate of the amount expected to be payable under a residual guarantee, or if the Group changes its assessment of whether it will exercise a purchase, extension or termination option. When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the ROU asset, or is recorded in the Consolidated Income Statement if the carrying amount of the ROU asset has been reduced to nil.

The nature of the Group's leases predominantly relate to real estate in the form of office buildings, as well as mining equipment and assets supporting the operations in line with the Group's principal activities.

Leased assets are pledged as security for the related lease liabilities.

Short-term, low-value and variable leases

The Group has elected not to recognise ROU assets and lease liabilities for short-term and low-value leases. Short-term leases are leases with a lease term of 12 months or less, while low-value leases are leases where the underlying asset is considered low value. Variable leases are leases with lease payments which are variable but do not depend on a rate or an index. The Group recognises the lease payments associated with these leases as an expense in the Consolidated Income Statement on a straight-line basis over the lease term. If variable leases have a fixed component, these would be recognised on the Consolidated Balance Sheet.

Total cash outflows for lease obligations consist of US$96 million for lease liabilities recognised on the Consolidated Balance Sheet and US$40 million for short-term, low-value and variable leases recognised on the Consolidated Income Statement (refer to note 17 Interest bearing liabilities and note 5 Expenses, respectively).

Lease policy applicable up to 30 June 2019

Finance leases

Assets held under lease, which resulted in the Group receiving substantially all the risks and rewards of ownership of the asset (finance leases), were capitalised at the lower of the fair value of the property, plant and equipment or the estimated present value of the minimum lease payments.

The corresponding finance lease obligation was included within interest bearing liabilities. The interest component was charged to finance expenses over the lease term to reflect a constant rate of interest on the remaining balance of the obligation.

Leased assets were pledged as security for the related finance lease and hire purchase liabilities.

Operating leases

All leases other than finance leases were treated as operating leases. Where the Group was a lessee, payments on operating lease agreements were recognised as an expense on a straight-line basis over the lease term. Associated costs, such as maintenance and insurance, were expensed as incurred.

11. PROPERTY, PLANT AND EQUIPMENT CONTINUED

(f) Depreciation and amortisation

The carrying amounts of property, plant and equipment are depreciated to their estimated residual values over the estimated useful lives of the specific assets concerned, or the estimated life of the associated mine or lease, if shorter. Estimates of residual values and useful lives are reassessed annually and any change in estimate is taken into account in the determination of remaining depreciation charges. Depreciation commences on the date of commissioning. The major categories of property, plant and equipment are depreciated on a units of production or straight-line basis using the estimated lives indicated below. However, where assets are dedicated to a mine or lease and are not readily transferable, the below useful lives are subject to the lesser of the asset category's useful life and the life of the mine or lease:

Buildings	25 to 50 years
Land	not depreciated
Plant and equipment	3 to 30 years straight-line
ROU assets[(1)]	based on the shorter of the useful life or the lease term (straight-line)
Mineral rights	based on Ore Reserves on a units of production basis
Capitalised exploration, evaluation and development expenditure	based on Ore Reserves on a units of production basis

(1) Refer to note 3 New standards and interpretations.

12. INTANGIBLE ASSETS

30 June 2020 US$M	Goodwill	Other intangibles	Total
Cost			
At the beginning of the financial year	**193**	**291**	**484**
Additions	**-**	**34**	**34**
At the end of the financial year	**193**	**325**	**518**
Accumulated amortisation and impairments			
At the beginning of the financial year	**54**	**197**	**251**
Amortisation charge for the year	**-**	**19**	**19**
At the end of the financial year	**54**	**216**	**270**
Net book value at 30 June 2020	**139**	**109**	**248**

30 June 2019 US$M	Goodwill	Other intangibles	Total
Cost			
At the beginning of the financial year	193	261	454
Additions	-	30	30
At the end of the financial year	193	291	484
Accumulated amortisation and impairments			
At the beginning of the financial year	54	179	233
Amortisation charge for the year	-	18	18
At the end of the financial year	54	197	251
Net book value at 30 June 2019	139	94	233

(a) Goodwill

Where the fair value of consideration paid for a business combination exceeds the fair value of the Group's share of the identifiable net assets acquired, the difference is treated as purchased goodwill. Where the fair value of the Group's share of the identifiable net assets acquired exceeds the cost of acquisition, the difference is immediately recognised in the Consolidated Income Statement. Goodwill is not amortised, however, its carrying amount is assessed annually against its recoverable amount.

(b) Other intangible assets

Amounts paid for the acquisition of identifiable intangible assets, such as software, licences and contract based intangible assets are capitalised at the fair value of consideration paid and are recorded at cost less accumulated amortisation and impairment charges. Identifiable intangible assets with a finite life are amortised on a straight-line basis over their expected useful life from when the asset is ready for use. The useful lives are as follows:

Software and licences	5 years
Contract based intangible assets	up to 35 years

The Group has no identifiable intangible assets for which the expected useful life is indefinite.

13. IMPAIRMENT OF NON-FINANCIAL ASSETS

In testing for indications of impairment and performing impairment calculations, assets are considered as collective groups and referred to as cash generating units (CGUs). CGUs are the smallest identifiable group of assets, liabilities and associated goodwill that generate cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Formal impairment tests are carried out annually for CGUs containing goodwill. In addition, formal impairment tests are performed for all other CGUs when there is an indication of impairment. The Group uses discounted cash flow valuations to assess all of its CGUs for impairment or impairment reversal indicators. For any resultant formal impairment testing, and for CGUs containing goodwill, the Group uses the higher of fair value less cost of disposal (FVLCD) and its value in use to assess the recoverable amount. If the carrying value of the CGU exceeds its recoverable amount, the CGU is impaired, and an impairment loss is charged to the Consolidated Income Statement.

Previously impaired CGUs are reviewed for possible reversal of a previous impairment at each reporting date. Impairment reversals cannot exceed the carrying value that would have been determined (net of depreciation) had no impairment loss been recognised for the CGU. Goodwill is not subject to impairment reversal.

No impairment or impairment reversal has been recognised for the year ended 30 June 2020.

US$M	Note	FY20	FY19
Property, plant and equipment	11	-	504
Total impairment		-	504

(a) Recognised impairment – 30 June 2019

South Africa Energy Coal

The Group recognised impairments of property, plant and equipment for all separately identifiable CGUs within SAEC for the year ended 30 June 2019. The Group received external indicative offers for SAEC which, in combination with the market outlook for thermal coal demand and prices, informed the Group's assessment of the recoverable amount for SAEC as a collective group of CGUs. The recoverable amount for SAEC was based on a FVLCD calculation and categorised as a Level 3 fair value based on the inputs in the valuation technique (refer to note 19 Financial assets and financial liabilities).

The recoverable amount was informed by near term future cash flows that assumed forecast thermal coal prices which were comparable to market consensus forecasts, and a forecast South African rand exchange rate which was aligned with forward market rates. It also assumed future production based on management's short-term planning processes.

SAEC consists of the Khutala colliery (Khutala), an underground bord and pillar operation; the Klipspruit colliery (Klipspruit), a single dragline, multi seam open-cut mine that is combined with a truck and shovel mini pit; the Wolvekrans Middelburg Complex (WMC) and other SAEC corporate assets. The WMC consists of the Ifalethu colliery and Wolvekrans colliery, which are open-cut mines with a number of active pits, and are mined using draglines combined with truck and shovel operations.

The Group impairment recognised for the year ended 30 June 2019 was allocated to property, plant and equipment for the CGUs on a pro-rata basis:

US$M	Impairment recognised	Recoverable amount
WMC	253	(318)
Klipspruit	225	108
Khutala	26	(23)
Other corporate assets	-	71
Total	504	(162)

13. IMPAIRMENT OF NON-FINANCIAL ASSETS CONTINUED

(b) Impairment test for CGUs containing goodwill

For the purpose of impairment testing, goodwill has been allocated to CGUs that are expected to benefit from the synergies of the business combination and which represent the level at which management will monitor and manage the goodwill.

The carrying amount of goodwill has been allocated to the following CGU:

US$M	Note	FY20	FY19
Hillside Aluminium		**139**	139
Total goodwill	12	**139**	139

Hillside Aluminium

The goodwill arose from the acquisition of Alusaf in Hillside Aluminium (Pty) Ltd and has been allocated to the Hillside Aluminium CGU which comprises the Hillside aluminium smelter. The recoverable amount of the Hillside Aluminium CGU was determined based on the FVLCD. The determination of FVLCD was most sensitive to:

- Production volumes;
- Aluminium and alumina prices;
- Foreign exchange rates;
- Carbon pricing and timing;
- Discount rate; and
- Electricity prices.

Production volumes – estimated production volumes are based on the life of the smelter as determined by management as part of the long-term planning process. Production volumes are influenced by production input costs such as electricity prices, jurisdiction based carbon pricing, and the selling price of aluminium.

Aluminium and alumina prices, and foreign exchange rates – key assumptions for aluminium and alumina prices are comparable to market consensus forecasts for each of the years of the life of operation. Foreign exchange rates are aligned with forward market rates in the short-run and thereafter are within the range published by market commentators.

The long-run aluminium prices, alumina prices and exchange rates used in the FVLCD determinations are within the following range of mid long-run prices as published by market commentators:

Mid long-run range	FY20	FY19
Aluminium price (US$/t)	**1,679 to 2,866**	1,900 to 2,865
Alumina price (US$/t)	**288 to 400**	300 to 400
Foreign exchange rate (South African rand to US$)	**13.5 to 17.0**	12.8 to 15.0

Carbon pricing and timing – in determining the FVLCD, the current jurisdiction enacted carbon price, in real terms, of ZAR129 to 133/tonne CO_2e is applied for the life of operation for scope 1 and 2 emissions, net of operation specific abatement allowances.

Discount rate – in determining the FVLCD, a real post-tax discount rate of 7.5 per cent (FY19: 7.5 per cent), and a country risk premium of up to 2 per cent (FY19: up to 2 per cent), are applied to the post-tax cash flows expressed in real terms.

Electricity prices – electricity prices are determined in accordance with an expected contract price.

The impairment test for the Hillside Aluminium CGU indicated that no impairment was required. At 30 June 2020 the carrying value approximates its recoverable amount. As such any material long-term unfavourable change in the aforementioned key assumptions could lead to the carrying value exceeding the recoverable amount. The relationships between each key assumption are complex, such that a change in one may cause a change in several other inputs.

Key estimates, assumptions and judgements

An assessment as to whether there is any indication of impairment and the calculation of a CGU's recoverable amount requires management to make estimates and assumptions about expected production and sales volumes, commodity prices (considering current and historical prices, price trends and related factors), foreign exchange rates, Ore Reserves, Mineral Resources, operating costs, closure and rehabilitation costs, future capital expenditure, allocation of corporate costs, specific jurisdiction based carbon prices, where relevant, and global carbon pricing. The relationships between each of these assumptions are complex, such that a change in one may cause a change in several other inputs. These estimates and assumptions are subject to risk and uncertainty; hence there is a possibility that changes in circumstances will alter these projections, which may have a material impact on the recoverable amount. In such circumstances, some or all of the carrying amount may be impaired or a previously recognised impairment charge may be reversed with the impact recorded in the Consolidated Income Statement.

13. IMPAIRMENT OF NON-FINANCIAL ASSETS CONTINUED

Key estimates, assumptions and judgements continued

The key estimates and assumptions used in the assessment of impairment indicators are as follows:

Future production	Life of operation plans based on Proved and Probable Ore Reserve estimates, Mineral Resource (excluding Inferred Mineral Resources) estimates, economic life of smelters and refineries and, in certain cases, expansion projects, including future cost of production.
Commodity prices	Forward market and contract prices, and longer-term price protocol estimates.
Exchange rates	Observable forward market foreign exchange rates, and longer-term exchange rate protocol estimates.
Discount rates	Cost of capital risk-adjusted and appropriate to the resource.
Carbon prices	Actual enacted schemes less allowable abatements, where applicable, and longer term global estimates based on market views.

Where impairment testing is undertaken, a range of external sources are considered as further input to the above assumptions.

When assessing for impairment and impairment reversal indicators, the fundamental characteristics of previously impaired CGUs are relevant in considering their sensitivity to key estimates and assumptions. For previously impaired CGUs these include:

- CGUs with higher operating margins and with life of operation plans longer than 10 years which are less sensitive to short-term commodity prices and foreign exchange rates, for example Worsley Alumina;
- CGUs with lower operating margins which are highly sensitive to movements in commodity prices and foreign exchange rates, for example South Africa Manganese; and
- CGUs with higher operating margins, shorter life of operation plans and exposure to commodities that display greater price volatility, for example Australia Manganese.

The operating assets for previously impaired CGUs are included in note 4(b) Segment results.

The SAEC CGUs were impaired at 30 June 2019 which was informed by the planned sale process. The CGUs were subjected to further impairment and impairment reversal testing in the current year, following our announcement on 6 November 2019 to sell SAEC, subject to a number of material conditions precedent being satisfied. While no further impairment or impairment reversal has been recognised at 30 June 2020, the recoverable value of the SAEC CGUs is predicated on the transaction occurring based on the terms of the agreement, the agreement's conditions precedent being met and management's estimate of when the transaction will complete. The recoverable amount was further informed by near term future cash flows that assumed forecast thermal coal prices and a South African rand exchange rate which were comparable to market based forecasts. It also assumed future production based on management's short-term planning processes. These uncertainties may result in future recoverable amounts differing from the amounts currently estimated.

The South Africa Manganese CGU includes the Metalloys manganese alloy smelter. During the year, the Group commenced a review of its manganese alloy smelters. The review includes potential divestment, closure or suspension. The recoverable value for impairment and impairment reversal testing for the South Africa Manganese CGU has taken into account the future economic viability of the smelter and the consequential decision made by both joint venture partners to place the smelter on care and maintenance. There is risk and uncertainty associated with the CGU valuation which may result in future recoverable amounts differing from the amounts currently estimated.

An Ore Reserve is the economically mineable part of the Measured and/or Indicated Mineral Resource that can be legally extracted, or where there is a reasonable expectation that approvals for extraction will be granted, from the Group's properties. In order to estimate Ore Reserves, consideration is required for a range of modifying factors, including mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental. When reporting Ore Reserves, the relevant studies, to at least a pre-feasibility level, must demonstrate that, at the time of reporting, extraction could be reasonably justified. Management will form a view of forecast sales prices, based on current and long-term historical average price trends.

Estimating the quantity and/or grade of Mineral Resources requires the location, quantity, grade (or quality), continuity and other geological characteristics to be known, estimated or interpreted from specific geological evidence and knowledge, including sampling in order to satisfy the requirement that there are reasonable prospects for eventual economic extraction. This process may require complex and difficult geological assessments to interpret the data.

The Group reports Ore Reserves and Mineral Resources in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code), and the ASX Listing Rules Chapter 5: Additional reporting on mining and oil and gas production and exploration activities.

13. IMPAIRMENT OF NON-FINANCIAL ASSETS CONTINUED

Key estimates, assumptions and judgements continued

Because the economic assumptions used to estimate the Ore Reserves change from period to period, and because additional geological data is generated during the course of operations, estimates of the Ore Reserves and Mineral Resources may change from period to period. The Group's planning processes consider the impacts of climate change on its Ore Reserves, including assessments of operating costs and the impact of extreme weather events on the expectation of economic extraction. Changes in reported Ore Reserves may affect the Group's financial results and financial position in a number of ways, including the following:

- Asset recoverable amounts may be affected due to changes in estimated future cash flows;
- Depreciation, depletion and amortisation charged in the Consolidated Income Statement may change on the units of production basis, or where the useful economic lives of assets change;
- Development and production stripping costs recorded on the Consolidated Balance Sheet or charged to the Consolidated Income Statement may change with stripping ratios or on a units of production basis of depreciation; and
- Decommissioning, closure and rehabilitation provisions may change where estimated Ore Reserves affect expectations about the timing or cost of these activities.

The carrying amount of associated deferred tax assets may change due to changes in estimates of the likely recovery of the tax benefits.

14. TRADE AND OTHER PAYABLES

US$M	FY20	FY19
Current		
Trade creditors	**558**	798
Other creditors	**69**	82
Total current trade and other payables	**627**	880
Non-current		
Other creditors	**3**	1
Total non-current trade and other payables	**3**	1

Trade and other payables represent liabilities for goods and services provided to the Group prior to the end of the financial year which were unpaid at the end of the financial year. These amounts are unsecured. Trade and other payables are included in current liabilities, except for those liabilities where payment is not due within 12 months from the reporting date, which are classified as non-current liabilities.

Trade and other payables are stated at their amortised cost and are non-interest bearing. The carrying value of trade and other payables is considered to approximate fair value due to the short-term nature of the payables.

15. PROVISIONS

US$M	Note	FY20	FY19
Current			
Employee benefits		**184**	199
Closure and rehabilitation		**40**	54
Other		**50**	59
Total current provisions		**274**	312
Non-current			
Employee benefits		**4**	4
Closure and rehabilitation		**1,790**	1,814
Post-retirement employee benefits	22	**77**	92
Other		**28**	15
Total non-current provisions		**1,899**	1,925

15. PROVISIONS CONTINUED

30 June 2020 US$M	Employee benefits	Closure and rehabilitation	Post-retirement employee benefits	Other	Total
At the beginning of the financial year	**203**	**1,868**	**92**	**74**	**2,237**
Charge/(credit) for the year to the Consolidated Income Statement:					
Underlying	**143**	**16**	**2**	**37**	**198**
Discounting	**-**	**102**	**-**	**-**	**102**
Net interest expense	**-**	**-**	**8**	**-**	**8**
Exchange rate variations	**(10)**	**(48)**	**(17)**	**(14)**	**(89)**
Released during the year	**(16)**	**(9)**	**-**	**(3)**	**(28)**
Amounts capitalised for change in costs and estimates	**-**	**106**	**-**	**-**	**106**
Foreign exchange amounts capitalised	**-**	**(175)**	**-**	**-**	**(175)**
Amounts taken to retained earnings	**-**	**-**	**(2)**	**-**	**(2)**
Utilisation	**(132)**	**(30)**	**(6)**	**(16)**	**(184)**
At the end of the financial year	**188**	**1,830**	**77**	**78**	**2,173**

30 June 2019 US$M	Employee benefits	Closure and rehabilitation	Post-retirement employee benefits	Other	Total
At the beginning of the financial year	211	1,672	90	92	2,065
Charge/(credit) for the year to the Consolidated Income Statement:					
Underlying	191	12	3	30	236
Discounting	-	103	-	-	103
Net interest expense	-	-	9	-	9
Exchange rate variations	(9)	(8)	(4)	-	(21)
Released during the year	(8)	(1)	-	(3)	(12)
Amounts capitalised for change in costs and estimates	-	26	-	-	26
Foreign exchange amounts capitalised	-	(57)	-	-	(57)
Amounts capitalised from change in discount rate	-	138	-	-	138
Amounts taken to retained earnings	-	-	3	-	3
Utilisation	(182)	(32)	(9)	(45)	(268)
Acquisitions of subsidiaries and jointly controlled entities	-	15	-	-	15
At the end of the financial year	203	1,868	92	74	2,237

(a) Employee benefits

Liabilities for unpaid wages and salaries are recognised in other creditors. Current entitlements to annual leave and accumulating sick leave accrued for services up to the reporting date are recognised in the provision for employee benefits and are measured at the amounts expected to be paid. Entitlements to non-accumulated sick leave are recognised when the leave is taken.

The current liability for long service leave (for which settlement within 12 months of the reporting date cannot be deferred) is recognised in the current provision for employee benefits and is measured in accordance with annual leave described above. The non-current liability for long service leave is recognised in the non-current provision for employee benefits and measured as the present value of expected future payments to be made in respect of services provided by employees up to the reporting date.

(b) Closure and rehabilitation

The mining, extraction and processing activities of the Group normally give rise to obligations for site closure or rehabilitation. Closure and rehabilitation works can include facility decommissioning and dismantling, removal or treatment of waste materials, site and land rehabilitation.

Provisions for the cost of each closure and rehabilitation program are recognised at the time that environmental disturbance occurs. When the extent of disturbance increases over the life of an operation, the provision is increased accordingly. Costs included in the provision encompass all closure and rehabilitation activity expected to occur progressively over the life of the operation and at, or after, the time of closure, for disturbance existing at the reporting date. Routine operating costs that may impact the ultimate closure and rehabilitation activities, such as waste material handling conducted as an integral part of a mining or production process, are not included in the provision. Costs arising from unforeseen circumstances, such as the contamination caused by unplanned discharges, are recognised as an expense and liability when the event gives rise to an obligation which is probable and capable of reliable estimation.

The timing of the actual closure and rehabilitation expenditure is dependent upon a number of factors such as the life and nature of the asset, the operating licence conditions and the environment in which the mine operates. Expenditure may occur before and after closure and can continue for an extended period of time depending on closure and rehabilitation requirements.

15. PROVISIONS CONTINUED

(b) Closure and rehabilitation continued

Closure and rehabilitation provisions are measured at the expected value of future cash flows, discounted to their present value and determined according to the probability of alternative estimates of cash flows occurring for each operation.

Discount rates used are risk-free interest rates specific to the country in which the operations are located. Material changes in country specific risk-free interest rates may affect the discount rates applied.

When provisions for closure and rehabilitation are initially recognised, the corresponding cost is capitalised as an asset, representing part of the cost of acquiring the future economic benefits of the operation. The capitalised cost of closure and rehabilitation activities is recognised in property, plant and equipment and depreciated accordingly. The value of the provision is progressively increased over time due to the effect of discounting unwind and inflation, creating an expense recognised in finance expenses.

Closure and rehabilitation provisions are also adjusted for changes in costs and estimates. Those adjustments are accounted for as a change in the corresponding capitalised cost, except where a reduction in the provision is greater than the depreciated capitalised cost of the related assets, in which case the capitalised cost is reduced to nil and the remaining adjustment is recognised first against other items in property, plant and equipment, and subsequently to the Consolidated Income Statement. In the case of closed sites, changes to estimated costs are recognised immediately in the Consolidated Income Statement. Changes to the capitalised cost result in an adjustment to future depreciation. Adjustments to the estimated amount and timing of future closure and rehabilitation cash flows are a normal occurrence in light of the significant judgements and estimates involved.

(c) Post-retirement employee benefits

This relates to the provision for post-employment defined benefit pension plans and medical plans. Refer to note 22 Pension and other post-retirements obligations.

Key estimates, assumptions and judgements

The recognition of closure and rehabilitation provisions requires judgement and is based on significant estimates and assumptions such as:

- The requirements of the relevant local legal and regulatory framework;
- The magnitude of possible contamination;
- The timing, extent, and cost of required closure and rehabilitation activity; and
- Potential changes in climate conditions.

These uncertainties may result in future actual expenditure differing from the amounts currently provided.

The provision recognised for each site is periodically reviewed and updated based on the facts and circumstances available at the time.

In addition to the uncertainties noted above, certain closure and rehabilitation activities may be subject to legal disputes and depending on the ultimate resolution of these disputes, the final liability for such matters could vary.

If the risk-free interest rate was decreased by 0.5 per cent, the provision would increase by approximately US$245 million.

Notes to financial statements – Capital structure and financing

This section outlines how the Group manages its capital and related financing activities.

16. CASH AND CASH EQUIVALENTS

Cash and cash equivalents include cash at bank and on hand as well as short-term deposits.

US$M	FY20	FY19
Cash	**465**	497
Short-term deposits	**850**	911
Cash and cash equivalents(1)(2)	**1,315**	1,408
Bank overdrafts (unsecured)	**-**	(2)
Cash and cash equivalents, net of overdrafts	**1,315**	1,406

(1) Cash and cash equivalents include US$16 million (FY19: US$16 million) which is restricted by legal or contractual arrangements.
(2) Cash and cash equivalents include US$284 million (FY19: US$299 million) consisting of short-term deposits and cash managed by the Group on behalf of its equity accounted investments. The corresponding amount payable is included in note 17 Interest bearing liabilities.

17. INTEREST BEARING LIABILITIES

US$M	FY20	FY19
Current		
Finance leases	**-**	12
Lease liabilities(1)	**42**	-
Unsecured loans from equity accounted investments(2)	**284**	299
Unsecured other	**29**	2
Total current interest bearing liabilities	**355**	313
Non-current		
Finance leases	**-**	531
Lease liabilities(1)	**609**	-
Unsecured other	**53**	60
Total non-current interest bearing liabilities	**662**	591

(1) Lease liabilities include leases previously recognised as finance leases under AASB 117. Refer to note 3 New standards and interpretations.
(2) Refer to note 16 Cash and cash equivalents and note 29 Related party transactions.

Bank overdrafts, bank loans and other borrowings are initially recognised at their fair value net of directly attributable transaction costs. Subsequent to initial recognition, interest bearing liabilities are measured at amortised cost using the effective interest rate method. Gains and losses are recognised in the Consolidated Income Statement when the liabilities are derecognised. Interest bearing liabilities are classified as current liabilities, except when the Group has an unconditional right to defer settlement for at least 12 months after the reporting date, in which case the liabilities are classified as non-current.

(a) Reconciliation of movements in liabilities to cash flows arising from financing activities

US$M	Lease liabilities	Other interest bearing liabilities
At the beginning of the financial year	**683(1)**	**361**
Changes from financing cash flows:		
Net repayment of lease liabilities	**(45)**	**-**
Net receipt/(repayment) of other interest bearing liabilities	**-**	**21**
Total changes from financing cash flows	**(45)**	**21**
The effect of changes in foreign exchange rates	**(13)**	**(14)**
Increase/(decrease) in lease and other interest bearing liabilities	**26**	**(2)**
Other changes:		
Interest expense	**51**	**18**
Interest paid	**(51)**	**(18)**
At the end of the financial year	**651**	**366**

(1) Lease liabilities at the beginning of the financial year represents leases previously recognised as finance leases under AASB 117 (US$543 million) and an AASB 16 transition adjustment recognised on 1 July 2019 (US$140 million). Refer to note 3 New standards and interpretations.

18. NET FINANCE COST

US$M	FY20	FY19
Finance expenses		
Interest on borrowings	**18**	23
Finance lease interest	**-**	47
Interest on lease liabilities(1)	**51**	-
Discounting on provisions and other liabilities	**102**	103
Net interest expense on post-retirement employee benefits	**8**	9
Fair value change on financial assets	**10**	3
Exchange rate variations on net debt	**(6)**	(34)
	183	151
Finance income		
Interest income	**44**	67
Net finance cost	**139**	84

(1) Lease liabilities include leases previously recognised as finance leases under AASB 117. Refer to note 3 New standards and interpretations.

Interest income or expense is recognised using the effective interest rate method.

19. FINANCIAL ASSETS AND FINANCIAL LIABILITIES

(a) Financial risk management objectives and policies

The Group is exposed to market, liquidity and credit risk. These risks are managed in accordance with the Group's portfolio risk management strategy which supports the delivery of the Group's financial targets while protecting its future financial security and flexibility by taking advantage of the natural diversification of the Group's operations and activities. A Cash Flow at Risk (CFaR) framework is used to capture the benefits of diversification and to measure the aggregate impact of financial risks on those financial targets. CFaR is measured on a portfolio basis and is defined as the expected reduction from projected business plan cash flows over a one-year horizon in a pessimistic case. In addition to the CFaR framework, deterministic analysis of a range of operational, commodity price and foreign exchange rate scenarios is also used to measure potential impacts on financial targets. The regularity and number of scenarios tested has been increased in the wake of changes in market conditions due to COVID-19, which has also led to an increase in internal reporting.

Day to day financial risk management is delegated to the CFO.

(i) Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises interest rate risk, foreign currency risk and other price risk, such as equity price risk and commodity price risk. Financial instruments affected by market risk include loans and borrowings, deposits, investments in equity instruments designated as FVOCI, other investments held at FVTPL and derivative financial instruments.

Group activities expose it to market risks associated with movements in interest rates, foreign currencies and commodity prices. The Group predominantly manages financing costs, currency impacts, input costs and commodity prices on a floating or index basis. This strategy gives rise to a risk of variability in earnings which is measured under the CFaR framework.

In executing the strategy, financial instruments may be employed for risk mitigation purposes with a strict Board approved mandate, or to align the total Group exposure to the relevant index target in the case of commodity sales, operating costs or debt issuances.

Interest rate risk

The Group is exposed to interest rate risk on its cash and cash equivalents, trade and other receivables, embedded derivatives and interest bearing liabilities from the possibility that changes in interest rates will affect future cash flows or the fair value of financial instruments.

The Group had the following exposure to interest rate risk:

US$M	FY20	FY19
Financial assets		
Cash and cash equivalents	**1,299**	1,392
Trade and other receivables	**150**	141
Derivative contracts	**9**	113
Financial liabilities		
Interest bearing liabilities	**(340)**	(332)
Net exposure	**1,118**	1,314

19. FINANCIAL ASSETS AND FINANCIAL LIABILITIES CONTINUED

(a) Financial risk management objectives and policies continued

(i) Market risk continued

Interest rate risk continued

The following table demonstrates the sensitivity to a reasonably possible change in interest rates on that portion of borrowings and financial assets affected. With all other variables held constant, the Group's profit after tax is affected through the impact on floating rate borrowings and investments, as follows:

	Impact on profit after tax US$M	
Increase/decrease in basis points	FY20	FY19
+100	**8**	9
–100	**(1)**	(9)

The sensitivity analysis assumes that the change in interest rates is effective from the beginning of the financial year and the fixed/floating mix and balances are constant over the year. For the purpose of the sensitivity analysis, the decrease of 100 basis points is applied to the extent that the underlying interest rates do not fall below zero per cent. However, interest rates and the net debt profile of the Group may not remain constant over the coming financial year and therefore such sensitivity analysis should be used with care.

Foreign currency risk

Foreign currency risk is the risk that the fair value or future cash flows of an exposure will fluctuate because of changes in foreign exchange rates. The functional currency of the Group's operations is the US dollar. The Group's potential currency exposures comprise:

- Translational exposure in respect of non-functional currency monetary items; and
- Transactional exposure in respect of non-functional currency expenditure and revenues.

Certain operating and capital expenditure is incurred by operations in currencies other than their functional currency. To a lesser extent, certain sales revenue is earned in currencies other than the functional currency of the operation, and certain exchange control restrictions may require funds to be maintained in currencies other than the operation's functional currency. When required, the Group may enter into forward exchange contracts.

The principal non-functional currencies to which the Group is exposed to are the Australian dollar, South African rand, Brazilian real, Colombian peso and Canadian dollar. The following table shows the foreign currency risk arising from financial assets and liabilities, which are denominated in currencies other than the US dollar:

Net financial assets/(liabilities) – by currency of denomination

US$M	FY20	FY19
Australian dollar	**(856)**	(836)
Brazilian real	**7**	47
Canadian dollar	**(25)**	15
Colombian peso	**(15)**	(19)
South African rand	**38**	69
Other	**(4)**	1
Total	**(855)**	(723)

19. FINANCIAL ASSETS AND FINANCIAL LIABILITIES CONTINUED

(a) Financial risk management objectives and policies continued

(i) Market risk continued

Foreign currency risk continued

Based on the Group's net financial assets and liabilities as at 30 June, a weakening of the US dollar against these currencies as illustrated in the table below, with all other variables held constant, would increase/(decrease) profit after tax and Other Comprehensive Income, net of tax, as follows:

30 June 2020 Currency movement US$M	Profit after tax	Other comprehensive income, net of tax
10% movement in Australian dollar	**(60)**	**-**
10% movement in Brazilian real	**(2)**	**3**
10% movement in Canadian dollar	**(3)**	**-**
10% movement in Colombian peso	**(2)**	**-**
10% movement in South African rand	**4**	**-**

30 June 2019 Currency movement US$M	Profit after tax	Other comprehensive income, net of tax
10% movement in Australian dollar	(59)	-
10% movement in Brazilian real	(3)	8
10% movement in Canadian dollar	2	-
10% movement in Colombian peso	(2)	-
10% movement in South African rand	7	-

Commodity price risk

Contracts for the sale and physical delivery of commodities are executed whenever possible on a pricing basis intended to achieve a relevant index target. Where pricing terms deviate from the index, the Group may choose to use derivative commodity contracts to realise the index price. Contracts for the physical delivery of commodities are not typically financial instruments and are carried in the Consolidated Balance Sheet at cost (typically at nil).

Provisionally priced commodity sales and purchases contracts

Provisionally priced sales or purchases contracts are those for which price finalisation, referenced to the relevant index, is outstanding at the reporting date. Provisional pricing mechanisms embedded within these sales and purchases arrangements have the character of a commodity derivative and are carried at FVTPL as part of trade receivables or trade creditors. Fair value movements on provisionally priced sale contracts are disclosed in 'Other' revenue. Refer to note 4(b) Segment results. The Group's exposure at 30 June 2020 to the impact of movements in commodity prices upon provisionally invoiced sales and purchases volumes was predominantly around nickel, silver, lead, zinc and aluminium.

The Group had 2.5kt of nickel, 2.0Moz of silver, 28.8kt of lead, 7.8kt of zinc, 18.7kt of aluminium and 11.6kt of alumina exposure at 30 June 2020 (FY19: 3.9kt of nickel, 3.0Moz of silver, 29.2kt of lead, 5.6kt of zinc and 2.0kt of aluminium) that was provisionally priced. The final price of these sales or purchases will be determined during the first half of FY21. A 10 per cent change in the realised price of these commodities, with all other factors held constant, would increase or decrease profit after tax by US$16 million (FY19: US$15 million). The relationship between commodity prices and foreign currencies is complex and movements in foreign exchange rates can impact commodity prices. The sensitivities should therefore be used with care.

(ii) Liquidity risk

The Group's liquidity risk arises from the possibility that it may not be able to settle or meet its obligations as they fall due. Operational, capital and regulatory requirements are considered in the management of liquidity risk, in conjunction with short and long-term forecast information.

The Group's policy on counterparty credit exposure ensures that only counterparties of a high credit standing are used for the investment of any excess cash.

Standby arrangements and unused credit facilities

The entities in the Group are funded by a combination of cash generated by the Group's operations, working capital facilities and intercompany loans provided by the Group. Intercompany loans may be funded by a combination of cash, short and long-term debt and equity market raisings. Details of the Group's major standby arrangement are as follows:

30 June 2020 US$M	Available	Used	Unused
Revolving credit facility[(1)]	**1,500**	**-**	**1,500**

(1) The Group has an undrawn revolving credit facility which is a standby arrangement to the US commercial paper program. This facility was extended in July 2020 by one year to February 2023 and the size of the facility reduced to US$1.45 billion.

19. FINANCIAL ASSETS AND FINANCIAL LIABILITIES CONTINUED

(a) Financial risk management objectives and policies continued

(ii) Liquidity risk continued

Maturity profile of financial liabilities

The maturity profiles of financial liabilities, based on the contractual amounts, are as follows:

30 June 2020 US$M	Carrying amount	Total	On demand or less than 1 year	1 to 5 years	More than 5 years
Trade and other payables[1]	**624**	**624**	**621**	**3**	**-**
Other interest bearing liabilities	**366**	**376**	**315**	**43**	**18**
Lease liabilities[2]	**651**	**1,226**	**92**	**294**	**840**
Other financial liabilities – derivative contracts	**1**	**1**	**1**	**-**	**-**
Total	**1,642**	**2,227**	**1,029**	**340**	**858**

(1) Excludes input taxes of US$6 million included in other creditors. Refer to note 14 Trade and other payables.
(2) Lease liabilities include leases previously recognised as finance leases under AASB 117. Refer to note 3 New standards and interpretations.

30 June 2019 US$M	Carrying amount	Total	On demand or less than 1 year	1 to 5 years	More than 5 years
Trade and other payables[1]	872	872	871	1	-
Interest bearing liabilities	361	380	303	45	32
Finance leases	543	1,109	58	232	819
Total	1,776	2,361	1,232	278	851

(1) Excludes input taxes of US$9 million included in other creditors. Refer to note 14 Trade and other payables.

(iii) Credit risk

The Group has credit risk management policies in place covering the credit analysis, approvals and monitoring of counterparty exposures. As part of these processes the ongoing creditworthiness of counterparties is regularly assessed.

Mitigation methods are defined and implemented for higher-risk counterparties to protect revenues, with more than half of the Group's sales of physical commodities occurring via secured payment terms including prepayments, letters of credit, guarantees and other risk mitigation instruments. The methods include credit exposure management and overdue accounts monitoring. The cadence on these mitigation methods has been increased in the wake of changes in market conditions due to COVID-19. The credit limits established for customers with credit exposure have also been proactively reduced over this period.

There are no material concentrations of credit risk, either with individual counterparties or groups of counterparties, by industry or geography.

The Group's exposure to credit risk is influenced by the individual characteristics of each counterparty or customer. However, management also consider other factors that may influence the credit risk of its counterparty or customer base. Where there is credit exposure for a new customer, they are assessed for creditworthiness before the Group's standard payment and delivery terms and conditions are offered. For these customers, credit limits are established and reviewed annually or with the release of new information materially impacting the customer's creditworthiness. The Group's review includes external credit ratings, if available, credit agency information, as well as financial institution and industry information.

The carrying amounts of financial assets represent the maximum credit exposure.

Expected credit loss assessment as at 30 June 2020

For trade receivables, the Group uses the simplified approach to recognise impairments based on the lifetime expected credit loss. For other receivables, the Group applies the general approach and recognises impairments based on a 12-month expected credit loss.

Impairment allowances are based on a forward-looking expected credit loss model. Where there has been a significant increase in credit risk, a loss allowance for lifetime expected credit losses is required.

As a result of the current economic conditions due to COVID-19, an analysis has been performed for each financial asset subject to the expected credit loss assessment to take into consideration any increased credit risk exposure and the likelihood of recoverability.

Exposures are grouped by external credit rating and security options and an expected credit loss rate is calculated accordingly. Where applicable, actual credit loss experience is also taken into account. For remaining receivables without an external credit rating or security option, a rating of BB (Standard and Poor's) is used, on the basis that there is no support that it is investment grade, nor is there any evidence of default.

Loans to equity accounted investments

Impairments on loans to equity accounted investments have been measured on the 12-month expected credit loss basis, per the general approach.

19. FINANCIAL ASSETS AND FINANCIAL LIABILITIES CONTINUED

(b) Accounting classification and fair value

(i) Recognition and initial measurement

All financial assets (with the exception of trade and other receivables without a significant financing component) and financial liabilities are initially recognised at fair value (for all items except those classified as FVTPL) plus transaction costs directly attributable to its acquisition or issue. Trade and other receivables without a significant financing component are initially measured at the transaction price.

(ii) Financial assets: Classification and subsequent measurement

On initial recognition, financial assets are either measured at amortised cost or at fair value.

A financial asset is measured at amortised cost if it meets both of the following conditions and is not designated as FVTPL:

- It is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- Its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets that are held for trading and whose performance is evaluated on a fair value basis are measured at FVTPL.

On initial recognition, the Group may irrevocably designate a financial asset to be held at FVTPL that otherwise meets the requirements to be measured at amortised cost or for designation as FVOCI, if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

On initial recognition of an investment in an equity instrument not held for trading, the Group may also irrevocably elect to present subsequent changes in the investment's fair value in other comprehensive income. This election is made on an investment-by-investment basis.

All financial assets not measured at amortised cost or designated as FVOCI are measured at FVTPL. This includes all derivative financial assets.

Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

Financial assets: Assessment whether contractual cash flows are solely payments of principal and interest

For the purposes of this assessment, 'principal' is defined as the fair value of the financial asset on initial recognition. 'Interest' is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period and for other basic lending risks and costs (for example, liquidity risk and administrative costs), as well as a profit margin.

In assessing whether the contractual cash flows are solely payments of principal and interest, the Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making this assessment, the Group considers:

- Contingent events that would change the amount or timing of cash flows;
- Terms that may adjust the contractual coupon rate, including variable rate features;
- Prepayment and extension features; and
- Terms that limit the Group's claim to cash flows from specified assets (for example, non-recourse features).

19. FINANCIAL ASSETS AND FINANCIAL LIABILITIES CONTINUED

(b) Accounting classification and fair value continued

(ii) Financial assets: Classification and subsequent measurement continued

Financial assets: Subsequent measurement and gains and losses

Classification	Subsequent measurement
Held at FVTPL	Financial assets held at FVTPL are subsequently measured at fair value. Net gains and losses, including any interest, dividend income or movements in provisionally priced sales agreements, are recognised in the Consolidated Income Statement. Forward exchange contracts and interest rate swaps held for hedging purposes are accounted for as either cash flow or fair value hedges. Any derivative instrument fair value change that does not qualify for hedge accounting is recognised immediately in the Consolidated Income Statement.
Amortised cost	Financial assets held at amortised cost are subsequently measured at amortised cost using the effective interest rate method. The amortised cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairments are recognised in the Consolidated Income Statement. Any gain or loss on derecognition is recognised in the Consolidated Income Statement.
Investments in equity instruments – designated as FVOCI	Investments in equity instruments designated as FVOCI are subsequently measured at fair value. Dividends are recognised as income in the Consolidated Income Statement unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognised in other comprehensive income and are not reclassified to the Consolidated Income Statement.

The measurement of fair value of financial assets is based on quoted market prices in active markets for identical assets. Where no price information is available from a quoted market source, alternative market mechanisms or recent comparable transactions, fair value is estimated based on the Group's views on relevant future prices, net of valuation allowances to accommodate liquidity, modelling, credit and other risks implicit in such estimates.

(iii) Financial liabilities: Classification, subsequent measurement and gains and losses

Financial liabilities are classified as measured at amortised cost or FVTPL. A financial liability is classified as FVTPL if it is classified as held for trading, it is a derivative or it is designated as such on initial recognition. Financial liabilities held at FVTPL are measured at fair value, and net gains and losses, including any interest expense, are recognised in the Consolidated Income Statement. Other financial liabilities are subsequently measured at amortised cost using the effective interest rate method. Interest expense and foreign exchange gains or losses are recognised in the Consolidated Income Statement. Any gain or loss on derecognition is also recognised in the Consolidated Income Statement.

(iv) Embedded derivatives

A derivative embedded in a hybrid contract, with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if: the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at FVTPL. Embedded derivatives are measured at fair value with changes in fair value recognised in the Consolidated Income Statement.

A derivative embedded within a hybrid contract containing a financial asset host is not accounted for separately. The financial asset host together with the embedded derivative is required to be classified in its entirety as a financial asset held at FVTPL.

(v) Derecognition

Financial assets

The Group derecognises a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all risks and rewards of ownership of the financial asset are transferred. Any interest in such derecognised financial assets that is created or retained by the Group is reported as a separate asset or liability.

Financial liabilities

The Group derecognises a financial liability when its contractual obligations are discharged, cancelled or expire. The Group also derecognises a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognised at fair value.

19. FINANCIAL ASSETS AND FINANCIAL LIABILITIES CONTINUED

(b) Accounting classification and fair value continued

The following table presents the financial assets and liabilities by class at their carrying amounts which approximates their fair value.

30 June 2020 US$M	Note	Held at FVTPL	Designated as FVOCI	Amortised cost	Total
Financial assets					
Cash and cash equivalents	16	**-**	**-**	**1,315**	**1,315**
Trade and other receivables[1]	9	**80**	**-**	**393**	**473**
Loans to equity accounted investments	9	**-**	**-**	**15**	**15**
Other financial assets:					
Derivative contracts		**19**	**-**	**-**	**19**
Total current financial assets		**99**	**-**	**1,723**	**1,822**
Trade and other receivables[1][2]	9	**-**	**-**	**6**	**6**
Loans to equity accounted investments	9	**-**	**-**	**177**	**177**
Interest bearing loans receivable from joint operations	9	**-**	**-**	**26**	**26**
Other financial assets:					
Investments in equity instruments – designated as FVOCI		**-**	**59**	**-**	**59**
Other investments – held at FVTPL		**113**	**-**	**-**	**113**
Total non-current financial assets		**113**	**59**	**209**	**381**
Total		**212**	**59**	**1,932**	**2,203**
Financial liabilities					
Trade and other payables[3]	14	**-**	**-**	**621**	**621**
Lease liabilities[4]	17	**-**	**-**	**42**	**42**
Unsecured other	17	**-**	**-**	**313**	**313**
Other financial liabilities:					
Derivative contracts		**1**	**-**	**-**	**1**
Total current financial liabilities		**1**	**-**	**976**	**977**
Trade and other payables	14	**-**	**-**	**3**	**3**
Lease liabilities[4]	17	**-**	**-**	**609**	**609**
Unsecured other	17	**-**	**-**	**53**	**53**
Total non-current financial liabilities		**-**	**-**	**665**	**665**
Total		**1**	**-**	**1,641**	**1,642**

(1) Excludes current input taxes of US$43 million and non-current input taxes of US$33 million included in other receivables. Refer to note 9 Trade and other receivables.
(2) Excludes a reimbursable right asset in relation to the closure and rehabilitation provision at SAEC of US$61 million included in other receivables. Refer to note 9 Trade and other receivables.
(3) Excludes input taxes of US$6 million included in other creditors. Refer to note 14 Trade and other payables.
(4) Refer to note 3 New standards and interpretations.

19. FINANCIAL ASSETS AND FINANCIAL LIABILITIES CONTINUED

(b) Accounting classification and fair value continued

30 June 2019

US$M	Note	Held at FVTPL	Designated as FVOCI	Amortised cost	Total
Financial assets					
Cash and cash equivalents	16	-	-	1,408	1,408
Trade and other receivables[1]	9	103	-	595	698
Loans to equity accounted investments	9	-	-	36	36
Other financial assets:					
Derivative contracts		108	-	-	108
Total current financial assets		211	-	2,039	2,250
Trade and other receivables[1][2]	9	-	-	5	5
Loans to equity accounted investments	9	-	-	136	136
Interest bearing loans receivable from joint operations	9	-	-	33	33
Other financial assets:					
Derivative contracts		7	-	-	7
Investments in equity instruments – designated as FVOCI		-	124	-	124
Other investments – held at FVTPL		141	-	-	141
Total non-current financial assets		148	124	174	446
Total		359	124	2,213	2,696
Financial liabilities					
Trade and other payables[3]	14	1	-	870	871
Finance leases	17	-	-	12	12
Unsecured other	17	-	-	301	301
Total current financial liabilities		1	-	1,183	1,184
Trade and other payables	14	-	-	1	1
Finance leases	17	-	-	531	531
Unsecured other	17	-	-	60	60
Total non-current financial liabilities		-	-	592	592
Total		1	-	1,775	1,776

(1) Excludes current input taxes of US$154 million and non-current input taxes of US$33 million included in other receivables. Refer to note 9 Trade and other receivables.
(2) Excludes a reimbursable right asset in relation to the closure and rehabilitation provision at SAEC of US$83 million included in other receivables. Refer to note 9 Trade and other receivables.
(3) Excludes input taxes of US$9 million included in other creditors. Refer to note 14 Trade and other payables.

Measurement of fair value

The following table shows the Group's financial assets and liabilities carried at fair value with reference to the nature of valuation inputs used:

Level 1 Valuation is based on unadjusted quoted prices in active markets for identical financial assets and liabilities.

Level 2 Valuation is based on inputs (other than quoted prices included in Level 1) that are observable for the financial asset or liability, either directly (i.e. as unquoted prices) or indirectly (i.e. derived from prices).

Level 3 Valuation includes inputs that are not based on observable market data.

30 June 2020

US$M	Level 1	Level 2	Level 3	Total
Financial assets and liabilities				
Trade and other receivables	**-**	**80**	**-**	**80**
Derivative contracts	**10**	**-**	**8**	**18**
Investments in equity instruments – designated as FVOCI	**32**	**-**	**27**	**59**
Other investments – held at FVTPL	**-**	**113**	**-**	**113**
Total	**42**	**193**	**35**	**270**

30 June 2019

US$M	Level 1	Level 2	Level 3	Total
Financial assets and liabilities				
Trade and other receivables	-	103	-	103
Trade and other payables	-	(1)	-	(1)
Derivative contracts	-	2	113	115
Investments in equity instruments – designated as FVOCI	48	-	76	124
Other investments – held at FVTPL	-	141	-	141
Total	48	245	189	482

19. FINANCIAL ASSETS AND FINANCIAL LIABILITIES CONTINUED

(b) Accounting classification and fair value continued

Level 3 financial assets and liabilities

The following table shows the movements in the Group's Level 3 financial assets and liabilities:

US$M	FY20	FY19
At the beginning of the financial year	**189**	272
Disposals	**-**	(2)
Realised gains/(losses) recognised in the Consolidated Income Statement[1]	**(120)**	(72)
Unrealised gains/(losses) recognised in the Consolidated Income Statement[1]	**15**	42
Unrealised gains/(losses) recognised in the Consolidated Statement of Comprehensive Income[2]	**(49)**	(51)
At the end of the financial year	**35**	189

(1) Recognised in expenses excluding net finance cost in the Consolidated Income Statement.
(2) Recognised in the financial assets reserve in the Consolidated Statement of Comprehensive Income.

Sensitivity analysis

The carrying amount of financial assets and liabilities that are valued using inputs other than observable market data are calculated using appropriate valuation models, including discounted cash flow modelling, with inputs such as commodity prices, foreign exchange rates and inflation. The potential effect of using reasonably possible alternative assumptions in these models, based on changes in the most significant inputs by 10 per cent while holding all other variables constant, is shown in the following table:

			Profit after tax		Other comprehensive income, net of tax	
30 June 2020 US$M	Carrying amount	Significant inputs	10% increase in input	10% decrease in input	10% increase in input	10% decrease in input
Financial assets and liabilities						
Derivative contracts[1]		Aluminium price[2]				
		Foreign exchange rate[2]				
	8	Electricity price[3]	**(3)**	**3**	**-**	**-**
Investments in equity instruments – designated as FVOCI[1]		Alumina price[2]				
		Aluminium price[2]				
	27	Foreign exchange rate[2]	**-**	**-**	**34**	**(37)**
Total	**35**		**(3)**	**3**	**34**	**(37)**

(1) Sensitivity analysis is performed assuming all inputs are directionally moving unfavourably and favourably.
(2) Aluminium and alumina prices are comparable to market consensus forecasts and foreign exchange rates are aligned with forward market rates.
(3) Electricity prices are determined as a market equivalent price.

			Profit after tax		Other comprehensive income, net of tax	
30 June 2019 US$M	Carrying amount	Significant inputs	10% increase in input	10% decrease in input	10% increase in input	10% decrease in input
Financial assets and liabilities						
Derivative contracts		Aluminium price				
		Foreign exchange rate				
	113	Electricity price	(49)	46	-	-
Investments in equity instruments – designated as FVOCI		Alumina price				
		Aluminium price				
	76	Foreign exchange rate	-	-	52	(78)
Total	189		(49)	46	52	(78)

(c) Capital management

The Group will invest capital in assets where it fits the Group's strategy. The Group's priorities for cash flow are:

- Maintain safe and reliable operations and an investment grade credit rating through the cycle;
- Distribute a minimum of 40 per cent of Underlying earnings as dividends to shareholders following each six month reporting period; and
- Consistent with the Group's priorities for cash flow and commitment to maximise total shareholder returns, other alternatives including special dividends, share buy-backs and high return investment opportunities will compete for capital.

20. SHARE CAPITAL

	FY20		FY19	
	Shares	US$M	Shares	US$M
Share capital				
At the beginning of the financial year	**5,005,503,575**	**14,212**	5,119,913,775	14,493
Shares bought back and cancelled	**(159,235,692)**	**(269)**	(114,410,200)	(281)
At the end of the financial year	**4,846,267,883**	**13,943**	5,005,503,575	14,212
Treasury shares				
At the beginning of the financial year	**(40,483,171)**	**(105)**	(30,891,376)	(83)
Purchase of shares by ESOP Trusts	**(13,118,707)**	**(23)**	(39,198,249)	(99)
Employee share awards vested	**31,106,685**	**79**	29,606,454	77
At the end of the financial year	**(22,495,193)**	**(49)**	(40,483,171)	(105)

Shares entitle the holder to participate in dividends and the proceeds on winding up of the Group in proportion to the number of shares held. On a show of hands every holder of shares present at a meeting in person or by proxy, is entitled to one vote, and upon a poll each share is entitled to one vote.

Incremental costs directly attributable to the issue of shares, net of any income tax effects, are recognised as a deduction from equity.

The Group does not have authorised capital or par value in respect of its issued shares.

Notes to financial statements – Other notes

21. AUDITOR'S REMUNERATION

The auditor of the Group is KPMG.

US$'000	FY20	FY19
Fees payable to the Group's auditor for assurance services		
Audit and review of financial statements	**4,116**	4,726
Other assurance services[1]	**580**	586
Total auditor's remuneration	**4,696**	5,312

(1) Mainly comprises assurance in respect of the Group's sustainability reporting.

22. PENSION AND OTHER POST-RETIREMENT OBLIGATIONS

The Group operates or participates in a number of pension (including superannuation) schemes throughout the world. The funding of the schemes complies with local regulations. The assets of the schemes are generally held separately from those of the Group and are administered by trustees or management boards. The Group operates two post-retirement medical schemes in South Africa. Full actuarial valuations are prepared for the schemes.

Defined contribution pension schemes

The Group contributed US$73 million (FY19: US$75 million) to defined contribution plans and multi-employer defined contribution plans. These contributions are expensed as incurred.

Defined benefit pension schemes (closed schemes)

At 30 June 2020 the Group had defined benefit obligations of US$67 million (FY19: US$113 million) and defined benefit scheme assets with a fair value of US$61 million (FY19: US$110 million) with a net liability recognised in the Consolidated Balance Sheet of US$6 million (FY19: US$3 million).

The fair value of scheme assets by major asset class is as follows:

Asset class	Fair value	
US$M	FY20	FY19
Bonds[1]	**39**	46
Equities	**7**	12
Cash and cash equivalents	**8**	9
Other[2]	**7**	43
Total	**61**	110

(1) Comprises Fixed Interest Government bonds of US$8 million (FY19: US$8 million), Index Linked Government bonds of US$21 million (FY19: US$31 million) and Corporate bonds of US$10 million (FY19: US$7 million).
(2) Primarily comprises of property and alternative investments in Australia (FY19: insurance contracts in South Africa).

Defined benefit post-retirement medical schemes (closed schemes)

At 30 June 2020 the Group had post-retirement medical scheme obligations of US$71 million (FY19: US$89 million). The post-retirement medical schemes are unfunded.

The principal actuarial assumptions at the reporting date (expressed as weighted averages) for post-retirement medical schemes are as follows:

	South Africa	
Percentage %	FY20	FY19
Discount rate	**10.8**	10.0
Medical cost trend rate (ultimate)	**8.0**	8.0

Assumptions regarding future mortality can be material depending upon the size and nature of the post-retirement medical schemes' liabilities. Post-retirement mortality assumptions in South Africa are based on post-retirement mortality tables that are standard in the region.

For the main post-retirement medical schemes, these tables imply the following expected future lifetimes (in years) for employees aged 65 as at the balance sheet date: males employed in South Africa 20.2 (FY19: 20.0), females employed in South Africa 24.6 (FY19: 24.5).

22. PENSION AND OTHER POST-RETIREMENT OBLIGATIONS CONTINUED

Weighted average maturity profile of schemes

The weighted average duration of the defined benefit obligations are 9 years (FY19: 9 years) and 11 years (FY19: 11 years) for the defined benefit pension schemes and post-retirement medical schemes respectively.

Risks associated with defined benefit pension and post-retirement medical schemes

The Group's defined benefit pension and post-retirement medical schemes expose the Group to the risks pertaining to asset value volatility, uncertainty in future benefit payments and uncertainty in future contribution requirements.

23. EMPLOYEE SHARE OWNERSHIP PLANS

At 30 June 2020 the Group had the following employee share ownership arrangements:

Awards granted to Lead Team members[1]	
Long-Term Incentive Plan	FY17, FY18, FY19, FY20
Deferred Short-Term Incentive Plan	FY18, FY19
Executive Transitional Award Plan	FY18, FY19, FY20
Sign-on Award Plan	FY19

(1) Awards granted on 2 December 2016, 13 December 2017, 7 December 2018 and 6 December 2019.

Awards granted to eligible employees[1]	
Management Share Plan	FY17, FY18, FY19, FY20
AllShare Plan	2017, 2018, 2019
Management Transitional Award Plan	FY17, FY18, FY19, FY20

(1) Awards granted on 17 November 2016, 28 April 2017, 13 November 2017, 7 May 2018, 7 December 2018, 17 May 2019, 6 December 2019 and 15 May 2020.

All awards take the form of rights to receive one share in South32 Limited for each right granted, subject to performance and/or service conditions being met. A portion of the 2017, 2018 and 2019 AllShare Plan awards (participants located in Colombia and Mozambique) take the form of rights to receive a cash payment equivalent to the value of South32 Limited shares at the time of payment. Employees in Africa are granted rights on the JSE and all other employees are granted rights on the ASX.

Performance conditions are based on the Group's Total Shareholder Return (TSR) measured separately against two comparator indices over the performance period as follows:

- One third of performance rights are measured against the Morgan Stanley Capital International (MSCI) World Index; and
- Two thirds of performance rights are measured against the IHS Markit Global Mining Index.

Performance rights vest when the Group's TSR equals or outperforms the comparator index. Full vesting of performance rights occur if the Group's TSR outperforms both indices by at least 23.9 per cent (5.5 per cent per annum cumulative) over four years. To the extent that the performance conditions are not met, awards lapse and no retesting is performed.

Awards do not confer any dividend or voting rights until they convert into shares at vesting. In addition, the awards do not confer any rights to participate in a share issue, however, there is discretion under the plans to adjust the awards in response to a variation in South32 Limited's share capital.

The AllShare JSE plan is eligible to receive a payment equal to the dividend amount that would have been earned on the underlying shares awarded to those participants (Dividend Equivalent Payment). The Dividend Equivalent Payment is made to participants once the underlying shares are issued or transferred to them. No Dividend Equivalent Payment is made in respect of awards that lapse. No other awards are eligible for a Dividend Equivalent Payment.

(a) Description of share-based payment arrangements

(i) Recurring share-based payment plans

The awards listed below are subject to the general conditions noted above and may be granted annually subject to approval by shareholders at the annual general meeting for awards to the CEO and by the Board of Directors for all other awards.

FY17, FY18, FY19 and FY20 Long-Term Incentive Plan

The Long-Term Incentive Plan is the Group's long-term incentive plan for Lead Team members. Awards have a four year performance period from 1 July 2016 to 30 June 2020, 1 July 2017 to 30 June 2021, 1 July 2018 to 30 June 2022 and 1 July 2019 to 30 June 2023 respectively.

FY18 and FY19 Deferred Short-Term Incentive Plan

The FY18 and FY19 Deferred Short-Term Incentive Plan is the Group's short-term incentive plan for Lead Team members. Awards vest in August 2020 and August 2021 respectively, provided participants remain employed by the Group.

23. EMPLOYEE SHARE OWNERSHIP PLANS CONTINUED

(a) Description of share-based payment arrangements continued

(i) Recurring share-based payment plans continued

FY17, FY18, FY19 and FY20 Management Share Plan

The FY17, FY18, FY19 and FY20 Management Share Plan is the Group's long-term incentive plan for eligible employees below the Lead Team. The Management Share Plan comprises two elements:

- Retention Rights vesting in August 2020, August 2021 and August 2022 provided participants remain employed by the Group; and
- Performance Rights vesting in August 2020, August 2021, August 2022 and August 2023 subject to performance conditions.

2017, 2018 and 2019 AllShare Plan

The 2017, 2018 and 2019 AllShare Plan is the Group's employee share plan for employees not eligible to participate in the other employee share plans. Awards to the value of at least US$1,250 per employee are granted annually. Awards will vest provided participants remain employed by the Group. The vesting period depends on the participants' location at the grant date:

- Participants in Africa: August 2020, August 2021 and August 2022; and
- Participants elsewhere: August 2020 and August 2021.

(ii) Transitional share-based payment plans

The awards listed below are subject to the general conditions noted above and are either one-off or will not be granted on an ongoing basis.

FY18, FY19 and FY20 Executive Transitional Award Plan

The FY18 Executive Transitional Award Plan is a one-off grant made to two Lead Team members in recognition of their adjustment from the Management Share Plan (three year retention rights and four year performance rights) to the four year plan at the Group. Awards have a three year performance period from 1 July 2017 to 30 June 2020. The FY19 Executive Transitional Award Plan is a one-off grant made to one Lead Team member in recognition of their adjustment from the Management Share Plan (three year retention rights and four year performance rights) to the four year plan at the Group. Awards have a three year performance period from 1 July 2018 to 30 June 2021. The FY20 Executive Transitional Award Plan is a one-off grant made to one Lead Team member in recognition of their adjustment from the Management Share Plan (three year retention rights and four year performance rights) to the four year plan at the Group. Awards have a three year performance period from 1 July 2019 to 30 June 2022.

FY19 Sign-on Award Plan

The FY19 Sign-on Award plan is a one-off grant made to one Lead Team member to replace the equity awards forfeited by the participant when commencing employment with the Group. The Award has two tranches, vesting in August 2019 and August 2020 respectively, provided the participant remains employed by the Group.

FY17, FY18, FY19 and FY20 Management Transitional Award Plan

The FY17, FY18, FY19 and FY20 Management Transitional Award Plan is a grant made to certain eligible employees to bridge the gap between their total target reward at BHP and their total target reward at the Group. Transitional awards will be made for a maximum of five years until FY20. The FY17, FY18, FY19 and FY20 Management Transitional Award Plan has the same conditions as the FY17, FY18, FY19 and FY20 Management Share Plan and comprises both service and performance conditions.

(b) Employee Share Ownership Plan Trusts

The South32 Limited Employee Incentive Plans Trust (the Australian Trust) and the South32 South African AllShare Trust (the South African Trust) are discretionary trusts for the benefit of employees of South32 Limited and its subsidiaries.

The trustee for the Australian Trust (CPU Share Plans Pty Ltd) is an independent company, resident in Australia. The trustees for the South African Trust is made up of employer and employee representatives per the B-BBEE requirements under South African law. The Trusts use funds provided by South32 Limited and/or its subsidiaries to acquire shares to enable awards to be made or satisfied under the Group employee share ownership plans.

The shares may be acquired by purchase in the market or by subscription at not less than nominal value.

(c) Measurement of fair values

The fair value at grant date of equity-settled share awards is charged to the Consolidated Income Statement, net of tax, over the period for which the benefits of employee services are expected to be derived. The corresponding accrued employee entitlement is recorded in the employee share awards reserve.

Where awards are forfeited because non-market based vesting conditions are not satisfied, the expense previously recognised is proportionally reversed. Where awards are waived because the participant voluntarily relinquishes their right to receive shares, the accrued employee entitlement previously recognised in the employee share awards reserve is released to retained earnings. Where shares in South32 Limited are acquired by on-market purchases prior to settling the vested entitlement, the cost of the acquired shares is carried as treasury shares and deducted from equity. Where awards are satisfied by delivery of acquired shares, any difference between their acquisition cost and the expected cumulative remuneration expense recognised is charged directly to retained earnings, net of tax.

23. EMPLOYEE SHARE OWNERSHIP PLANS CONTINUED

(c) Measurement of fair values continued

The fair value of performance rights is measured using a Monte Carlo methodology. This model considers the following:

- Expected life of the award;
- Current market price of the underlying shares;
- Expected volatility (of the individual company and of each peer group);
- Expected dividends;
- Risk-free interest rate; and
- Market based performance hurdles.

The fair value of retention rights is measured using a Black Scholes methodology. This model considers the following:

- Expected life of the award;
- Current market price of the underlying shares;
- Expected volatility;
- Expected dividends; and
- Risk-free interest rate.

The inputs used in the measurement of the fair values at grant date of the equity-settled share-based payments plans were as follows:

Year ended 30 June 2020	Fair value at grant date (US$)[1]	Share price at grant date (US$)	Expected volatility (%)[2]	Expected life (in years)[1]	Risk-free interest rate based on government bonds (%)[1]
Recurring plans					
FY20 Long-Term Incentive Plan[3]	**0.63**	**1.73**	**30.00**	**4.00**	**0.77**
FY19 Deferred Short-Term Incentive Plan[3]	**1.68**	**1.73**	**30.00**	**2.00**	**0.75**
FY20 Management Share Plan - Retention Rights[4]	**1.58 – 1.61**	**1.73**	**30.00**	**3.00**	**0.70 – 7.33**
FY20 Management Share Plan - Performance Rights[4]	**0.63**	**1.73**	**30.00**	**4.00**	**0.77 – 7.60**
2019 AllShare Plan[3]	**1.68 – 1.76**	**1.73**	**30.00**	**2.00 – 3.00**	**0.75 – 7.33**
Transitional plans					
FY20 Executive Transitional Award Plan[3]	**0.58**	**1.73**	**30.00**	**3.00**	**0.70**
FY20 Management Transitional Award Plan[3][5]	**0.63 – 1.61**	**1.73**	**30.00**	**3.00 – 4.00**	**0.70 – 7.60**

(1) Represents the range of grant date fair values, expected life, and risk-free interest rates based on the amount of rights granted on the ASX or the JSE during the year, and the variations in offer terms and grant dates of each plan where applicable. The risk-free interest rate and expected volatility does not materially impact service based awards.
(2) Expected volatility is based on the historical South32 Limited share price volatility at the grant date.
(3) Grant date 6 December 2019.
(4) Grant date 6 December 2019 and 15 May 2020.
(5) The Management Transitional Award Plan comprises both retention rights and performance rights. The range of risk-free interest rates for the performance based awards are 0.77 to 7.60 per cent.

Year ended 30 June 2019	Fair value at grant date (US$)	Share price at grant date (US$)	Expected volatility (%)	Expected life (in years)	Risk-free interest rate based on government bonds (%)
Recurring plans					
FY19 Long-Term Incentive Plan	1.09	2.24	32.50	4.00	2.01
FY18 Deferred Short-Term Incentive Plan	2.11	2.24	32.50	2.00	1.88
FY19 Management Share Plan - Retention Rights	1.97 – 2.02	2.24 – 2.25	32.50	3.00	1.92 – 7.63
FY19 Management Share Plan - Performance Rights	1.09	2.24 – 2.25	32.50	4.00	2.01 – 7.98
2018 AllShare Plan	2.11 – 2.28	2.24 – 2.25	32.50	2.00 – 3.00	1.88 – 7.63
Transitional plans					
FY19 Sign-on Award Plan	2.11 – 2.23	2.24	32.50	1.00 – 2.00	1.87 – 1.88
FY19 Executive Transitional Award Plan	1.14	2.24	32.50	3.00	1.92
FY19 Management Transitional Award Plan	1.09 – 2.02	2.24 – 2.25	32.50	3.00 – 4.00	1.92 – 7.98

23. EMPLOYEE SHARE OWNERSHIP PLANS CONTINUED

(d) Reconciliation of outstanding share awards

None of the awards listed below have an exercise price or are exercisable at 30 June 2020.

Number of Rights	Rights at beginning of the period	Granted during the period	Vested and waived during the period	Forfeited during the period	Rights at end of the period
Recurring plans					
FY16 Long-Term Incentive Plan	**6,632,568**	**-**	**(6,167,085)**	**(465,483)**	**-**
FY17 Long-Term Incentive Plan	**7,845,617**	**-**	**-**	**-**	**7,845,617**
FY18 Long-Term Incentive Plan	**5,766,758**	**-**	**-**	**-**	**5,766,758**
FY19 Long-Term Incentive Plan	**4,906,971**	**-**	**-**	**-**	**4,906,971**
FY20 Long-Term Incentive Plan	**-**	**6,365,727**	**-**	**-**	**6,365,727**
FY17 Deferred Short-Term Incentive Plan	**796,267**	**-**	**(796,267)**	**-**	**-**
FY18 Deferred Short-Term Incentive Plan	**1,131,116**	**-**	**-**	**-**	**1,131,116**
FY19 Deferred Short-Term Incentive Plan	**-**	**1,519,690**	**-**	**-**	**1,519,690**
FY16 Management Share Plan - Performance Rights	**9,917,814**	**-**	**(9,832,736)**	**(85,078)**	**-**
FY17 Management Share Plan - Retention Rights	**3,700,699**	**-**	**(3,660,576)**	**(40,123)**	**-**
FY17 Management Share Plan - Performance Rights	**10,607,898**	**-**	**(162,641)**	**(276,610)**	**10,168,647**
FY18 Management Share Plan - Retention Rights(1)	**2,475,880**	**8,979**	**(226,893)**	**(81,791)**	**2,176,175**
FY18 Management Share Plan - Performance Rights(1)	**6,546,153**	**22,448**	**(127,972)**	**(319,073)**	**6,121,556**
FY19 Management Share Plan - Retention Rights(1)	**2,621,432**	**358,456**	**(220,622)**	**(134,309)**	**2,624,957**
FY19 Management Share Plan - Performance Rights(1)	**5,771,094**	**138,644**	**(133,913)**	**(461,059)**	**5,314,766**
FY20 Management Share Plan - Retention Rights	**-**	**3,118,953**	**(14,245)**	**(80,899)**	**3,023,809**
FY20 Management Share Plan - Performance Rights	**-**	**7,367,501**	**-**	**(211,146)**	**7,156,355**
2016 AllShare Plan	**4,944,240**	**-**	**(4,893,840)**	**(50,400)**	**-**
2017 AllShare Plan	**5,962,920**	**-**	**(2,412,810)**	**(130,050)**	**3,420,060**
2018 AllShare Plan	**6,143,175**	**-**	**(156,275)**	**(242,250)**	**5,744,650**
2019 AllShare Plan	**-**	**9,824,100**	**(80,080)**	**(195,910)**	**9,548,110**
Transitional plans					
Replacement BHP Long-Term Incentive Plan	**2,949,937**	**-**	**(2,949,937)**	**-**	**-**
FY17 Executive Transitional Award Plan	**239,197**	**-**	**(239,197)**	**-**	**-**
FY18 Executive Transitional Award Plan	**245,840**	**-**	**-**	**-**	**245,840**
FY19 Executive Transitional Award Plan	**81,967**	**-**	**-**	**-**	**81,967**
FY20 Executive Transitional Award Plan	**-**	**129,283**	**-**	**-**	**129,283**
FY16 Management Transitional Award Plan	**2,647,172**	**-**	**(2,647,172)**	**-**	**-**
FY17 Management Transitional Award Plan	**2,213,583**	**-**	**(547,910)**	**(20,897)**	**1,644,776**
FY18 Management Transitional Award Plan	**971,651**	**-**	**(68,000)**	**(74,279)**	**829,372**
FY19 Management Transitional Award Plan	**484,667**	**-**	**(29,435)**	**(102,629)**	**352,603**
FY20 Management Transitional Award Plan	**-**	**359,632**	**(12,080)**	**(137,253)**	**210,299**
FY19 Sign-on Award Plan	**437,000**	**-**	**(180,000)**	**-**	**257,000**
Total awards	**96,041,616**	**29,213,413**	**(35,559,686)**	**(3,109,239)**	**86,586,104**

(1) Retrospective grants related to prior year plans.

24. CONTINGENT LIABILITIES

Contingent liabilities not otherwise provided for in the consolidated financial statements are categorised as arising from:

US$M	FY20	FY19
Actual or potential litigation	**409**	456
Total contingent liabilities	**409**	456

Prior to the Demerger, the Group entered into a Separation Deed with BHP, which deals with matters arising in connection with the Demerger. The Separation Deed principally covers the following key terms: assumption of liabilities, limitations and exclusions from indemnities and claims, contracts, financial support, Demerger costs and litigation. Actual or potential litigation excludes amounts indemnified by BHP, as per the Separation Deed.

Actual or potential litigation primarily relates to numerous tax assessments or matters relating to transactions in prior years in Colombia and Brazil. Additionally, there are a number of legal claims or potential claims against the Group, the outcome of which cannot be foreseen at present, and for which no amounts have been disclosed.

25. SUBSIDIARIES

Significant subsidiaries of the Group, which are those with the most significant contribution to the Group's net profit/(loss) or net assets, are as follows:

			Effective interest %	
Significant subsidiaries	Country of incorporation	Principal activity	FY20	FY19
African Metals Pty Ltd	South Africa	Investment holding company	**100**	100
Arizona Minerals Inc.	United States	Exploration and development	**100**	100
Cerro Matoso SA	Colombia	Ferronickel mining and smelting	**99.9**	99.9
Dendrobium Coal Pty Ltd	Australia	Coal mining	**100**	100
Endeavour Coal Pty Ltd	Australia	Coal mining	**100**	100
Hillside Aluminium Pty Ltd	South Africa	Aluminium smelting	**100**	100
Illawarra Coal Holdings Pty Ltd	Australia	Coal mining	**100**	100
Illawarra Services Pty Ltd	Australia	Coal preparation plant	**100**	100
South32 Investment 1 B.V.	Netherlands	Investment holding company	**100**	100
South32 Aluminium (Holdings) Pty Ltd	Australia	Investment holding company	**100**	100
South32 Aluminium (RAA) Pty Ltd	Australia	Investment holding company	**100**	100
South32 Aluminium (Worsley) Pty Ltd	Australia	Investment holding company	**100**	100
South32 Cannington Pty Ltd	Australia	Silver, lead and zinc mining	**100**	100
South32 Eagle Downs Pty Ltd	Australia	Investment holding company	**100**	100
South32 Group Operations Pty Ltd	Australia	Administrative services	**100**	100
South32 Marketing Pte Ltd	Singapore	Commodity marketing and trading	**100**	100
South32 Minerals SA	Brazil	Investment holding company	**100**	100
South32 SA Coal Holdings Pty Ltd	South Africa	Coal mining	**100**	100
South32 SA Investments Ltd	United Kingdom	Investment holding company	**100**	100
South32 SA Ltd	South Africa	Administrative services	**100**	100
South32 Treasury Ltd	Australia	Financing company	**100**	100
South32 USA Exploration Inc.	United States	Exploration	**100**	100

Subsidiaries are entities controlled by the parent entity. Control exists where the parent entity is exposed, or has rights to variable returns from its involvement with the subsidiary and has the ability to affect those returns through its power over the subsidiary. A parent entity has power over the subsidiary, when it has existing rights to direct the relevant activities of the subsidiary which are those which significantly affect the subsidiary's returns. The financial statements of subsidiaries are included in the consolidated financial statements for the period they are controlled.

26. EQUITY ACCOUNTED INVESTMENTS

The Group's interests in equity accounted investments with the most significant contribution to the Group's net profit/(loss) or net assets, are as follows:

Significant joint ventures	Country of incorporation	Principal activity	Reporting date	Acquisition date	Ownership interest % FY20	Ownership interest % FY19
Australia Manganese[1][2]	Australia	Integrated producer of manganese ore and alloy[3]	30 June 2020	8 May 2015	**60**	60
South Africa Manganese[1][4]	South Africa	Integrated producer of manganese ore and alloy[5]	30 June 2020	3 February 2015	**60**	60

(1) While the Group holds a greater than 50 per cent interest in the joint ventures, joint control is contractually achieved as joint venture parties unanimously consent on decisions over the joint venture's relevant activities.
(2) Australia Manganese consists of an investment in GEMCO.
(3) On 13 August 2020, the Group announced that GEMCO had entered into a binding conditional agreement for the sale of its shareholding in TEMCO.
(4) South Africa Manganese consists of an investment in Samancor Holdings Pty Ltd.
(5) After consideration of its future economic viability, the Group made the decision with its joint venture partner to place the Metalloys manganese smelter on care and maintenance.

A reconciliation of the carrying amount of the equity accounted investments is set out below:

Investment in equity accounted investments

US$M	FY20	FY19
At the beginning of the financial year	**688**	697
Distribution from equity accounted investments	**-**	(6)
Share of profit/(loss)[1]	**100**	467
Other comprehensive income/(loss), net of tax	**21**	66
Dividends received from equity accounted investments	**(349)**	(536)
At the end of the financial year	**460**	688

(1) Includes earnings adjustments of US$108 million (FY19: (US$17) million). Of the US$108 million, impairment losses of US$40 million were recorded in the Australia Manganese segment after GEMCO entered into a binding conditional agreement for the sale of its shareholding in TEMCO, and US$49 million in the South Africa Manganese segment following the decision to place the Metalloys manganese smelter on care and maintenance. Refer to note 4(b)(i) Earnings adjustments.

Carrying amount of equity accounted investments

US$M	FY20	FY19
Australia Manganese and South Africa Manganese	**350**	582
Individually immaterial[1]	**110**	106
Total	**460**	688

(1) Individually immaterial consists of investments in Samancor Marketing Pte Ltd (60 per cent), Richards Bay Coal Terminal Pty Ltd (21.1 per cent) and Port Kembla Coal Terminal Ltd (16.7 per cent).

Share of profit/(loss) of equity accounted investments

US$M	FY20	FY19
Australia Manganese and South Africa Manganese	**88**	448
Individually immaterial[1]	**12**	19
Total	**100**	467

(1) Individually immaterial consists of investments in Samancor Marketing Pte Ltd (60 per cent), Richards Bay Coal Terminal Pty Ltd (21.1 per cent) and Port Kembla Coal Terminal Ltd (16.7 per cent).

26. EQUITY ACCOUNTED INVESTMENTS CONTINUED

The following table summarises the financial information relating to each significant equity accounted investment:

	Joint ventures			
	Australia Manganese	South Africa Manganese[1]	Australia Manganese	South Africa Manganese[1]
US$M	FY20		FY19	
Reconciliation of carrying amount of equity accounted investments				
Current assets	**374**	**287**	432	261
Non-current assets	**750**	**554**	811	799
Current liabilities	**(238)**	**(123)**	(268)	(101)
Non-current liabilities	**(661)**	**(264)**	(569)	(301)
Net assets – 100%	**225**	**454**	406	658
Net assets – the Group's share	**135**	**218**	244	345
Consolidation adjustments	**-**	**(3)**	(1)	(6)
Carrying amount of equity accounted investments	**135**	**215**	243	339
Reconciliation of share of profit/(loss) of equity accounted investments				
Revenue – 100%	**1,163**	**506**	1,704	850
Profit/(loss) after tax – 100%	**182**	**(33)**	565	183
Profit/(loss) after tax – the Group's share	**109**	**(24)**	339	111
Consolidation adjustments	**1**	**2**	-	(2)
Share of profit/(loss) of equity accounted investments	**110**	**(22)**	339	109
Other balances of equity accounted investments presented on a 100% basis				
Cash and cash equivalents	**-**	**20**	-	17
Non-current financial liabilities (excluding trade and other payables and provisions)	**(200)**	**(31)**	(140)	(47)
Depreciation and amortisation	**(117)**	**(39)**	(97)	(39)
Interest income	**3**	**20**	3	7
Interest expense	**(27)**	**(23)**	(24)	(16)
Income tax (expense)/benefit (excluding royalty related tax)	**(157)**	**(6)**	(309)	(88)

(1) South Africa Manganese includes a 60 per cent interest in Samancor Manganese Pty Ltd and 54.6 per cent interest in Hotazel Manganese Mines Pty Ltd.

The Group's share of contingent liabilities and capital expenditure commitments of significant equity accounted investments as at 30 June 2020 was US$2 million (FY19: US$13 million) and US$29 million (FY19: US$29 million) respectively.

The Group uses the term 'equity accounted investments' to refer to associates and joint ventures collectively.

Associates are entities in which the Group holds significant influence. If the Group holds 20 per cent or more of the voting power of an entity, it is presumed that the Group has significant influence, unless it can be clearly demonstrated that this is not the case. Significant influence can also arise when the Group has less than 20 per cent of the voting power but it can be demonstrated that the Group has the power to participate in the financial and operating policy decisions of the associate. Investments in associates are accounted for using the equity method.

Joint ventures are joint arrangements in which the parties with joint control of the arrangement have rights to the net assets of the arrangement. Joint arrangements exist when two or more parties have joint control. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. A separate vehicle, not the parties, will have the rights to the assets and obligations to the liabilities, relating to the arrangement. If more than an insignificant share of output from a joint venture is sold to third parties, this indicates that the joint venture is not dependent on the parties to the arrangement for funding and that the parties to the arrangement have no obligation for the liabilities of the arrangement. Joint ventures are accounted for using the equity method.

Equity accounted investments are initially recorded at cost, including the value of any goodwill on acquisition. In subsequent periods, the carrying amount of the investment is adjusted to reflect the share of post-acquisition profit or loss and other comprehensive income. After application of the equity method, including recognising the Group's share of the joint ventures' results, the value of the investment will be assessed for impairment if there is objective evidence that an impairment of the investment may have occurred. Where the carrying value of an equity accounted investment is reduced to nil after having applied equity accounting principles (and the Group has no legal or constructive obligation to make further payments, nor has made payments on behalf of the associate or joint venture), dividends received from the associate or joint venture will be recognised as a 'Share of profit/(loss) of equity accounted investments'.

27. INTERESTS IN JOINT OPERATIONS

Significant joint operations of the Group, which are those with the most significant contribution to the Group's net profit/(loss) or net assets, are as follows:

Significant joint operations	Country of operation	Principal activity	Acquisition date	Effective interest % FY20	Effective interest % FY19
Ambler Metals[1][2]	United States	Development studies, resource drilling and regional exploration	11 February 2020	**50**	-
Brazil Alumina	Brazil	Alumina refining	3 July 2014	**36**	36
Eagle Downs Metallurgical Coal	Australia	Metallurgical coal exploration and development	14 September 2018	**50**	50
Mozal Aluminium SARL[2]	Mozambique	Aluminium smelting	27 March 2015	**47.1**	47.1
Worsley Alumina[3]	Australia	Bauxite mining and alumina refining	8 May 2015	**86**	86

(1) Refer to note 31 Acquisition of subsidiaries and jointly controlled operations.
(2) This joint arrangement is an incorporated entity. It is classified as a joint operation as the participants are entitled to receive output, not dividends, from the arrangement.
(3) While the Group holds a greater than 50 per cent interest in Worsley Alumina, participants jointly approve certain matters and are entitled to receive their share of output from the arrangement.

Joint operations are joint arrangements in which the parties with joint control have rights to the assets and obligations for the liabilities relating to the arrangement. The activities of a joint operation are primarily designed for the provision of output to the parties to the arrangement, indicating that:

- The parties have the rights to substantially all of the output and economic benefits of the assets of the arrangement; and
- All liabilities are satisfied by the joint participants through their purchases of that output. This indicates that, in substance, the joint participants have an obligation for the liabilities of the arrangement.

The consolidated financial statements of the Group include its share of the assets and liabilities, revenues and expenses arising jointly or otherwise from those operations and its revenue derived from the sale of its share of the output from the joint operation. All such amounts are measured in accordance with the terms of each arrangement, which are usually in proportion to the Group's interest in the joint operation.

28. KEY MANAGEMENT PERSONNEL

(a) Key management personnel compensation

US$'000	FY20	FY19
Short-term employee benefits	**5,759**	6,504
Post-employment benefits	**192**	224
Other long-term benefits	**268**	285
Termination benefits	**316**	-
Share-based payments	**6,664**	6,154
Total	**13,199**	13,167

(b) Transactions with key management personnel

There were no transactions with key management personnel during the year ended 30 June 2020 (FY19: nil).

(c) Loans to key management personnel

There were no loans with key management personnel during the year ended 30 June 2020 (FY19: nil).

(d) Transactions with key management personnel related entities

There were no transactions with entities controlled or jointly controlled by key management personnel and there were no outstanding amounts with those entities as at 30 June 2020 (FY19: nil).

29. RELATED PARTY TRANSACTIONS

(a) Parent entity

The ultimate parent entity of the Group is South32 Limited, which is domiciled and incorporated in Australia.

(b) Subsidiaries, joint ventures and associates

The interests in subsidiaries, joint ventures and associates are disclosed in notes 25 to 26.

(c) Key management personnel

The compensation of key management personnel is disclosed in note 28.

(d) Pension and other post-retirement obligations

The pension and other post-retirement obligations are disclosed in note 22.

29. RELATED PARTY TRANSACTIONS CONTINUED

(e) Transactions with related parties

Transactions with related parties

	Joint ventures		Associates	
US$'000	FY20	FY19	FY20	FY19
Sales of goods and services	**205,880**	232,472	**3,126**	2,711
Purchases of goods and services	**-**	154	**80,887**	91,071
Interest income	**7,814**	7,544	**197**	956
Dividend income	**348,664**	535,505	**-**	-
Interest expense	**7,593**	11,404	**-**	-
Increase/(decrease) in short-term financing arrangements with related parties	**(14,855)**	22,368	**-**	-
Increase/(decrease) in loans with related parties	**35,965**	84,027	**(15,864)**	(9,490)

Outstanding balances with related parties

	Joint ventures		Associates	
US$'000	FY20	FY19	FY20	FY19
Trade amounts owing to related parties	**549**	77	**161**	940
Other amounts owing to related parties(1)	**284,000**	298,855	**-**	-
Trade amounts owing from related parties	**57,901**	46,428	**422**	223
Loan amounts owing from related parties(2)	**120,000**	84,035	**72,415**	88,279

(1) Amounts owing to joint ventures relate to short-term deposits and cash managed by the Group on behalf of its equity accounted investments. Interest is paid based on the three month London Inter-Bank Offer Rate and the one month Johannesburg Inter-Bank Agreed Rate.
(2) Amounts owing from associates include an interest free loan to Port Kembla Coal Terminal Ltd which is repayable by 30 June 2030.

Terms and conditions

Sales to, and purchases from, related parties of goods and services are transactions at market prices and on commercial terms.

Outstanding balances at year end are unsecured and settlement mostly occurs in cash.

No guarantees are provided or received for any related party receivables or payables.

A provision for expected credit losses of US$1 million has been recognised in relation to outstanding balances. No expense has been recognised in respect of expected credit losses from related parties in FY20.

30. PARENT ENTITY INFORMATION

(a) Summary financial information

The individual financial statements for the parent entity, South32 Limited, show the following aggregate amounts:

US$M	FY20	FY19
Result of parent entity		
Profit/(loss) after tax for the year	**514**	382
Total comprehensive income	**514**	382
Financial position of parent entity at year end		
Current assets	**47**	437
Total assets	**11,579**	11,976
Current liabilities	**483**	875
Total liabilities	**500**	885
Net assets	**11,079**	11,091
Total equity of the parent entity		
Share capital	**13,943**	14,212
Treasury shares	**(34)**	(82)
Other reserves	**58**	88
Profit reserve(1)	**1,719**	1,451
Retained earnings/(accumulated losses)	**(4,607)**	(4,578)
Total equity	**11,079**	11,091

(1) Current and prior year profits, net of dividends paid, have been appropriated to a profit reserve for future dividend payments.

(b) Parent company guarantees

The parent entity has guaranteed a US commercial paper program. The parent entity has also guaranteed a Group revolving credit facility of US$1,500 million, which backs the US commercial paper program and remains undrawn as at 30 June 2020. The revolving credit facility was extended in July 2020 by one year to February 2023 and the size of the facility reduced to US$1,450 million.

The parent entity is party to a Deed of Support with the effect that the Company guarantees debts in respect of South32 Group Operations Pty Ltd.

31. ACQUISITION OF SUBSIDIARIES AND JOINTLY CONTROLLED OPERATIONS

Acquisition of Upper Kobuk Mineral Projects

On 11 February 2020, the Group completed the formation of the Ambler Metals Joint Venture (Ambler Metals JV) with Trilogy Metals Inc. (TSX, NYSE American: TMQ). Trilogy Metals Inc. contributed all of its assets associated with the Upper Kobuk Mineral Projects (UKMP) and the Group contributed a US$145 million subscription payment to the Ambler Metals JV for an equal share of its assets, liabilities, income and expenses. The transaction was treated as an acquisition of assets including mineral rights and exploration licences. The joint arrangement is classified as a joint operation as the activities are primarily designed for the future provision of output to the parties of the arrangement. The Ambler Metals JV loaned US$57.5 million of the subscription payment to the Group with the balance retained to fund its activities and exploration programs.

US$M	FY20
Cash outflow on acquisition	
Net cash acquired	**72.5**
Direct costs relating to the acquisition[1]	**(145)**
Net consolidated cash outflow	**(72.5)**
Net assets	
Cash and cash equivalents	**72.5**
Property, plant and equipment[2]	**72.5**
Net assets	**145**

(1) Inclusive of acquisition related transaction costs and other directly attributable costs.
(2) Includes mineral rights of US$72.5 million.

32. SUBSEQUENT EVENTS

On 14 July 2020, the Group extended the expiry date of the undrawn revolving credit facility by one year to February 2023, providing the Group with access to US$1.45 billion in liquidity.

On 13 August 2020, the Group announced that Groote Eylandt Mining Company Pty Ltd had entered into a binding conditional agreement for the sale of its shareholding in the Tasmanian Electro Metallurgical Company Pty Ltd to an entity within GFG Alliance. Completion of the transaction is subject to approval from Australia's Foreign Investment Review Board.

On 20 August 2020, the Directors resolved to pay a fully franked final dividend of US 1 cent per share (US$48 million) in respect of the 2020 financial year. The dividend will be paid on 8 October 2020. The dividend has not been provided for in the consolidated financial statements and will be recognised in the 2021 financial year.

Following the decision to suspend the on-market share buy-back program on 27 March 2020, the Group announced, on 20 August 2020, a 12-month extension to the program's execution window to 3 September 2021.

No other matters or circumstances have arisen since the end of the financial year that have significantly affected, or may significantly affect, the operations, results of operations or state of affairs of the Group in subsequent accounting periods.

Directors' declaration

In accordance with a resolution of the Directors of the Company, we state that:

1. In the opinion of the Directors:
   (a) The consolidated financial statements and notes that are set out on pages 89 to 137 of the Annual Report are in accordance with the Corporations Act, including:
      (i) Giving a true and fair view of the Group's financial position as at 30 June 2020 and of its performance for the year ended on that date; and
      (ii) Complying with Australian Accounting Standards and Corporations Regulations 2001.
   (b) There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.
2. The Directors have been given the declarations required by Section 295A of the Corporations Act from the Chief Executive Officer and Chief Financial Officer for the financial year ended 30 June 2020.
3. The Directors draw attention to note 2 to the financial statements on page 94, which includes a statement of compliance with International Financial Reporting Standards.

Signed in accordance with a resolution of the Board of Directors.

Karen Wood
Chair

Graham Kerr
Chief Executive Officer and Managing Director

Dated 3 September 2020

KPMG

Lead Auditor's Independence Declaration under Section 307C of the Corporations Act 2001

TO THE DIRECTORS OF SOUTH32 LIMITED

I declare that, to the best of my knowledge and belief, in relation to the audit of South32 Limited for the financial year ended 30 June 2020 there have been:

i. no contraventions of the auditor independence requirements as set out in the *Corporations Act 2001* in relation to the audit; and

ii. no contraventions of any applicable code of professional conduct in relation to the audit.

KPMG

KPMG

Graham Hogg
Partner

Perth
3 September 2020

KPMG

Independent Auditor's Report

TO THE SHAREHOLDERS OF SOUTH32 LIMITED

REPORT ON THE AUDIT OF THE FINANCIAL REPORT

OPINION

We have audited the ***Financial Report*** of South32 Limited (the Company).

In our opinion, the accompanying Financial Report of the Company is in accordance with the *Corporations Act 2001*, including:

- giving a true and fair view of the ***Group's*** financial position as at 30 June 2020 and of its financial performance for the year ended on that date; and
- complying with *Australian Accounting Standards* and the *Corporations Regulations 2001*.

The ***Financial Report*** comprises:

- Consolidated Balance Sheet as at 30 June 2020
- Consolidated Income Statement, Consolidated Statement of Comprehensive Income, Consolidated Statement of Changes in Equity and Consolidated Cash Flow Statement for the year then ended
- Notes including a summary of significant accounting policies
- Directors' Declaration.

The ***Group*** consists of the Company and the entities it controlled at the year-end or from time to time during the financial year.

BASIS FOR OPINION

We conducted our audit in accordance with *Australian Auditing Standards*. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the Financial Report* section of our report.

We are independent of the Group in accordance with the *Corporations Act 2001* and the ethical requirements of the *Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants* (the Code) that are relevant to our audit of the Financial Report in Australia. We have fulfilled our other ethical responsibilities in accordance with the Code.

KEY AUDIT MATTERS

The ***Key Audit Matters*** we identified are:

- Asset valuation
- Closure and rehabilitation provision

Key Audit Matters are those matters that, in our professional judgement, were of most significance in our audit of the Financial Report of the current period.

These matters were addressed in the context of our audit of the Financial Report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

KPMG

Independent Auditor's Report

Asset valuation

Refer to Note 13 *Impairment of non-financial assets* and Note 26 *Equity Accounted Investments* to the Financial Report. As at 30 June 2020 the Group's balance sheet includes property, plant and equipment of US$9,680m, intangible assets of US$248m, and equity accounted investments of US$460m, which were assessed for impairment purposes as part of their respective cash generating units (CGUs).

The key audit matter

The assessment of the existence of impairment or reversal indicators and impairment testing of CGUs, where required, was a key audit matter given the size of property, plant and equipment, intangible assets and equity accounted investments, and the sensitivity of valuations to certain assumptions.

Historically the Group has impaired the carrying value of several CGUs to recoverable amount. Combined with the volatility in both commodity and foreign exchange markets, this increases the sensitivity of the carrying value of the Group's CGUs to potential impairment and reversal.

During the year the Group made the decision with their joint venture partner to place the South African manganese alloy smelter, Metalloys, on care and maintenance and progressed the potential divestment of the Australian manganese alloy smelter, TEMCO. These events necessitated a reassessment of the carrying amount of these specific assets. Pre-tax impairment losses of US$49m and US$40m respectively, were recorded within the share of profit/(loss) of equity accounted investments.

During the year the Group announced the sale of South Africa Energy Coal, subject to a number of conditions precedent being satisfied. The recoverable amounts of the three incorporated CGUs are predicated on the transaction occurring based on the terms of the agreement, management's estimate of when the transaction will complete, and that the agreement's conditions precedent are met. These uncertainties necessitated additional audit effort in this key audit area.

In addition to the above, the carrying amount of the net assets of the Group exceeded the Group's market capitalisation at year end, increasing the risk of CGUs being impaired.

The Group uses sophisticated models to perform their assessment of impairment or reversal indicators and impairment testing, where required. This testing included the one CGU which contains goodwill (Hillside Aluminium). The models are developed in-house, and use life of operation and development plans, approved budgets, and a range of external sources as inputs to the assumptions. Complex modelling using forward-looking assumptions tends to be prone to greater risk for potential bias, error and inconsistent application. These conditions necessitate additional scrutiny by us, in particular to address the objectivity of inputs, and their consistent application.

We focused on the significant forward-looking assumptions the Group applied in their models, including:

- forecast commodity prices and foreign exchange rates – the current economic climate has resulted in significant volatility in forecast commodity prices across the Group. The Group's models are sensitive to small changes in these price assumptions, as well as changes to foreign exchange rates, particularly the South African Rand and the Australian Dollar, increasing forecasting risk
- forecast operating cash flows, production volumes, capital expenditure and reserve and resource estimates – these are determined by the Group based on historical performance adjusted for expected changes or development plans. This drives additional audit effort specific to the feasibility of the forecasts and consistency with the Group's strategy
- discount rates - these are complicated in nature and vary according to the conditions and environment the CGUs are subject to from time to time
- carbon price – the Group incorporates carbon price assumptions in its modelling based on enacted local schemes and assumptions around global longer term pricing and timing.

The Group uses fair value less cost of disposal models to assess recoverable amount when testing for impairment.

We involved valuation specialists to supplement our senior audit team members in assessing this key audit matter.

How the matter was addressed in our audit

Our procedures included:

We recalculated the impairment charges to the specific assets at TEMCO and Metalloys, and compared to the impairment expense recorded within the share of profit/(loss) of equity accounted investments.

We considered the appropriateness of the fair value less cost of disposal method applied by the Group for impairment testing purposes against the requirements of the accounting standards. This included consideration of the conditional sale agreement for the South Africa Energy Coal group of CGUs.

We assessed the Group's reconciliation of differences between the year-end market capitalisation and the carrying amount of the net assets by comparing the implicit earnings and asset multiples from the models to market multiples of comparable entities.

We assessed the integrity and consistency of the models used on a sample basis, including the accuracy of the underlying calculation formulas and consistency of modelling to the prior year.

We assessed the scope, objectivity and competence of the Group's experts responsible for preparation of the resource and reserve estimates and compared these estimates to those incorporated in the life of operation and development plans where applicable.

We compared the forecast operating cash flows, production volumes, capital expenditure and reserve and resource estimates contained in the models to the life of operation and development plans incorporating the approved budgets. We also assessed the accuracy of the Group's previous forecasts to assist with this assessment.

Using our knowledge of the Group and our industry experience, and considering the Group's strategy and past performance, we assessed the feasibility of the forecast operating cash flows, capital expenditure and production volumes.

Working with our valuation specialists, and considering the risk factors specific to the Group, we compared the discount rates to publicly available market data for comparable entities. We also compared foreign exchange rates to published views of market commentators.

We compared forecast commodity prices to published views of market commentators on future trends.

We compared carbon assumptions to locally enacted country specific schemes and longer term published industry views.

We considered the sensitivity of the models by varying key assumptions, such as forecast commodity prices, foreign exchange rates, carbon pricing and discount rates, within a reasonably possible range, to identify those CGUs at higher risk of impairment or reversal and to focus our further procedures.

We assessed the disclosures in the Financial Report using our understanding obtained from our testing and against the requirements of the accounting standards.

KPMG

Independent Auditor's Report

Closure and rehabilitation provision

Refer to Note 15 Provisions to the Financial Report. As at 30 June 2020 the Group's balance sheet includes current and non-current closure and rehabilitation provisions of US$1,830m.

The key audit matter	How the matter was addressed in our audit
Closure and rehabilitation provisioning was a key audit matter due to the size of the provision and the judgement we used to audit the provision estimates across the multiple sites the Group operates. Closure and rehabilitation activities are governed by Group policies based on legal and regulatory requirements, which differ across multiple jurisdictions. We focused on the following assumptions the Group applied in determining the provisions in accordance with the closure and rehabilitation plans: • nature and extent of activities required across the multiple sites, including the magnitude of possible contamination and disturbance, which are inherently challenging to assess • timing of when closure and rehabilitation will take place, which increases estimation uncertainty given the unique nature of each site and long timeframes involved • forecast cost estimates incorporating historical experience, which may not be a reliable predictor of such costs, and risk adjustments. The Group engages external experts periodically to assist in their determination of these estimates • economic assumptions, including country specific discount rates, which are complicated in nature.	Our procedures included: We tested key controls in the provision estimation process. These include management review and authorisation controls on activities such as: • plans for closure and rehabilitation in accordance with legal and regulatory requirements and Group policies; and • sourcing inputs to the estimation models. We assessed the scope, objectivity and competence of the Group's external experts to provide rehabilitation cost estimates, where engaged. We evaluated key assumptions used in the closure and rehabilitation provision, relevant to the jurisdictions of the sites the Group operates, by: • comparing the nature and extent of activities costed to the Group's closure and rehabilitation plans and relevant regulatory requirements • comparing the timing of closure and rehabilitation activities to the Group's resources and reserve estimates and the expected production profile contained in the life of operation plans • comparing a sample of cost estimates of the activities, incorporating risk adjustments, to historical experience and underlying documentation, the Group's external expert estimates, and against our knowledge of the Group and its industry • working with our sustainability closure specialists to assess the reasonableness and completeness of closure activities on a sample basis • working with our valuation specialists, comparing country specific discount rate assumptions to market observable data, including risk free rates.

KPMG

Independent Auditor's Report

OTHER INFORMATION

Other Information is financial and non-financial information in South32 Limited's annual reporting which is provided in addition to the Financial Report and the Auditor's Report. The Directors are responsible for the Other Information.

Our opinion on the Financial Report does not cover the Other Information and, accordingly, we do not express an audit opinion or any form of assurance conclusion thereon, with the exception of the Remuneration Report and our related assurance opinion.

In connection with our audit of the Financial Report, our responsibility is to read the Other Information. In doing so, we consider whether the Other Information is materially inconsistent with the Financial Report or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

We are required to report if we conclude that there is a material misstatement of this Other Information, and based on the work we have performed on the Other Information that we obtained prior to the date of this Auditor's Report we have nothing to report.

RESPONSIBILITIES OF THE DIRECTORS FOR THE FINANCIAL REPORT

The Directors are responsible for:

- preparing the Financial Report that gives a true and fair view in accordance with *Australian Accounting Standards* and the *Corporations Act 2001*
- implementing necessary internal control to enable the preparation of a Financial Report that gives a true and fair view and is free from material misstatement, whether due to fraud or error
- assessing the Group and Company's ability to continue as a going concern and whether the use of the going concern basis of accounting is appropriate. This includes disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless they either intend to liquidate the Group and Company or to cease operations, or have no realistic alternative but to do so.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL REPORT

Our objective is:

- to obtain reasonable assurance about whether the Financial Report as a whole is free from material misstatement, whether due to fraud or error; and
- to issue an Auditor's Report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with *Australian Auditing Standards* will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error. They are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the Financial Report.

A further description of our responsibilities for the audit of the Financial Report is located at the *Auditing and Assurance Standards* Board website at: *https://www.auasb.gov.au/admin/file/content102/c3/ar1_2020.pdf*. This description forms part of our Auditor's Report.

REPORT ON THE REMUNERATION REPORT

Opinion

In our opinion, the Remuneration Report of South32 Limited for the year ended 30 June 2020, complies with *Section 300A* of the *Corporations Act 2001*.

Directors' responsibilities

The Directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with *Section 300A* of the *Corporations Act 2001*.

Our responsibilities

We have audited the Remuneration Report included in pages 70 to 87 of the Directors' report for the year ended 30 June 2020.

Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with *Australian Auditing Standards*.

KPMG

KPMG

Graham Hogg
Partner

Perth
3 September 2020

Resources and Reserves

As required by Chapter 5 of the ASX Listing Rules, we report Mineral Resources and Ore Reserves (including Coal Resources and Coal Reserves) in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code).

In this report, information relating to Mineral Resources and Ore Reserves is based on, and fairly represents, information and supporting documentation prepared by our Competent Persons.

A Competent Person is defined in the JORC Code, they have sufficient experience relevant to the style of mineralisation, the type of deposit under consideration and the activity being undertaken.

Each of our Competent Persons has given consent to the inclusion of the information in this report in the form and context in which it appears. You can find more details on each of their professional affiliations, employer and areas of accountability on page 145. Unless we state otherwise, all Competent Persons listed are full-time employees at South32, or at one of our related entities.

We report Mineral Resources and Ore Reserves in 100 per cent terms and represent estimates as at 30 June 2020. Our Mineral Resource estimations include Measured and Indicated Mineral Resources which, after the application of all Modifying Factors, and development of a mine plan, have been classified as Ore Reserves.

We report all quantities as dry metric tonnes (unless we state otherwise).

It's important to note that Mineral Resources and Ore Reserves are estimations, not precise calculations. We've rounded tonnes and grade information to reflect the relative uncertainty of the estimate, which is why computational differences may be present in the totals.

Our long-range forecasts are the basis for the commodity prices and exchange rates used to estimate the economic viability of Ore Reserves. Our planning processes consider the impacts of climate change on our Ore Reserves, including assessments of transitional and physical climate change risks on the expectation of economic extraction.

At a glance - Resources and Reserves (as at 30 June 2020)

Operations and development options	Total Ore/Coal Reserves (Mt)	Reserve Life Years(1)	Total Mineral/ Coal Resources (Mt)
Worsley Alumina	257	15	1,140
Brazil Alumina (MRN)	28	5.4	481
South Africa Energy Coal(2)(3)	491	30	5,010
Eagle Downs			1,140
Illawarra Metallurgical Coal(2)(3)	109	24	1,210
Cerro Matoso	30	8.9	306
Australia Manganese	57	5.7	148
South Africa Manganese(3)	111	45	226
Cannington	20	11	79
Taylor			167
Clark			55
Arctic			37
Bornite			148

(1) Scheduled extraction period in years for the Total Ore Reserves in the approved Life of Operation Plan.
(2) Coal Reserves in this table are presented as Marketable Coal Reserves. Process recoveries are reported in the following detailed disclosures for each coal operation.
(3) Reserve Life for South Africa Energy Coal, Illawarra Metallurgical Coal and South Africa Manganese is reported as the life of scheduled Ore/Coal Reserves for Klipspruit, Bulli and Wessels respectively. The Reserve Life for the remaining operations are stated in the following detailed disclosures.

Our Ore Reserves are within existing permitted mining tenements. Our mineral leases are of sufficient duration, or convey a legal right to renew the tenure, to enable all Ore Reserves on the leased properties to be mined in accordance with the current production schedules. These Ore Reserves may include areas where additional approvals are required, and it's expected that such approvals will be obtained within the timeframe needed for the current production schedule.

OUR GOVERNANCE ARRANGEMENTS AND INTERNAL CONTROLS

We have internal standards and governance arrangements that cover regulatory requirements for public reporting. To ensure correct and accurate public reporting our governance processes are managed by the Technical Governance function in coordination with the Company Secretariat function.

Our comprehensive review and audit program is aimed at assuring our Mineral Resource and Ore Reserve estimates. This includes:

- Annual review of Mineral Resources and Ore Reserves declarations and reports;
- Annual review of reconciliation performance metrics for operating mines;
- Periodic internal mine planning and Ore Reserve audits; and
- Independent audit of Mineral Resources or Ore Reserves that are new or have materially changed.

In FY20, we undertook three independent assurance audits of Mineral Resource estimates and two internal mine planning and Ore Reserve assurance audits. The frequency and scope of the audits are a function of the perceived risks and uncertainties associated with a particular Mineral Resource and Ore Reserve.

The accompanying tables, on pages 146-152, outline our Mineral/Coal Resources and Ore/Coal Reserves holdings.

OUR EXPLORATION, RESEARCH AND DEVELOPMENT

Our operations carry out exploration, research and development necessary to support our activities. Our brownfield exploration activities target the delineation and categorisation of mineral deposits connected or adjacent to our existing operations. Our greenfield exploration activities focus on the discovery and delineation of opportunities outside of our operational footprint, with a bias to base metals.

During FY20 we continued to expand our global exploration footprint. We funded greenfield exploration in Australia, Peru, Colombia, Argentina, Ireland, Sweden, Mexico and the United States. Our exploration expenditure for FY20 was US$64 million (FY19: US$76 million) of which US$27 million related to brownfield and US$37 million related to greenfield (FY19: US$23 million and US$53 million respectively).

COMPETENT PERSONS

Mineral Resources

Worsley: P Soodi Shoar, MAusIMM; J Binoir, MAusIMM; R Brown, MAusIMM, employed by SRK Consulting (Australasia) Pty Ltd

Mineração Rio Do Norte (MRN): M A H Monteiro, MAusIMM, employed by Mineração Rio do Norte S.A.

Cerro Matoso: I Espitia, MAusIMM

GEMCO: J Harvey, MAusIMM; D Hope, MAusIMM

Wessels & Mamatwan: L Lautze, Pri. Sci. Nat., SACNASP; F T Rambuda, Pri. Sci. Nat., SACNASP

Cannington: P Boamah, MAusIMM

Taylor: M Readford, MAusIMM (CP)

Clark: M Hastings, MAusIMM, employed by SRK Consulting (US) Inc

Arctic: D F Machuca Mory, PEng PEO employed by SRK Consulting (Canada) Inc; T Fouet, MAusIMM

Bornite: S Khosrowshahi, MAusIMM (CP) employed by Golder Associates Pty Ltd; T Fouet, MAusIMM

Ore Reserves

Worsley: G Burnham, MAusIMM

Mineração Rio Do Norte (MRN): P C Rodriguez, MAIG, employed by GE21 Consultoria Mineral.

Cerro Matoso: N Monterroza, MAusIMM

GEMCO: U Sandilands, MAusIMM

Wessels & Mamatwan: A R Maier, MSAIMM

Cannington: G Squissato Barboza, MAusIMM (CP)

Coal Resources

Khutala: S Ramluggan, Pri. Sci. Nat., SACNASP

Klipspruit: J Conradie, Pri. Sci. Nat., SACNASP, MGSSA

Wolvekrans Middelburg Complex (WMC): S Kara, Pri. Sci. Nat., SACNASP; L Visser, Pri. Sci. Nat., SACNASP

Leandra, Naudesbank, Pegasus & Davel: P Maseko, Pri. Sci. Nat., SACNASP

Eagle Downs: M Blaik, MAusIMM, employed by JB Mining Services Pty Ltd

Bulli & Wongawilli: J Gale, MAusIMM

Coal Reserves

Khutala: E van der Westhuizen, MSAIMM

Klipspruit: P Mulder, MSAIMM

Wolvekrans Middelburg Complex (WMC): Z Smith, MSAIMM

Bulli & Wongawilli: M Rose, MAusIMM

ALUMINA

Mineral Resources

		As at 30 June 2020													As at 30 June 2019		
		Measured Mineral Resources			Indicated Mineral Resources			Inferred Mineral Resources			Total Mineral Resources			South32 Interest	Total Mineral Resources		
Deposit[1]	Material Type	Mt	% A. Al_2O_3	% R. SiO_2	Mt	% A. Al_2O_3	% R. SiO_2	Mt	% A. Al_2O_3	% R. SiO_2	Mt	% A. Al_2O_3	% R. SiO_2	%	Mt	% A. Al_2O_3	% R. SiO_2
Worsley[2]	Laterite	331	28.3	1.4	405	29.2	2.0	406	28.7	2.1	1,140	28.8	1.9	86	1,190	28.8	1.9
MRN[3]	MRN Washed	303	49.6	4.4	43	48.9	5.0	134	49.9	3.7	481	49.6	4.2	14.8	494	49.7	4.2

Ore Reserves

		As at 30 June 2020											As at 30 June 2019			
		Proved Ore Reserves			Probable Ore Reserves			Total Ore Reserves			Reserve Life	South32 Interest	Total Ore Reserves			Reserve Life
Deposit[1][4][5]	Ore Type	Mt	% A. Al_2O_3	% R. SiO_2	Mt	% A. Al_2O_3	% R. SiO_2	Mt	% A. Al_2O_3	% R. SiO_2	Years	%	Mt	% A. Al_2O_3	% R. SiO_2	Years
Worsley	Laterite	241	27.6	1.8	15	28.8	1.3	257	27.7	1.7	15	86	270	27.7	1.7	15
MRN[3]	MRN Washed	25	48.3	5.3	3.0	48.2	5.2	28	48.3	5.3	5.4	14.8	44	48.5	5.5	2.7

(1) Cut-off grade

	Mineral Resources	Ore Reserves
Worsley	Variable ranging from 22-28% $A.Al_2O_3$, ≤3.5% $R.SiO_2$ and ≥1m thickness.	Variable ranging from 22.5-28% $A.Al_2O_3$, ≤3.5% $R.SiO_2$ and ≥1m thickness (except Marradong West ≥2m thickness).
MRN	≥46% $A.Al_2O_3$, ≤7% $R.SiO_2$, ≥1m thickness and ≥30% recovery on weight per cent basis.	≥ 46% $A.Al_2O_3$, ≤ 7% $R.SiO_2$, ≥ 1m thickness and ≥ 30% recovery on weight per cent basis.

(2) Mineral Resource tonnes decrease due to updated resource model boundary.

(3) MRN washed tonnes and grades represent the expected product based on forecast beneficiation yield.

(4) Ore delivered to process plant.

(5) Metallurgical recovery for the operations:

Worsley 94.1%

Alumar 91%

METALLURGICAL COAL

Australia Metallurgical Coal

Coal Resources

As at 30 June 2020 / As at 30 June 2019

			Measured Coal Resources				Indicated Coal Resources				Inferred Coal Resources				Total Coal Resources				South32 Interest	As at 30 June 2019 Total Coal Resources			
Deposit[1]	Mining Method	Coal Type	Mt	% Ash	% VM	% S	Mt	% Ash	% VM	% S	Mt	% Ash	% VM	% S	Mt	% Ash	% VM	% S	%	Mt	% Ash	% VM	% S
Eagle Downs[2][4]	UG	Met	759	29.4	15.0	0.46	201	28.7	14.7	0.48	183	30.0	14.8	0.47	1,140	29.4	14.9	0.47	50	1,080	29.7	14.9	0.48
Illawarra Metallurgical Coal[3]																			100				
Bulli	UG	Met/Th	137	11.2	23.9	0.37	310	12.3	23.7	0.36	336	13.5	23.1	0.36	783	12.6	23.5	0.36		796	12.7	23.4	0.36
Wongawilli	UG	Met/Th	47	28.7	23.6	0.59	237	29.5	22.2	0.57	145	29.7	22.4	0.57	428	29.5	22.4	0.57		439	29.5	22.5	0.57

Coal Reserves

As at 30 June 2020 / As at 30 June 2019

			Proved Coal Reserves	Probable Coal Reserves	Total Coal Reserves	Proved Marketable Coal Reserves				Probable Marketable Coal Reserves				Total Marketable Coal Reserves				Reserve Life	South32 Interest	As at 30 June 2019 Total Marketable Coal Reserves				Reserve Life
Deposit[1][6][7][8]	Mining Method	Coal Type	Mt	Mt	Mt	Mt	% Ash	% VM	% S	Mt	% Ash	% VM	% S	Mt	% Ash	% VM	% S	Years	%	Mt	% Ash	% VM	% S	Years
Illawarra Metallurgical Coal																			100					
Bulli[5]	UG	Met	17	98	116	15	8.9	24.1	0.37	84	8.9	24.6	0.35	99	8.9	24.5	0.35	24		95	8.9	24.6	0.36	19
Wongawilli	UG	Met/Th	6.1	6.8	13													3.0						3.7
	UG	Met				3.3	10.8	24.2	0.60	4.1	10.8	24.2	0.60	7.4	10.8	24.2	0.60			8.8	10.7	24.1	0.60	
	UG	Th				1.5	27.5			1.2	27.5			2.7	27.5					3.6	27.0			

(1) Cut-off grade

Coal Resources
No seam thickness cut-off applied, minimum thickness is economic.

Coal Reserves
No seam thickness cut-off applied, minimum thickness within the mine layout is economic.

(2) Coal Resource tonnes are reported on an in situ moisture basis. Ash, VM and S reported as raw.

(3) Coal Resource tonnes are reported on an in situ moisture basis. Ash is reported as raw, VM and S are reported as potential product on air-dried basis.

(4) Coal Resource tonnes increase due to new information and updated bulk density assumptions.

(5) Coal Reserve tonnes increase due to new information improving coal quality assumptions.

(6) Total Coal Reserves are at the moisture content when mined (6% Bulli, 7% Wongawilli). Total Marketable Coal Reserves are the tonnes of coal available at moisture content (9% Bulli, 15.5% Wongawilli Met, 7% Wongawilli Th) and air-dried qualities after the beneficiation of the Total Coal Reserves.

(7) Coal delivered to wash plant.

(8) Process recoveries for the operation:

Bulli	85%
Wongawilli	78%

ENERGY COAL

South Africa Energy Coal

Coal Resources

As at 30 June 2020			Measured Coal Resources					Indicated Coal Resources					Inferred Coal Resources					Total Coal Resources					South32 Interest	As at 30 June 2019 Total Coal Resources				
Deposit[1][2]	Mining Method	Coal Type	Mt	% Ash	% VM	% S	KCal/kg CV	Mt	% Ash	% VM	% S	KCal/kg CV	Mt	% Ash	% VM	% S	KCal/kg CV	Mt	% Ash	% VM	% S	KCal/kg CV	%	Mt	% Ash	% VM	% S	KCal/kg CV
Operating mines																							100					
Khutala	UG	Th	94	33.2	20.9	1.05	4,600	23	28.7	21.8	1.27	5,060						117	32.3	21.1	1.09	4,690		123	34.7	20.3	0.77	4,390
	OC	Th	1,098	31.7	22.4	1.15	4,800											1,098	31.7	22.4	1.15	4,800		1,098	30.4	22.6	1.20	4,890
Klipspruit[3]	OC	Th	341	28.6	22.5	1.22	5,180	145	29.9	22.2	1.33	5,080	220	31.3	21.6	1.09	4,950	706	29.7	22.1	1.20	5,090		633	29.7	22.2	1.23	5,090
Wolvekrans	OC	Th	609	26.9	22.6	1.11	5,470	17	29.7	22.8	0.98	5,140	178	24.3	23.5	1.23	5,730	804	26.4	22.8	1.13	5,520		825	26.5	22.8	1.13	5,510
Middleburg Complex (WMC)	SP	Th						5.0	30.0	20.8	0.84	5,140						5.0	30.0	20.8	0.84	5,140		7.1	31.1	20.2	0.87	5,210
Projects																							100					
Davel	UG	Th											222	22.8	27.2	1.49	5,790	222	22.8	27.2	1.49	5,790		222	22.8	27.2	1.49	5,790
Leandra	UG	Th	636	29.4	22.9	1.12	4,800	371	29.0	21.5	0.90	4,780	792	28.8	21.8	0.98	4,770	1,799	29.0	22.1	1.02	4,780		1,799	29.0	22.1	1.02	4,780
Naudesbank	OC & UG	Th	60	24.2	26.1	1.12	5,670	156	24.9	25.3	1.04	5,600	28	24.0	25.8	1.04	5,700	244	24.6	25.5	1.06	5,630		244	24.6	25.5	1.06	5,630
Pegasus	OC	Th	12	27.4	21.1	1.35	5,340	1.7	23.5	22.3	1.32	5,730						14	27.0	21.3	1.35	5,390		14	27.0	21.3	1.35	5,390

ENERGY COAL CONTINUED

South Africa Energy Coal continued

Coal Reserves

			As at 30 June 2020																				As at 30 June 2019					
			Proved Coal Reserves	Probable Coal Reserves	Total Coal Reserves	Proved Marketable Coal Reserves					Probable Marketable Coal Reserves					Total Marketable Coal Reserves					Reserve Life	South32 Interest	Total Marketable Coal Reserves					Reserve Life
Deposit(1)(4)(7)(8)	Mining Method	Coal Type	Mt	Mt	Mt	Mt	% Ash	% VM	% S	KCal/kg CV	Mt	% Ash	% VM	% S	KCal/kg CV	Mt	% Ash	% VM	% S	KCal/kg CV	Years	%	Mt	% Ash	% VM	% S	KCal/kg CV	Years
Operating mines																												
Khutala	UG(5)	Th	29	30	59	29	36.1	20.4	0.78	4,310	30	31.7	22.7	1.34	4,970	59	33.8	21.6	1.07	4,650	12	100	46	36.2	20.4	0.90	4,320	9.5
	OC	Th																					1.2	35.6	22.0	1.07	4,420	
Klipspruit(6)	OC	Th Export				50	14.8	22.6	0.70	5,990	14	14.7	22.8	0.69	6,050	65	14.8	22.7	0.69	6,000	30		54	15.1	22.5	0.68	5,960	26
	OC	Th	196	59	255	64	28.9	21.6	0.90	4,670	17	29.4	21.3	0.90	4,670	80	29.0	21.5	0.90	4,670			78	29.6	21.9	1.03	4,660	
	OC	Th Eskom				41	37.3	19.8	0.83	4,310	16	38.3	20.3	0.67	4,300	57	37.6	19.9	0.79	4,310			64	36.3	20.6	0.75	4,080	
Wolvekrans Middelburg Complex (WMC)	OC	Th	338	24	362																24							23
	SP	Th		5.0	5.0																							
	OC	Th Export				164	18.9	24.6	0.60	6,220	7.9	18.5	24.9	0.30	6,210	172	18.9	24.6	0.59	6,220			214	19.4	24.3	0.70	6,240	
	OC	Th Domestic				49	25.3	22.0	0.90	5,500	8.8	25.1	23.3	1.10	5,540	58	25.3	22.2	0.93	5,510			53	25.6	22.2	0.95	5,560	

(1) Cut-off grade

	Coal Resources	Coal Reserves
Khutala	≥ 1.0 m seam thickness for OC, ≥ 2.5 m seam thickness for UG, ≤45% ash, ≥ 24% dry ash-free volatile matter.	≥ 2.5 m seam thickness for UG.
Klipspruit	≥ 0.8 m, ≤45% ash, ≥ 24% dry ash-free volatile matter.	≥ 0.8m seam thickness, varying CV ≥ 3,580 Kcal/kg, ≤ 45% ash, ≥ 17.9% ash-free volatile matter.
WMC	≥ 1.0m seam thickness, ≤ 45% ash, ≥ 17.9% volatile matter.	≥ 1.0m seam thickness, ≥ 2,870 Kcal/kg CV, ≤ 45% ash, ≥ 17.9% volatile matter.
Davel	≥ 1.2 m seam thickness, ≥ 24% dry ash-free volatile matter.	
Leandra	≥ 1.8m seam thickness, ≤ 45% ash, ≥ 24% dry ash-free volatile matter.	
Naudesbank	≥ 0.8 m seam thickness, ≤ 45% ash, ≥ 22% dry ash-free volatile matter.	
Pegasus	≥ 1.0 m seam thickness, ≤ 45% ash, ≥ 24% dry ash-free volatile matter.	

(2) Coal Resource tonnes are reported on an in situ moisture basis and qualities are reported as raw on an air dried basis.

(3) Coal Resource tonnes increase due to changes in model estimation methodology and assumptions.

(4) Coal Reserve tonnes and quality are reported on an air dried basis. Ash, VM, S and CV reported as product qualities.

(5) Coal Reserve tonnes increase following project development approval.

(6) Coal Reserve tonnes increase due to Coal Resource tonnes increase.

(7) Coal delivered to wash plant, except for Khutala where coal is delivered to the power station.

(8) Process recoveries for the operations:

Khutala	100%
Klipspruit	78%
WMC	63%

NICKEL

Cerro Matoso

Mineral Resources

As at 30 June 2020											As at 30 June 2019	
		Measured Mineral Resources		Indicated Mineral Resources		Inferred Mineral Resources		Total Mineral Resources		South32 Interest	Total Mineral Resources	
Deposit[1]	Material Type	Mt	% Ni	Mt	% Ni	Mt	% Ni	Mt	% Ni	%	Mt	% Ni
Cerro Matoso	Laterite	43	1.2	153	0.9	51	0.8	247	0.9	99.9	248	0.9
	SP	13	1.1	30	0.8			43	0.9		47	0.9
	MNR - Ore	17	0.2					17	0.2		17	0.2

Ore Reserves

As at 30 June 2020										As at 30 June 2019		
		Proved Ore Reserves		Probable Ore Reserves		Total Ore Reserves		Reserve Life	South32 Interest	Total Ore Reserves		Reserve Life
Deposit[1][2][3]	Ore Type	Mt	% Ni	Mt	% Ni	Mt	% Ni	Years	%	Mt	% Ni	Years
Cerro Matoso	Laterite	9.5	1.2	4.0	1.0	14	1.2	8.9	99.9	15	1.2	10
	SP	8.8	1.1	7.1	1.1	16	1.1			17	1.2	

(1) Cut-off grade

	Mineral Resources	Ore Reserves
Laterite	0.6% Ni	0.6% Ni
SP	0.6% Ni	0.6% Ni
MNR-Ore	0.12% Ni	

(2) Ore delivered to process plant.

(3) Metallurgical Recovery: 86%

MANGANESE

Mineral Resources

As at 30 June 2020

		Measured Mineral Resources			Indicated Mineral Resources			Inferred Mineral Resources			Total Mineral Resources			South32 Interest	As at 30 June 2019 Total Mineral Resources		
Deposit[1]	Material Type	Mt	% Mn	% Yield	Mt	% Mn	% Yield	Mt	% Mn	% Yield	Mt	% Mn	% Yield	%	Mt	% Mn	% Yield
Australia Manganese																	
GEMCO	ROM[2]	79	45.2	49	44	41.0	47	15	40.9	49	138	43.4	48	60	151	43.5	48
	Sands[3]				7.5	20.8		2.3	20.0		10	20.6			11	20.6	
		Mt	% Mn	% Fe	Mt	% Mn	% Fe	Mt	% Mn	% Fe	Mt	% Mn	% Fe		Mt	% Mn	% Fe
South Africa Manganese[3]																	
Wessels	Lower Body	22	42.5	13.5	27	43.1	13.0	3.8	44.2	14.5	53	43.0	13.3	44.4	50	44.8	12.6
	Upper Body				71	41.0	18.8	19	40.3	19.6	90	40.8	19.0		94	41.4	18.3
Mamatwan	M, C, N Zones	20	37.3	4.4	35	36.8	4.5	0.5	37.4	5.2	56	37.0	4.5	44.4	59	37.0	4.5
	X Zone	2.6	37.3	4.7	2.4	35.7	4.6				5.0	36.5	4.6		5.6	36.5	4.6
	Top Cut (balance I&O)	9.8	29.9	6.1	12	29.2	6.2				22	29.5	6.2		26	29.5	6.2

Ore Reserves

As at 30 June 2020

		Proved Ore Reserves			Probable Ore Reserves			Total Ore Reserves			Reserve Life	South32 Interest	As at 30 June 2019 Total Ore Reserves			Reserve Life
Deposit[1][7]	Ore Type	Mt	% Mn	% Yield	Mt	% Mn	% Yield	Mt	% Mn	% Yield	Years	%	Mt	% Mn	% Yield	Years
Australia Manganese																
GEMCO[4]	ROM	42	43.3	62	9.2	43.8	58	51	43.4	61	5.7	60	58	43.3	60	6.4
	Sands				6.1	40.0	22	6.1	40.0	22			7.2	40.0	22	
		Mt	% Mn	% Fe	Mt	% Mn	% Fe	Mt	% Mn	% Fe			Mt	% Mn	% Fe	
South Africa Manganese[6]																
Wessels[5]	Lower Body	2.5	42.8	10.9	12	43.3	13.6	15	43.2	13.1	45	44.4	14	45.6	11.8	58
	Upper Body				47	40.6	18.9	47	40.6	18.9			64	41.7	17.9	
Mamatwan	M, C, N Zones	17	37.0	4.5	30	36.4	4.5	47	36.6	4.5	15	44.4	50	36.6	4.5	16
	X Zone				2.2	37.3	4.8	2.2	37.3	4.8			2.2	37.3	4.8	

(1) Cut-off grade

		Mineral Resources	Ore Reserves
GEMCO	ROM	≥35% Mn washed product.	≥40% Mn washed product.
	Sands	No cut-off grade applied.	No cut-off grade applied.
Wessels	Lower Body	≥37.5% Mn	≥ 37.5% Mn
	Upper Body	≥37.5% Mn	≥ 37.5% Mn
Mamatwan	M, C, N Zones	No cut-off grade applied.	No cut-off grade applied.
	X Zone	≥35% Mn	≥ 35% Mn
	Top Cut (balance I&O)	≥28% Mn	

(2) Mineral Resource tonnes are stated as in situ, manganese grades are given as per washed ore samples and should be read together with their respective mass recovery expressed as yield.

(3) Mineral Resource tonnes and manganese grades are reported as in situ.

(4) Ore Reserve tonnes are stated as delivered to process plant, manganese grades are reported as expected product and should be read together with their respective mass yields.

(5) Ore Reserve tonnes decrease due to reclassification of Mineral Resource tonnes.

(6) Ore delivered to process plant.

(7) Metallurgical/Plant recoveries for the operations:

GEMCO	See yield in Ore Reserves Table.
Wessels	88%
Mamatwan	96%

BASE METALS

Mineral Resources

As at 30 June 2020

		Measured Mineral Resources				Indicated Mineral Resources				Inferred Mineral Resources				Total Mineral Resources				South32 Interest	As at 30 June 2019 Total Mineral Resources			
Deposit[1]	Material Type	Mt	g/t Ag	% Pb	% Zn	Mt	g/t Ag	% Pb	% Zn	Mt	g/t Ag	% Pb	% Zn	Mt	g/t Ag	% Pb	% Zn	%	Mt	g/t Ag	% Pb	% Zn
Cannington																		100				
Cannington	UG Sulphide[2]	44	174	4.97	3.17	4.6	104	3.63	2.22	0.8	67	3.51	1.67	49	166	4.82	3.06		55	184	5.28	3.29
	OC Sulphide	25	103	3.18	2.45	4.0	69	2.59	1.68	1.4	52	2.49	1.33	30	96	3.07	2.30		30	98	3.14	2.34

		Measured Mineral Resources					Indicated Mineral Resources					Inferred Mineral Resources					Total Mineral Resources					South32 Interest	As at 30 June 2019 Total Mineral Resources				
Deposit[1]	Material Type	Mt	% Zn	% Pb	% Mn	g/t Ag	Mt	% Zn	% Pb	% Mn	g/t Ag	Mt	% Zn	% Pb	% Mn	g/t Ag	Mt	% Zn	% Pb	% Mn	g/t Ag	%	Mt	% Zn	% Pb	% Mn	g/t Ag
Hermosa																						100					
Taylor	UG Sulphide	21	4.33	3.82		58	98	3.17	4.02		77	42	3.14	3.51		69	162	3.31	3.86		72		149	3.32	3.66		70
	UG Transition						3.3	4.58	3.49		45	1.7	4.36	3.19		42	5.0	4.50	3.39		44		6.2	5.22	3.82		57
Clark	UG Oxide						33	2.49		9.39	56	22	2.04		8.64	110	55	2.31		9.08	78						

		Measured Mineral Resources						Indicated Mineral Resources						Inferred Mineral Resources						Total Mineral Resources						South32 Interest	As at 30 June 2019 Total Mineral Resources					
Deposit[1]	Material Type	Mt	% Cu	% Zn	% Pb	g/t Ag	g/t Au	Mt	% Cu	% Zn	% Pb	g/t Ag	g/t Au	Mt	% Cu	% Zn	% Pb	g/t Ag	g/t Au	Mt	% Cu	% Zn	% Pb	g/t Ag	g/t Au	%	Mt	% Cu	% Zn	% Pb	g/t Ag	g/t Au
Ambler																										50						
Arctic	OC Sulphide							33	3.14	4.43	0.80	49	0.63	4.7	2.55	3.34	0.57	37	0.38	37	3.06	4.30	0.77	47	0.60							
Bornite	OC Sulphide							40	1.06					38	1.03					78	1.04											
	UG Sulphide													70	2.29					70	2.29											

Ore Reserves

As at 30 June 2020

		Proved Ore Reserves				Probable Ore Reserves				Total Ore Reserves				Reserve Life	South32 Interest	As at 30 June 2019 Total Ore Reserves				Reserve Life
Deposit[1][3][4]	Ore Type	Mt	g/t Ag	% Pb	% Zn	Mt	g/t Ag	% Pb	% Zn	Mt	g/t Ag	% Pb	% Zn	Years	%	Mt	g/t Ag	% Pb	% Zn	Years
Cannington															100					
Cannington	UG Sulphide	20	174	5.33	3.29	0.5	172	6.15	3.17	20	173	5.35	3.28	11		21	173	5.28	3.29	12

(1) Cut-off grade

	Mineral Resources	Ore Reserves
Cannington	Net smelter return in A$/t	Net smelter return in A$/t
UG Sulphide	130	130
OC Sulphide	58	
Taylor	Net smelter return in US$/t	
UG Sulphide	90	
UG Transition	90	
Clark	Net smelter return in US$/t	
UG Oxide	175	
Arctic	Net smelter return in US$/t	
OC Sulphide	63.40	
Bornite		
OC Sulphide	0.5% Cu	
UG Sulphide	1.5% Cu	

(2) Mineral Resource tonnes decrease due to changes made in "reasonable prospects for eventual economic extraction" criteria.

(3) Ore delivered to process plant.

(4) Metallurgical recovery: 85% Ag, 87% Pb and 83% Zn.

Shareholder information

VOTING RIGHTS

South32 Limited ordinary shares carry voting rights of one vote per share.

Shareholders may hold a beneficial entitlement to dematerialised ordinary shares in South32 Limited, UK Depositary Interests and American Depositary Shares (ADS) through the Central Securities Depositories of Strate (Strate), CREST and Depository Trust Company respectively. Each share held dematerialised in Strate, or as a Depositary Interest held in CREST, entitles the holder to one vote. Each ADS is represented by five ordinary shares, with ADS voting managed by South32 Limited's ADS Depositary.

SUBSTANTIAL SHAREHOLDERS

As at 24 July 2020, South32 Limited has three substantial shareholders who, together with their associates, hold five per cent or more of the voting rights in South32 Limited, as notified to South32 under the Australian Corporations Act.

Name	Date notice received	Number of shares in notice	Percentage of capital in notice
Schroder Investment Management Australia Limited	21 July 2020	462,637,761	9.55%
BlackRock Group	11 March 2020	287,969,025	5.09%
The Vanguard Group	17 December 2019	296,001,781	6.01%

DISTRIBUTION OF SHAREHOLDINGS AND NUMBER OF SHAREHOLDERS

The following table shows the distribution of South32 Limited shareholders by size of shareholding and number of shareholders and shares as at 24 July 2020.

Size of holding	Number of shareholders	Number of shares	Percentage of capital
1 – 1,000	131,374	64,182,591	1.32
1,001 – 5,000	87,790	208,111,526	4.29
5,001 – 10,000	21,603	158,232,790	3.27
10,001 – 100,000	19,396	444,139,627	9.16
100,001 and over	642	3,971,601,349	81.95
Total	260,805	4,846,267,883	100.00

DISTRIBUTION OF RIGHTS HOLDINGS AND NUMBER OF RIGHTS HOLDERS

The following table shows the distribution of rights holders in South32 Limited by size of rights holding and number of rights holders and rights as at 24 July 2020.

Size of holding	Number of rights holders	Number of rights	Percentage of rights on issue
1 – 1,000	1,279	913,585	1.08
1,001 – 5,000	11,846	17,617,837	20.88
5,001 – 10,000	19	117,800	0.14
10,001 – 100,000	129	5,842,565	6.92
100,001 and over	113	59,883,656	70.97
Total	13,386	84,375,443	100.00

TWENTY LARGEST SHAREHOLDERS IN SOUTH32 LIMITED

The following table sets out the 20 largest shareholders of ordinary shares listed on our shareholder register and the details of their shareholding as at 24 July 2020.

Name		Number of fully paid shares	Percentage of capital
1	HSBC Custody Nominees (Australia) Limited	1,162,144,001	23.98
2	J P Morgan Nominees Australia Pty Limited	1,045,649,973	21.58
3	Computershare Clearing Pty Ltd <Ccnl Di A/C>	474,884,578	9.80
4	Citicorp Nominees Pty Ltd	389,165,924	8.03
5	National Nominees Limited	166,379,472	3.43
6	BNP Paribas Nominees Pty Ltd <Agency Lending DRP A/C>	126,413,234	2.61
7	South Africa Control A/C\C	108,387,009	2.24
8	HSBC Custody Nominees (Australia) Limited – A/C 2	75,432,805	1.56
9	Citicorp Nominees Pty Limited <Citibank NY ADR Dep A/C>	64,602,915	1.33
10	BNP Paribas Noms Pty Ltd <DRP>	44,352,312	0.92
11	HSBC Custody Nominees (Australia) Limited <NT-Comnwlth Super Corp A/C>	36,568,233	0.75
12	Citicorp Nominees Pty Limited <Colonial First State Inv A/C>	16,984,787	0.35
13	CPU Share Plans Pty Ltd <S32 ASP Unallocated A/C>	16,717,868	0.34
14	Australian Foundation Investment Company Limited	13,990,941	0.29
15	CPU Share Plans Pty Ltd <S32 SPA Control A/C>	12,010,385	0.25
16	HSBC Custody Nominees (Australia) Limited-GSCO ECA	11,106,960	0.23
17	AMP Life Limited	6,898,734	0.14
18	UBS Nominees Pty Ltd	6,589,432	0.14
19	BNP Paribas Noms (NZ) Ltd <DRP>	6,298,259	0.13
20	Argo Investments Limited	6,265,004	0.13
Total		3,790,842,826	78.22

RESTRICTED AND ESCROWED SECURITIES

As at 24 July 2020, South32 Limited does not have any restricted securities or securities subject to voluntary escrow on issue.

SHAREHOLDERS WITH LESS THAN A MARKETABLE PARCEL

As at 24 July 2020, there were 21,190 shareholders on the Australian South32 Limited register holding less than a marketable parcel (A$500) based on the closing market price of A$2.19.

ON-MARKET PURCHASES OF SOUTH32 LIMITED SECURITIES FOR EMPLOYEE INCENTIVE PLANS

The Group purchases South32 Limited ordinary shares on-market through the ESOP Trusts for the purposes of the South32 Equity Incentive Plans. During FY20, 8,435,000 shares were purchased on-market for the Australian ESOP Trust. The average price at which the shares were purchased was A$2.58.

A further 65,490 shares were purchased on-market for the South African ESOP Trust. The average price for which the shares were purchased was ZAR18.42.

DIVIDEND POLICY

Our dividend policy is determined by the Board at its discretion. Our priorities for cash flow are to maintain safe and reliable operations and an investment grade credit rating through the cycle.

South32 Limited intends to distribute a minimum 40 per cent of underlying earnings as dividends to its shareholders following each six-month reporting period. South32 Limited intends to distribute dividends with the maximum practicable franking credits for the purposes of the Australian dividend imputation system.

DIVIDEND DETERMINATION AND PAYMENT

Our dividends are determined in US dollars.

Dividends for shareholders of South32 Limited on the Australian register are paid by direct credit into their nominated bank account in Australian dollars, UK pounds sterling, New Zealand dollars or US dollars, provided direct credit details and currency election information are submitted no later than close of business on the dividend record date.

Dividends for shareholders of South32 Limited on the South African branch register and UK Depositary Interest holders are paid by direct credit in South African rand and UK pounds sterling respectively. For further information about dividends visit *www.south32.net/investors-media/investor-centre/dividends*.

CAPITAL MANAGEMENT PROGRAM

In February 2020, the Board increased our capital management program by US$180 million to US$1.43 billion, comprising a US$1.137 billion on-market share buy-back and special dividends of US$154 million (paid in 2018), US$85 million (paid in 2019) and US$54 million paid in April 2020. On 27 March 2020, in response to the potential impact of COVID-19 and consistent with the prudent management of our strong balance sheet and disciplined allocation of capital, South32 Limited suspended the remaining US$121 million of the on-market share buy-back. As at the date of this Annual Report, the buy-back remains suspended.

As at 30 June 2020 we had returned a total value of US$1.309 billion to our shareholders under the capital management program. Subsequent to 30 June 2020, the Board has extended the execution window for the remaining program by 12 months, to 3 September 2021, maintaining the flexibility to re-commence the program as COVID-19 related operational risks subside and our financial performance improves.

The on-market share buy-back was initially announced on 27 March 2017 and purchasing commenced on 19 April 2017. During the year ended 30 June 2020, South32 Limited purchased 159 million shares under the on-market share buy-back, which represented 3.18 per cent of share capital at the beginning of the financial year. Total consideration paid for these shares was US$269 million.

Between the commencement of purchasing under the on-market share buy-back on 19 April 2017 and 30 June 2020, South32 Limited purchased a total of 477 million shares under the on-market share buy-back, which represented 8.97 per cent of share capital at the commencement of the program. The total consideration paid for the shares bought back up to 30 June 2020 was US$1.016 billion.

All of the shares purchased by South32 Limited under the on-market buy-back have been cancelled. With the suspension of the buy-back, no shares have been purchased since 30 June 2020.

ANNUAL GENERAL MEETING (AGM)

Our 2020 AGM will be held on Thursday 29 October 2020 at 12.00pm (midday) Australian Western Standard Time as a virtual meeting, with shareholders participating via online facilities. Further details regarding the AGM will be made available in September 2020, and shareholders are encouraged to monitor securities exchange releases and the company's website *www.south32.net* for information and updates.

Presentations delivered at the AGM and the results of voting will be provided to all stock exchanges and will be available at *www.south32.net*.

STOCK EXCHANGES

As at 24 July 2020, South32 Limited has a primary listing on the Australian Securities Exchange, a secondary listing on the Johannesburg Stock Exchange, is admitted to the standard segment of the Official List of the UK Listing Authority and its ordinary shares are traded on the London Stock Exchange.

South32 Limited also has a Level 1 American Depositary Receipts program, which trades in the United States' over-the-counter market.

SHAREHOLDER ENQUIRIES

Shareholders can access their current holding details as well as their transaction history, view dividend statements and payments made, download statements and documents, change their address, update their communication preferences and banking details, and check their tax details online via Computershare Investor Centre at *www.computershare.com*.

Alternatively, refer to the following contacts:

SHARE REGISTRIES

Australia

Computershare Investor Services Pty Limited
Yarra Falls 452 Johnston Street
Abbotsford Victoria 3067
Australia

Telephone (Australia): 1800 019 953
Telephone (International): +61 (3) 9415 4169
Facsimile: +61 (3) 9473 2500

South Africa

Computershare Investor Services (Pty) Limited
Rosebank Towers, 15 Biermann Avenue
Rosebank, 2196
South Africa

Telephone: +27 (0) 11 373 0033
Facsimile: +27 (0) 11 688 5217
Email enquiries:
web.queries@computershare.co.za

Holders of shares dematerialised into Strate should contact their Central Securities Depository Participant or stockbroker.

United Kingdom

Computershare Investor Services PLC
The Pavilions, Bridgwater Road
Bristol BS99 6ZZ
United Kingdom

Telephone: +44 (0) 370 873 5884
Facsimile: +44 (0) 370 703 6101
Email enquiries:
web.queries@computershare.co.uk

American Depositary Receipts (ADR)

ADR holders should deal directly with Citibank Shareholder Services.

Citibank Shareholder Services
PO Box 43077 Providence,
Rhode Island 02940-3077

Telephone: +1 877 248 4237
(+1-877-CITIADR) (toll-free within US)
+1 781 575 4555 (outside of US)
Facsimile: +1 201 324 3284
Email enquiries:
citibank@shareholders-online.com
Website: *www.citi.com/dr*

BRANCHES

In accordance with DTR 4.1.11R(5), South32 Limited, through various subsidiaries, has established branches in a number of different jurisdictions in which the business operates.

REGISTERED OFFICE

Information regarding the South32 Limited Registered Office is included in the corporate directory on the inside back cover.

Shareholders are encouraged to access all South32 communications electronically at *www.south32.net*. Shareholders that wish to receive electronic communications can update their preferences online or telephone the relevant Computershare Investor Centre.

Glossary of terms and abbreviations

MINING RELATED TERMS

Alumina
Aluminium oxide (Al_2O_3). Alumina is produced from bauxite in the Bayer refining process. It's then converted (reduced) in an electrolysis cell to produce aluminium metal.

Ash
Inorganic material remaining after combustion of coal.

ASX Listing Rules (Chapter 5): Additional reporting on mining and oil and gas production and exploration activities
This chapter of the ASX Listing Rules sets out additional reporting and disclosure requirements for mining entities, oil and gas entities, as well as other entities reporting on mining and oil and gas activities.

AusIMM
The Australasian Institute of Mining and Metallurgy.

Bauxite
Principal commercial ore of aluminium.

Beneficiation
The process of physically separating ore from gangue to produce a mineral concentrate prior to subsequent processing.

Brownfield
An exploration or development project located within an existing mineral province, which can share infrastructure and management with an existing operation.

Coal Reserve
The same meaning as Ore Reserve, but specifically concerning coal.

Coal Resource
The same meaning as Mineral Resource, but specifically concerning coal.

Coking coal
Used in the manufacture of coke, which is used in the steelmaking process by virtue of its carbonisation properties. Coking coal is a form of, and may also be referred to as, metallurgical coal.

Competent Person
A minerals industry professional who is a Member or Fellow of The Australasian Institute of Mining and Metallurgy, or of the Australian Institute of Geoscientists, or of a 'Recognised Professional Organisation', as included in a list available on the JORC and ASX websites. These organisations have enforceable disciplinary processes, including the powers to suspend or expel a member.

A Competent Person must have a minimum of five years' relevant experience in the style of mineralisation or type of deposit under consideration and in the activity that the person is undertaking (JORC Code).

Cut-off grade
The lowest grade, or quality, of mineralised material that qualifies as economically mineable and available in a given deposit. It may be defined on the basis of economic evaluation, or on physical or chemical attributes that define an acceptable product specification (JORC Code).

Energy coal
Used as a fuel source in electrical power generation, cement manufacture and various industrial applications. Energy coal may also be referred to as steaming or thermal coal.

Flotation
A method of selectively recovering minerals from finely ground ore using a froth created in water by specific reagents. In the flotation process, certain mineral particles are induced to float by becoming attached to bubbles of froth and the unwanted mineral particles sink.

Grade
Any physical or chemical measurement of the characteristics of the material of interest in samples or product (JORC Code).

Greenfield
An exploration or development project located outside the area of influence of our existing mine operations/infrastructure.

Indicated Mineral Resource
That part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence. This allows the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit (JORC Code).

Inferred Mineral Resource
That part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity (JORC Code).

JORC
Joint Ore Reserves Committee comprising representatives of The Australasian Institute of Mining and Metallurgy (AusIMM), Australian Institute of Geoscientists (AIG) and Minerals Council of Australia (MCA) as well as the Australian Securities Exchange (ASX), the Financial Services Institute of Australasia (FinSIA) and the accounting profession.

JORC Code
The Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 Edition prepared by the JORC.

Leaching
The process by which a soluble metal can be economically recovered from minerals in ore by dissolution.

Marketable Coal Reserves
Represents beneficiated or otherwise enhanced coal product where modifications due to mining, dilution and processing have been considered (JORC Code).

MAusIMM
Member of The Australasian Institute of Mining and Metallurgy.

MAusIMM (CP)
Accredited Chartered Professional status of members of The AusIMM. These members have undergone an assessment of their competencies, which are maintained through continuing professional development activities.

Measured Mineral Resource
That part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit (JORC Code).

Metallurgical coal
A broader term than coking coal that includes all coals used in steelmaking, such as coal used for the pulverised coal injection process.

Mineral Resource
A concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories (JORC Code).

Mineralisation
Any single mineral or combination of minerals occurring in a mass, or deposit, of economic interest (JORC Code).

Modifying Factors
Considerations used to convert Mineral Resources to Ore Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors (JORC Code).

MSAIMM
Member of the Southern African Institute of Mining and Metallurgy.

Net smelter return (NSR)
An estimate of revenue derived from the sale of products and concentrates following the application of metallurgical recoveries and deducting transport costs, treatment and refining charges, penalties and royalties.

OC/OP (Open-cut/open-pit/open-cast)
Surface working in which the working area is kept open to the sky.

Ore Reserve
The economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at pre-feasibility or feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified (JORC Code).

PEng PEO
A licenced member of Professional Engineers of Ontario (PEO).

Probable Ore Reserve
The economically mineable part of an Indicated and, in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve (JORC Code).

Proved Ore Reserve
The economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors (JORC Code).

Pr.Sci.Nat.
Professional Natural Scientist of the South African Council for Natural Scientific Professions.

Reserve Life
The scheduled extraction period in years for the Total Ore Reserves in the approved Life of Operation Plan reported to two significant figures.

ROM (Run of Mine product)
Product mined in the course of regular mining activities.

SACNASP
South African Council for Natural Scientific Professions.

SAIMM
Southern African Institute of Mining and Metallurgy.

Sands
Tailings produced as a by-product during beneficiation of ore.

Stockpile (SP)
An accumulation of ore or mineral built up when demand slackens or when the treatment plant or beneficiation equipment is incomplete or temporarily unable to process the mine output; any heap of material formed to create a buffer for loading or other purposes, or material dug and piled for future use.

Tailings
Those portions of washed or milled ore that are too poor to be treated further or remain after the required metals and minerals have been extracted.

Total Ore Reserves
Proved Ore Reserves plus Probable Ore Reserves.

Total Mineral Resources
The sum of Inferred Mineral Resources, Indicated Mineral Resources and Measured Mineral Resources.

Transitional climate change risks
Non-physical risks arising from changes to policy, technology, legal and markets as the world moves to a low-carbon energy system, in line with the Paris Agreement objectives.

Yield
The percentage of material of interest that is extracted during mining and/or processing. A measure of mining or processing efficiency (JORC Code). When used in reference to the Mineral Resource estimate yield refers to the sample mass recovery following beneficiation.

FINANCE, MARKETING AND GENERAL TERMS

AASB
Australian Accounting Standards Board.

Adjusted return on invested capital (Adjusted ROIC)
Calculated as Underlying EBIT, adjusted for uncontrollable and one-off impacts in the current financial year, less the discount on rehabilitation provisions included in net finance cost, tax effected by the Group's prior period Underlying effective tax rate (ETR) including our manganese equity accounted investments on a proportional consolidated basis, divided by the sum of fixed assets (excluding any rehabilitation asset, the impairment of South Africa Energy Coal and our equity accounted manganese alloy smelters, and unproductive capital associated on Major project capital) and inventories. Our manganese equity accounted investments are included in the calculation on a proportional consolidation basis. Underlying EBIT is adjusted by excluding the current period impacts of foreign currency on revenue and cost, and commodity prices on revenue and associated price-linked costs, less the discount on rehabilitation provisions included in net finance cost, and tax effected by the Group's prior period Underlying effective tax rate.

AGM
Annual General Meeting.

AO
Officer of the Order of Australia.

Australian Securities and Investments Commission (ASIC)
The independent Australian Government body that is Australia's integrated corporate, markets, financial services and consumer credit regulator.

ASX
ASX Limited or Australian Securities Exchange.

ASX Listing Rules
The rules governing the listing of an entity and the quotation of its securities on the ASX.

B-BBEE
Broad-Based Black Economic Empowerment.

BHP
BHP, formerly known as BHP Billiton, is the group of companies headed by, and including, BHP Group Ltd and BHP Group plc.

Black People
Refers to Africans, Coloureds and Indians who are citizens of the Republic of South Africa by birth or descent (as more fully defined in the *Broad-Based Black Economic Empowerment Amendment Act 2013* (South Africa)).

Board
The Board of Directors of South32 Limited.

CEO
Chief Executive Officer.

CFO
Chief Financial Officer.

Glossary of terms and abbreviations continued

FINANCE, MARKETING AND GENERAL TERMS CONTINUED

CIF
A contractual term defining responsibilities and division of cost and risk between buyer and seller, in which the seller is responsible for clearing the goods for export and bears the cost of freight and insurance to the named port of destination. The buyer assumes all risks and costs for unloading the goods and clearing the goods for import. Risk passes from seller to buyer once the goods are on board the vessel at the port of shipment.

CO_2-e
Carbon dioxide equivalent.

Community investment
Contributions made to support communities that we operate in, or have an interest in. Our contributions to community programs comprise direct investment, in-kind support and administrative costs.

COO
Chief Operating Officer.

Corporations Act
Corporations Act 2001 (Cth).

Commodity Price Protocol (CPP)
Refers to the long-term commodity price forecasts used internally within South32. There is a governance process to ensure that a consistent set of macroeconomic assumptions are used to develop the commodity prices to be applied across South32.

CSO
Chief Sustainability Officer.

Demerger
The separation of assets from BHP effected in May 2015 to create a separate entity South32 Limited, listed on the ASX, LSE and JSE.

DTR
UK Financial Conduct Authority's Disclosure Guidance and Transparency Rules. A reference to DTR followed by a number is a specific rule under the DTR.

EBIT
Earnings before interest and tax.

EBITDA
Earnings before interest, tax, depreciation and amortisation.

Effective tax rate (ETR)
Income tax expense/benefit divided by profit/loss subject to tax; both the numerator and denominator exclude equity accounted investments.

ESOP Trusts
The trusts which purchase and hold South32 Limited shares for the purpose of the South32 Equity Incentive Plans. South32 has an Australian ESOP Trust and South African ESOP Trust for employees located in the respective countries.

Executive KMP
Lead Team members who are classified as KMP.

External Auditor
KPMG.

Free On Board (FOB)
A contractual term defining responsibilities and division of cost and risk between buyer and seller, in which the seller is responsible for clearing the goods for export and loading them on board the vessel at the named port of shipment. The buyer assumes all risks and costs for goods from this moment forward.

Free cash flow
Free cash flow before interest and tax represents operating cash flows including dividends received from equity accounted investments, before financing activities and tax, and after capital expenditure.

FX
Foreign exchange.

FYXX
Refers to the financial year ending 30 June 20XX, where XX is the two-digit number for the year.

Gearing
The ratio of net debt to net debt plus net assets.

Greenhouse gas (GHG)
For our reporting purposes, these are the aggregate anthropogenic carbon dioxide equivalent (CO_2-e) emissions of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6). These are measured according to the World Resources Institute/ World Business Council for Sustainable Development Greenhouse Gas Protocol.

Global Reporting Initiative (GRI)
GRI is an international independent organisation that has established an international framework and standards for sustainability reporting. South32 prepares our Group-level annual Sustainable Development Report in accordance with the GRI Sustainability Reporting Standards (Core option) and the GRI Mining & Metals Sector Supplement.

Group
Refers to South32 Limited and its subsidiaries and operated joint arrangements.

HSEC
Health, safety, environment and community.

International Council on Mining and Metals (ICMM)
ICMM is an international organisation dedicated to improving the social and environmental performance of the mining and metals industry. As a corporate member, South32 commit to implementing and reporting on the ICMM Mining Principles, which define environmental, social and governance requirements. South32 participates on the ICMM and various working groups.

International Financial Reporting Standards (IFRS)
Accounting standards as issued by the IASB (International Accounting Standards Board).

JSE
Johannesburg Stock Exchange.

KMP
Key management personnel are people who have authority and responsibility for planning, directing and controlling the activities of South32 either directly or indirectly.

LBMA
London Bullion Market Association.

Lead Team
All Chief positions within South32.

LME
London Metal Exchange.

LSE
London Stock Exchange.

LTI
Long-term incentive.

Margin on third party products
Comprises Underlying EBIT on third party products and services, divided by revenue on third party products and services.

MRN (non-operated joint venture)
Mineração Rio do Norte.

MSCI
Morgan Stanley Capital International.

Net cash
Comprises cash and cash equivalents less interest bearing liabilities.

Net debt
Comprises interest bearing liabilities, less cash and cash equivalents.

Net operating assets
Represents operating assets net of operating liabilities which predominantly excludes the carrying value of equity accounted investments, cash, interest bearing liabilities, tax balances and certain other financial assets and liabilities.

NYSE
New York Stock Exchange.

Occupational illness
An occupational illness is any abnormal condition or disorder, other than one resulting from an occupational injury, caused or aggravated by exposures to factors associated with employment. It includes acute or chronic illnesses or diseases which may be caused by inhalation, absorption, ingestion or direct contact.

Occupational Exposure Limit (OEL)
The concentration of a substance or agent, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all workers.

Occupational Safety and Health Administration (OSHA)
The OSHA of the United States Department of Labor. We adopt these guidelines for the recording and reporting of occupational injuries and illnesses to ensure that classifications are applied uniformly across our workforce.

Operating unit cost
Operating unit cost is Revenue less Underlying EBITDA divided by sales volume.

Operational Leadership Team
The Operational Leadership Team includes Managers and General Managers who report to Vice President Operations or General Managers at an operation.

Recordable illnesses
The sum of work-related (fatalities + permanent impairment >30 per cent of body + lost time illnesses + restricted work illnesses + medical treatment illnesses).

Recordable injuries
The sum of work-related (fatalities + permanent impairment >30 per cent of body + lost time injuries + restricted work injuries + medical treatment injuries).

Return on invested capital (ROIC)
Calculated as Underlying EBIT less the discount on rehabilitation provisions included in net finance cost, tax effected by the Group's Underlying effective tax rate (ETR) including our manganese equity accounted investments on a proportional consolidated basis, divided by the sum of fixed assets (excluding any rehabilitation asset, the impairment of South Africa Energy Coal and our equity accounted manganese alloy smelters, and unproductive capital associated on Major project capital) and inventories. Our manganese equity accounted investments are included in the calculation on a proportional consolidation basis.

Senior Leadership Team
The Senior Leadership Team includes Vice Presidents, Group Managers and Project Directors who report directly to the South32 Lead Team.

Shared value
The identification of opportunities that create economic value while also advancing the environmental and social outcomes of the communities and regions in which we operate.

South32 Equity Incentive Plan
An equity incentive plan that allows the Board to make offers to employees to acquire securities in South32 Limited and to otherwise incentivise employees.

STI
Short-term incentive.

Total Recordable Injury Frequency (TRIF)
The sum of (recordable injuries x 1,000,000) ÷ exposure hours. This is stated in units of per million hours worked for employees and contractors. We adopt the United States Government Occupational Safety and Health Administration (OSHA) guidelines for the recording and reporting of occupational injuries and illnesses.

Total Recordable Illness Frequency (TRILF)
The sum of (recordable illnesses x 1,000,000) ÷ exposure hours, for employees and contractors. This is stated in units of per million hours worked for employees and contractors. We adopt the United States Government Occupational Safety and Health Administration (OSHA) guidelines for the recording and reporting of occupational injuries and illnesses.

Total Shareholder Return (TSR)
TSR measures the return delivered to shareholders over a certain period through the change in share price and any dividends paid. It is the measure used to compare our performance to that of relevant peer groups under the LTI.

Transformation
A national strategy in South Africa aimed at attaining national unity, promoting reconciliation through negotiated settlement and non-racism.

TSX
Toronto Stock Exchange.

Underlying earnings
Underlying earnings is profit after tax and earnings adjustment items. Earnings adjustments represent items that don't reflect our underlying operations. We believe that Underlying earnings provides useful information, but shouldn't be considered as an indication of, or an alternative to, profit or attributable profit as an indicator of operating performance.

Underlying EBIT
Underlying EBIT is profit before net finance costs, tax and after any earnings adjustment items, impacting profit. It's reported inclusive of our share of net finance costs and tax of equity accounted investments. It isn't an IFRS measure of profitability, financial performance or liquidity and may be defined and used in differing ways by different entities. We believe that Underlying EBIT provides useful information, but shouldn't be considered as an indication of, or alternative to, profit or attributable profit as an indicator of operating performance.

Underlying EBIT margin
Comprises Underlying EBIT excluding third party product EBIT, divided by revenue excluding third party product revenue.

Underlying EBITDA
Underlying EBIT before depreciation and amortisation.

Underlying EBITDA margin
Comprises Underlying EBITDA excluding third party product EBITDA, divided by revenue excluding third party product revenue.

Underlying effective tax rate (ETR)
Underlying income tax expense/benefit divided by underlying profit/loss subject to tax; both the numerator and denominator exclude equity accounted investments.

Workplace Gender Equality Act 2012
Australian legislation which aims to improve and promote equality for both women and men in the workplace.

TERMS USED IN RESOURCES AND RESERVES

A.Al_2O_3
available alumina

Ag
silver

Au
gold

Cu
copper

CV
calorific value

Fe
iron

Met
metallurgical coal

Mn
manganese

Ni
nickel

OC
open-cut/open-pit/opencast

Pb
lead

R.SiO_2
reactive silica

S
sulphur

Th
thermal coal

UG
underground

VM
Volatile Matter

Zn
zinc

Glossary of terms and abbreviations continued

UNITS OF MEASURE

%
percentage or per cent

dmt
dry metric tonne

dmtu
dry metric tonne unit

g/t
grams per tonne

ha
hectare

Kcal/kg
kilo calories per kilogram

kdmt
thousand dry metric tonne

kL
kilolitre

km
kilometre

koz
thousand ounces

kt
kilotonnes

$ktCO_2$-e
kilotonnes of carbon dioxide equivalent

ktpa
kilotonnes per annum

kW
kilowatt

kwmt
thousand wet metric tonnes

m
metre

ML
megalitre

Moz
million ounces

Mt
million tonnes

Mtpa
million tonnes per annum

oz
ounce

t
tonnes

tpa
tonnes per annum

tpd
tonnes per day

tph
tonnes per hour

US$/lb
US dollars per pound

US$/oz
US dollars per ounce

US$/t
US dollars per tonne

US$/toz
US dollars per troy ounce

Corporate directory

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Printed copies of this Annual Report will only be posted to those shareholders who have requested a printed copy. Other shareholders are notified when the Annual Report becomes available and given details of where to access it electronically.

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SOUTH32

We acknowledge the Indigenous Peoples and local communities of the lands on which South32 is located and where we conduct our business around the world.

We respect and acknowledge the unique cultural and spiritual relationships that Indigenous Peoples and local communities have to the land, waters and seas, and their rich contribution to society.

In the spirit of respect and reconciliation, we will continue to support initiatives that strengthen culture and ways of life to ensure their legacy continues and extends to future generations.