

BHP

Annual Report

2019



Our Charter

We are BHP, a leading global resources company.

Our Purpose

To bring people and resources together to build a better world.

Our Strategy

Our strategy is to have the best capabilities, best commodities and best assets, to create long-term value and high returns.

Our Values

Sustainability

Putting health and safety first, being environmentally responsible and supporting our communities.

Integrity

Doing what is right and doing what we say we will do.

Respect

Embracing openness, trust, teamwork, diversity and relationships that are mutually beneficial.

Performance

Achieving superior business results by stretching our capabilities.

Simplicity

Focusing our efforts on the things that matter most.

Accountability

Defining and accepting responsibility and delivering on our commitments.

We are successful when:

Our people start each day with a sense of purpose and end the day with a sense of accomplishment.

Our teams are inclusive and diverse.

Our communities, customers and suppliers value their relationships with us.

Our asset portfolio is world-class and sustainably developed.

Our operational discipline and financial strength enables our future growth.

Our shareholders receive a superior return on their investment.

Andrew Mackenzie
Chief Executive Officer

May 2019



The Annual Report 2019 is available online at bhp.com.

BHP Group Limited, ABN 49 004 028 077. Registered in Australia. Registered office: 171 Collins Street, Melbourne, Victoria 3000, Australia. BHP Group Plc. Registration number 3196209. Registered in England and Wales. Registered office: Nova South, 160 Victoria Street London SW1E 5LB United Kingdom. Each of BHP Group Limited and BHP Group Plc is a member of the Group, which has its headquarters in Australia. BHP is a Dual Listed Company structure comprising BHP Group Limited and BHP Group Plc. The two entities continue to exist as separate companies but operate as a combined group known as BHP.

The headquarters of BHP Group Limited and the global headquarters of the combined Group are located in Melbourne, Australia. The headquarters of BHP Group Plc are located in London, United Kingdom. Both companies have identical Boards of Directors and are run by a unified management team. Throughout this publication, the Boards are referred to collectively as the Board. Shareholders in each company have equivalent economic and voting rights in the Group as a whole.

In this Annual Report, the terms 'BHP', the 'Company', the 'Group', 'our business', 'organisation', 'we', 'us', 'our' and 'ourselves' refer to BHP Group Limited, BHP Group Plc and, except where the context otherwise requires, their respective subsidiaries as defined in note 13 'Related undertaking of the Group' in section 5.2 of this Report. Those terms do not include non-operated assets.

This Annual Report covers BHP's assets (including those under exploration, projects in development or execution phases, sites and closed operations) that have been wholly owned and/or operated by BHP and that have been owned as a joint venture⁽¹⁾ operated by BHP (referred to in this Report as 'assets', 'operated assets' or 'operations') during the period from 1 July 2018 to 30 June 2019. Our functions are also included.

BHP also holds interests in assets that are owned as a joint venture but not operated by BHP (referred to in this Annual Report as 'non-operated joint ventures' or 'non-operated assets'). Notwithstanding that this Annual Report may include production, financial and other information from non-operated assets, non-operated assets are not included in the BHP Group and, as a result, statements regarding our operations, assets and values apply only to our operated assets unless stated otherwise.

(1) References in this Annual Report to a 'joint venture' are used for convenience to collectively describe assets that are not wholly owned by BHP. Such references are not intended to characterise the legal relationship between the owners of the asset.

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Forward looking statements

This Annual Report contains forward looking statements, including statements regarding trends in commodity prices and currency exchange rates; demand for commodities; production forecasts; plans, strategies and objectives of management; closure or divestment of certain assets, operations or facilities (including associated costs); anticipated production or construction commencement dates; capital costs and scheduling; operating costs; anticipated productive lives of projects, mines and facilities; provisions and contingent liabilities; and tax and regulatory developments. Forward looking statements may be identified by the use of terminology including, but not limited to, 'intend', 'aim', 'project', 'anticipate', 'estimate', 'plan', 'believe', 'expect', 'may', 'should', 'will', 'continue' or similar words. These statements discuss future expectations concerning the results of assets or financial conditions, or provide other forward looking information. These forward looking statements are not guarantees or predictions of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond our control and which may cause actual results to differ materially from those expressed in the statements contained in this Annual Report. Readers are cautioned not to put undue reliance on forward looking statements.

For example, our future revenues from our assets, projects or mines described in this Annual Report will be based, in part, on the market price of the minerals, metals or petroleum products produced, which may vary significantly from current levels. These variations, if materially adverse, may affect the timing or the feasibility of the development of a particular project, the expansion of certain facilities or mines, or the continuation of existing assets.

Other factors that may affect the actual construction or production commencement dates, costs or production output and anticipated lives of assets, mines or facilities include: our ability to profitably produce and transport the minerals, petroleum and/or metals extracted to applicable markets; the impact of foreign currency exchange rates on the market prices of the minerals, petroleum or metals we produce; activities of government authorities in the countries where we are exploring or developing projects, facilities or mines, including increases in taxes, changes in environmental and other regulations and political uncertainty; labour unrest; and other factors identified in the risk factors set out in section 1.6.4.

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Except as required by applicable regulations or by law, BHP does not undertake to publicly update or review any forward looking statements, whether as a result of new information or future events.

Past performance cannot be relied on as a guide to future performance.

Agreements for sale of Onshore US

On 28 September 2018, BHP completed the sale of 100 per cent of the issued share capital of BHP Billiton Petroleum (Arkansas) Inc. and 100 per cent of the membership interests in BHP Billiton Petroleum (Fayetteville) LLC, which held the Fayetteville assets, for a gross cash consideration of US\$0.3 billion.

On 31 October 2018, BHP completed the sale of 100 per cent of the issued share capital of Petrohawk Energy Corporation, the BHP subsidiary which held the Eagle Ford (being Black Hawk and Hawkvile), Haynesville and Permian assets, for a gross cash consideration of US\$10.3 billion (net of preliminary customary completion adjustments of US\$0.2 billion).

While the effective date at which the right to economic profits transferred to the purchasers was 1 July 2018, the Group continued to control the Onshore US assets until the completion dates of their respective transactions. In addition, the Group provided transitional services to the buyer, which ceased in July 2019.

For IFRS accounting purposes, Onshore US is treated as Discontinued operations in BHP's Financial Statements. Unless otherwise stated, information in section 5 has been presented on a Continuing operations basis to exclude the contribution from Onshore US assets. Details of the contribution of Onshore US assets to the Group's results are disclosed in note 27 'Discontinued operations' in section 5. All other information in this Annual Report (other than FY2019 safety performance data) relating to the Group has been presented on a Continuing and Discontinued operations basis to include the contribution from Onshore US assets prior to completion of their sale, unless otherwise stated, FY2019 safety performance data in this Annual Report has been presented on a Continuing and Discontinued basis to include the contribution from Onshore US assets to 28 February 2019.

Unless otherwise stated, comparative financial information for FY2017, FY2016 and FY2015 has been restated to reflect the sale of the Onshore US assets, as required by IFRS 5/AASB 5 'Non-current Assets Held for Sale and Discontinued Operations'. Consolidated Balance Sheet information for these periods has not been restated as accounting standards do not require it.



Section 1

Strategic Report

About this Strategic Report

This Strategic Report in section 1 provides insight into BHP's strategy, operating and business model, and objectives. It describes the principal risks BHP faces and how these risks might affect our future prospects. It also gives our perspective on our recent operational and financial performance.

This disclosure is also intended to assist shareholders and other stakeholders to understand and interpret the Consolidated Financial Statements prepared in accordance with International Financial Reporting Standards (IFRS) included in this Annual Report. The basis of preparation of the Consolidated Financial Statements is set out in section 5.1. We also use alternative performance measures to explain our underlying performance; however, these measures should not be considered as an indication of, or as a substitute for, statutory measures as an indicator of actual operating performance, position or as a substitute for cash flow as a measure of liquidity. To obtain full details of the financial and operational performance of BHP, this Strategic Report should be read in conjunction with the Consolidated Financial Statements and accompanying notes. Underlying EBITDA is the key measure that management uses internally to assess the performance of the Group's segments and make decisions on the allocation of resources. Unless otherwise stated, data in section 1 is presented on a Continuing operations and Discontinued operations basis.

This Strategic Report in section 1 meets the requirements of the UK Companies Act 2006 and the Operating and Financial Review required by the Australian Corporations Act 2001.

We have excluded certain information from this Strategic Report, to the extent permitted by UK and Australian law, on the basis that it relates to impending developments or matters in the course of negotiation, and disclosure would be seriously prejudicial to the interests of BHP. This is because such disclosure could be misleading due to the fact it is premature or preliminary in nature, relates to commercially sensitive contracts, would undermine confidentiality between BHP and its suppliers and clients, or would otherwise unreasonably damage the business. The categories of information omitted include forward looking estimates and projections prepared for internal management purposes, information regarding BHP's assets and projects that is developing and susceptible to change, and information relating to commercial contracts and pricing modules.

References to sections beyond section 1 are references to other sections in this Annual Report 2019. Shareholders may obtain a hard copy of the Annual Report free of charge by contacting our Share Registrars, whose details are set out in our Corporate directory on the inside back cover of this Annual Report.



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1.1 Chairman's Review



Dear Shareholder,

I am pleased to provide our Annual Report for FY2019. During the year, our relentless focus on strengthening our portfolio, capital discipline, culture and productivity delivered a solid set of financial results. Higher prices and record production from a number of operations contributed to strong operating cash flows and enabled BHP to announce a record final dividend of 78 US cents per share.

We completed the sale of our Onshore US oil and gas business in October 2018. Net proceeds of US\$10.4 billion were returned to shareholders through a combination of an off-market buy-back in December 2018, and a special dividend in January 2019. These returns, when added to dividends announced in respect of FY2019, delivered record annual cash returns to shareholders.

We continued to invest in our future through the disciplined and transparent application of our Capital Allocation Framework. BHP currently has six major projects under development in petroleum, copper, iron ore and potash. All of them are on schedule and budget.

While we made strong progress in FY2019, we achieve nothing if it is not done safely. Tragically, in December last year, our colleague Allan Houston died at BMA's Saraji Mine in Queensland. I offer my condolences to Allan's family, friends and colleagues. We have shared the findings of the fatality investigation across the organisation and we will continue our work to improve safety tools and behaviours.

The collapse earlier this year of the Brumadinho tailings dam, owned by Brazilian company Vale, was a tragic event for the industry. Unfortunately, we know too well the toll these events take on communities. We have responded to a Church of England Pensions Board request for information on our own tailings facilities – a request sent to around 700 mining companies. We held investor briefings in Sydney and London to talk openly about how we manage our tailings storage facilities. We are working closely with industry and other stakeholders to achieve more consistent disclosure. We will also participate in setting new international and independent tailings management standards to improve transparency and accountability across the industry.

Throughout FY2019, I met with many of our shareholders and stakeholders. These discussions have renewed our commitment to deliver on the five key priorities for BHP – safety, portfolio, capital discipline, culture and capability, and social value. I strongly believe our focus on these key areas will create value for shareholders and make a positive contribution to society.

To strengthen our operating performance, this year we established a dedicated Transformation Office to focus on workforce capability and technology deployment. Our transformation efforts will make BHP safer and our operations more efficient and reliable. These efforts will develop workforce capability so that our people are equipped for the rapid pace of change that lies ahead. Coupled with a lean and agile management culture, transformation has the potential to unlock significant value in the short and medium term.

We also take a structured and rigorous approach to Board succession. In FY2019, we welcomed two new Board members, Ian Cockerill and Susan Kilsby, who joined us in April 2019. Ian and Susan are both excellent additions to the Board and will help ensure we have the right balance of attributes, skills, experience and diversity necessary for the Board to govern BHP effectively.

Carolyn Hewson, a Board member for over nine years, will be retiring from the Board, as planned, at this year's Annual General Meeting. On behalf of her colleagues on the Board, and the many employees she has closely interacted with over this term, I thank Carolyn for her counsel on the Board and as Chairman of the Remuneration Committee. Carolyn has made an outstanding contribution to BHP and we wish her the very best for the future.

The progress our people have made to our five focus areas has positioned us well for the future. I am confident that BHP, led by Andrew Mackenzie and the leadership team, has the right assets and capability to deliver strong shareholder value and returns.

Thank you for your continued support of BHP.

A handwritten signature in black ink, appearing to read "K MacKenzie".

Ken MacKenzie
Chairman

1.2 Chief Executive Officer's Report



Dear Shareholder,

BHP's commitment to simplification, capital discipline and culture laid the groundwork for a solid performance in FY2019. From these strong foundations, we are confident in the long-term outlook, with significant opportunities ahead to further transform our business and deliver value and returns for our shareholders.

While our performance is a key indicator of success, how we operate is equally critical.

This year, we changed Our Charter to revise our company purpose. Our purpose is: *to bring people and resources together to build a better world*. We also added social value as one of our five company priorities. These changes recognise that we work with a range of stakeholders to make a positive contribution to the world. We know we must build trust and forge mutually beneficial partnerships for the long term, because the value we create together is central to shareholder value.

As always at BHP, the health, safety and wellbeing of our people remains our highest priority.

In December 2018, our colleague Allan Houston died at BMA's Saraji Mine in Queensland. He remains in our thoughts as do his colleagues, family and friends. After a lengthy and thorough investigation, we could not determine the direct cause of the incident but the investigation identified several areas for improvement, which we shared across the organisation.

There was a slight rise in total recordable injury frequency to 4.7 per million hours worked. However, we reduced the number of events with the potential to cause a fatality by 7 per cent, which is a critical indicator of our future safety performance across our business. This result is positive, but there is more we can and will do.

Our FY2019 financial performance from continuing operations was strong. Higher prices and solid underlying performance contributed to EBITDA of US\$23 billion at a margin of 53 per cent. Underlying attributable profit was US\$9.5 billion.

We have generated consistently strong operating cash flows over the past few years and delivered a further US\$17 billion in FY2019. We used this cash to progress attractive growth projects, pay down debt and deliver record cash returns to shareholders.

The final dividend declared for FY2019 was a record 78 US cents per share – or US\$3.9 billion in total. This is in addition to the US\$17 billion we already returned to shareholders during the year.

With the approval of the Ruby oil and gas development in August 2019, we now have six major projects under development. All of these are on schedule and budget. We also had further exploration success in copper and oil and are confident we have a rich set of options to grow value in the future.

In July 2019, we announced a five-year US\$400 million Climate Investment Program to find the best technologies, investments and solutions to reduce greenhouse gas emissions across our value chain.

We are well positioned for future success. We have plans to maximise the value of our assets through our transformation programs and disciplined investment. We will invest in our culture and capabilities so our workforce is more inclusive and diverse and ready for the challenges of tomorrow. Their hard work has secured a strong outcome for BHP this year and I thank them for their energy and commitment.

Thank you also to our shareholders, suppliers, customers and the communities in which we operate. We are a better company because of your trust and support.

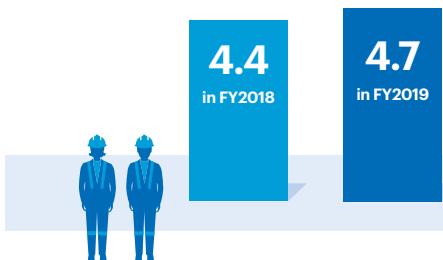


Andrew Mackenzie
Chief Executive Officer

1.3 BHP at a glance: FY2019 performance summary

Safety is our top priority

Disappointingly, our total recordable injury frequency (TRIF) increased by **7%** from last year ⁽¹⁾⁽²⁾



We created value for the community

We made a social investment of **US\$93.5 million** to communities around the world ⁽³⁾

We continued to focus on productivity

Strong cost discipline over the past five years has seen continued reduction in unit costs⁽¹⁾

Since FY2014, we've reduced unit costs by over **20%** across our major assets

Western Australia Iron Ore unit costs⁽²⁾



Queensland Coal unit costs⁽²⁾



Conventional petroleum unit costs⁽²⁾⁽³⁾



Escondida copper unit costs⁽²⁾⁽⁴⁾



In FY2019, we produced



Iron ore

238 million tonnes

—
0% year-on-year.
We produced 238 Mt in FY2018

Underlying EBITDA⁽⁵⁾
US\$11.1 billion

Underlying EBITDA⁽⁵⁾ margin
65%

Contribution to Group Underlying EBITDA⁽⁵⁾⁽⁶⁾
48%



Copper

1,689 kilotonnes

▼
4% year-on-year.
We produced 1,753 kt in FY2018

Underlying EBITDA⁽⁵⁾
US\$4.6 billion

Underlying EBITDA⁽⁵⁾ margin
46%

Contribution to Group Underlying EBITDA⁽⁵⁾⁽⁶⁾
19%



Petroleum⁽³⁾

121 MMboe

▲
1% year-on-year.
We produced 120 MMboe in FY2018

Underlying EBITDA⁽⁵⁾
US\$3.8 billion

Underlying EBITDA⁽⁵⁾ margin
64%

Contribution to Group Underlying EBITDA⁽⁵⁾⁽⁶⁾
16%



Coal

70 million tonnes

▼
3% year-on-year.
We produced 72 Mt in FY2018

Underlying EBITDA⁽⁵⁾
US\$4.1 billion

Underlying EBITDA⁽⁵⁾ margin
45%

Contribution to Group Underlying EBITDA⁽⁵⁾⁽⁶⁾
17%

(1) Based on average exchange rates for FY2019 of AUD/USD 0.72 and USD/CLP 673.

(2) Cash cost per pound, per tonne or per barrel (US\$).

(3) Excludes data from Discontinued operations (Onshore US assets).

(4) Escondida copper unit costs have reduced from US\$1.16/lb to US\$1.14/lb despite a 32% copper concentrate grade decline since FY2014.

(5) For more information on alternative performance measures refer to section 1.12.4. For more details on commodity performance, refer to section 1.13.

(6) Percentage contribution to Group Underlying EBITDA, excluding Group and unallocated items.

1.3 BHP at a glance: What we do

BHP has been around for
134 years

BHP



We employ over
72,000
employees and contractors⁽¹⁾

Who work in over
90
locations worldwide



In FY2019

We paid
US\$9.1 billion
globally in taxes, royalties
and other payments
to governments⁽¹⁾

With a total economic
contribution of⁽¹⁾
US\$46.2 billion

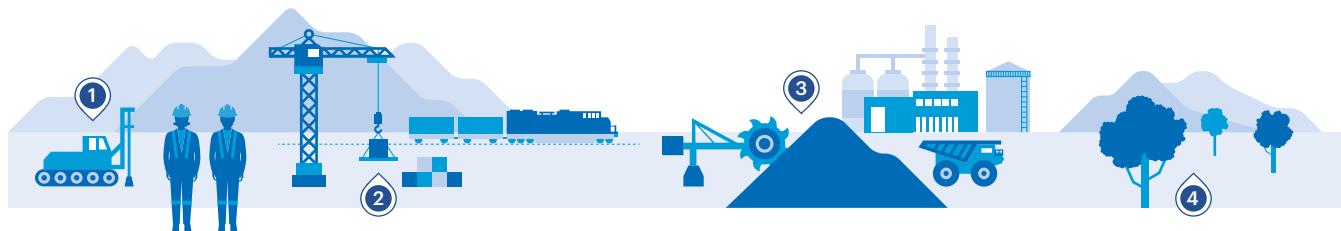
We are investing
US\$400 million
into a Climate Investment Program
to accelerate our efforts
to address climate change.



BHP operations

① Evaluation and exploration

We invest in discovering new resources, to meet the needs of future generations.



② Development

We invest in studies, trials and infrastructure with the goal of creating the maximum value from resources.

③ Extraction and processing

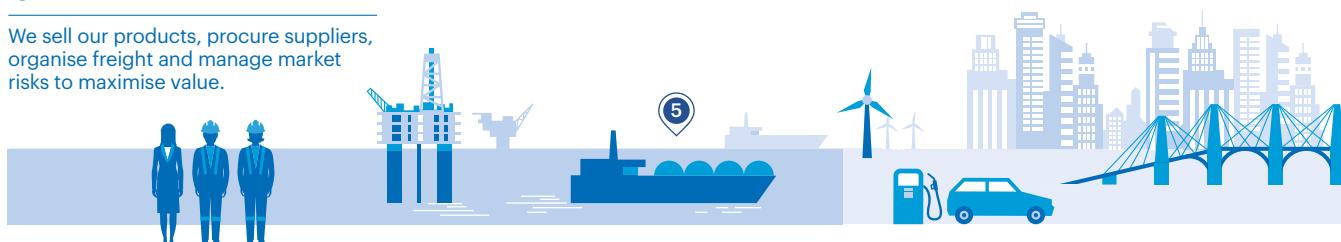
We extract and process commodities, safely and sustainably.

④ Rehabilitation and closure

We close our operations through one or a combination of rehabilitation, ongoing management or – in consultation with the community – a transition to an alternative use.

⑤ Commercial

We sell our products, procure suppliers, organise freight and manage market risks to maximise value.

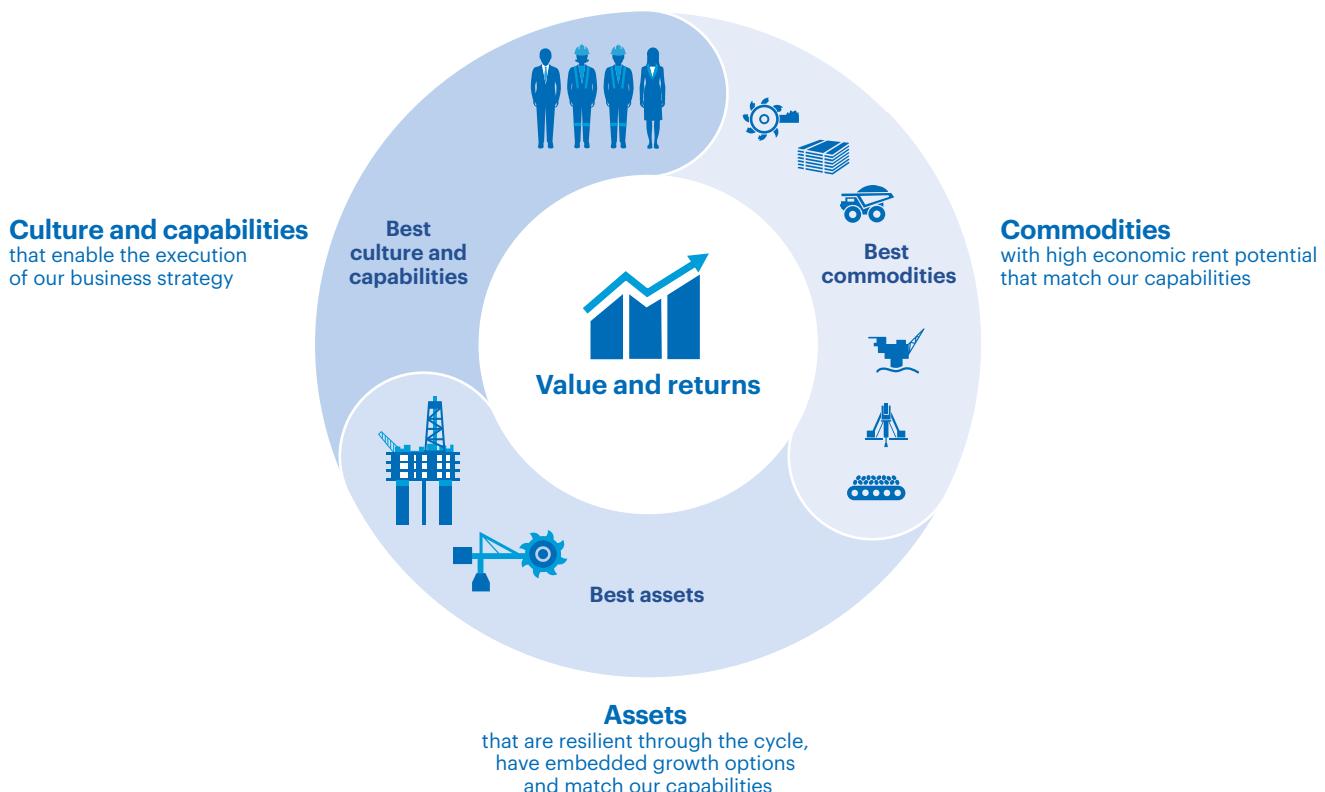


(1) All figures include data for Continuing and Discontinued operations.

1.4 About BHP

1.4.1 Our strategy

At BHP, our strategy is to have the best capabilities, best commodities and best assets to create long-term value and high returns.



Driven by a commitment to transformation, capital discipline and social value

Our strategy maximises value and returns

We have a simple and diverse portfolio of tier one assets. They are long life, low cost and expandable. To extract the most value and the highest returns from our assets we apply our values and culture, operate them safely and productively, and deploy technology.

This has worked for shareholders. Since 2016 we have:

- strengthened our balance sheet through a US\$17 billion reduction in net debt;
- reinvested US\$27 billion in development options;
- importantly, returned more than US\$29 billion to shareholders.

To maintain this track record, we must make the most of our portfolio and develop options that secure success. Future success depends not only on our commitment to capital discipline but also social value, which is our contribution to our people, the environment and communities. It informs the way in which we provide resources, achieve commercial success and make our workplace safe. We have a responsibility to produce strong commercial, sustainable and social outcomes for our shareholders, communities and society. This inspired us to refresh our purpose to acknowledge people as the driving force behind our achievements and reflect our broader contribution. For more detail on BHP's purpose, refer to section 1.10.1.

Transformation

Our Transformation program will continue to simplify the way we work, increase our workforce capability, establish innovative partnerships and create more stable and predictable operations, with the aim of unlocking more value. The Transformation program includes:

- the BHP Operating System, which will change the way we work;
- World Class Functions, designed to simplify and remove bureaucracy;
- Centres of Excellence that help us be at the forefront of change;
- Value Chain Automation, which will change the way we operate.

These will:

- improve operational stability;
- make a quantum shift in safety, performance and value;
- continue to increase productivity;
- establish flexibility to rapidly capture opportunities.

 **For more information on these programs, see section 1.4.4.**

Future options

We also have broad development options and exploration licences in many of the world's premier basins, which could create significant shareholder value over the long term. These options cover a range of risk, return and optionality metrics and are diversified by commodity and geography.



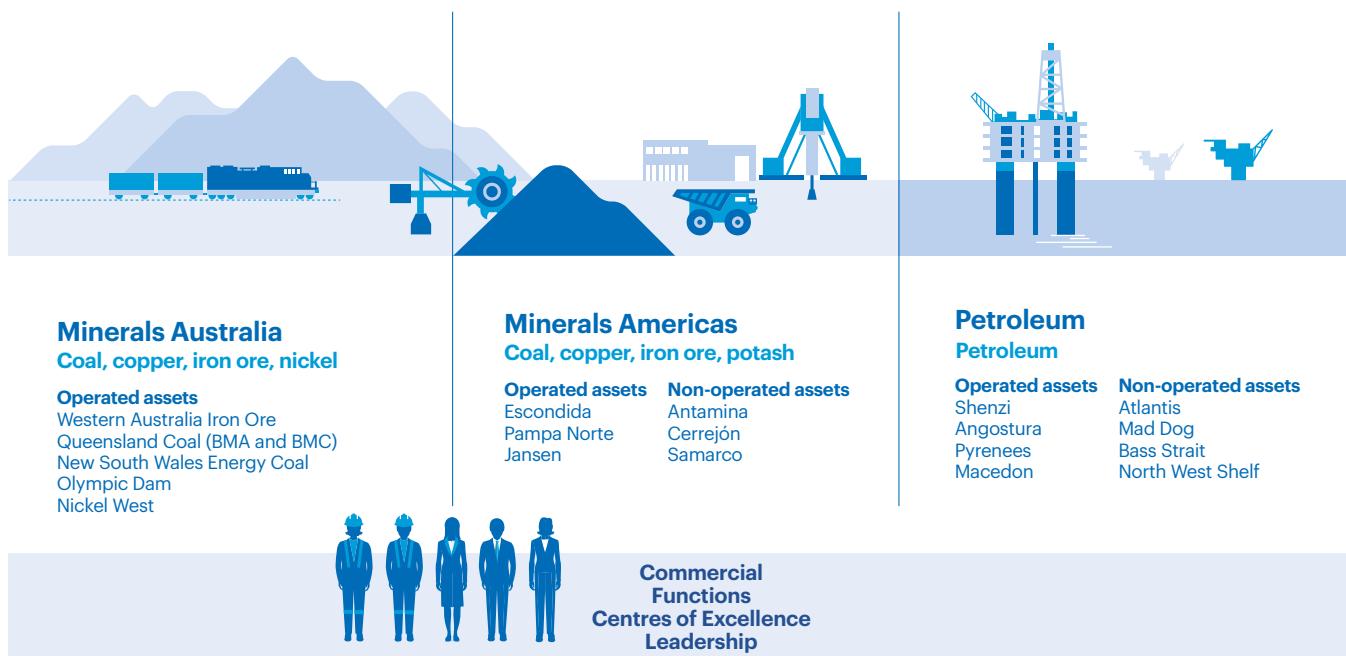
1.4.2 Our Operating Model

We have a simple and diverse portfolio of tier one assets around the world, with low-cost options for future growth and value creation.

Our assets are high quality and largely located in low-risk locations, with strong development potential.

Our Operating Model

Assets



In addition to having the right assets in the right commodities, we also create value in the way we operate our assets.

Our Operating Model allows us to leverage integrated systems and technology, replicate expertise and apply high standards of governance and transparency.

Our Operating Model includes:

- Assets:** Assets are a set of one or more geographically proximate operations (including open-cut mines, underground mines and onshore and offshore oil and gas production and processing facilities). We produce a broad range of commodities through these assets. Our operated assets include assets that are wholly owned and operated by BHP and assets that are owned as a joint venture and operated by BHP. We also hold interests in assets that are owned as a joint venture but are not operated by BHP.
- Asset groups:** We group our assets into geographic regions to provide effective governance and replicate best practice, technology and improvement initiatives in other parts of the business. Our oil and gas assets are grouped together as one global Petroleum asset group, which allows us to share best practice and promote new technologies across our portfolio.
- Commercial:** Our Commercial function optimises value creation and minimises costs across our end-to-end supply chain. It is organised around our core value chain activities – Sales and Marketing; Maritime and Supply Chain Excellence; Procurement; and Warehousing Inventory and Logistics and Property – supported by short- and long-term market insights, strategy and planning activities, and close partnership with our assets.
- Centres of Excellence:** We have established Centres of Excellence in the disciplines of maintenance and engineering, resource engineering, projects and geoscience to develop organisational capability and best practice.
- Functions:** Functions operate along global reporting lines to support all areas of the organisation. Functions have specific accountabilities and expertise in areas such as finance, legal, governance, technology, human resources, corporate affairs, health, safety and community.
- Leadership:** Our Executive Leadership Team (ELT) is responsible for the day-to-day management of the Group and leading the delivery of our strategic objectives.

We disclose financial and other performance primarily by commodity. This gives an insight into the nature and financial outcomes of our business activities and allows us to compare our performance against industry peers.

1.4.3 Managing performance

Corporate planning

Our corporate planning process is designed to deliver on our strategy, which is to have the best capabilities applied to a portfolio of the best assets, in the best commodities, to create long-term value and high returns.

Informed by our strategy, our annual corporate planning process is critical to creating alignment across BHP. It guides the development of plans, targets and budgets to help us decide where to deploy our capital and resources.

Plans are assessed at the Group level to balance the goal of maximising the value of our individual assets with the goal of creating value and mitigating investment risks at the portfolio level. We evaluate the range of investment opportunities and aim to optimise the portfolio based on our assessment of risk, returns and future optionality. We then develop a long-term capital plan and guidance for the Group.

Assessment and monitoring

We review our portfolio against a constantly changing external environment, to capture and manage emerging opportunities and risks. Our strategy is cascaded through our planning processes. Long-term scenario planning is used to identify the strategic capabilities we need to be successful in our industry and to evaluate the selection of our preferred commodities and portfolio of assets. We seek to identify potential new business opportunities and to test the robustness of our portfolio over a range of possible outcomes. We use signals tracking to monitor key trends and events that inform our strategic choices and to identify actions to manage emerging risks.

Capital discipline

We use our Capital Allocation Framework to assess the most effective and efficient way to deploy capital. This helps us:

- maintain our plant and equipment to support safe and efficient operations over the long term;
- keep our balance sheet strong to give us stability and flexibility through the business cycle;
- reward our shareholders by paying out at least 50 per cent of our Underlying attributable profit in dividends.

We then look at what would be the most valuable risk-adjusted use for any excess capital that remains after these three priorities are met and decide whether to:

- further reduce our debt;
- return more cash to shareholders through additional dividends or share buy-backs;
- invest in growth, either through projects within our asset portfolio or through exploration or acquisitions, provided the investment will create more value, based on our assessment of its return, risk and optionality, than a share buy-back.

Case study:

Sale of Onshore US assets and shareholder return program

In November 2018, we committed to return the US\$10.4 billion net proceeds from the sale of our Onshore US assets to our shareholders. This included the A\$7.3 billion (US\$5.2 billion) off-market buy-back of BHP Group Limited shares that was completed in December 2018 (Off-Market Buy-Back) and the payment of the US\$5.2 billion special dividend in January 2019 (Special Dividend).

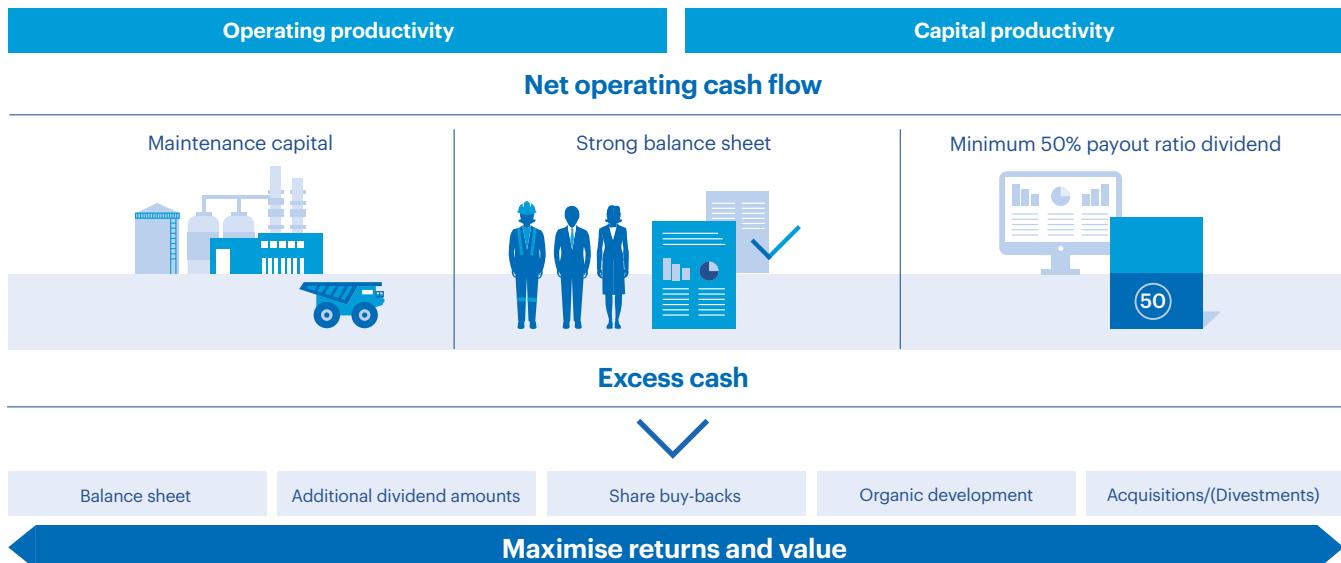
The Board carefully considered how best to return the net proceeds to our shareholders. In making this decision, we applied our Capital Allocation Framework. With net debt toward the lower end of our target range, we treated the net proceeds as excess capital to be returned to shareholders. The combination of the Off-Market Buy-Back and Special Dividend took into account the large range of views expressed by our shareholders, returned significant value to all our shareholders and enabled the net proceeds to be returned in a timely manner.

The Off-Market Buy-Back enabled the Group to repurchase approximately 265.8 million BHP Group Limited shares at a 14 per cent discount to the Market Price.⁽¹⁾ We believe all shareholders benefited from the positive impact on BHP's return on equity, cash flow per share and earnings per share from the reduced number of shares on issue. The Special Dividend provided a significant cash distribution to all shareholders, irrespective of whether they participated in the Off-Market Buy-Back. In addition, the Off-Market Buy-Back and the Special Dividend efficiently released a significant amount of franking credits to BHP Group Limited's shareholders.

The successful completion of the shareholder return program demonstrates our commitment to capital discipline and to transparently apply our Capital Allocation Framework for the benefit of all shareholders.

(1) Volume weighted average price of BHP Group Limited ordinary shares on the Australian Securities Exchange over the five trading days up to and including Friday 14 December 2018.

Our Capital Allocation Framework



1.4.4 Transformation overview



In FY2019, we progressed our transformation agenda to build our culture, capability and technology. The program focuses on safety improvement, simplification and value creation and comprises four key components:

- **The BHP Operating System** is a new framework that guides behaviour and practices, builds capability and promotes continuous improvement;
- **World Class Functions** aims to make our functions more effective and efficient, through a comprehensive approach to business process reengineering;
- **Centres of Excellence** for maintenance and engineering, projects and geoscience aim to develop organisational capability and best practice in these disciplines;
- **Value Chain Automation** uses technology to automate equipment, processes and decision-making and includes our work relating to innovation at our first Innovation Centre in Newman, Western Australia, where we plan to trial new ideas to change how we operate.

Through these activities, we aim to build capability and a culture that empowers our frontline to act on their ideas and harness their ingenuity. Following are some highlights from FY2019.

BHP Operating System: Western Australia Iron Ore Port operations

The BHP Operating System is a new way of working that will align our teams to produce better safety and business performance. It is a company philosophy that guides leadership behaviours and practices to empower our teams, build capability and make problem solving and improvement part of what we do every day. Western Australia Iron Ore's (WAIO) Port operations was the first BHP Operating System pilot site to go live in July 2018.

The deployment of the BHP Operating System program has focused on car dumper activities within production and maintenance and shutdown teams at the Nelson Point port operations, with an aim of promoting stable operations.

Throughout FY2019, the team at Nelson Point strengthened frontline safety, improved performance and introduced cultural improvements. Key achievements include:

- improving the car dumper ramp-down process 15.75 hours on average ahead of schedule (compared to previously executed ramp-down activity), through engaging the frontline and introducing coordination measures to optimise activity time and improve predictability;
- using standardised work principles for a car dumper's ring rail replacement to safely complete the task in a record of 174 hours versus the previous execution of 225 hours. Key lessons will now be applied to future ring rail replacements that are scheduled at Nelson Point port;
- implementing a workplace organisation method known as '5S' across the Port's key areas that encourages teams to take responsibility for workplace cleanliness, organisation and arrangement, and improve standards on safety, productivity and culture;
- introducing a system in which problems are easily identified and people are given leadership support when required to solve the issue.

The BHP Operating System was also deployed at WAIO's Perth repair centre, BHP Mitsubishi Alliance's Caval Ridge and Peak Downs, Olympic Dam, Escondida and by our Petroleum asset group.

1.4.4 Transformation overview continued

World Class Functions: Making our functions more effective and efficient

In response to BHP's changing operating environment and drive to increase efficiency, in recent years our global and regional functions began undertaking large-scale change and improvement efforts.

World Class Functions aims to simplify functional activity and deliver sustainable first quartile performance benchmarked against our peer group, by reducing functional costs and increasing effectiveness both in terms of what our functional teams do and how they do it.

Initiatives include renewing operating models for functions, changing functional services, including how they are delivered, as well as improving processes, tools and systems.

Maintaining our focus on culture and people will ensure the outcomes delivered by World Class Functions are embedded sustainably.

Centres of Excellence: Maintenance and Engineering Centre of Excellence

We are developing Centres of Excellence for areas including maintenance and engineering, resource engineering, projects and geoscience.

The Maintenance and Engineering Centre of Excellence focuses on defect elimination, excellence in maintenance planning and scheduling, and embedding equipment strategies that improve the way people work.

The Maintenance Centre of Excellence was established in FY2017 in Minerals Australia and was expanded into Minerals Americas in FY2019. In August 2019, an engineering team was established within the Maintenance Centre of Excellence and the centre has since become the Maintenance and Engineering Centre of Excellence.

The centre plans and schedules all maintenance work and shutdowns across the business in a standardised way. It works in partnership with our assets and Supply and Technology functions to establish best practice equipment and supply chain strategies that use advanced analytical and risk-based processes.

Asset performance management systems have been established under the Maintenance and Engineering Centre of Excellence to detect and predict potential failures early. Practices to eliminate defects underpin our continuous improvement approach.

Maintenance costs across our fleets and fixed plant under the Maintenance and Engineering Centre of Excellence are being reduced over their lifecycle in Minerals Australia and Minerals Americas, while equipment reliability and availability have improved.

In FY2019, the Maintenance and Engineering Centre of Excellence saved over AUD\$144 million in maintenance costs compared to maintenance costs in FY2018, increased availability across critical fleet by up to 5 per cent in some operations since its inception (in FY2019 compared to FY2018), and improved our prediction of a range of engine and brake system failures.

Value Chain Automation: Innovation Centre

Our first BHP Innovation Centre located at our Newman operations in Western Australia is an important part of our Value Chain Automation.

The Innovation Centre tests and de-risks new solutions and innovations developed in extraction and mine processes to allow technology to support continuous improvement across all aspects of the BHP value chain.

This unique testing ground allows emerging technologies to be proven in a controlled site-based environment, while new ways of working and capability are developed to allow for successful and rapid deployment and scaling of integrated automation solutions.

In FY2019, BHP's Innovation Centre implemented several technology-based solutions, including:

- Live mine scheduling – a new capability that enables mine schedulers to deliver faster and higher-quality schedules and decisions for mine load and haul operations by analysing disparate data sets consisting of real-time and contextualised information. The successful application of live mine scheduling at Eastern Ridge has led to scaling and deployment at Whaleback. In FY2020, live mine scheduling will be scaled across all iron ore operations, which is expected to result in better mining fleet utilisation and visibility throughout the BHP iron ore supply chain.
- Real-time payload distribution display – a visual tool enabling our digger operators to precisely and efficiently distribute and deposit payload onto trucks. This technology is expected to improve operators' ability to accurately deposit the target payload onto trucks, enabling lower equipment maintenance costs.
- Pedestrian avoidance technology – a video and audio detection and alert system that provides forklift operators with 360-degree detection of personnel near forklift machinery. This technology is expected to reduce safety incidents that have previously occurred due to poor visibility. Developed and tested at BHP Innovation Centre's Welshpool facility, pedestrian avoidance technology was piloted at Eastern Ridge, Port and Nickel West in July 2019.

1.4.5 Operations Services

Operations Services is an industry first and has been established to create a stronger foundation from which to achieve high performance. It has rapidly unlocked improvements in safety, production and cost outcomes for Minerals Australia, while simultaneously providing stability for Operations Services employees and contributing to social value in the communities where we operate. Operations Services is an important element in transforming organisational capability and the way we work, along with the BHP Operating System, the Maintenance and Engineering Centre of Excellence, field leadership and technology.

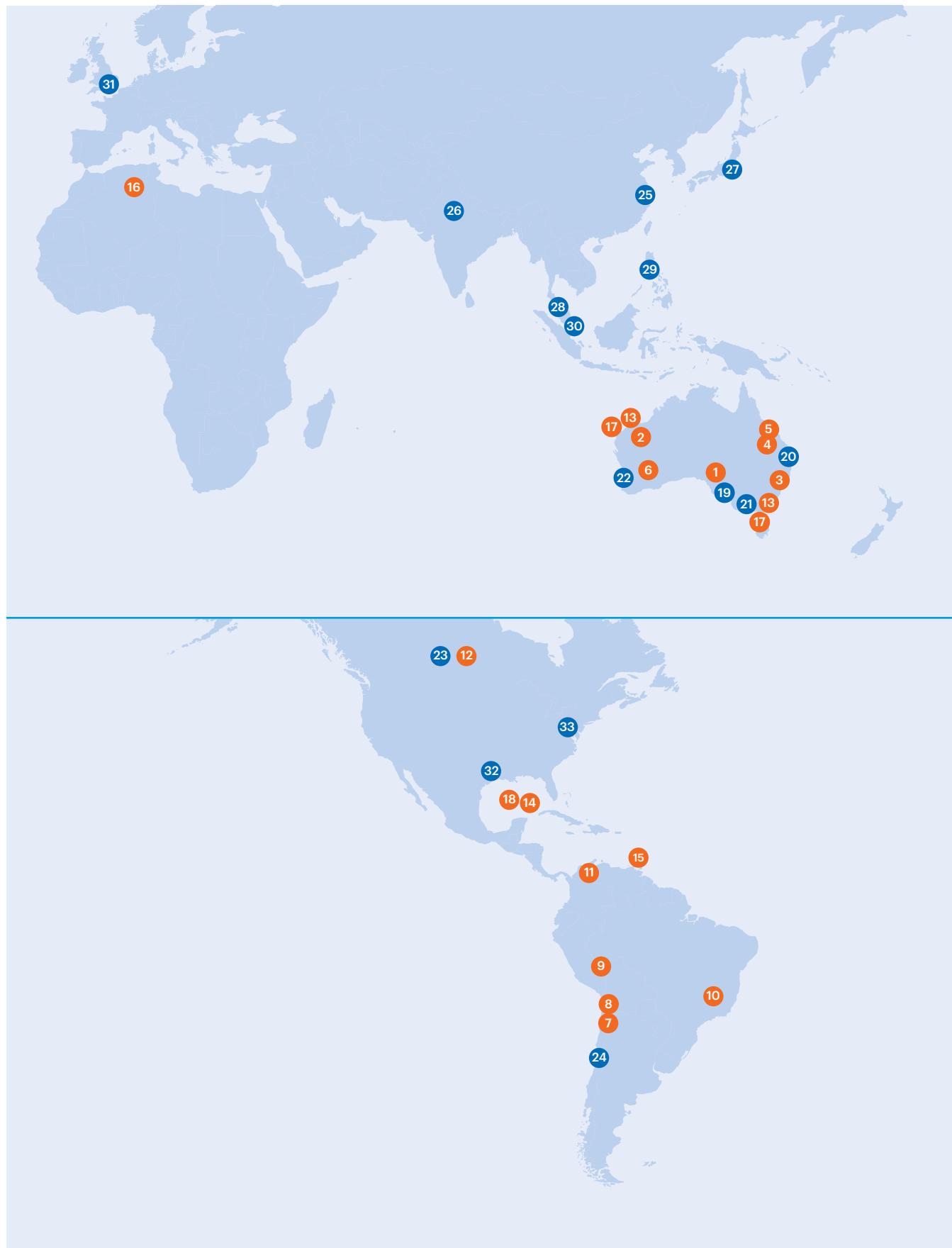
The Australia-wide Operations Services workforce comprises permanent employees in production, maintenance, shut downs and some operational functions, with specific scopes of work and accountabilities. Sites request Operations Services to deploy teams to specific Operations Services for fixed terms to provide production or maintenance services.

Operations Services is recruiting and training employees from a range of backgrounds, including those who are new to the industry. Through its innovative approach to recruitment and onboarding, Operations Services has the highest proportion of female and Indigenous employees of any BHP production asset. This has contributed to the enhancement of organisational capability, with consequent improvements in safety and productivity. Operations Services offers job security, considerable skills training, flexible work options and wide-ranging career prospects, ultimately delivering more stability and higher performance than the contractors they displace. Over 50 per cent of Operations Services employees are from regional communities and the income security that Operations Services provides is helping to support greater local economic activity.



1.4.6 Locations

BHP locations (includes non-operated operations)



Minerals Australia

Ref	Country	Asset	Description	Ownership
1	Australia	 Olympic Dam	Underground copper mine, also producing uranium, gold and silver	100%
2	Australia	 Western Australia Iron Ore	Integrated iron ore mines, rail and port operations in the Pilbara region of Western Australia	65–85%
3	Australia	 New South Wales Energy Coal	Open-cut energy coal mine and coal preparation plant in New South Wales	100%
4	Australia	 BHP Mitsubishi Alliance	Open-cut and underground metallurgical coal mines in the Queensland Bowen Basin and Hay Point Coal Terminal	50%
5	Australia	 BHP Mitsui Coal	Two open-cut metallurgical coal mines in the Bowen Basin, Central Queensland	80%
6	Australia	 Nickel West	Integrated sulphide mining, concentrating, smelting and refining operation in Western Australia	100%

Minerals Americas

Ref	Country	Asset	Description	Ownership
7	Chile	 Escondida	Open-cut copper mine located in northern Chile	57.5%
8	Chile	 Pampa Norte	Consists of the Cerro Colorado and Spence open-cut mines, producing copper cathode in northern Chile	100%
9	Peru	 Antamina ⁽¹⁾	Open-cut copper and zinc mine in northern Peru	33.75%
10	Brazil	 Samarco ⁽¹⁾	Open-cut iron ore mines, concentrators, pipelines, pelletising facilities and dedicated port	50%
11	Colombia	 Cerrejón ⁽¹⁾	Open-cut energy coal mine with integrated rail and port operations	33.3%
12	Canada	 Jansen	Our interest in potash is via development projects in the Canadian province of Saskatchewan, where the Jansen Project is our most advanced	100%

Petroleum

Ref	Country	Asset	Description	Ownership
13	Australia	 Australia Production Unit	Offshore oil fields and gas processing facilities in Western Australia and Victoria	39.99–90%
14	US	 Gulf of Mexico Production Unit	Offshore oil and gas fields in the Gulf of Mexico	35–44%
15	Trinidad and Tobago	 Trinidad and Tobago Production Unit	Offshore oil and gas fields	45%
16	Algeria	 Algeria Joint Interest Unit ⁽¹⁾	Onshore oil and gas unit	29.3%
17	Australia	 Australia Joint Interest Unit ⁽¹⁾	Offshore oil and gas fields in Bass Strait and North West Shelf	12.5–50%
18	US	 Gulf of Mexico Joint Interest Unit ⁽¹⁾	Offshore oil and gas fields in the Gulf of Mexico	23.9–44%

BHP principal office locations

Ref	Country	Location	Office
19	Australia	Adelaide	Minerals Australia office
20	Australia	Brisbane	Minerals Australia office
21	Australia	Melbourne	Global headquarters
22	Australia	Perth	Minerals Australia office
23	Canada	Saskatoon	Minerals Americas office
24	Chile	Santiago	Minerals Americas office
25	China	Shanghai	Corporate office
26	India	New Delhi	Corporate office
27	Japan	Tokyo	Corporate office
28	Malaysia	Kuala Lumpur	Global Asset Services Centre
29	Philippines	Manila	Global Asset Services Centre
30	Singapore	Singapore	Marketing and corporate office
31	UK	London	Corporate office
32	US	Houston	Petroleum office
33	US	Washington DC	Corporate office



(1) Non-operated joint venture.

1.5 Our performance

Key performance indicators

Our key performance indicators (KPIs) enable us to measure our sustainable development and financial performance. These KPIs are used to assess performance of our people throughout the Group.

 For information on our approach to performance and reward, refer to section 1.9.

 For information on our overall approach to executive remuneration, including remuneration policies and remuneration outcomes, refer to section 3.

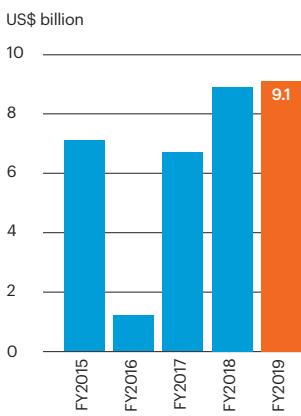
Following BHP's sale of the Onshore US assets, the contribution of these assets to the Group's results is presented in this Annual Report as Discontinued operations.

To enable more meaningful comparisons with prior year disclosures, and in some cases to comply with applicable statutory requirements, the data in section 1.5 has been presented to include Onshore US, except for Underlying EBITDA. Footnotes to tables and infographics indicate whether data presented in section 1.5 is inclusive or exclusive of Onshore US.

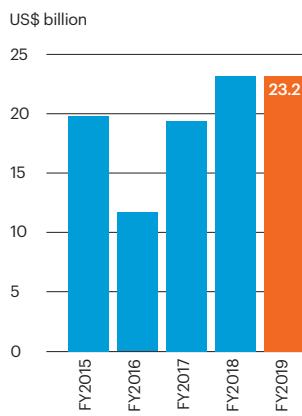
 For more information on the accounting treatment, refer to section 5.

1.5.1 Financial KPIs

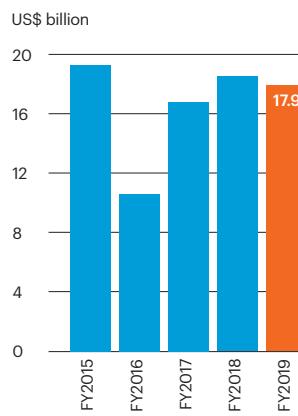
Underlying attributable profit⁽¹⁾⁽³⁾



Underlying EBITDA⁽²⁾⁽³⁾



Net operating cash flows⁽¹⁾



In FY2019, higher prices together with underlying improvements in productivity generated strong cash flow, enabling us to reduce net debt and increase our dividends.

Profit and earnings

Attributable profit of US\$8.3 billion in FY2019 includes an exceptional loss of US\$0.8 billion (after tax), compared to an attributable profit of US\$3.7 billion, including an exceptional loss of US\$5.2 billion (after tax) in the prior period. The FY2019 exceptional loss is related to the Samarco dam failure, partially offset by the reversal of provisions for global taxation matters, which were resolved during the period.

Our Underlying attributable profit was US\$9.1 billion (FY2018: US\$8.9 billion).

We reported Underlying EBITDA (continuing operations) of US\$23.2 billion (FY2018: US\$23.2 billion), with higher prices, favourable exchange rate movements and underlying improvements in productivity (in total US\$3.2 billion) offset by the impacts of operational outages, grade and field decline, higher strip ratios, inflation, the impact of weather and other net movements (in total US\$3.2 billion).

Cash flow and balance sheet

Our Net operating cash flows (continuing operations) of US\$17.4 billion in FY2019 (FY2018: US\$17.6 billion) reflects EBITDA results and higher Australian and Chilean income tax payments in FY2019.

Our balance sheet remains strong with net debt at US\$9.2 billion at FY2019 year-end (FY2018: US\$10.9 billion), a reduction of US\$1.7 billion over three years. The reduction of US\$1.7 billion in FY2019 reflects strong free cash generation, which includes proceeds received from the sale of Onshore US, partially offset by returns to shareholders of US\$1.6 billion, dividends paid to non-controlling interests of US\$1.2 billion and an unfavourable non-cash fair value adjustment of US\$0.4 billion related to interest rate and exchange rate movements.

Our gearing ratio⁽³⁾ in FY2019 was 15.1 per cent (FY2018: 15.3 per cent).

(1) Includes data for Continuing and Discontinued operations for the financial years being reported.
(2) Excludes data from Discontinued operations for the financial years being reported.

(3) For more information on alternative performance measures, refer to section 1.12.4.

Reconciling our financial results to our key performance indicators

	Profit	Earnings	Cash			
Measure:	Profit after taxation from Continuing and Discontinued operations	US\$M 9,185	Profit after taxation from Continuing and Discontinued operations	US\$M 9,185	Net operating cash flows from Continuing operations	US\$M 17,397
Made up of:	Profit after taxation		Profit after taxation		Cash generated by the Group's consolidated operations, after dividends received, interest, taxation and royalty-related taxation. It excludes cash flows relating to investing and financing activities	
Adjusted for:	Exceptional items before tax ⁽¹⁾	1,060	Exceptional items before taxation	1,060	Net operating cash flows from Discontinued operations	474
	Tax effect of exceptional items	(242)	Tax effect of exceptional items	(242)		
		—	Depreciation and amortisation excluding exceptional items	5,829		
	Exceptional items attributable to BHP shareholders	818	Impairments of property, plant and equipment, financial assets and intangibles excluding exceptional items	264		
	Profit after taxation attributable to non-controlling interests	(879)	Net finance costs excluding exceptional items	956		
			Taxation expense excluding exceptional items	5,771		
			Loss after taxation from Discontinued operations	335		
To reach our KPIs	Underlying attributable profit	9,124	Underlying EBITDA	23,158	Net operating cash flows	17,871
Why do we use it?	Underlying attributable profit allows the comparability of underlying financial performance by excluding the impacts of exceptional items and is a performance indicator against which short-term incentive outcomes for our senior executives are measured. It is also the basis on which our dividend payout ratio policy is applied.		Underlying EBITDA is the key alternative performance measure that management uses internally to assess the performance of BHP's segments and make decisions on the allocation of resources and, in our view, is more relevant to capital intensive industries with long-life assets.		Net operating cash flows provide insights into how we are managing costs and increasing productivity across BHP.	

Capital management

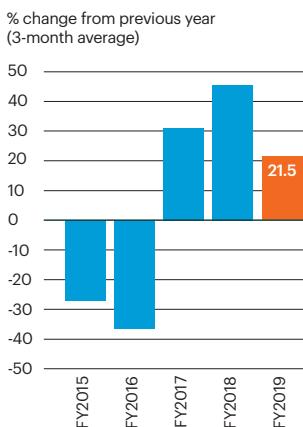
Free cash flow (continuing operations), which is net operating cash flows less net investing cash flows, was US\$10.0 billion (FY2018:US\$12.5 billion) reflecting a 12 per cent increase in capital and exploration expenditure to US\$7.6 billion in FY2019 in line with guidance. The increase in capital and exploration expenditure included continued investment in high-return latent capacity projects, and investment in South Flank, Mad Dog Phase 2 and the Spence Growth Option in FY2019. Capital and exploration expenditure guidance is unchanged at below US\$8 billion per annum for FY2020, subject to exchange rate movements.

Our dividend policy provides for a minimum 50 per cent payout of Underlying attributable profit at every reporting period. The minimum dividend payment for the second half of FY2019 was 53 US cents per share. Recognising the importance of cash returns to shareholders, the Board determined to pay an additional amount of 25 US cents per share, taking the final dividend to a record 78 US cents per share. In total, US\$17.1 billion of returns to shareholders have been determined for FY2019 including dividends of US\$11.9 billion (FY2019: US\$2.35 per share; FY2018: US\$1.18 per share), which includes a special dividend of US\$5.2 billion (US\$1.02 per share) and a share buy-back of US\$5.2 billion. These returns are covered by total free cash flows generated of US\$20.5 billion including US\$10.4 billion of net proceeds from the sale of Onshore US.

1.5.2 Non-financial KPIs

Capital management KPIs

Total shareholder return



Total shareholder return (TSR) shows the total return to the shareholder during the financial year. It combines both movements in share prices and dividends paid (which are assumed to be reinvested).

During FY2019, TSR increased as a result of both the BHP share price and dividends paid, resulting in a 21.5 percentage change from FY2018. From 1 July 2014 to 30 June 2019, BHP underperformed the sector peer group by 9.3 per cent and underperformed the Index TSR by 35.3 per cent.

Long-term credit rating

2019 A, A2	
2018	A, A3
2017	A, A3
2016	A, A3
2015	A+, A1

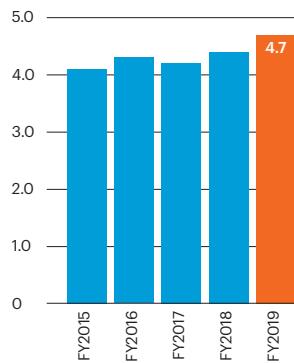
Credit ratings are forward-looking opinions on credit risk. Standard & Poor's and Moody's credit ratings express the opinion of each agency on the ability and willingness of BHP to meet its financial obligations in full and on time. A credit rating is not a recommendation to buy, sell or hold securities and may be subject to suspension, reduction or withdrawal at any time by an assigning rating agency. Any rating should be evaluated independently of any other information.

Standard & Poor's credit rating of BHP remained at the A level throughout FY2019. It affirmed this rating on 23 July 2019. Moody's upgraded its credit rating of BHP from A3 to A2 on 31 October 2018 with a stable outlook thereafter in FY2019.

Sustainability KPIs

Total recordable injury frequency⁽¹⁾

Per million hours worked



Total recordable injury frequency (TRIF) performance increased by 7 per cent to 4.7 per million hours worked, compared to 4.4 in FY2018. This was due to an increase in injuries in both Minerals Australia and Minerals Americas.

There was one fatality at our operated assets in FY2019.



For more information on our approach to capital discipline, refer to section 1.4.3.

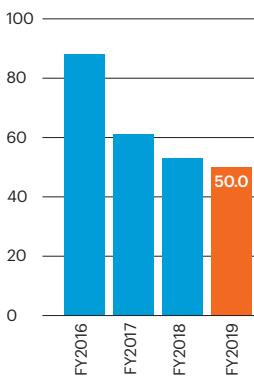


For more information on our liquidity and capital resources, refer to section 1.12.3.

(1) Total recordable injury frequency (TRIF) is an indicator in highlighting broad personal injury trends and is calculated based on the number of recordable injuries per million hours worked. TRIF includes work-related events occurring outside our operated assets from FY2015. In FY2015, we expanded our definition of work-related activities to include events that occur outside our operated assets where we have established the work to be performed and can set and verify the health and safety standards, such as an employee driving in a BHP vehicle between two sites for work. TRIF does not include events at non-operated joint ventures. FY2015 to FY2018 TRIF data includes Continuing operations and Discontinued operations for the financial years being reported. FY2019 data includes Discontinued operations (Onshore US assets) to 28 February 2019 and Continuing operations.

Sustainability KPIs

High potential injury events⁽¹⁾⁽²⁾

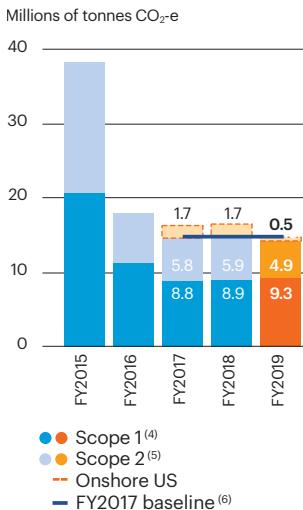


This year we continue to report on high potential injuries, which are injury events where there was the potential for a fatality. We are currently able to report data for the last four financial years. High potential injury trends remain a primary focus to assess progress against our most important safety objective: to eliminate fatalities. High potential injuries declined by 7 per cent from FY2018 due to reductions at Western Australia Iron Ore, Olympic Dam and Potash.



For information on our approach to health and safety, and our performance, refer to section 1.10.2 and 1.10.3.

Scope 1 and 2 GHG emissions⁽³⁾



Our five-year greenhouse gas (GHG) emissions reduction target, which took effect from 1 July 2017, is to maintain our total operational emissions in FY2022 at or below FY2017 levels⁽⁷⁾ while we continue to grow our business. Our target builds on our success in achieving our previous five-year target.

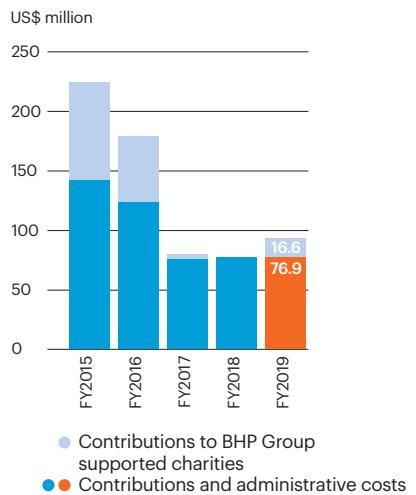
Our combined Scope 1 and Scope 2 emissions (operational emissions) in FY2019 totalled 14.7 million tonnes of carbon dioxide equivalent (CO₂-e), 3 per cent below our FY2017 target baseline⁽⁸⁾. This decrease is primarily due to a change in the electricity emissions factor for Minerals Americas that resulted from the interconnection of Chile's northern grid system, which is mainly fossil fuel-based, and southern grid system, which has a higher proportion of renewable energy.

We have also set the longer-term goal of achieving net-zero operational GHG emissions in the latter half of this century, consistent with the Paris Agreement. In order to set the trajectory towards achieving that goal, in FY2020 we intend to develop a medium-term target for operational emissions. We also intend to set public goals related to Scope 3 emissions.



For more information on our Scope 1 and 2 GHG emissions, as well as Scope 3 emissions in our value chain, refer to section 1.10.8.

Social investment⁽⁹⁾



Our target is to invest not less than 1 per cent of our pre-tax profit to contribute to improved quality of life in communities where we operate and support achievement of the United Nations Sustainable Development Goals.

Our voluntary social investment in FY2019 totalled US\$93.5 million, consisting of US\$55.7 million in direct community development projects and donations, US\$8.9 million equity share to non-operated joint venture programs, a US\$16.57 million donation to the BHP Foundation and US\$4 million to the Matched Giving and community small grants programs. Administrative costs to facilitate social investment activities at our assets totalled US\$6.27 million and US\$2 million supported the operations of the BHP Foundation.



For information on our voluntary social investment, refer to section 1.10.5.

- (1) High potential injuries (HPI) are recordable injuries and first aid cases where there was the potential for a fatality. FY2016 to FY2018 HPI data includes Continuing and Discontinued operations (Onshore US assets) for the financial years being reported. FY2019 HPI data includes Discontinued operations (Onshore US assets) to 28 February 2019 and Continuing operations.
- (2) FY2018 data has been adjusted due to the reclassification of an event after the reporting period.
- (3) Scope 1 and 2 emissions have been calculated on an operational control basis in accordance with the GHG Protocol Corporate Accounting and Reporting Standard. Comparisons of data over the period FY2015 to FY2016 should be made with consideration of the divestment of South32 during FY2015 (FY2015 data excludes emissions from South32 operations between the date of the divestment and 30 June 2015). Data over the period FY2017 to FY2019 is displayed with Onshore US emissions shown separately for comparability (12 months of emissions in FY2017 and FY2018, and four months of emissions in FY2019 prior to divestment of this asset).
- (4) Scope 1 refers to direct GHG emissions from operated assets.
- (5) Scope 2 refers to indirect GHG emissions from the generation of purchased electricity and steam that is consumed by operated assets (calculated using the market-based method).
- (6) FY2017 is the base year for our current five-year GHG emissions reduction target, which took effect from FY2018. The FY2017 baseline has been adjusted for the divestment of our Onshore US assets to ensure ongoing comparability of performance. The baseline will continue to be adjusted for any material acquisitions and divestments based on GHG emissions at the time of the transaction; carbon offsets will be used as required.
- (7) FY2017 baseline will be adjusted for any material acquisitions and divestments based on GHG emissions at the time of the transaction. Carbon offsets will be used as required.
- (8) Calculated on a Continuing operations basis. The FY2017 baseline has been adjusted for the divestment of our Onshore US assets to ensure ongoing comparability of performance.
- (9) Our voluntary social investment is calculated as 1 per cent of the average of the previous three years' pre-tax profit. Expenditure includes BHP's equity share for operated and non-operated joint ventures, and comprises cash, administrative costs and costs to facilitate the operation of the BHP Foundation. FY2015 to FY2018 social investment figures include Continuing operations and Discontinued operations for the financial years being reported. FY2019 social investment figure includes Discontinued operations (Onshore US assets) to 31 October 2018 and Continuing operations.

1.5.3 Our contribution in FY2019

In FY2019, our total direct economic contribution was US\$46.2 billion, including payments to suppliers, wages and employee benefits, dividends and other payments to shareholders, taxes and royalties, as well as voluntary social investment across the communities where we operate.

Of this, we paid US\$9.1 billion globally in taxes, royalties and other payments to governments. Our global adjusted effective tax rate was 36 per cent. Including royalties, this increases to 44.7 per cent. This significant source of taxation revenue assists governments to provide essential services to their citizens and invest in their communities for the future.

During FY2019, we paid US\$18 billion to shareholders, lenders and investors.

As well as our direct economic contribution, we invested US\$7.6 billion into our business through the purchase of property, plant and equipment and expenditure on exploration. This investment typically has a multiplier effect by creating new jobs within our operations and also for the suppliers on whom they rely. For example, investments that were approved during FY2019 included: the investment of approximately A\$200 million (BHP share) in the development of the West Barracouta gas field in Bass Strait, Victoria, Australia, US\$696 million (BHP share) in funding to develop the Atlantis Phase 3 project in the US Gulf of Mexico and US\$256 million in funding to drill an additional appraisal well (3DEL) and perform further studies in the Trion field in Mexico.

Total economic contribution in FY2019

Suppliers

Payments made to our suppliers for the purchase of utilities, goods and services

US\$15.0b



Employees

Employee expenses for salary, wages and incentives

US\$4.0b



Shareholders, lenders and investors

Dividend payments
Share buy-backs
Interest payments

US\$18.0b



Total payments to governments

Income taxes
Royalty-related income taxes
Royalties
Other payments to governments

US\$9.1b



Social investment⁽¹⁾⁽²⁾

Contributions and administrative costs

US\$93.5m



Total economic contribution

=

US\$46.2b

Figures are rounded to the nearest decimal point. All figures include Continuing and Discontinued operations.

(1) Calculated on an accrual basis.

(2) Total social investment includes community contributions and associated administrative costs (including US\$2.0 million to facilitate the operation of the BHP Foundation) and BHP's equity share in community contributions for operated and non-operated joint ventures. Our social investment target is not less than 1 per cent of pre-tax profits invested in community programs, including cash and administrative costs, calculated on the average of the previous three years' pre-tax profit.

1.6 Our operating environment

1.6.1 Market factors and trends

We produce raw materials that are essential to modern life. Our success is tied to the sustainable growth of emerging and developed economies and, at the same time, the commodities we produce are integral to driving that growth.

As a result, our performance is influenced by a wide range of factors that drive a complex relationship between supply and demand. Our diverse portfolio of long-life, low-cost assets allows us to adapt to the changing needs of our customers and bring people and resources together to build a better world.

Key trends

Our long-term view for our markets remains positive. Population growth and rising living standards are expected to continue to generate demand for energy, metals and fertilisers for decades to come. New demand centres will emerge where the twin levers of industrialisation and urbanisation are still immature today. Technology continues to advance, creating both opportunities and threats. International responses to climate change will evolve.

Against that backdrop, we are confident we have the right assets in the right commodities, with demand diversified by end-use sector and geography. Our exploration and acquisition efforts are critical to maintaining that advantage, as they create a pipeline of products to meet future demand (see section 1.6.3). Exploration is inherently risky (see section 1.6.4), as the geoscience used for locating and accessing resources is complex and uncertain. Exploration and acquisition are also subject to political, infrastructure and other risks that can impact the accessibility of resources.

Policy uncertainty

Policy uncertainty heightened during FY2019. The escalation of US-China trade tensions and other trade and technology transfer inhibiting policies, along with an increasingly unpredictable policy formation process in some major economies, serve to reduce consumer confidence and business certainty. By extension, this affects investment and jobs.

Mixed sentiments

Business and investor confidence have been hit by policy uncertainty, feeding back into commodity markets.



Modest economic growth

While they remain in place, protectionism and political uncertainty lower the achievable ceiling for global economic growth.

Prudently cautious

The operating environment is complex, with uncertainty and volatility expected to be high.

New supply

New supply, particularly of copper and petroleum, is expected to be required as demand grows and current resources are depleted.

Medium term



Steeper cost curves

The marginal cost of producing some commodities is likely to rise, particularly for oil and copper, as existing resources deplete and new resources come from lower-quality deposits that are more costly to access.

Emerging Asia

China still offers rich opportunities due to its large-scale, ongoing urbanisation and the Belt and Road Initiative, despite its ongoing structural shift away from manufacturing towards services. India has significant potential for sustained high growth, along with populous South East Asia.

Sustainable productivity rewarded

As industry-wide costs rise, disciplined producers are likely to see margin benefits from accumulated investment in sustainable productivity gains.

Growth in population, wealth

Demand for metals, energy and fertiliser is expected to increase to meet the needs of the world's growing population and rising living standards.

Long term



Electrification of transport

Electrification of transport creates both risks and opportunities for our portfolio. Demand for non-ferrous metals has potential upside, but oil demand could face headwinds.

Decarbonisation of power

The move towards a low-carbon economy has the potential to drive significant change. Environmental and risk concerns will drive increasing diversification of national energy sources.

Biosphere stewardship

Unsustainable land and water use and biodiversity loss are a danger to long-run living standards. Leading stewardship in these areas is a key vehicle for creating social value.

1.6.1 Market factors and trends continued

Key geographies

Our customers are geographically diverse. We have structured our business to meet changing demands as global market dynamics shift. Developments in a particular country can affect the demand for our products in that country and in any countries that supply goods for import to that country.



China

China is the largest consumer of our commodities, accounting for roughly half of our sales. As the largest manufacturer and exporter in the world and the second-largest importer, China's performance is also a significant factor in the health of the global economic system.

China's GDP growth in the short term is expected to remain steady. Growth is expected to slow modestly in CY2019 and CY2020 to the range of 6 per cent to around 6 and a quarter per cent. This reflects the likely negative impact of US trade protection on the export sector as well as an appropriately calibrated countervailing domestic policy response.

In our view, China's policymakers are likely to continue to seek a balance between pursuing reform and maintaining macroeconomic and financial stability. We expect a continuation of current efforts to reduce debt and deal with housing inflation.

In the long term, we expect China's economic growth to slow progressively as the working age population falls and the capital stock matures, with productivity reforms offsetting these impacts to some degree.

China's economic structure is expected to continue to move from industry to services, and growth drivers shift from investment and exports towards consumption. This structural change would likely produce a less volatile underlying growth rhythm in the long run.



United States

As both a major producer and consumer of our products, the United States is important to our performance. With most of our transactions denominated in US dollars, fluctuations in the dollar also influence our performance.

The US performed strongly in CY2018 with a significant boost from the passing of the Tax Cuts and Jobs Act reducing the corporate tax rate from 35 per cent to 21 per cent. However, near-term prospects are less certain as the expansionary impact of tax cuts will progressively fade and trade policies remain unpredictable.

With the rise of US-China trade tensions, protectionist policies could hurt consumer purchasing power and productivity growth. Purchasing power is reduced through higher prices for imported goods and domestic goods with imported components. Reduced competition and the unintended consequences of restrictive migration policies on the free flow of world-class talent could dent productivity growth. We note that the true costs of protectionism, particularly diminished consumer purchasing power, have not yet been fully felt by US households and businesses.



Japan

Japan's demographics (ageing population and low birth rate) and its public debt burden are constraints on long-term growth. Without population, immigration and microeconomic reform, we expect that growth would likely stagnate.

The Japanese economy has slowed and we expect growth to be modest next year. Beyond the boost provided by the Tokyo Olympics, in the medium term, with monetary and fiscal policy proving ineffective at spurring domestic demand, any sustained lift in Japanese growth would likely come from external sources.



Eurozone

In Europe, economic conditions have softened. A material slowdown in the bellwether auto sector has weighed on the economy, and rising political and policy uncertainty, at both a national and regional level, have hurt business confidence.

Significant macroeconomic reform is required in Europe's southern regions to prevent longer-run stagnation. In the more internationally competitive northern regions, lower savings rates would boost growth at home and help to rebalance demand within the common currency zone.



India

In India, we believe growth prospects are solid. India's short-term outlook seems positive, driven by consumer demand. Economic reform that boosts the supply of basic infrastructure is critical to India's ability to take advantage of its demographic profile and successfully urbanise.

Progress on key reforms, including GST, real estate regulation and insolvency resolution, has been encouraging. The strong performance of the incumbent government of Prime Minister Narendra Modi provides a basis for the pursuit of further economic reforms in his second term.

Signposts on India expanding its resource and energy footprint have been encouraging. It is now the world's second-largest crude steel producer, the second-largest incremental contributor to global oil demand growth, a top-five potash importer and an increasingly significant consumer of copper.

Exchange rates

We are exposed to exchange rate transaction risk on foreign currency sales and purchases. Operating costs and costs of locally sourced equipment are influenced by fluctuations in local currencies, primarily the Australian dollar and Chilean peso. The majority of our sales are denominated in US dollars and we borrow and hold surplus cash predominately in US dollars. Those transactions and balances provide no foreign exchange exposure relative to the US dollar presentation currency of the Group.

The US dollar broadly increased in value during FY2019 against our main local currencies.

We are also exposed to exchange rate translation risk in relation to our foreign currency denominated monetary assets and liabilities, including certain debt and other long-term liabilities.

Interest rates

We are exposed to interest rate risk on our outstanding borrowings and investments. Our policy on interest rate exposure is to pay on a US dollar floating interest rate basis.

Our earnings are sensitive to changes in interest rates on the floating component of BHP's borrowings. Our main exposure is to the three-month US LIBOR benchmark, which decreased by two basis points from 2.34 per cent at 30 June 2018 to 2.32 per cent at 30 June 2019.

1.6.2 Commodity performance overview



Commodity prices

The following table shows the prices for our most significant commodities for the years ended 30 June 2019, 2018 and 2017. These prices represent selected quoted prices from the relevant sources as indicated and will differ from the realised prices due to differences in quotation periods, quality of products, delivery terms and the range of quoted prices that are used for contracting sales in different markets.



For information on realised prices, refer to section 1.13.

Year ended 30 June	2019 Closing	2018 Closing	2017 Closing	2019 Average	2018 Average	2017 Average	2019 vs 2018 Average ⁽⁹⁾
Natural gas Asian Spot LNG ⁽¹⁾ (US\$/MMBtu)	4.8	10.3	5.5	8.1	8.5	6.4	-5%
Crude oil (Brent) ⁽²⁾ (US\$/bbl)	66.1	77.9	47.4	69.0	63.6	49.6	9%
Ethane ⁽³⁾ (US\$/bbl)	7.1	14.7	10.3	13.4	11.0	9.5	21%
Propane ⁽⁴⁾ (US\$/bbl)	18.9	39.3	25.1	31.5	36.2	24.9	-13%
Butane ⁽⁵⁾ (US\$/bbl)	20.6	45.9	30.8	37.4	41.0	33.3	-9%
Copper (LME cash) (US\$/lb)	2.7	3.0	2.7	2.8	3.1	2.4	-9%
Iron ore ⁽⁶⁾ (US\$/dmt)	118.0	64.5	63.0	80.1	69.0	69.5	16%
Metallurgical coal ⁽⁷⁾ (US\$/t)	193.5	199.0	148.5	204.7	203.0	190.4	1%
Energy coal ⁽⁸⁾ (US\$/t)	68.8	117.3	82.5	99.4	100.2	80.5	-1%
Nickel (LME cash) (US\$/lb)	5.7	6.8	4.2	5.6	5.6	4.6	-1%

(1) Platts Liquefied Natural Gas Delivery Ex-Ship (DES) Japan/Korea Marker – typically applies to Asian LNG spot sales.

(2) Platts Dated Brent – a benchmark price assessment of the spot market value of physical cargoes of North Sea light sweet crude oil.

(3) OPIS Mont Belvieu non-Tet Ethane – typically applies to ethane sales in the US Gulf Coast market.

(4) OPIS Mont Belvieu non-Tet Propane – typically applies to propane sales in the US Gulf Coast market.

(5) OPIS Mont Belvieu non-Tet Normal Butane – typically applies to butane sales in the US Gulf Coast market.

(6) Platts 62% Fe Cost and Freight (CFR) China – used for fines.

(7) Platts Low-Vol hard coking coal Index FOB Australia – representative of high-quality hard coking coals.

(8) GlobalCoal FOB Newcastle 6,000kcal/kg NCV – typically applies to coal sales in the Asia Pacific market.

(9) Due to rounding, immaterial differences in numbers may exist.

Impact of changes to commodity prices

The prices we obtain for our products are a key driver of value for BHP. Fluctuations in these commodity prices affect our results, including cash flows and asset values. The estimated impact of changes in commodity prices in FY2019 on our key financial measures is set out in the following table.

	Impact on profit after taxation from Continuing operations (US\$m)	Impact on Underlying EBITDA (US\$m)
US\$1/bbl on oil price	29	44
US\$c1/lb on copper price	21	30
US\$c1/t on iron ore price	154	221
US\$c1/t on metallurgical coal price	26	37
US\$c1/t on energy coal price	12	18
US\$c1/lb on nickel price	1	2

1.6.3 Exploration

Our exploration program is focused on conventional petroleum and copper in order to replenish our resource base and enhance our portfolio. The purpose is to generate attractive, low-cost, value-accretive options by leveraging our competitive strengths.

During FY2019, our conventional petroleum exploration program accessed a new acreage position in the Orphan Basin in Canada, opened a new gas province in northern offshore Trinidad and Tobago, drilled the first well in deepwater Mexico operated by an international oil company and completed the world's first deepwater exploration ocean bottom node seismic survey in the western US Gulf of Mexico. BHP tested nine opportunities with the drill bit. We appraised Trion, and discovered gas offshore in both the north and south deepwater regions of Trinidad and Tobago.

Our copper exploration program is at an earlier stage where we continue to seek, secure and test concessions in regions such as Ecuador, Canada, southwestern United States, South Australia, Chile and Peru.

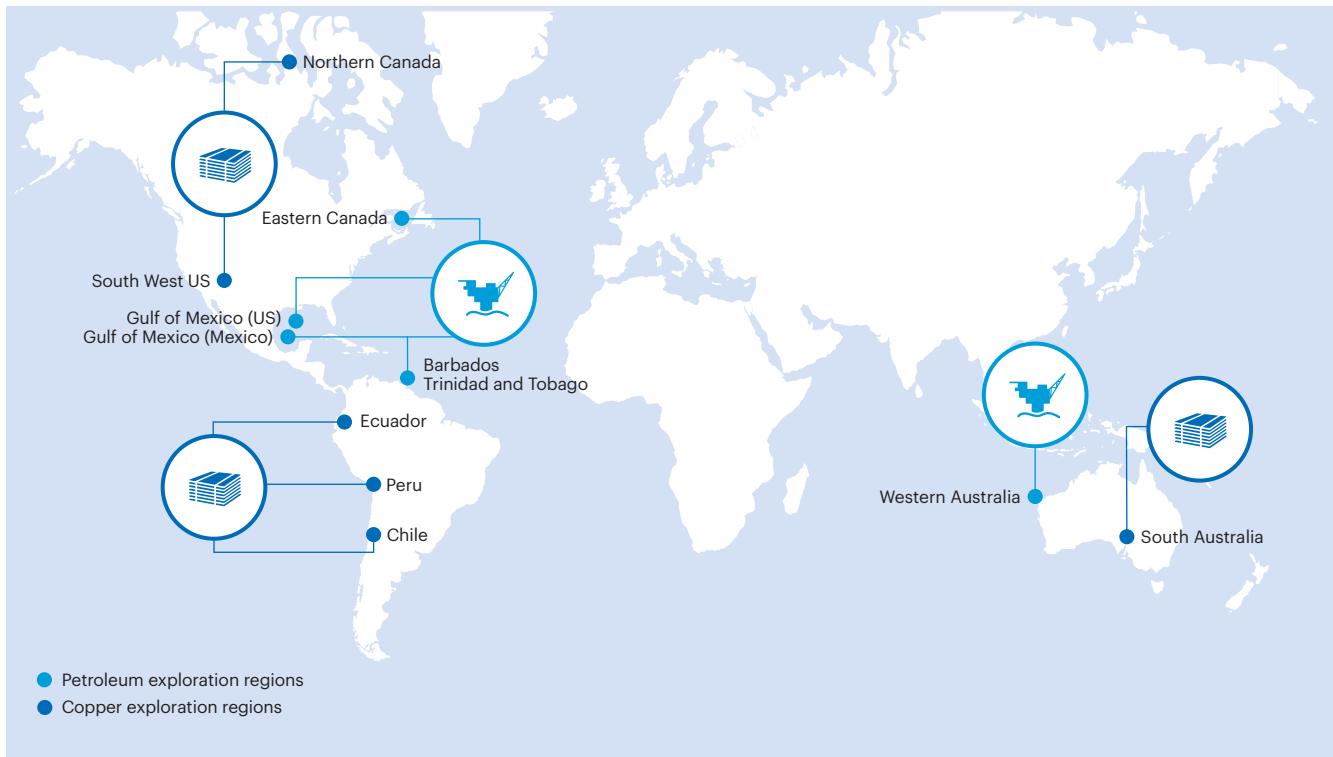
Exploration in FY2019

Conventional petroleum

In FY2019, we matured and expanded our exploration portfolio. We were successful in our bid to acquire a 100 per cent participating interest in, and operatorship of, two exploration licence agreements for blocks 8 and 12 in the Orphan Basin, offshore Eastern Canada. The drilling and seismic work required by the exploration work programs spans over a six-year term under the licence agreements.

In Trinidad and Tobago, BHP has northern and southern deepwater licences. In our northern licences, Bongos-2 spud in July 2018 and found gas, opening a new play. This was followed by three additional exploration wells, Bele-1, Tuk-1 and Hi-Hat-1, in the first half of CY2019 that all successfully encountered gas. Technical work is underway to assess further exploration targets and commercial options for the northern gas play. In our southern licences, we drilled Victoria-1 and Concepcion-1 to further assess the commercial potential of the Magellan field play. Victoria-1 encountered gas while Concepcion-1 did not encounter commercial hydrocarbons.

BHP exploration regions



In Mexico, we became the first international operator to drill a well in the Mexican deepwater with the Trion-2DEL appraisal well, which was spud on 15 November 2018 and encountered oil in line with expectations. This was followed by a downdip sidetrack that encountered oil and water, as predicted, further appraising the field and delineating the resource. Following the recent results in the Trion block, an additional appraisal well (3DEL) was approved and spud on 9 July 2019. Based on preliminary results, the well encountered oil in the reservoir's up-dip from all previous well intersections. Evaluation and analysis is ongoing.

During FY2019, we acquired the world's first deepwater exploration ocean bottom node seismic survey in the western US Gulf of Mexico. The acquisition survey and node recovery have been completed and will be incorporated into our ongoing analysis, which we will continue to progress over the next 18 months. This will provide key information to inform the risk of prospects in the area.



For more information on conventional petroleum exploration, refer to section 1.13.1.



Copper

Copper exploration is focused on identifying and gaining access to new search spaces to test the best targets capable of delivering tier one deposits while we maintain research and technology activities aligned with our exploration strategy. The field copper exploration activities are directed towards the discovery of large, high-quality copper deposits in Chile, Peru, Ecuador, North America and Australia. These activities encompass early stage reconnaissance work through to target definition and testing in every country where we have exploration concessions.

On 27 November 2018, we announced a copper, gold and uranium discovery at one of our exploration projects on the Stuart Shelf, 65 kilometres to the southeast of BHP's operations at Olympic Dam. Our Copper Exploration team was responsible for the four drill hole intercepts, the most significant having grades of 3.04 per cent copper, 0.59 grams per tonne gold and 346 parts per million uranium over a drill length of 426 metres. We progressed the second phase of the drilling program in the June 2019 half and the results are currently being analysed.

In parallel, we continued to review other jurisdictions and opportunities to partner with third parties to counter the increasing exploration maturity of our existing geographies. During FY2019, we acquired an 11.2 per cent interest in Solgold Plc, the majority owner and operator of the Cascabel porphyry copper-gold project, and in July 2019 we entered into a binding earn-in and joint venture agreement with Luminex, both in Ecuador. We acquired a 5 per cent interest in Midland Exploration Inc., a Canadian junior company with interests in copper projects in northern Québec in Canada. In Mexico, Copper Exploration entered into a financial agreement with Riverside Resources that will enable BHP to access new search spaces. The financial agreement is focusing on early stage exploration opportunities.

Exploration expenditure

Our resource assessment expenditure increased by 13 per cent in FY2019 to US\$126 million, while our greenfield expenditure increased to US\$62 million. Expenditure on resource assessment and greenfield exploration over the last three financial years is set out in the following table.

Year ended 30 June	2019 US\$m	2018 US\$m	2017 US\$m
Greenfield exploration	62	53	43
Resource assessment	126	112	120
Total minerals exploration and assessment	188	165	163

Conventional petroleum exploration and appraisal

Petroleum exploration expenditure for FY2019 was US\$685 million, of which US\$388 million was expensed. Expenditure on petroleum exploration over the last three financial years is set out below.

Year ended 30 June	2019 US\$m	2018 US\$m	2017 US\$m
Conventional petroleum exploration and appraisal	685	709	803

Our petroleum exploration program had positive results in FY2019. We are pursuing high-quality plays in our four priority basins and a US\$0.7 billion exploration program is planned for FY2020 as we progress testing of our future growth opportunities.



For more information on conventional petroleum exploration, refer to section 1.13.1

Exploration expense

Exploration expense represents that portion of exploration expenditure that is not capitalised in accordance with our accounting policies, as set out in note 11 'Property, plant and equipment' in section 5.

Exploration expense for each segment over the last three financial years is set out below.

Year ended 30 June	2019 US\$m	2018 US\$m	2017 US\$m
Exploration expense			
Petroleum ⁽¹⁾⁽²⁾	409	592	573
Copper	62	53	44
Iron Ore	41	44	70
Coal	15	21	9
Group and unallocated items ⁽²⁾⁽³⁾	10	7	16
Total Group	537	717	712

(1) Includes US\$21 million (FY2018: US\$76 million; FY2017: US\$102 million) exploration expense previously capitalised, written off as impaired.

(2) Excludes Onshore US exploration expenditure of US\$ nil (FY2018: US\$ nil; FY2017: US\$2 million).

(3) Group and unallocated items includes functions, other unallocated operations, including Potash, Nickel West and consolidation adjustments.

1.6.4 Risk management

The identification and management of risks is central to achieving our strategic objectives.

It protects us against potential negative impacts, enables us to take risk for strategic reward and improves our resilience against emerging risks. BHP believes an essential element of effective risk management is to have a single, consolidated view of risks across the business to understand the Group's full risk exposure and to prioritise risk management and governance activity. As such, we apply a single framework (known as the 'Risk Framework') for all risks.

Refinements were made to BHP's Risk Framework during FY2019. There are four pillars in our Risk Framework: risk strategy, risk governance, risk process and risk intelligence.



Risk strategy

Group Risk Architecture

In order to understand and manage the risks that BHP is exposed to, we have developed a Group Risk Architecture, which is a tool to identify, analyse, monitor and report risk. The Group Risk Architecture is currently made up of 10 Group Risk categories, which cover a number of Group Risks. Risks in BHP's profile are connected to a Group Risk. This gives the Board and management visibility over the aggregate exposure to risks on an enterprise-wide basis and supports performance monitoring and reporting against BHP's risk appetite.

For example, under the Group Risk of occupational safety, we have identified risks relating to the safety of our people in performing their work, such as vehicle incidents, falls from height and dropped objects.

The Group Risk Architecture (as at 30 June 2019) is illustrated below. The left column shows the Group Risk category and the columns to the right show the allocation of the Group Risks to each category. This Group Risk Architecture will change over time to reflect our strategy, changing activities and consideration of the external context. Our principal risks are shown in a darker shade of blue in the diagram below, and are described further in the Risk factors section below.

Group Risk Categories		Group Risks		
1	Strategy	Capital allocation	Competitive advantage	Returns sustainability
		Geopolitics and macro economics	Market disruption	
2	Exploration, Growth and Development	Assessment and estimation		Expansions, organic growth and major projects
		Political stability and new country entry		
3	Production and Operations	Asset performance	Business continuity	Third party performance
		Production volume and cost	Asset integrity	Rehabilitation and closure
4	Commercial	Commodity price	Counterparty risk	Supply chain management
		Procurement cost	Sales and supplier concentration	Contractual terms
5	People and Culture	Attract and retain talent	Critical skills and technical capabilities	Diversity, inclusion and equal opportunity
		Employee and labour relations	Performance management	
6	Health and Safety	Aviation	Process safety	Physical security and emergency preparedness
		Mental and physical health	Occupational safety	Occupational health exposures
7	Environment, Climate Change and Community	Biodiversity loss	Human rights	Social unrest
		Land use impacts	Water interactions	Community wellbeing Climate change, greenhouse gas emissions and energy
8	Technology, Innovation and Systems	IT/OT service management		Cybersecurity
		Automation and technology innovation		Information security
9	Financial Management	Liquidity		Financial control and reporting
		Tax		Balance sheet
10	Legal Compliance and Stakeholder Management	Stakeholder relations	Ethics and compliance	Risk treatment and insurance
		Legal and regulatory	Competition	

Risk appetite

BHP's Risk Appetite Statement has been approved by the Board and is a foundational element of our Risk Framework. It is made up of a qualitative statement for each Group Risk category that describes the nature and extent of risk we are prepared to take in pursuing our objectives. The Risk Appetite Statement defines the parameters that management is obliged to operate within and we use key risk indicators to indicate any changes to our risk exposure.

Key risk indicators

Key risk indicators (KRIs) assist in identifying whether BHP is operating within or outside of our risk appetite, as defined in our Risk Appetite Statement. They also support decision making by providing

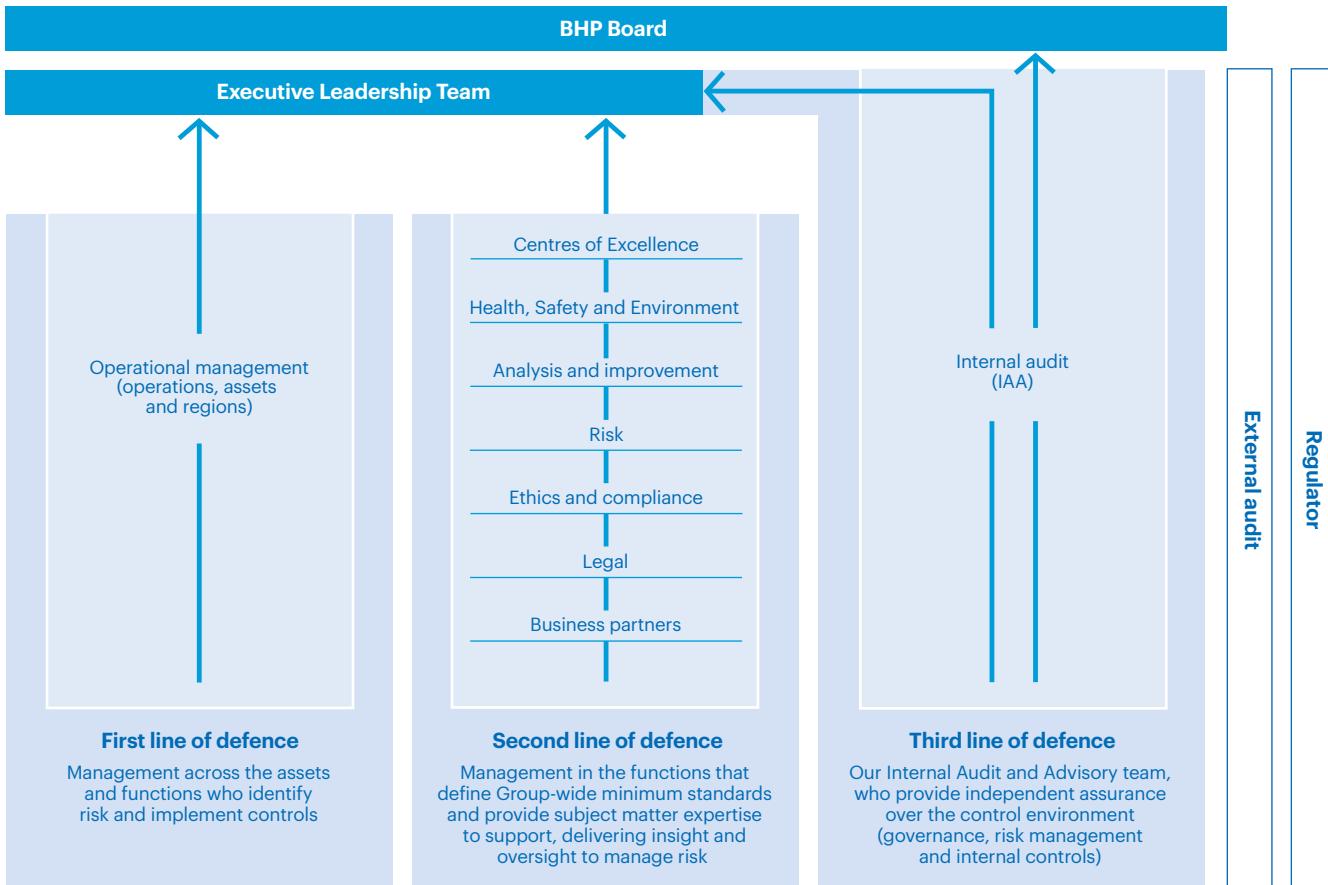
management with information about risk exposure at a group level. KRIs are defined for Group Risks to provide the data for proactive monitoring of BHP's risk performance. Where KRI limits are exceeded, management will review potential causes to understand if BHP may be taking too little or too much risk, and to identify whether further action is required. For example, our current KRIs monitor data such as market concentration based on the percentage of revenue linked to a single jurisdiction, the number of critical cybersecurity incidents, greenhouse gas emissions relative to the FY2017 baseline and trends in the number of community complaints received.

1.6.4 Risk management continued

Risk governance

Risk management accountability and oversight is an integral part of BHP's governance. The Board and senior management (including the Executive Leadership Team) provide oversight and monitoring of risk management outcomes. They are ultimately responsible for ensuring BHP maintains a robust Risk Framework and an effective internal control environment.

BHP uses the 'three lines of defence' model of risk governance and management to define the relationships and clarify the role of different teams across the organisation in managing risk. This approach is illustrated in the diagram below and integrates risk management, control definition, control improvement, governance and assurance frameworks into one governance model.



Adapted from Institute of Internal Audit Position Paper: The three lines of defence in effective risk management and control.

For example, for a loss of containment risk within the Group Risk of process safety, our first line operations personnel would be responsible for implementing pipe thickness checks to ensure corrosion is within acceptable limits. Second line functions, such as our engineering teams, would define and assure minimum standards for pipe materials and acceptable levels of corrosion. Our Internal Audit and Advisory team would then audit the effectiveness of the standards and their application, as the third line.

BHP Board and committees

The Board reviews and considers BHP's risk profile, covering operational and strategic risks, using the Material Risk Report. The report includes an overview of the risk profile, summary of material changes to the profile, performance against KRIs and summaries of our priority group risks. The contents of this report are further described in the diagram below 'Risk intelligence'.

The Risk and Audit Committee (RAC) assists the Board with the oversight of risk management, including by receiving a range of reports from management on all types of risk, although the Board retains overall accountability for BHP's risk profile. In addition, the Board requires the CEO to implement a system of control for identifying and managing risk. The Directors, through the RAC, review the systems that have been established for this purpose, review the effectiveness of those systems and monitor that necessary actions have been taken to remedy any significant failings or weaknesses identified from that review. The RAC regularly reports to the Board to enable the Board to review our Risk Framework. For more information, refer to section 2.13.

The Sustainability Committee has oversight of health, safety, environment and community related (HSEC) risks. Identification

and management of HSEC risks and the investigation of any HSEC incidents are undertaken by management and reported to the Sustainability Committee. For more information, refer to section 2.13.

The Risk Appetite Statement is the mechanism by which the Board sets boundaries for taking risk. It enables management to make risk-informed decisions within the risk appetite of the Board. Performance against risk appetite is monitored and reported to the RAC and the Board, as described below. This includes reporting of performance that is outside upper or lower tolerance limits to indicate whether management is taking sufficient or excessive risk.

In FY2019, we introduced an additional second-line led review of the Group's most significant risks, such as dam failure, to provide a further level of rigour in the management of these risks. This process, referred to as the Priority Group Risk Review process, reviews the analysis and controls for risks that could impact the Group's viability or strategy, with findings and recommendations reported to the Board's Risk and Audit, and Sustainability Committees. Findings and recommendations will be used to inform strategic decisions on whether to accept, reduce or further eliminate risks to align with the Group's risk appetite, and to develop remediation plans, such as to improve risk analysis or control definition.

Additional information on risk management and internal controls is provided to the Board and the RAC by the Business Risk and Audit Committees (covering each asset group), other Board committees, management committees and our Internal Audit and Advisory team. For more information, refer to section 2.13. Our approach to risk reporting is outlined in the 'Risk Intelligence' section.

Risk process

Our Risk Framework requires identification and management of risks to be embedded in business activities through the following processes:

- Risk identification**

New and emerging risks are identified and owned where they occur within BHP.

- Risk assessments**

Risks are assessed with the most appropriate technique and results are translated for BHP to understand and appetite to be considered.

- Risk treatment**

Risks are prevented, reduced or mitigated with controls.

- Monitoring and review**

Risks and controls are reviewed periodically and on an adhoc basis to evaluate performance.

Our Risk Framework includes requirements and guidance on the tools and process to manage all risk types (current, strategy and emerging).

Current risk

Current risks may have their origin inside BHP or originate as a result of BHP's activities. These may be strategic or operational in nature and include material and non-material risks.

The materiality of our current risks is determined by calculating an estimate of the maximum foreseeable loss (MFL). The MFL is the estimated impact sustained by BHP in the 'worst case' scenario for that risk. The 'worst case' scenario considers all potential impacts without regard to probability and assumes all risk controls, including insurance and hedging contracts, are ineffective. For example, when calculating the number of fatalities to assess MFL in an underground explosion, we might assume the maximum number of people who are allowed to enter the underground mine.

Our focus for current risks is to prevent their occurrence or minimise their impact should they occur. Current material risks are required to be evaluated once a year at a minimum to determine whether the risk exposure is within our risk appetite.

Strategy risk

Strategy risks inform, are created, or are affected by business strategy decisions or pursuit of strategic objectives. They represent opportunities as well as threats. The Risk Appetite Statement and KRIs are available to assist in determining whether a proposed course of action is within BHP's appetite. Once a decision has been made, our risk process as described above applies. In addition to calculating the MFL, another tool available to inform decision-making is the Maximum Foreseeable Gain (MFG). The MFG is the 'best case' scenario that should be articulated when seeking to take risk for strategic returns. It represents the optimum return.

Our focus for strategy risks is to enable the pursuit of high-reward strategies. Therefore, as well as having controls to protect BHP from the downside risk, we will implement controls to increase the likelihood of the opportunity being realised. For example, we might establish additional governance, oversight or reporting to ensure new initiatives remain on track.

Emerging risk

Emerging risks typically have their origin outside BHP. There is often insufficient information for these risks to be fully understood and they cannot be prevented by BHP. Effective management of emerging risks is critical to strengthening our resilience to foreseeable changes and our ability to capture competitive advantages. We assess and manage emerging risks based on the expected consequence, timing and speed of the risk event, as well as the capacity for BHP to respond.

Emerging risks are identified and initially monitored by subject matter experts. Ongoing management is handed over to risk owners when the impact and our response is defined. For example, BHP has a dedicated climate change team that monitors and manages the emerging risks relating to climate change as they evolve. However, operational aspects (such as managing the increased risk of extreme weather events) are managed by our operations.

Our focus for emerging risks is on reducing the impact should an event occur, and on advocacy efforts to reduce the likelihood of the risk manifesting. Our approach is to apply contingency controls, such as response plans, to emerging risks that are outside our appetite. These controls increase the resilience of BHP to shocks from the external environment. Emerging risks are evaluated annually to determine whether the risk remains emerging and if the exposure is within our risk appetite.

Our emerging risk process was formalised during FY2019 and in FY2020, emerging risks will be included in our Group-wide risk register.

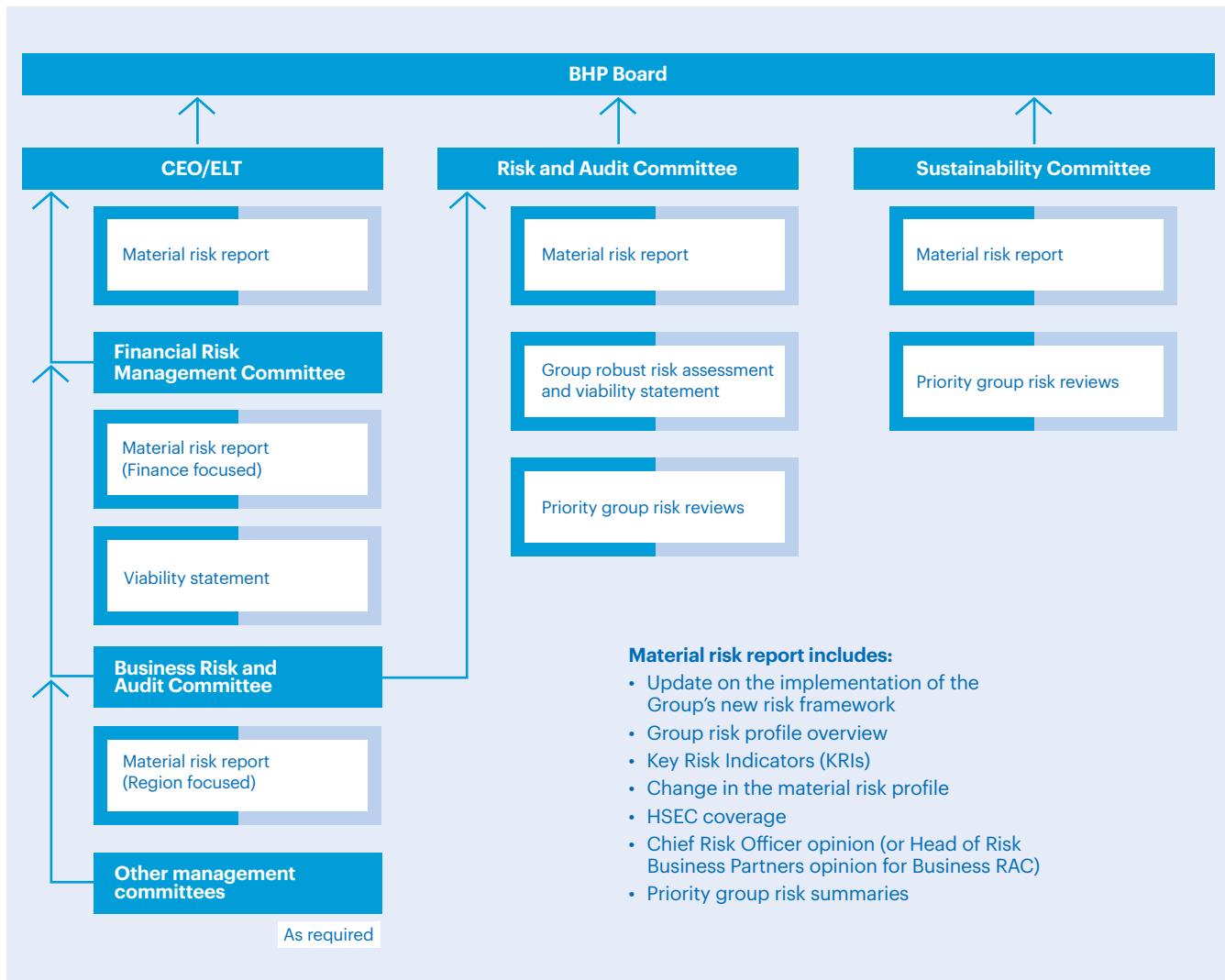


1.6.4 Risk management continued

Risk intelligence

Board and senior management are provided with insights on trends and aggregate exposure for our most significant risks, as well as performance against risk appetite, by the Risk team. The Board also receives reports from other teams to support their robust assessment of principal risks; including internal audit reports, ethics and compliance reports and the Chief Executive Officer's report.

A summary of the risk reports delivered by the Risk team, and how these provide additional intelligence to the Board are outlined below.



Robust risk assessment and viability statement

During the year, the Board carried out a robust assessment of BHP's principal risks, including those risks that would threaten the business model, future performance, solvency or liquidity.

The Directors assessed the prospects of BHP over the next three years, taking into account our current position and principal risks.

The Directors believe a three-year viability assessment period is appropriate for the following reasons. BHP has a two-year budget, a five-year plan and a longer-term life of asset outlook. We have publicly stated our view that, while commodity prices remain volatile, our short-term outlook is optimistic. Price and exchange rate volatility results in variability in plans and budgets. A three-year period strikes an appropriate balance between long and short-term influences on performance.

The viability assessment took into account, among other things, BHP's commodity price protocols, including: low-case prices; the latest funding and liquidity update; the long-dated maturity profile of BHP's debt and the maximum debt maturing in any one year; the Group-level risk profile and the mitigating actions available should particular risks materialise; the regular Board strategy discussions, which address the range of outcomes under the capital allocation framework; the flexibility in BHP's capital and exploration expenditure programs under the capital allocation framework; and the reserve life of BHP's minerals assets and the reserves-to-production life of our oil and gas assets.

The Directors' assessment also took account of additional stress-testing of the balance sheet against two hypothetical significant risk events: a well blow-out in the Gulf of Mexico and a low-price environment. A further level of robustness is added given no debt issuance is required in the three-year period, and BHP would still have access to US\$6.0 billion of credit through its revolving credit facility. The Directors were also mindful of the assessment of our portfolio against scenarios as part of BHP's corporate planning process to help identify key uncertainties facing the global natural resources sector.

In making this viability statement, the Directors have considered the capital allocation framework and have also made certain assumptions regarding management of the portfolio, the alignment of production, capital expenditure and operating expenditure with five year plan forecasts and the alignment of prices with the cyclical low price case used in the control stress case for monthly balance sheet testing.

Taking account of these matters, and BHP's current position and principal risks, the Directors have a reasonable expectation that BHP will be able to continue in operation and meet its liabilities as they fall due.

Risk factors

Our Group Risk Architecture currently has 10 Group Risk categories that represent BHP's areas of risk. These categories are further broken down into Group Risks. This section highlights our most significant Group Risks. Each of the risk factors listed below could materially and adversely affect our business, financial performance, financial condition, prospects or reputation, leading to a loss of long-term shareholder and/or investor confidence.

Asset integrity

Risks associated with operational integrity and performance of our assets.

Why is this important to BHP?

Maintaining the operational integrity and performance of our assets is crucial to protect our people, the environment and communities in which we operate from incidents. We have onshore and offshore assets in variety of geographic locations. All our assets exist in and around broader communities and environments. A serious incident (such as dam failure or underground explosion) or the failure to appropriately maintain or develop our assets, could have an impact on our people, surrounding communities and environments, as well as our cash flow, operations or the longevity of our assets.

Threats

Failure to maintain operational integrity and performance of our assets may result in operational incidents or reduce asset value.

An operational incident, such as dam failure or underground explosion, could result in:

- multiple injuries and fatalities;
- extensive community disruption (including impacts to personal safety, livelihood and quality of life);
- short-term and long-term health risks to our people or the community;
- environmental damage (for example, affecting air quality, biodiversity or water resources);
- loss of licences, permits or necessary approvals to operate assets;
- loss of community infrastructure and services (such as power, water or transport);
- failure or redundancy of mining, processing or support infrastructure or equipment (such as a structural collapse or failure of a conveyor, petroleum platform or rail line);
- disruption to essential supplies or delivery of our products (for example, where channel blockage is caused by a vessel incident);
- significant repair costs;
- interruption in production or other critical activities and loss of revenue from affected operations;
- litigation, including class actions, or fines and investigations by authorities.

A failure to maintain operational integrity and performance of our assets may impact asset value due to production shortfalls, loss of development options or a delay in asset development.

For example, poor maintenance of facilities that manage fugitive emissions could result in excess dust or noise and restrict the ability to obtain approvals to increase output or throughput.

It may also negatively impact cash flows and profitability, result in financial write downs (for example, due to a need to abandon remaining reserves where it is uneconomic to reconstruct or recover the asset following a major incident) or increased costs or other commercial impacts. We take steps to maintain the operational integrity and performance of our assets through planning, design, construction, operation and closure. However, our projects are complex and may be adversely impacted by factors out of our control, such as natural disasters.

Our risk financing approach is to self-insure or not purchase external insurance for certain risks, including property damage and business interruption, sabotage and terrorism, marine cargo, construction, primary public liability and employee benefits.

Business continuity plans may not provide protection for all costs that arise from such events, and where external insurance is purchased, third party claims may exceed the limit of liability of policies. Any uninsured or underinsured losses could impact our financial position or the financial results of our assets.

Management

We employ a number of measures designed to protect the operational integrity and performance of our assets, and to detect, eliminate, prevent and mitigate operational incidents and outages. These measures include:

- BHP's standards on health, safety, the environment, communities, water and tailings dams, maintenance, crisis and emergency management, and event and investigation management;
- planning, designing and constructing mines, dams and equipment to avoid incidents;
- maintaining and improving infrastructure and equipment to protect our people and assets (for example controls to prevent the accumulation of flammable gas and coal dust);
- inspections and reviews (including a dam risk review to assess the management of significant tailings storage facilities, both active and inactive as described in section 1.8);
- routine reviews and revisions to management plans and manuals (for example, to test and update for alignment with operating specifications and industry dam codes);
- training and qualifications for staff and contractors;
- maintaining mine evacuation routes and supporting equipment (such as breathing apparatus), crisis and emergency response plans and business continuity plans.

FY2019 insights

The Group's exposure to asset integrity risks is expected to remain relatively stable. The Priority Group Risk Review process (described above) aims to provide additional rigour around the management of top operational risks, such as dam failure and underground fire and explosion.

1.6.4 Risk management continued

Occupational and process safety

Risks associated with the safety of BHP employees and contractors in performing their work.

Why is this important to BHP?

All our sites may be subject to operational accidents, including fires, explosions, road, vehicle, port, shipping, railroad, aircraft or airport incidents, rock fall incidents, loss of power supply, environmental pollution, mechanical equipment failures, mine-related accidents, personal conveyance equipment failures, loss of primary containment of hazardous materials, or loss of well control (involving an uncontrolled flow of well fluids or formation fluids from the wellbore to the surface).

We have onshore and offshore extractive, processing and logistical operations in many geographic locations. Transporting our people to the locations of our exploration activities and operations can involve helicopters, aircraft or high occupancy vehicles. We have port facilities and four underground mines, including one underground coal mine. The nature of the activities performed at such facilities and mines can involve safety hazards.

We operate in zones prone to natural disasters. This includes our Western Australia Iron Ore, Queensland Coal and Gulf of Mexico oil and gas assets, which are located in areas subject to cyclones or hurricanes, and our Chilean copper and Peruvian base metals assets and Global Asset Services office in Manila, which are located in known earthquake and tsunami zones.

Threats

Occupational and process safety incidents may lead to serious injuries, loss of life or livelihood or quality of life to BHP employees, contractors and members of the community. In addition, occupational and process safety incidents may result in:

- interruption in production or other activities critical to our business;
- disruption to essential supplies (such as explosives or maintenance parts);
- failure of mining or processing equipment or support infrastructure (for example, relating to power, water, transport or technology);
- environmental damage;
- increased costs or other commercial impacts;
- litigation (including class actions), fines or investigations by authorities;
- reputational damage.

Our risk financing (insurance) approach is to self-insure or not purchase external insurance for certain risks. For more information, refer to Asset integrity section.

Management

We employ a number of measures designed to detect, eliminate, prevent and mitigate operational and process safety incidents, including:

- BHP's standards on aviation, health, safety, the environment and community, crisis and emergency management;
- compliance with quality assurance standards (for example, the Drilling and Completions Quality Assurance Standard for Petroleum offshore drilling and completion activity);
- selection and design of mine plans, wells and equipment to prevent incidents (including slope design and underground support systems);
- inspection, maintenance and improvements of infrastructure to protect our people and assets (for example, cyclone resilience);
- inspection, maintenance and improvement of key equipment designed to prevent or mitigate an occupational or process safety incident (for example, pressure vessels designed to contain fluids or gas at pressure and emergency response equipment);
- training and qualifications for staff and contractors (including drill rig contractors and aircraft operators);
- influencing joint venture partners to align with BHP standards;
- monitoring adverse weather conditions, ground stability and pressure/temperature of materials;
- continuity plans and crisis and emergency response plans;
- self-insurance for losses arising from property damage, business interruption and construction.

FY2019 insights

Although the divestment of our Onshore US assets in FY2019 decreased the onshore risk exposure in Petroleum, the Group's exposure to operational and process safety risk is expected to remain relatively stable.

Capital allocation and returns sustainability

Risks associated with the allocation of capital through annual planning and other processes, and ongoing returns from BHP's assets and investments.

Why is this important to BHP?

Our strategy is to have the best capabilities, commodities and assets to create long-term value and high returns. Our decisions and actions relating to the allocation of capital across asset or reserve discovery, acquisition, maintenance, development or divestment, impacts our financial performance and financial condition, and therefore the sustainability of our returns. This is particularly the case with commodities that we view as attractive (for example, copper, oil and nickel sulphides).

Threats

Changes in our portfolio, missed opportunities to invest or a failure to effectively allocate capital or achieve expected returns from assets or investments may lead to:

- loss of value, for example due to incorrect reserve estimates, incorrect or changing assumptions (including those related to commodity prices) or early depletion of reserves;
- failure to achieve expected commercial objectives, including cost savings, sales revenues or operational performance;
- unexpected costs or liabilities, including due to the imposition of adverse regulatory conditions, from acquired assets or entities (such as rehabilitation costs) or legal dispute costs;
- adverse market reaction;
- adverse impacts on BHP's ability to deliver returns to shareholders;
- financial write-downs (for example, as a result of changes in market or industry, prices, inability to recover reserves or additional costs);
- exchange rate related additional costs;
- inability to retain key staff important to the success of our business.

Management

We have a number of strategies, processes and frameworks in place designed to grow and protect the strength of our portfolio and to help deliver ongoing returns to shareholders, including:

- a long-term strategy that informs the decisions and actions in capital allocation;
- an ongoing strategy process that assesses the competitive advantage of our business and enables identification of risks and opportunities for our portfolio using fit-for-purpose scenarios;
- monitoring indicators to interpret external events and trends;
- commodity strategies and commodity price protocols that are reviewed and presented to the Executive Leadership Team and Board;
- life of asset plans, which inform forecasts for proposed investments and operations;
- management reviews and governance activities to support operational and project forecasts and planning;
- our Capital Allocation Framework, which provides the structure and governance for prioritising capital allocation across the Group and adding growth options to our portfolio. Refer to section 1.4.3 for more information;
- investment approval processes that apply to investment decisions, including mergers and acquisitions activity, overseen by an investment committee as described in sections 2.14 and 2.15;
- annual reviews of our portfolio valuations to identify any value change and test internal value methodologies and assumptions against external benchmarks.

FY2019 insights

The Group's exposure to risks related to capital allocation and returns sustainability is expected to remain relatively stable. The divestment of our Onshore US assets in FY2019 has further simplified our portfolio.

1.6.4 Risk management continued

Geopolitics and macroeconomics

Risks associated with geopolitical and macroeconomic changes that impact our ability to access resources and markets needed to realise our strategy.

Why is this important to BHP?

BHP operates in multiple locations around the globe and may consider operating in new locations to access the resources we require. Our customers and suppliers are also located in markets around the world. Geopolitical and macroeconomic developments have the potential to restrict our ability to access resources in certain countries or effectively trade in markets. Any restrictions will impact our ability to realise our strategy as competition for resources grows, existing reserves are depleted and supply sources become more expensive to develop.

Threats

Changes in relations between countries, trade protectionism and political uncertainty can impact our ability to access resources and markets, such as:

- a continued slowing in China's economic growth and demand could result in lower demand or prices for our products and materially, and adversely impact our results, including cash flows. Sales into China generated US\$24.3 billion (FY2018: US\$22.7 billion) or 54.8 per cent (FY2018: 52.5 per cent) of our revenue in FY2019, on a Continuing operations basis. Section 5 note 2 'Revenue' details our calculation of revenue, including the impact of new accounting standards. FY2019 sales into China by commodity included 57 per cent Iron Ore, 26 per cent Copper, 14 per cent Coal and 2 per cent Nickel (reported in Group and Unallocated);
- a marked rise in geopolitical uncertainty and protectionism has the potential to inhibit international trade, weigh on business confidence and constrain investment. In particular, restrictive trade policies in the United States and China have ramifications for business, governments and citizens. They may adversely affect BHP's ability to trade, and impact demand for BHP's products in those and other economies;
- BHP's ability to obtain and retain licences to explore or develop resources or to access markets for sales or supply may be inhibited if there are tensions between a host country where we operate or sell our products in other countries that BHP is seen to be allied with. Such tensions may result in rescission of licences, nationalisation of assets, detention of BHP employees for regulatory investigations or limitations on markets or customer access;
- our access may be restricted through disruptions to shipping lanes, ports or other facilities as a result of conflicts or embargoes that are not directly related to BHP or our customers;
- our business may be negatively impacted by the exit of the United Kingdom from the EU, potentially triggering a deterioration of business activity in Britain and other countries. There remains uncertainty surrounding financial and trade implications of Brexit, which may be more severe than expected.

For a discussion of the current geopolitical and macroeconomic forces relevant to BHP's performance, refer to section 1.6.1.

Management

The diversification of our portfolio of commodities, markets, geographies and currencies is a key strategy intended to reduce our exposure to geopolitical and macroeconomic shifts.

We regularly monitor geopolitical and macroeconomic trends to understand potential impacts on our business and seek to identify mitigating actions as soon as possible.

We also engage with governments and other key stakeholders to understand and attempt to mitigate any potential impacts from changes in trade or resource policies.

FY2019 insights

The Group's exposure to geopolitics and macroeconomics risks is anticipated to increase in the short term due to heightened political and policy uncertainty.

Cybersecurity

Cyber-related risk events, including attacks on our enterprise or incidents relating to human error.

Why is this important to BHP?

Many of our business and operational processes are heavily dependent on technology. We have a significant and increasing reliance on autonomous systems for haulage and drilling. In addition, we have substantial integration between our information technology and our operating technology.

Threats

Cyber events or attacks may lead to:

- operational or commercial disruption (such as the inability to process or ship resources);
- corruption or loss of system data;
- a misappropriation or loss of funds;
- unintended disclosure of commercial or personal information;
- health and safety incidents, including fatalities (where cyber events cause system error or malfunction, which result in operational incidents);
- environmental damage (for example, cyber incidents could cause train derailments for autonomous transport);
- inability to respond appropriately to unrelated incidents;
- regulatory fines and compensation to people impacted;
- reputational damage.

Management

We employ a number of measures designed to protect, detect and respond to cyber events, including:

- BHP's standards on technology and cybersecurity, communications and external engagement;
- cybersecurity strategy and resilience programs;
- enterprise security framework and cybersecurity standards;
- cybersecurity awareness plan and training;
- security assessments and monitoring;
- restricted physical access to critical centres and servers;
- incident response plans, process and root cause analysis.

FY2019 insights

Although there were no identified cyber breaches to the Group's technology environment during FY2019, the Group's exposure to cyber-related risk events is expected to increase primarily due to our growing reliance on technology and the increasing sophistication of external cyberattacks.

1.6.4 Risk management continued

Third party performance

Risks associated with the delivery of products and services by third parties engaged by BHP, including contractors and non-operated joint ventures.

Why is this important to BHP?

BHP holds interests in assets and joint ventures that it does not directly operate, primarily within Minerals Americas (Samarco, Antamina, Resolution, Cerrejón and Nimba) and Petroleum (Algeria, Australia and Gulf of Mexico). Joint venture partners or other companies managing non-operated joint ventures take action contrary to our standards or fail to adopt standards equivalent to BHP's standards. In such situations, BHP may be unable to influence non-operated joint venture activities.

In addition, BHP's workforce is made up of a combination of permanent employees and contractors across all our operations. As a result, appropriate contractor selection and effective management of contractors from a safety, cost, quality, schedule and performance perspective is important to the success of our business. We also contract with many commercial and financial counterparties, including end customers, suppliers and financial institutions in the context of global financial markets that remain volatile.

Threats

Third party (including contractor) activities, including a failure to adopt standards, controls and procedures that are equivalent to BHP's, could lead to increased risk of:

- operational incidents or health and safety accidents, including fatalities;
- failure to meet remediation and compensation requirements (such as delays to community resettlements related to the Samarco dam failure, see section 1.7 for information on our response, support and commitments);
- inadequate quality of construction (for example, if contractors do not follow appropriate standards);
- reduced production (for example, from poor planning that does not align to appropriate standards);
- disengagement of the remaining workforce;
- litigation or regulatory action (for example, if a third party was in breach of a law or regulation);
- cost overruns, schedule delays or interruptions (such as in major development projects).

A failure by suppliers, contractors or joint venture partners to perform existing contracts or obligations may lead to the following impacts:

- non-supply of key inputs, such as explosives, mining equipment, petrol and other consumables important to our business;
- loss of access to third party owned or supplied infrastructure;
- disruption to essential supplies or delivery of our products (for example, where access or use of BHP owned and operated rail is disrupted by third parties);
- reduction in production at our assets;
- litigation (for example, for contractual breach);
- loss of revenue.

Our existing counterparty credit controls may not prevent a material loss to us due to our credit exposure to certain customer segments or financial counterparties.

Our risk financing (insurance) approach is to self-insure or not purchase external insurance for certain risks. For information, refer to the Asset integrity section.

Management

We have global practices and standards for operations and production that apply to third parties, including:

- BHP's standards on supply, safety and capital projects that apply to contractors and include requirements relating to contractor management;
- *Our Code of Conduct*, which sets out requirements related to working with integrity, including dealings with third parties as described in section 2.16;
- our Contractor Management Framework, which specifies a holistic approach to support regional alignment and is supported by global training;
- anti-corruption training, competition training, and *Our Code of Conduct* training;
- independent inspections, assurance and verifications (in some cases performed by regulatory bodies);
- governance frameworks for our joint ventures, which define how shareholders work together with management to govern the joint venture;
- BHP and external reviews of joint venture projects, risk management and governance activities;
- internal and shareholder audits of joint ventures.

We maintain a 'one book' approach with commercial counterparties, which means that we aim to quantify and assess our credit exposures on a consistent basis. We also have contingency plans in place if production or shipping is interrupted.

FY2019 insights

There are no changes identified in the risk environment for third party performance, internally or externally, that are expected to significantly increase the Group's exposure.

Community wellbeing and human rights

Risks that have the potential to impact communities and the environment and damage support for our business with communities, government or the general public.

Why is this important to BHP?

Our approach to all phases of the life cycle of an operation from exploration to closure can impact the environment, communities or other stakeholders, which can affect support for our existing or future operations. The nature of our activities may cause adverse impacts to air quality, biodiversity, water resources and related ecosystem services or health risks. Our activities may also have an impact on human rights, community livelihoods and wellbeing. Our assets are subject to law and regulations on a range of issues, including safety, health, environmental, anti-corruption, human rights, ethics, and employment conditions. Environmental and community impacts or non-compliance or alleged non-compliance with such laws and regulations could adversely impact the environment or communities, and damage community or governmental support for our business. Finally, our activities may be affected by shareholder activism or civil society activism.

Threats

BHP may engage in activities (or fail to engage in activities) that impact the environment, communities, human rights and social wellbeing. This can affect BHP's relationships with, or be viewed negatively by, the community and other stakeholders. A loss of stakeholder support could result in the following impacts to our business:

- loss of licences or permits for the operation of assets, or delays in approvals for new projects;
- opposition to new BHP projects or BHP's entry to new jurisdictions by communities, including through legal or social action;
- increased costs for mitigation, offsets or financial compensatory actions or obligations;
- potential schedule delay, increased costs or reduced production;
- increased taxes and royalties;
- industrial relations disputes, negotiations, litigation or regulatory action, resulting in a loss of productivity;
- loss of business opportunity.

In addition, changes to legal requirements or community expectations, for example, related to the rehabilitation or closure of assets, may increase required financial provisioning and costs.

Management

We have Group-wide standards for communications, community and external engagement; and environment and climate change. These standards and underpinning practices strengthen our environmental and social performance and include:

- conducting regular impact assessments for each asset to understand the social, environmental and economic context;
- identifying and analysing stakeholder, social, environmental and human rights impacts and business risks;
- engaging in regular, open and honest dialogue with stakeholders to understand their expectations, concerns and interests;
- contributing to environmental and community resilience through social investment;
- applying the mitigation hierarchy (avoid, minimise, rehabilitate, compensate) to minimise environment and community impacts, and achieve target environmental outcomes.

These activities also assist us to identify, mitigate or manage key potential social, environmental and human rights risks, as described in section 1.10.

FY2019 insights

The Group's exposure to risks associated with the community and human rights is assessed as increasing due to increasing societal and political requirements and expectations.

1.6.4 Risk management continued

Climate change and greenhouse gas emissions

Risks associated with changes in climate patterns, as well as risks arising from policy, regulatory, legal, technological or market responses to climate change.

Why is this important to BHP?

We are exposed to a broad range of climate-related risks arising from both the physical and non-physical impacts of climate change. Climate-related risks may affect our operations, the markets in which we sell our products, the communities in which we operate and our upstream and downstream value chains.

Risks related to the physical impacts of climate change include acute risks resulting from increased severity of extreme weather events and chronic risks resulting from longer-term changes in climate patterns.

Risks also arise from a wide variety of policy, regulatory, legal, technological and market responses to the challenges posed by climate change and the transition to a lower carbon economy. Fossil fuel use is a significant source of greenhouse gas (GHG) emissions, which contribute to climate change. The production and use of fossil fuels receive scrutiny from a range of stakeholders, including governments, investors, NGOs and communities. At BHP, we produce fossil fuels (energy coal, oil and gas) used primarily in the transport and electricity generation sectors, as well as fossil fuels and other commodities that are used as inputs to emissions-intensive industrial processes (including metallurgical coal and iron ore used in steelmaking). We also use fossil fuels in our mining and processing operations either directly or through the purchase of fossil fuel-based electricity. We can therefore be impacted by policies and regulations to reduce GHG emissions from the resources, electricity generation, transport and industrial sectors. Technological and market-related risks include the substitution of existing technologies with lower emissions options, such as renewables, particularly in the electricity generation and transport sectors, which have the potential to reduce demand for fossil fuels.

Threats

The impacts of climate change could affect the execution of our strategy, the expansion of our portfolio, and the ability of our operated and non-operated assets to operate efficiently. The following threats relating to climate change may affect us:

- the physical impacts of climate change (for example, changes in precipitation patterns, water shortages, rising sea levels, increased storm intensities and higher temperatures) may materially and adversely affect our assets, the productivity of our assets and the costs associated with our assets, as well as our supply chains, transport and distribution networks, customers' facilities and the markets in which we sell our products;
- the Group's asset carrying values or financial performance may be affected by any adverse impacts to reserve estimates or market prices that may occur if, for example, reserves are rendered incapable of extraction or demand for fossil fuel commodities decreases due to policy, regulatory (including carbon pricing mechanisms), legal, technological, market or societal responses to climate change in our operating jurisdictions or markets;
- climate change may increase competition for, and the regulation of, limited resources, such as power and water, which are critical to the operation of our business. This could affect the productivity of our assets and the costs associated with our assets;
- we are impacted by current and emerging policy and regulation aimed at reducing GHG emissions from the resources, electricity generation, transport and industrial sectors, including the introduction of carbon pricing mechanisms. Climate policy and regulation may reduce demand for our products or increase the costs associated with our assets. Examples of recent regulatory changes include the launch of an emissions trading scheme in China in 2017 and the introduction of a carbon tax in Chile in 2017;
- applications for licences, permits and authorisations required to develop our assets and projects may face greater scrutiny and be contested by third parties. This could delay, limit or prevent future development of our assets or affect the productivity of our assets and the costs associated with our assets;
- the Group's reputation and financial performance may be impacted by concerns regarding the contribution of fossil fuels to climate change. Impacts could include a reduction in investor confidence and constraints on our ability to access capital from financial markets;
- the Group may be subject to or impacted by climate-related litigation (including class actions) and the associated costs.

Assessments of the potential impact of future climate change policy, regulatory, legal, technological, market and societal outcomes are uncertain given the wide scope of influencing factors and the many countries in which we do business. For example, countries will need to introduce new or strengthen existing policies and regulation in order to meet the goals of the Paris Agreement.

Management

We work with globally recognised agencies to obtain regional analyses of climate science to improve our understanding of the potential climate vulnerabilities of our operations and communities where we operate, and to inform resilience planning at an asset level. Our assets are required to build climate resilience into their activities, for example, by designing facilities to withstand sea level rise or changing climate patterns, or factoring forecast increases in extreme weather events into operational plans. We also require new investments to assess and manage risks associated with the forecast physical impacts of climate change.

We evaluate the resilience of our portfolio to climate change and the low carbon transition by using a broad range of scenarios that consider divergent policy, regulatory, legal, technological, market and societal outcomes, including low plausibility, extreme shock events. We also continue to monitor climate-related developments that could impact the resilience of our portfolio. Our investment evaluation process has incorporated market and sector-based carbon prices for more than a decade.

We seek to mitigate our exposure to risk arising from current and emerging policy and regulation in our operating jurisdictions and markets by reducing our operational emissions and developing a product stewardship approach to emissions in our value chain.

We also respond to our exposure to policy and regulatory risk by advocating for the development of an effective, long-term policy framework that can deliver a measured transition to a lower carbon economy.

Identifying cost-effective and robust carbon offsets is important to meeting our emissions reduction commitments and managing reputational risk. We therefore also support the development of market mechanisms that reduce global GHG emissions through projects that generate carbon credits.

The Group continues to monitor policy, market and technological changes and community, investor and regulatory standards and expectations, as they develop, to inform appropriate management actions. For more information on our climate change risk management strategy, refer to section 1.10.8.

FY2019 insights

During FY2019, there was an accumulation of new indicators of the risks and costs associated with climate change, including the Intergovernmental Panel on Climate Change's Special Report on Global Warming of 1.5°C, which stated that the effects of climate change are already being observed, that warming of even 1.5°C would have profound impacts and that 2°C of warming would be more damaging than previously believed.

Community, investor and regulatory standards and expectations in relation to climate change continued to increase during FY2019. There has also been a recent escalation of climate-related litigation involving companies, particularly in the United States.

Legal, regulatory, ethics and compliance

Risks associated with BHP's legal, regulatory, ethics and compliance obligations.

Why is this important to BHP?

Our operated assets and non-operated joint ventures are based on material long-term investments that are dependent on long-term legal, regulatory, political, judicial and fiscal stability. In addition, the nature of the industries in which we operate means many of our activities are highly regulated, including through: (i) law and regulations relating to bribery and anti-corruption, trade and financial sanctions, market manipulation, taxation, royalties, competition, data protection and privacy; and (ii) local regulations and standards, such as controls on production, imports, exports, prices on greenhouse gas emissions, native title, and health, safety and environment.

Section 1.7 details our response and support in relation to the Samarco incident as well as the progress on our commitments.

Threats

BHP's activities or those of our associates could result in actual or alleged corruption, bribery, collusion, anti-competitive behaviour, market manipulation, tax avoidance or other breaches of legal, regulatory, ethics or compliance obligations. These activities, or changes in laws or regulations due to the developing nature of government regulations and international standards, could lead to the following threats to BHP's business, reputation and operations:

- actions, investigations or inquiries by regulatory authorities or courts over actual or alleged legal or regulatory breaches (for example, over suspected facilitation payments or bribery and corruption which are prevalent in some of the countries where we do business or our assets are located);
- disgorgement of profits (for example, if bribery or corruption is established);
- civil or criminal prosecution of employees or third parties;
- loss of operating licences, permits or approvals;
- operational impacts, such as unforeseen closures, site rehabilitation expenses, delays or disruption;
- increased compliance costs (for example, to meet new or more onerous operating or reporting standards);
- regulatory fines or settlements (for example, from a failure to comply with reporting standards or recognise royalties);
- increased costs in relation to taxation or royalties if laws or policies change;
- adverse impacts to the quality and condition of infrastructure that BHP uses in the operation of its assets, such as rail or ports (which can be affected by political and legislative change);
- adverse change to regulatory regimes for access to government-owned or privately operated infrastructure or resources (for example, rail, electricity or water), resulting in additional costs or limitations on access by BHP;
- renegotiation or nullification of existing contracts, leases, permits or other agreements;
- litigation or disputes (such as in connection with ownership and use of land) and the associated cost of such litigation or disputes;
- loss or uncertainty of land tenure, for example, in countries where native title must be established and recognised, such as in Australia;
- effects on the economics of new mining projects and the expansion of existing assets and operations.

We conduct our business globally in numerous jurisdictions with complex regulatory frameworks. Our governance and compliance processes may not identify or prevent misstatements or fraud or prevent potential breaches of law, accounting or governance practice.

FY2019 insights

There are currently no changes identified in the risk environment for BHP's legal and regulatory obligations that are expected to significantly increase the Group's exposure, with the exception of those noted above for climate change and community and human rights. The Group's exposure to risks associated with legal, regulatory, ethics and compliance issues may increase in the event of increased investment and activity in higher risk jurisdictions.

Management

We have internal policies, standards, systems and processes for governance and compliance, including:

- BHP's standards on business conduct, market disclosure, and information governance and controlled documents;
- *Our Code of Conduct*;
- contractor due diligence and automated risk screening;
- ring fencing protocols to separate potentially competitive businesses within BHP;
- classification of compliance sensitive transactions;
- governance and compliance processes (including the review of internal controls over financial reporting and specific internal controls in relation to trade and financial sanctions, market manipulation, competition, data protection and privacy and corruption);
- anti-corruption training, competition training, *Our Code of Conduct* training;
- oversight and engagement with higher risk areas by our Ethics and Compliance function, Internal Audit and Advisory team and the Disclosure Committee;
- global monitoring of compliance controls by our Ethics and Compliance function;
- EthicsPoint anonymous reporting service, supported by an ethics and investigations framework and central investigations team (within the Ethics and Compliance function) to investigate *Our Code of Conduct* concerns.

1.6.4 Risk management continued

Commodity prices

Risks associated with the prices of commodities, including sustained price shifts relative to the price of extraction.

Why is this important to BHP?

The prices we obtain for our minerals, oil and gas are determined by, or linked to, prices in world markets, which have historically been, and may continue to be, subject to significant volatility.

Threats

Fluctuations in commodity prices can occur in response to a range of factors. These include price shifts triggered by global economic and geopolitical factors, industry demand, increased supply due to the development of new productive resources or increased production from existing resources, technological change, product substitution and national tariffs. The effects of the trade negotiations between the US and China and the United Kingdom's exit from the EU may also have an impact on price volatility and therefore affect us.

We are particularly exposed to price movements in minerals, oil and gas. For example, a US\$1 per tonne decline in the average iron ore price and US\$1 per barrel decline in the average oil price would have an estimated impact on FY2019 profit after taxation of US\$154 million and US\$29 million, respectively. For more information on commodity price impacts, refer to section 1.6.2. Commodity price impacts can also be exacerbated by exchange rate fluctuation, which may impact our financial results.

Long-term price volatility or sustained low prices may adversely affect our future profitability. This could result in cost pressure, as we do not generally have the ability to offset costs through price increases. In addition, this impact may result in lower than desired credit ratings for BHP, restricting our access to debt funding or increasing our financing costs.

FY2019 insights

With the exception of geopolitical and macroeconomic developments (mentioned in the Geopolitics and macroeconomics section), which are expected to increase commodity price volatility, there are no changes identified in the risk environment for commodity prices that are likely to significantly increase or decrease the Group's exposure to commodity prices. Volatility in the market will continue to translate into profit variability.

Management

Our usual policy is to sell our products at the prevailing market prices. We manage our exposures primarily through the diversity of commodities, markets, geographies and currencies provided by our relatively broad portfolio of commodities. However, this does not necessarily insulate BHP from the effects of price changes.

Note 21 'Financial risk management' in section 5 outlines BHP's financial risk management strategy, including market, commodity and currency risk.

Balance sheet and liquidity

Risks associated with BHP's ability to maintain a robust and effective balance sheet, distribute dividends and remain financially liquid.

Why is this important to BHP?

Fluctuations in commodity prices and ongoing global economic volatility could materially and adversely affect our future cash flows and ability to access capital from financial markets at acceptable pricing. If our liquidity and cash flows deteriorate significantly, it may adversely affect our ability to fund our strategy.

Threats

If our key financial ratios and credit ratings are not maintained, our ability to fund current and future capital projects and acquisitions, cost of financing, solvency, ability to pay a dividend and/or share price may be impacted.

Management

The Financial Risk Management Committee (FRMC) oversees the financial risks faced by BHP and endorses or approves financial risk management strategies, mandates and activities, including those related to commodity, currency, credit and insurance markets. The role of the FRMC is described in sections 2.14 and 2.15. Note 21 'Financial risk management' in section 5 outlines our financial risk management strategy.

We seek to maintain a strong balance sheet supported by our portfolio risk management strategy. To achieve this, we:

- operate a diversified portfolio, which reduces overall cash flow volatility;
- maintain access to key debt markets globally;
- monitor target gearing levels and credit rating metrics;
- assess cash flow at risk to monitor sensitivities to market prices and their impact on key financial ratios;
- maintain target cash and liquidity buffers within ranges set by the Board (which are designed to sustain BHP through periods where there is limited access to debt markets);
- operate within credit limits set by frameworks approved by the FRMC.

FY2019 insights

Protectionism and political uncertainty heightened during FY2019, which we expect will constrain global economic growth. However, no material changes have been identified in the risk environment, internally or externally, that are expected to significantly increase the Group's risk exposure or significantly impact the Group's ability to maintain a strong balance sheet, distribute dividends and remain financially liquid.

1.7 Samarco



Monitoring of the Doce river water.

The Fundão dam failure

On 5 November 2015, the Fundão tailings dam operated by Samarco Mineração S.A. (Samarco) failed. Samarco is a non-operated joint venture owned by BHP Billiton Brasil Limitada (BHP Billiton Brasil) and Vale S.A. (Vale), with each having a 50 per cent shareholding.

A significant volume of tailings (water and mud-like waste resulting from the iron ore beneficiation process) was released. Tragically, 19 people died – five community members and 14 people who were working on the dam when it failed. The communities of Bento Rodrigues, Gesteira and Paracatu were flooded. A number of other communities further downstream in the states of Minas Gerais and Espírito Santo were also affected by the tailings, as was the environment of the Rio Doce basin.

Our response and support for Fundação Renova

More than three years into the recovery process, we remain committed to doing the right thing for the people and the environment in the Rio Doce region in a challenging and complex operating context.

The Framework Agreement entered into between Samarco, Vale and BHP Billiton Brasil and the relevant Brazilian authorities in March 2016 established Fundação Renova, a not-for-profit, private foundation that has developed and is implementing 42 remediation and compensatory programs to restore the environment and re-establish affected communities. As well as remediating the impacts of the dam failure, Fundação Renova is implementing a range of compensatory actions aimed at leaving a lasting, positive legacy for the people and environment of the Rio Doce.

BHP is focused on supporting Fundação Renova's operations through representation on the Board of Governors and Board Committees, making available secondees who work within Fundação Renova to provide their technical expertise on priority areas, and regular peer engagement on issues such as safety, risk management, human rights and compliance.

Fundação Renova

Fundação Renova's staff of approximately 530 people is supported by about 6,200 contractors. Its CY2019 budget is R\$3.1 billion.

The activities of Fundação Renova are overseen by an Interfederative Committee comprising representatives from the Brazilian Federal and State Governments, local municipalities, environmental agencies, impacted communities and the Public Defense Office, who monitor, guide and assess the progress of actions agreed in the Framework Agreement. The Interfederative Committee is supported by the Technical Chambers, made up of specialists from the various government departments, which are established to assist the Interfederative Committee in the performance of its purpose of guiding, monitoring and supervising the execution of the socioeconomic and socio-environmental programs managed by Fundação Renova. There are 11 Technical Chambers in the following areas: communication, participation, dialogue and social control; economy and innovation; social organisation and emergency aid; Indigenous peoples and traditional communities; reconstruction and infrastructure recovery; health, education, culture, leisure and information; conservation and biodiversity; tailings and environmental safety management; forestry restoration and water production; and water safety and quality.

Fundação Renova is governed by a Board of Governors, currently comprising representatives nominated by Vale, BHP Billiton Brasil and the Interfederative Committee. In the near term, representatives of impacted communities are also expected to join the Board of Governors. The Board of Governors appoints an Executive Board, including the CEO, which is responsible for the operational management of Fundação Renova.

Fundação Renova's governance structure also comprises a Fiscal Council, Advisory Council, seven Board Committees, a Compliance Manager and an Ombudsman. The Advisory Council includes representation from impacted communities and community development and education experts.

On 25 June 2018, Samarco, Vale and BHP Billiton Brasil signed a Governance Agreement with the other parties to the Framework Agreement, the Public Prosecutors Office and the Public Defense Office. The Governance Agreement augments the participation of impacted people in the decision-making process, through representation on both the Fundação Renova Board of Governors and the Interfederative Committee.

In addition, during FY2019, a network of 18 local commissions, made up of affected people, was established along the Rio Doce to represent the affected people in the governance process for full reparation of the damages.

Participants in the local commissions will be offered training by the technical advisers (non-profit organisations that aim to defend the rights of affected people, providing access to information and technical guidance) to enable them to actively participate in the process by submitting proposals, recommendations and comments on the work of the Interfederative Committee, Technical Chambers and Fundação Renova. Each commission should also be able to work with other local commissions to discuss and improve the results in each territory. Due to the diversity, scale and complexity of the programs, Fundação Renova collaborates and engages broadly with affected communities, scientific and academic institutions, regulators and civil society.

Resettlement

One of Fundação Renova's priority social programs is the livelihood restoration program to relocate and rebuild the communities of Bento Rodrigues, Paracatu and Gesteira. A key to the success of this program is the participation of affected community members, their technical advisers, State Prosecutors, municipal leaders, regulators and other interested parties.

The process involves the identification and acquisition of land, design and planning for the urban plan, including all infrastructure services (roads, power, water, drainage, sewerage) and public buildings (schools, health centres, squares, sports grounds and religious buildings), and construction of new houses for the affected people. The resettlement project provides local employment for community members where possible and support to help affected people restore their livelihoods.

In Bento Rodrigues, preparation for construction of the public school has commenced and infrastructure works are progressing. Unfortunately, work is behind schedule due to delays in project engineering and in the permitting process. Fundação Renova has signed an agreement to provide additional resources required by the municipality to analyse the individual house projects for permitting approval. Of the 257 houses, as of June 2019, 112 families had concluded the conceptual design of their houses and around 76 house projects have permits submitted to start construction.

In June 2019, Renova signed Letters of Intent with two major Brazilian construction companies to undertake construction of the houses and infrastructure.

In Paracatu, by June 2019, all licences and authorisations to commence construction were granted and works to prepare the construction site were under way (117 houses).

In December 2018, land was purchased for the resettlement of 37 families of Gesteira following a protracted negotiation with the landowner. The urban plan design is being designed with the community.

In addition to these three community resettlements, 14 families from the rural area chose to rebuild their houses on their previous property, and of these, six houses have been rebuilt and delivered to the families.

Eighty-three families have chosen not to live in one of the three villages or in their previous houses. Fundação Renova is assisting them. Twenty-two properties have been purchased for these families (as of June 2019).

Financial assistance and compensation

Fundação Renova had paid R\$1.7 billion in indemnification and financial aid up to June 2019.

Fundação Renova has distributed about 13,160 financial assistance cards to those whose livelihoods were impacted by the dam failure, including registered and informal commercial fisherfolk who are unable to fish due to the imposition of fishing bans in the Rio Doce and along the coast of Espírito Santo. The payments are designed to provide those affected with the capacity to support themselves and their families pending the re-establishment of conditions that enable them to resume their economic activities.

Fundação Renova is also undertaking Brazil's largest mediated compensation program to fairly compensate all individuals impacted by the dam failure. It comprises two key components:

- The Water Damages component compensated people for an interruption to public water supplies for seven to 10 days following the dam failure. Over 268,000 people participated in the program, and were paid a total of approximately R\$267 million. Between judicial and extrajudicial processes, about 300,000 settlements have been reached in small claims filed by impacted people in Minas Gerais and Espírito Santo requesting the payment of moral damages related to the shortage of public water supply.
- The General Damages component covers all other impacts, including loss of life, injury, property, business impacts, loss of income and moral damages. The program was designed based on inputs from public agencies, technical entities and impacted families and has been validated by the Interfederative Committee.

Compensation represents 36 per cent of Fundação Renova's budget, which is approximately R\$1 billion for CY2019.

Of the 19 fatalities, 16 families have been fully indemnified and one partially. The remaining two families are still in legal negotiations.

Other socioeconomic programs

While resettlement, compensation and restoring fishing livelihoods are an important focus, Fundação Renova continues to implement a wide range of other socioeconomic programs in areas such as health and social protection, education, small business development, economic diversification, Indigenous peoples and traditional communities (i.e. sand-gold miners):

- There are two work fronts of Fundação Renova in the area of health: (i) conducting epidemiological and toxicological studies to investigate the health risk of tailings and heavy metals from the Doce River and to monitor the impact of dust on people's lives and (ii) supporting the public management of municipalities by strengthening existing municipal structures, both in clinical care and social protection. In March 2019, more than 60 professionals, including doctors, nurses, social workers and psychologists hired by Fundação Renova worked in Mariana and Barra Longa (Minas Gerais).
- Fundação Renova seeks to promote the local economy to stimulate the resumption of the economic activity of the impacted region. To promote small business development and economic diversification, Fundação Renova launched, amongst others, a fund of R\$40 million, to finance micro and medium companies with loans ranging from R\$10,000 to R\$200,000.
- Fundação Renova prioritises the local workforce in repair actions and in March 2019, reported that 57 per cent of people directly engaged or engaged via suppliers were from affected municipalities. Fundação Renova's goal is for this percentage to stabilise at or exceed 70 per cent.
- Actions to protect and restore the quality of life of Indigenous peoples and traditional communities aim to repair and compensate for the social, cultural, environmental and economic impacts on four communities and a total of 1,600 families. Impact studies are being developed to be the foundation of an integrated development action plan to recover the livelihoods of each of these communities.

1.7 Samarco continued



Bento Rodrigues school construction works.

Environmental remediation

Fundação Renova had successfully concluded works to stabilise the impacted land areas by June 2019. The riverbanks and floodplains have been vegetated, river margins have been stabilised and, in general, water and sediment qualities have returned to historic conditions. Regarding long-term remediation, work is continuing with landowners and regulators to define the land use objectives, further interventions that may be required, and the indicators and monitoring programs that will be used to demonstrate success of the program.

One of the main concerns held by stakeholders regarding the tailings related to the potential contamination of water, sediment, soil and biota. Fundação Renova commissioned human health and ecological risk assessment studies to answer these questions. Although the tailings have low concentrations of trace metals, the background concentrations of some elements are elevated in the area due to previous human activity or natural conditions. It is therefore important that studies are well designed and results clearly show the source of any potential health risks. BHP has been working with Fundação Renova to make sure robust data is collected, the correct methodologies are applied and clear causes for any health impacts are identified so that health authorities have accurate information to support their decision-making.

Water quality, aquatic habitat and fish surveys are continuing in the rivers and coastal zone to understand the impact of the tailings flow and the rate of recovery of the ecological systems. Results from these studies indicate that, while sediment in the river channels along the spill flow path upstream of the Candonga reservoir continues to limit the re-establishment of habitats and aquatic fauna diversity and abundance, the natural sediment transport processes will ultimately restore suitable habitat. Methods to enhance the rate of habitat recovery in the upstream section of the river closest to the dam failure are under implementation.

Research institutions have been progressing with studies along the river and coast required by regulators and prosecutors, with preliminary results scheduled for late 2019. In May 2019, Brazil's National Sanitary Surveillance Agency (ANVISA) attested to the safety of the consumption of fish and crustaceans from the Doce River Basin and the coastal region, within daily limits of 200 grams per adult and 50 grams per child. Given the significant impacts of the fishing bans on the livelihoods of commercial and subsistence fisherfolk and the social cohesion within their communities, BHP Billiton Brasil has continued providing technical support to Fundação Renova to accelerate the collection of data to address the concerns of regulators and the community. This includes analysis of the safety of fish for human consumption and the status of fish populations to support lifting of the fishing bans currently in place.

Legal proceedings

BHP Group Limited, BHP Group Plc and BHP Billiton Brasil are involved in legal proceedings relating to the Samarco dam failure. For more information on the significant legal proceedings in which BHP is currently involved, refer to section 6.6.

Restart

While restart remains a focus and is expected to provide a positive effect on livelihoods in impacted communities, restart will only occur if it is safe, economically viable and has the support of the community.

Progress on our commitments

Following the investigation into the causes of the dam failure, Samarco and its shareholders identified a number of specific actions to help prevent a similar event from occurring. The actions were in addition to the overall improvements we identified to further improve the management of our tailings dams (as discussed in section 1.8).

Monitoring: A centralised monitoring system and control room with emergency warning and response protocols has been established for the Samarco tailings dams. Specifically trained personnel staff the control room 24 hours a day, seven days a week.

Dam decommissioning plan: Due to legislative changes in Brazil, Samarco is currently progressing plans for the accelerated decommissioning of its upstream tailings dams (the Germano dam complex). Plans for the decommissioning are at an early stage and work is in progress on finalising the conceptual design.

Emergency drills: Emergency drills are conducted once a year, bringing together the communities, employees and civil defence to validate the efficiency of the Emergency Response Plan, so that all parties that may potentially be affected are aware and prepared to respond in case of an emergency.



More information on our ongoing dam and tailings management is available in our Sustainability Report 2019 at bhp.com.



More information on health, safety and environmental performance at our NOJVs is available in our Sustainability Report 2019, available online at bhp.com.

1.8 Tailings dams



Tailings dams are dynamic structures and maintaining their integrity requires consideration of a range of factors, including appropriate engineering design, quality construction, ongoing operating discipline and effective governance processes.

Nothing is more important than the safety of our people and communities. Immediately following the tragic failure of the Fundão dam at Samarco in 2015, the BHP Board and senior management initiated a dam risk review to assess the management of significant⁽¹⁾ tailings storage facilities,⁽²⁾ both active and inactive. This review was in addition to existing review processes already being undertaken by our operated assets. The review, conducted by a combination of external tailings experts and BHP personnel, assessed dam design, construction, operations, emergency response and governance to determine the current level of risk and the adequacy and effectiveness of controls.

The scope of the review included:

- significant tailings facilities across all operated assets and non-operated joint ventures;
- any proposed significant tailings or water dams as part of major capital projects;
- consideration of health, safety, environmental, community and financial impacts associated with the failure of a tailings dam, including the physical impacts of climate change.

Improvement actions were assigned to address facility-specific findings. Our Internal Audit and Advisory team subsequently followed up to assess quality and completeness. These actions resulted in enhancements such as buttressing of dam walls and installation of additional instrumentation to monitor dam integrity. Following such findings, we have subsequently undertaken and will continue to undertake dam safety reviews, which provide external assurance statements on dam integrity.

Improvement actions were also identified at the Group level to address common findings and lessons learned across the Group so that our approach to dam risk management could be further improved. As part of this, a central technical team was set up to enhance oversight and assurance. We also increased our investment in research and development to reduce and eliminate tailings storage risks, including research into static liquefaction failure mechanisms and evaluating dewatering of tailings. We are also actively assisting the International Council on Mining and Metals (ICMM) Tailings Working Group to contribute to improvements in tailings storage management across the broader mining industry.

Prior to the tragic collapse of the Brumadinho dam at Vale's iron ore operation in Brazil in January 2019, we already had a significant focus on looking at how we could deliver a step change reduction in tailings risk. Together with our peers across the resource sector, Brumadinho further strengthened our resolve to collaborate to reduce tailings risk by sharing and implementing best practice. As well as implementing a comprehensive tailings governance plan, we established an internal Tailings Taskforce team reporting to the Executive Leadership Team and the Board's Sustainability Committee. The Taskforce is accountable for the continued improvement and assurance of our operated tailings storage facilities, progressing the development of technology to improve tailings management storage, and engaging in the setting of new tailings management standards. BHP continues to review our approach to tailings management as information on the causes of the Brumadinho dam failure come to light, and will continue to consider any industry guidance, standards and regulation as they emerge.

(1) Significance was determined as part of the review process taking account of the dam classification under the Canadian Dam Association and/or the Australian National Committee on Large Dams for both active and inactive facilities.

(2) A tailings storage facility could comprise multiple dams or cells that have: a contiguous, structurally similar interconnected wall, operated under the same tailings disposal regime, are interdependent for stability, of similar height and risk profile.

1.8 Tailings dams continued

We welcome a common, international and independent body to oversee integrity of construction and operation of all tailings storage facilities across the industry. In addition, we support calls for greater transparency in tailings management and plan to work with community, regulatory and financial stakeholders to promote the application of consistent disclosure that informs better tailings dam stewardship.

Dam risk management

BHP's approach to dam risk management at our operated dams is integrated into our standard approach to risk management, assurance and continuous improvement with particular focus on four key areas:

1. Maintenance of dam integrity;
2. Governance of dam facilities;
3. Monitoring, surveillance and review;
4. Emergency preparedness and response.

Supporting this approach to dam risk management at our operated assets are Group-wide processes of technical support and oversight.

Maintenance of dam integrity

Central to our approach is the recognition that maintaining dam integrity is a process of continuous assessment that needs to be maintained for the life (including into closure and post-closure) of a tailings facility. As a result, we have identified five key dimensions to maintaining dam integrity:

1. Design – the basis of dam design is guided by design criteria specified through the Australian National Committee on Large Dams (ANCOLD), the Canadian Dam Association (CDA) and local regulation, taking account of dam classification;
2. Construction – quality assurance and quality control across all construction phases (from initial construction to dam lifts/expansions during operation to closure and post closure);
3. Operations and maintenance – operating and maintaining the dam in accordance with its design requirements;
4. Change management – identifying, assessing and mitigating the impacts of any changes on dam design and integrity;
5. Monitoring, surveillance and review – ensuring the dam is functioning as intended.

Governance of dam facilities

We believe that effective governance encompasses a range of aspects from the management of change in our business to appropriately employing and enabling qualified personnel with clear accountabilities.

We have mandated three key roles across our operated assets, accountable to the Asset General Manager of the relevant asset:

- Dam Owner – the single point of accountability for maintaining effective governance and integrity of the tailings storage facility throughout its life cycle;
- Responsible Dam Engineer – a suitably qualified BHP individual accountable for maintaining overall engineering stewardship of the facility, including planning, operation, surveillance and maintenance;
- Engineer of Record – an independent, suitably qualified professional engineer retained by the Dam Owner for the purpose of maintaining dam design, certifying dam integrity and supporting the Dam Owner and the Responsible Dam Engineer on any other matters of a technical nature.

Monitoring, surveillance and review

Given tailings dams are dynamic structures we believe effective monitoring, surveillance and review is central to ongoing dam integrity and governance. We believe these processes span six dimensions, with the level of utilisation of each dimension being dependent on the specific needs of the relevant facility. These six dimensions include:

1. Monitoring systems – operating in real time or periodically;
2. Routine surveillance – undertaken by operators;
3. Dam inspections – more detailed inspections undertaken periodically by the Responsible Dam Engineer;
4. Dam safety inspections – annual inspections undertaken by the external Engineer of Record reviewing aspects across both dam integrity and governance;
5. Dam safety reviews – conducted by an external third party as set out below;
6. Tailings review or Stewardship Boards⁽¹⁾ – a panel of qualified independent individuals established, whose capability is commensurate with dam significance, under specific terms of reference to review aspects such as the current status of the dam; any proposed design changes; and outcomes of any inspections or dam safety reviews. The review board is approved by and accountable to the asset General Manager.

The type and frequency of monitoring, surveillance and review is informed by the consequence classification, complexity and operational status of the dam. Dams that are likely to have a greater level of consequence, as a result of failure, that have greater technical complexity and that are actively operating will have monitoring, surveillance and reviews with greater rigour and frequency.

Dam safety reviews

Dam safety reviews are central to our approach to dam integrity and continuous improvement. We engage an external engineer to undertake dam safety reviews consistent with the guidance provided by the CDA in their 2016 Technical Bulletin on Dam Safety Reviews. As per this guidance, review frequency is informed by the dam classification under the CDA.

Dam safety reviews are detailed processes that include a thorough review of dam integrity, dam governance and include a review of the dam break assessment and dam consequence classification. Reviews are led by an external qualified professional engineer (selected for their appropriate level of education, training and experience), with support and input from other technical specialists from fields that may include, for example, hydrology, geochemistry, seismicity, geotechnical and mechanical. At the conclusion of the review, the qualified professional engineer provides a signed assurance statement, which includes a comment as to the integrity of the facility.

Emergency preparedness and response

We believe the final key element in our approach to dam risk management is emergency preparedness and response. Our approach to emergency response planning for our tailings facilities is designed to be commensurate with risk, with the following steps taken as appropriate given the risk:

- identifying and monitoring stability and operating conditions, with thresholds that prompt preventive or remedial action;
- assessing and mapping the potential impacts from a hypothetical, significant failure, including infrastructure, communities and environment, both on and offsite, regardless of probability;
- establishing procedures to assist operations personnel responding to emergency conditions at the dam;
- testing and training in emergency preparedness ranges from desktop exercises to full-scale simulations. Desktop and field drills are scheduled at a frequency commensurate with the level of risk of the facility.

(1) BHP assesses the dam classification, risk and operational circumstances in determining whether to empanel a tailings review or Stewardship Board. Not all facilities will have tailings reviews or Stewardship Boards. Tailings reviews or Stewardship Boards are either in place or in the process of being established for our operated assets with very high and extreme classified tailings facilities.

BHP's operated and non-operated tailings portfolio

The following classifications align to the CDA classification system. It is important to note that the classification is based on the modelled, hypothetical most significant failure mode and consequences possible without controls, and not on the current physical stability of the dam. It is also important to note that it is possible for dam classifications to change over time, for example, following changes to the operating context of a dam. As such, this data represents the status of the portfolio as at May 2019. The dam classification informs the design, surveillance and review components of risk management and, therefore, dams that will likely have a greater level of consequence as a result of failure will have more rigorous requirements than dams that will have a lesser level of consequence.

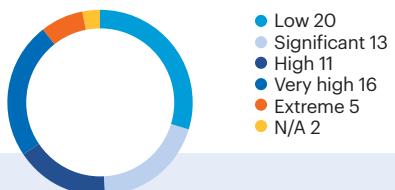
In total, we have 67 tailings facilities⁽¹⁾ at our operated assets, 29 of which are of upstream design. Of the 67 operated facilities, we have five classified as extreme and a further 16 classified as very high. Thirteen of our operated facilities are active. The substantial inactive portfolio (54) at our operated assets is due largely to the number of historic tailings facilities associated with our North American legacy assets portfolio.

There are nine tailings facilities at our non-operated joint ventures. All non-operated facilities are located in the Americas. There are two active tailings facilities: Antamina in Peru, which is of downstream/centreline construction and Cantor TSF at Cerrejón in Colombia, which is of downstream construction. In addition, there are seven inactive facilities. These include: two upstream facilities at Samarco (Germano) in Brazil that are being decommissioned following the February 2019 rulings by the Brazilian Government on upstream dams in Brazil; three upstream inactive facilities and one inactive modified centreline facility at Resolution Copper in the United States; and one downstream inactive facility at Bullmoose in Canada. The highest classification facilities, rated as extreme, are the downstream facility at Antamina and the upstream Germano facilities at Samarco.



[More information on tailings dams is available online at bhp.com.](#)

Classification of operated tailings facilities⁽²⁾⁽³⁾⁽⁴⁾



Types of operated tailings facilities



Operational status of operated tailings facilities



- (1) The number of tailings storage facilities is based on the definition agreed to by the International Council on Mining and Metals (ICMM) Tailings Advisory Group.
- (2) The following classifications align to the CDA classification system. It is important to note that the classification is based on the modelled, hypothetical most significant failure mode and consequences possible without controls, and not on the current physical stability of the dam.
- (3) For the purposes of this chart, ANCOLD and other classifications have been converted to their CDA equivalent. Hamburgo and Island Copper tailings facilities are not considered dams and are, therefore, not subject to classification: Hamburgo TSF at Escondida is an inactive facility where tailings were deposited into a natural depression; and Island Copper TSF in Canada, acquired in the 1980s, is also an inactive facility. Tailings at Island Copper were deposited in the ocean under an approved licence and environmental impact assessment. This historic practice ceased in the 1990s. We have since committed to not dispose of mine waste rock or tailings in river or marine environments.
- (4) These classifications align to the CDA classification system and reflect the modelled, hypothetical most significant failure mode and consequences possible without controls, and not the current physical stability of the dam.
- (5) Other includes dams of a design that combines upstream, downstream and centreline, and the two non-dam tailing facilities of Hamburgo TSF in Chile and Island Copper TSF in Canada.
- (6) Inactive includes facilities not in operational use, under reclamation, reclaimed, closed and/or in post-closure care and maintenance.

1.9 People



1.9.1 Our people

We employ over 72,000 employees and contractors globally. We are committed to investing in our people so they have the right skills and are supported by a healthy workplace culture that is inclusive and collaborative.

We are committed to empowering our people to find safer, more creative and more efficient ways of working. We continue to develop a culture based on trust and collaboration and give our people more say, new capabilities and tools, and new avenues for technology and innovation to support BHP's transformation.

We provide competitive remuneration to reward employees for their expertise and commitment to our business strategy and long-term success. Our remuneration approach is designed to inspire our employees to embrace BHP's core objectives and values. Performance against key performance indicators linked to safety, productivity and culture drives our employees' variable reward outcomes.

Building an enabled culture to support BHP's transformation

Our annual Engagement and Perception Survey (EPS) is an important tool to gauge our culture. The overall results in FY2019 remained stable and showed we sustained the positive improvements achieved in FY2018, despite the changes that occurred across the business.

Our employees told us they feel proud to work at BHP and described the work environment as collaborative and inclusive. They have the confidence to make decisions required to do their job well and believe they have opportunities for professional and personal development.

We have seen improvements in our EPS results related to equal opportunities at work for all employees, perceptions on how the leadership group communicates a vision of the future that is exciting, how leaders are managing change, and perceived opportunities for growth and development. These are important indicators of people's experiences at work.

The FY2019 results indicated we have more to do to continue to simplify our processes and make it easier for our team to perform their work. Our focus for FY2020 will be to support our transformation initiatives (refer to section 1.4.4) and realise the benefits to our culture and people. We will continue to enable our people and address the obstacles that prevent them from doing their job well by simplifying processes and increasing technology capability. We expect that further capability development of our employees in our new ways of working and continued development of our leaders will set up our people and the organisation for success.

Developing our capabilities

We believe that the changing nature of work presents significant opportunity for BHP. Our approach is to invest in new skills, so our people are ready for the jobs of the future.

Over the past five years, we have invested in developing leadership capability, as these qualities are critical to guiding our people and navigating changes to the work environment.

Our Operational Leadership Program aims to develop the technical and operational leadership excellence of our operational general managers and to identify successors to senior leadership roles that drive operational value. The program launched in FY2018 and was completed by 38 operational leaders in FY2019.

The Step Up to Leadership and Leading Value programs continue to drive our foundational leadership focus and in FY2019, 856 leaders completed the programs. Our Maintenance Academy Program, introduced in FY2018, saw 39 maintenance managers work to broaden their technical knowledge, leadership capability and collaboration in FY2019.

We also focused in FY2019 on developing the leadership skills of our Indigenous employees through our Indigenous Development Program. The program is designed to identify Indigenous employees with leadership potential and to respond to issues identified as barriers to career progression. By May 2019, 147 employees in Australia had completed the program. Of the 97 employees that completed the program in the first half of 2019, 40 per cent have moved into new roles and 19 per cent have been promoted to leadership roles.

We are proud of our EPS results related to the performance of our leaders. In particular, the results identified our leaders as strong in communicating the vision of BHP and leading their teams through significant change.

In FY2020, we expect to increase our focus on systems, processes, tools and behaviours to improve operational capability. The BHP Operating System sets out the foundation for long-term and in-depth learning and development, by developing practices and capabilities that empower our people to pursue operating excellence.

Operations Services, which provides maintenance and production services across Minerals Australia supports people to build their skills through coaching and by performing in-field verifications. This helps deliver consistent equipment operation and maintenance that balances safety, maximum productivity and equipment reliability. Participants report a high sense of achievement as they leverage best practice from across BHP to help perfect their daily activities and accelerate productivity.

Inclusion and diversity

We believe our people should have the opportunity to fulfil their potential and thrive in an inclusive and diverse workplace. In our experience, inclusion and diversity promotes safety, productivity and wellbeing within BHP and underpins our ability to attract new employees.

We employ, develop and promote people based on merit and our systems, processes and practices are designed to empower fair treatment. We do not tolerate any form of unlawful discrimination, bullying or harassment.

Our employees are trained to recognise and mitigate potential bias towards any employee. To help address gender pay disparities we have taken steps to reduce potential bias in recruitment and conduct an annual gender pay review, the results of which are reported to the BHP Remuneration Committee.

Respect is one of our six core Our Charter values and we believe it is fundamental to building stronger teams, and being a truly inclusive and diverse workplace. For some people in our business, this is not their experience of working at BHP. We are determined to address this, so during FY2019 we began a Group-wide campaign about respectful behaviour. The aim is to create greater awareness and build understanding of what disrespectful behaviour is and how it affects our people. We shared real-life examples of how some people experience disrespectful behaviour at BHP, to highlight the current environment and generate conversations.

The campaign asks everyone to reflect on their own behaviours and what they see around them and ask 'Is that ok?' We equipped leaders and employees with materials to help them have conversations about disrespectful behaviours, and take steps to address it. We also launched a new eLearning module on inclusion and continue to develop additional resources for our people as we continue this critical initiative. Further development of a culture of care within our business is a fundamental element of our FY2020 business plan.

Gender balance⁽¹⁾

We have an aspirational goal to achieve gender balance globally by CY2025. In FY2019 we increased the representation of women working at BHP by 2.1 percent, resulting in 1,156 more female employees than the same time in FY2018. Our overall representation of women is 24.5 per cent.⁽¹⁾

In FY2019, the percentage of people newly hired to work for BHP was 62.3 per cent male and 37.7 per cent female. This female representation outcome is a marked increase when compared to FY2015 (10.4 per cent), the baseline for our aspirational goal. Our growth projects have reported strong female representation. For example, South Flank operational workforce in Western Australia has achieved 41 per cent female representation as at the end of FY2019. We have improved the voluntary turnover rate of women by 0.7 per cent, when compared to FY2018; the turnover of women (11.4 per cent) remains higher than the rate for men (10.4 per cent).

Our strategy to achieve a more diverse and inclusive workplace continues to focus on the following four areas:

- embedding flexibility in the way we work;
- encouraging and working with our supply chain partners to support our commitment to inclusion and diversity;
- uncovering and taking steps to mitigate potential bias in our behaviours, systems, policies and processes;
- ensuring our brand is attractive to a diverse range of people.

Indigenous employment

In communities in which we operate, we aim to provide employment opportunities that contribute to sustainable social and economic benefits for Indigenous peoples. In Minerals Australia, Indigenous employment within our overall workforce increased from 4.4 per cent to 5 per cent (1,090 to 1,168) as we aim to achieve 5.75 per cent by the end of FY2020. Twenty per cent of all apprentices were Aboriginal and Torres Strait Islander people. In North America, we have focused on working with our contracting partners to support the employment of First Nations and Métis peoples, who now comprise 9 per cent of our workforce at the Jansen Potash Project. Chile has implemented a number of initiatives that will result in formal performance reporting in FY2020.

LGBT+ inclusion

We want to provide a safe, inclusive and supportive workplace for everyone at BHP. Jasper is BHP's employee inclusion group for our lesbian, gay, bisexual, transgender and others (LGBT+) community and its allies. Inspired by the mineral rock jasper, which is known for its unique multi-coloured patterns, the group was formally endorsed by BHP's Global Inclusion and Diversity Council in 2017 and is sponsored by BHP Executive team member, Laura Tyler. Jasper's aim is to drive a safe, inclusive and supportive work environment for everyone by providing advice on ways to reduce bias and ensure LGBT+ people are respected and valued irrespective of their sexual orientation, gender identity or intersex variability.

Since its formation in 2017, Jasper has grown to over 900 members. We rolled out LGBT+ inclusion awareness and education sessions across all Minerals Australia operations in FY2019, with plans to extend to our other operations and offices in FY2020. We also continue to celebrate days of significance, including IDAHOBIT (International Day Against Homophobia, Biphobia, Interphobia and Transphobia) and Wear It Purple Day (awareness day for young LGBT+ people).

(1) Based on a 'point in time' snapshot of employees as at 30 June 2019, as used in internal management reporting for the purposes of monitoring progress against our goals. This does not include contractors. This methodology differs from the data reported in section 1.9.2, which is calculated based on the average of the number of employees at the last day of each calendar month for a 10-month period from July through to April and in accordance with our reporting requirement under the UK Companies Act 2006.

1.9.1 Our People continued

Flexible working

Flexible work supports the diversity and wellness of our workforce. Some 41 per cent of our people worked flexibly in FY2019 and we continue to educate our workforce about flexible working at BHP. We also continue to challenge the mindset that flexible working is only available for office-based employees, with a number of operations implementing flexible rosters and job share arrangements that assist employees both commuting long distances and living locally. For example, the Crib Relief Program at BHP Mitsubishi Alliance (BMA) changed the existing approach to truck crib relief by reducing the shift length for relief drivers to better align with school hours. This helped unlock a new and more diverse talent pool that also increased the workforce's local community representation. It also helped improve workforce culture and morale as employees shared skills and knowledge with those new to the industry.

Working with suppliers

We continue to work with our suppliers on ensuring their products and services are suitable for a diverse workforce, as well as encouraging diversity in their own work teams. For example, we are working with Caterpillar to investigate improving the ergonomic design of their vehicles. At Olympic Dam in Australia, following a request by an employee of Muslim faith living at camp, we collaborated with our catering supplier to ensure the availability of halal food. This helped ensure that appropriate food was available for all living at camp, as well as helping create a sense of one team among the workforce. In FY2019, where practicable, we also introduced inclusion and diversity incentives into our supply contracts.

Employee relations

The culture of care and trustful relationships is a fundamental principle of our employee relations strategy. The three key focus areas for employee relations at BHP has continued to be:

- ensure BHP complies with legal obligations and regional labour regulations;
- negotiate, where there are requirements to collectively bargain;
- close out agreements with our workforce in South America and Australia, with no lost time due to industrial action.

On 17 August 2018, Minera Escondida Limitada (Escondida) successfully completed negotiations with Union N°1 and signed a new collective agreement, effective for 36 months from 1 August 2018.



Our people policies

We have a comprehensive set of frameworks that support our culture and drive our focus on safety and productivity.

Our Charter is central to everything we do. It describes our purpose, our values, how we measure our success, who we are, what we do and what we stand for.

Our Code of Conduct demonstrates how to practically apply the commitments and values set out in *Our Charter* and reflects many of the standards and procedures we apply throughout BHP. We have a business conduct advisory service, as well as internal dispute and grievance handling processes, to report and address any potential breaches of *Our Code of Conduct*.

The *Our Requirements* standards outline the minimum mandatory standards we expect of those who work for, or on behalf of, BHP. Some of those standards relate to people activities, such as recruitment and talent retention.

Our all-employee share purchase plan, Shareplus, is available to all permanent full-time and part-time employees and those on fixed-term contracts, except where local regulations limit operation of the scheme. In these instances, alternative arrangements are in place.

Through all of these documents, we make it clear that unlawful discrimination on any basis is not acceptable. In instances where employees require support for a disability, we work with them to identify any roles that meet their skill, experience and capability and offer retraining where required.

The information in this section illustrates how these policies have been implemented and the steps that we take to measure their effectiveness.

Case study: Inclusion and diversity in Minerals Americas



Diversity in new projects

A goal of the Spence Growth Option (SGO) Project was to develop a diverse workforce for the concentrator plant. The aim was to achieve a gender-balanced workforce and increase local employability by focusing on hiring people from local communities, of people without experience and workers with disabilities.

A series of information and recruitment activities occurred in regional towns of Iquique, Calama, Antofagasta, Copiapo and La Serena and the communities of Sierra Gorda and Baquedano, reaching nearly 1,200 people. Differentiated training also occurred for people with and without experience in mining, engineering and procurement, as well as with construction companies engaged by the SGO. This helped improve knowledge ranging in areas from equipment assembly to commissioning.

All recruitment goals were exceeded, including creating a workforce with a number of employees with disabilities; 61 per cent females; 22 per cent of employees hired from local communities; and 60 per cent from the Antofagasta region.

Gender balanced programs at Escondida

Escondida faced the challenge of embedding inclusion and diversity within an operation that traditionally had a high percentage of males and low employee turnover. Similar to the SGO project, Escondida adopted a balanced hiring strategy, which consistently achieved gender balance month-on-month through FY2019. The recruitment strategy for apprentices and graduates also achieved greater than 50 per cent female representation, resulting in some 50 women joining Escondida via this program since 2016.

There was a 4.1 per cent increase in total female representation and a 5.9 per cent increase in female representation in regional leadership executive roles in FY2019. Escondida's total female representation at the end of FY2019 was 15.5 per cent, up from 7.4 per cent in FY2016. Female turnover decreased from 6.6 per cent in FY2016 down to 2.1 per cent at the end of FY2019.

Adopting the BHP Operating System enabled operational roles to be redefined and standardised.

Victoria Moreno is an example of the positive effect of this dedicated focus on diversity. After many years working in various camp service roles, Victoria was inspired to pursue an operator role and in FY2019 commenced working as a truck operator in the North Pit at Escondida.

The Mine Apprenticeship Program also selected 45 female maintainers from a class of 81, enhancing local employment, increasing the gender diversity of our workforce and creating new opportunities for women that historically have had fewer opportunities than males to develop careers in the mobile maintenance field.

Reflecting on her participation in the program, participant Raquel Gavia commented:

'I am a woman from an Indigenous community, specifically from the Toconao community. This has been a very good opportunity in my life, one I did not imagine I could have, which I have tried to take advantage of, as I do not have experience and they gave me the possibility to develop. I will always be grateful. Women also have the right to work, and this opportunity allows us to achieve this dream.'

1.9.2 Employees and contractors

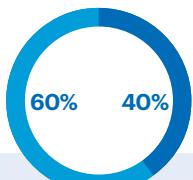
The data in this section (consistent with previous years) are averages. We take the number of employees and contractors (where applicable) at the last day of each calendar month for a 10-month period to calculate an average for the year. This does not necessarily reflect the number of employees and contractors as at the end of FY2019. All the data in this section includes Continuing and Discontinued operations for the financial years being reported.

The diagram below shows the average number of employees and contractors over the last three financial years, and a breakdown of our average number of employees by geographic region over the last three financial years.

Average number of employees and contractors
for the year ended 30 June 2019⁽¹⁾

2019
Total 72,414

- Employees 28,926
- Contractors 43,488

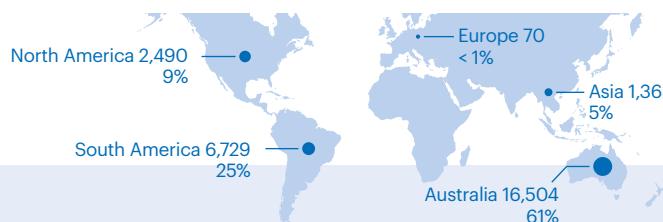
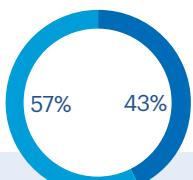


Average number of employees by geographic region
for the year ended 30 June 2019⁽¹⁾



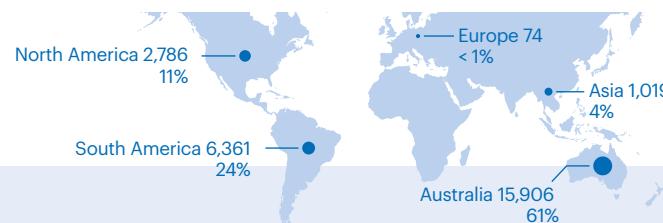
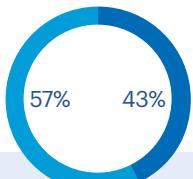
2018
Total 62,476

- Employees 27,161
- Contractors 35,315



2017
Total 60,644

- Employees 26,146
- Contractors 34,498



The table below shows the gender composition of our employees, senior leaders and the Board over the last three financial years.

	2019	2018	2017
Female employees ⁽¹⁾	6,874	5,907	4,868
Male employees ⁽¹⁾	22,052	21,254	21,278
Female senior managers ^{(2) (3)}	70	70	65
Male senior managers ^{(2) (3)}	227	235	211
Female Board members ⁽²⁾	4	3	3
Male Board members ⁽²⁾	7	7	7

(1) Based on the average of the number of employees at the last day of each calendar month for a 10-month period to April, which is then used to calculate a weighted average for the year to 30 June based on BHP ownership. Data includes Continuing and Discontinued operations (Onshore US assets) for the financial years being reported. These numbers differ from the 'point in time' snapshot as used in internal management reporting for the purposes of monitoring progress against our goals, which are reported in section 1.9.1.

(2) Based on actual numbers as at 30 June 2019, not rolling averages. FY2017 and FY2018 data includes Continuing operations and Discontinued operations (Onshore US assets) for the financial years being reported. FY2019 data does not include Discontinued operations (Onshore US assets).

(3) For the purposes of the UK Companies Act 2006, we are required to show information for 'senior managers', which are defined to include both senior leaders and any persons who are directors of any subsidiary company, even if they are not senior leaders. In FY2019, there were 282 senior leaders at BHP. There were 15 Directors of subsidiary companies who are not senior leaders, comprising 11 men and 4 women. Therefore, for UK law purposes, the total number of senior managers was 227 men and 70 women (24 per cent women) in FY2019.

1.10 Sustainability



Sustainability is one of the core values set out in Our Charter. That means putting health and safety first, being environmentally responsible and supporting our communities. The wellbeing of our people, the community and the environment is considered in everything we do.

1.10.1 Our approach to sustainability

For more than 130 years, BHP has sought to operate a safe, sustainable and productive business that makes a fair contribution to society. As custodians of natural resources, we have a responsibility to shape the future in a way that creates prosperity for shareholders, our communities and society.

In 2011, BHP expressed its purpose as the creation of long-term shareholder value. That statement of purpose was laid out in *Our Charter*. Since then, we have evolved as the external business landscape has changed. While value creation is central to what we do, this purpose did not fully reflect the story behind why we exist. We believed our purpose must encompass all of our stakeholders and more accurately capture our long-term approach.

Following a year of feedback and testing with more than 1,000 employees, BHP's Board approved our new purpose as: to bring people and resources together to build a better world.

Our new purpose reflects a spirit, approach and ambition that already exists at BHP and will guide us in everything we do. Creating long-term shareholder value remains a strategic imperative. Without that focus, BHP would not exist, because our shareholders entrust us with their funds and expect competitive returns.

To fulfil our purpose, we have evolved our thinking about our partnerships with the communities where we operate and our contribution to society and the environment more broadly. For many years, BHP has maintained relationships and achieved social, environmental and economic outcomes that were necessary to operate, otherwise referred to as social licence. However, we believe this is no longer enough to maintain BHP's long-term success. Our focus has shifted to identifying opportunities that contribute to social value, while continuing to meet our legal, regulatory and ethical requirements.

The long-term success of our business depends on the long-term health of society and a sustainable natural environment; our approach must be about the long-term value we can create

together with our stakeholders. If we do not do this well, our ability to earn and maintain the trust of our stakeholders, attract the right employees and secure access to capital, resources and markets will be hampered. Importantly, social value is not new to BHP – there are already many examples of BHP's contribution to social value: from global water stewardship and Indigenous advocacy to our Local Buying Program.

BHP's Board oversees our sustainability approach, with the Board's Sustainability Committee overseeing health, safety, environment and community (HSEC) matters and assisting the Board with governance and monitoring. The Sustainability Committee also oversees the adequacy of the systems to identify and manage HSEC-related risks, legal and regulatory compliance and overall HSEC and other human rights performance. The Board's Risk and Audit Committee assists with oversight of the Group's risk management systems.

Transparency and accountability

BHP's business model is premised on trust and public acceptance because our mines have long lifespans and cannot be moved across jurisdictions in response to a breakdown in trust, changing societal expectations or regulatory requirements. That is why we must contribute to long-term social value. Our tax and royalty payments help governments fund healthcare, education, infrastructure and other essential services. Conversely, corruption and poor governance of natural resources divert funding from those basic provisions and diminish our contribution.

Economic transparency is not our only focus. We also have a strong record of supporting robust reporting on climate change issues. We were one of the first companies to report in accordance with the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures in our Annual Report.

1.10.1 Our approach to sustainability continued

We set clear targets to challenge ourselves to improve our sustainability performance, transparency and accountability. To realise these targets, we embed sustainability performance measures throughout the Group. They include Group-wide key performance indicators to balanced scorecards for individual employees. Achieving these goals is fundamental to the success of our business and our commitments to the objectives of the Paris Agreement and the United Nations Sustainable Development Goals.

Our conduct

While what we achieve is important – so is how we achieve it. We know consistent ethical behaviour cultivates loyalty and trust with each other and our stakeholders.

How we work is guided by the core values in *Our Charter*. They are: Sustainability, Integrity, Respect, Performance, Simplicity and Accountability. We are relentless in our pursuit of these values and they guide our decision-making.

Our Code of Conduct sets the standard for our commitment to working with integrity and respect. *Our Code of Conduct* guides us in our daily work and demonstrates how to practically apply the commitments and values set out in *Our Charter*. Acting in accordance with *Our Code of Conduct* is a condition of employment for everyone who works for and on behalf of BHP, and is accessible to all our people and external stakeholders on our website.

We deliver annual mandatory training for employees and contractors to help them clearly understand *Our Code of Conduct* and the standards of behaviour that are acceptable at BHP. We do not tolerate any form of unlawful discrimination, bullying or harassment.

Anti-corruption

Our commitment to anti-corruption compliance is embodied in *Our Charter* and *Our Code of Conduct*. We also have a specific anti-corruption procedure that sets out mandatory requirements to identify and manage the risk of anti-corruption laws being breached. We prohibit authorising, offering, giving or promising anything of value directly or indirectly to a government official to influence official action, or to anyone to encourage them to perform their work disloyally or otherwise improperly. We also require our people to take care that third parties acting on our behalf do not violate anti-corruption laws. A breach of these requirements can result in disciplinary action, including dismissal, or termination of contractual relationships.

Our Ethics and Compliance function has a mandate to design and govern BHP's compliance frameworks for key compliance risks, including anti-bribery and corruption. The function is independent of our assets and asset groups. The Chief Compliance Officer reports twice a year to the Risk and Audit Committee and separately to the Committee Chairman, also twice a year.

Our anti-corruption compliance program is designed to meet the requirements of the US Foreign Corrupt Practices Act, the UK Bribery Act, the Australian Criminal Code and applicable laws of all places where we do business. These laws are consistent with the standards of the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. We regularly review our anti-corruption compliance program to make any changes required by regulatory developments.

In addition to anti-corruption training as part of annual training on *Our Code of Conduct*, additional risk-based anti-corruption training was completed by 9,374 employees in FY2019 as well as numerous employees of business partners and community partners.

1.10.2 Safety

Our highest priority is the safety of our operations, including our employees and contractors and the communities in which we operate.

Tragically, one of our colleagues died at work on 31 December 2018. Allan Houston suffered fatal injuries while he was operating a dozer at BHP Mitsubishi Alliance's Saraji Mine. After a thorough investigation, we could not determine the direct cause of the incident. However, we identified several areas for improvement and are actively sharing the learnings from the investigation throughout our operations, with contract partners and the broader resources industry.

On 5 November 2018, Western Australia Iron Ore (WAIO) experienced a train rollaway event. There were no injuries as our team at Train Control intentionally derailed the train at a time when it was considered the safest to do so. Post the incident and before rail operations recommenced, we implemented additional procedures to help prevent a similar event from re-occurring.

In FY2019, we established new requirements for engaging and managing contractors. The contractor safety requirements were rolled out across BHP and assurance programs have been established to monitor and verify the implementation of the requirements.

To strengthen our safety leadership and culture, we are educating our people about chronic unease, that is, being mindful of the possibility of what could go wrong, and creating a culture where it is safe to speak up and report hazards and incidents. One of the objectives of our global Field Leadership Program is to strengthen the reporting culture. We monitor reporting culture across all our operations and we coach and support our leaders to improve the quality of our field leadership activities with our employees and contractors.

We also introduced a new event management system for recording health, safety, environmental and community events. The system is designed to capture, analyse and track events in real time and will be implemented in FY2020.

Our safety performance

Total recordable injury frequency (per million hours worked)

Year ended 30 June	2019	2018	2017
Total recordable injury frequency ⁽¹⁾	4.7	4.4	4.2

(1) FY2017 to FY2018 data includes Continuing operations and Discontinued operations (Onshore US assets). FY2019 data includes Discontinued operations (Onshore US assets) to 28 February 2019 and Continuing operations.

Total recordable injury frequency (TRIF) performance increased by 7 per cent to 4.7 per million hours worked, compared to 4.4 per million hours worked in FY2018. This was due to an increase in injuries in both Minerals Australia and Minerals Americas.

High potential injury events

Year ended 30 June	2019	2018	2017
High potential injury events ⁽²⁾	50	54	61

(2) Data adjusted since it was previously reported, due to reporting errors. Includes recordable injuries and first aid cases where there was the potential for a fatality. FY2017 to FY2018 data includes Continuing operations and Discontinued operations (Onshore US assets). FY2019 data includes Discontinued operations (Onshore US assets) to 28 February 2019 and Continuing operations.

High potential injuries declined by 7 per cent from FY2018 due to reductions at WAIO, Olympic Dam and Potash. High potential injury trends remain a primary focus to assess progress against our most important safety objective: to eliminate fatalities.

1.10.3 Health

Our goal is to protect the health and wellbeing of our workforce from potential occupational injury, now and into the future. We set minimum mandatory controls to identify and manage health risks for our employees and contractors. Our workplace health risks include occupational exposures to noise, silica, diesel particulate matter (DPM), coal mine dust, musculoskeletal stressors and mental health impacts. The effectiveness of our health controls is regularly reviewed and subjected to periodic audit to verify the controls are implemented and operating as designed.

Our periodic medical surveillance programs help us support early identification of potential occupational exposure illness and enable us to assist our people through illness management and recovery. In FY2019, we established key performance indicators that require a 90 per cent adherence to schedule for health surveillance activities, achieving 79 to 100 per cent across the Group. We also reviewed our medical testing programs through internal and external benchmarking with industry peers and standards. Improvement opportunities identified from the review are expected to be evaluated and the implementation of endorsed recommendations are expected to commence in FY2020, along with plans to further increase adherence to planned surveillance activities.

Occupational illness

The incidence of employee occupational illness in FY2019 was 4.38 per million hours worked, an increase of 5 per cent compared with FY2018. The reported incidence of contractor occupational illness was 1.62 per million hours worked, a decrease of 16 per cent compared with FY2018. The overall decrease in contractor illnesses was predominantly driven by the 23 per cent increase in hours worked in FY2019. We do not have full oversight of the incidence of contractor noise-induced hearing loss (NIHL) cases in many parts of BHP due to regulatory regimes and limited access to data. We continue to work with our contractors and regulatory agencies to resolve these issues.

The majority of our reported occupational illnesses are musculoskeletal illness. The improved identification and more effective control of causes of musculoskeletal stressors will be supported by the progressive implementation of the Standardised Work program. Standardised Work is a key foundational tool of the BHP Operating System that seeks to empower individuals to design work in a way that supports efficiency and ergonomics, where health and other risks are identified, and enables additional controls to be identified and incorporated.

Our continued focus on implementing our requirements for fit testing for hearing protection devices has supported a 6.7 per cent reduction in the NIHL illness rate.

We have seen an increase in the number of other illnesses reported, which include short-term, low-impact conditions such as blisters, skin conditions (dermatitis/eczema), bites and stings, due to a small increase in cases across most Minerals Australia operations. The dermatitis/eczema cases arose from different work locations across Olympic Dam and could be attributed to the continued education campaign on the prevention and management of skin conditions, which encourages early reporting of signs and symptoms.

To a lesser extent, the increase was also driven by increases in mental stress conditions and heat stress cases at Olympic Dam in South Australia. These conditions are currently captured as 'other illnesses' but, with our strong focus on mental health, we plan to establish a stand-alone category for 'mental stress conditions' in FY2020. Across the Group, mental stress conditions continue to be reported in low numbers and the number of cases were not significantly different to FY2018. Through the BHP Mental Health Framework, we continue to seek to foster a work environment where our people feel comfortable to raise their experience of mental stress and to access appropriate support when needed.

Occupational exposures

We set internally specified occupational exposure limits (OELs) to manage exposures to DPM, silica, coal mine dust and other potentially harmful agents. For our most material exposures, our process to set those OELs involves periodic monitoring and evaluation of scientific literature, benchmarking against peers as well as engagement with regulators, OEL-setting agencies and expert independent advice. Our approach to monitor and review our internal OELs is designed to ensure they continue to be aligned with, or are more conservative than applicable regulated health limits.

For our most material exposures to DPM, silica and coal mine dust, we have committed to a five-year target to achieve a 50 per cent reduction in the number of workers potentially exposed⁽¹⁾ as compared to our baseline exposure profile (as at 30 June 2017⁽²⁾) by 30 June 2022.

In Petroleum, the divestment of our Onshore US assets during FY2019 changed the exposure profile for the region as workplace exposures to silica and DPM are no longer present. Our baseline exposure profile for the Group for the five-year target was therefore adjusted to remove the baseline exposures attributed to the Onshore US assets.

In FY2019, planned exposure reduction projects were implemented across the Group, involving a collaborative effort from operational and maintenance teams, supported by the Health, Safety and Environment, and Supply and Technology teams. Many assets exceeded planned exposure reductions resulting in an overall reduction of 49 per cent⁽³⁾ compared to the revised FY2017 baseline. Planned growth projects across the Group may result in an increase in some potential exposures over the short term; however, commitments to achieve planned exposure reductions over the five-year target period remain unchanged.

Coal mine dust lung diseases

As at 30 June 2019, 10 cases of coal mine dust lung diseases (CMDLD⁽⁴⁾) among our current employees were reported to the Queensland Department of Natural Resources, Mines and Energy. We continue to provide counselling, medical support and redeployment options (where relevant) for all 10 colleagues (seven of the 10 have been able to continue working).

During FY2019, one former BHP employee had a worker's compensation claim accepted for CMDLD resulting in a total, as at 30 June 2019, of six former workers diagnosed with CMDLD since January 2016 (noting that no Australian coal mine worker had been diagnosed with CMDLD in the preceding two decades). In addition to these confirmed cases, as at 30 June 2019, there were six intimated worker's compensation claims for CMDLD from current and former employees that had not yet been determined. Our Charter values guide our response and the support we offer, and we are actively reviewing how we can improve timeframes and processes for determination of claims.

To further protect the health of our people we remain committed to:

- a reduction in our coal mine dust OEL from 2 mg/m³ to 1.5 mg/m³ to be achieved as soon as reasonably practicable and no later than 1 July 2020 (as compared with the regulatory OEL of 2.5 mg/m³), noting that all operations have developed exposure reduction plans;
- a reduction in potential exposure to silica in coal mine workers that exceeds a level 50 per cent lower than the current regulatory level by no later than 1 July 2021.

(1) For exposures exceeding our FY2017 occupational exposure limits discounting the use of personal protective equipment, where required.

(2) The baseline exposure profile is derived through a combination of quantitative exposure measurements and qualitative assessments undertaken by specialist occupational hygienists consistent with best practice as defined by the American Industrial Hygiene Association.

(3) FY2019 data excludes Discontinued operations (Onshore US assets).

(4) CMDLD is the name given to the lung diseases related to exposure to coal mine dust and includes CWP, silicosis, mixed dust pneumoconiosis and chronic obstructive pulmonary disease.

1.10.3 Health continued

Mental health

BHP has prioritised the mental health of our people since 2015. We have subsequently made good progress with the implementation of our Group-wide Mental Health Framework.

In FY2019, we continued to embed programs and resources that support a healthy, thriving workforce. This included the peer-led Resilience Program, in which more than 3,392 people had participated, as at the end of FY2019. We launched the inaugural BHP Mental Health Week to raise awareness of BHP's available mental health resources and tools, and encourage conversations about mental health. We conducted a global mental health risk assessment with internal and external stakeholders to help identify critical parts of our Mental Health Framework that promote a supportive work environment.

FY2019 was the third year the wellbeing category was included in our annual Engagement and Perception Survey. There was no change overall at the Group level, but we continue to evaluate the differences observed at the asset and function levels from previous years' results to inform local plans.

1.10.4 Protecting the environment

There is growing pressure on and competition for environmental resources, such as land, biodiversity, water and air. Climate change amplifies the sensitivities of our natural systems. Our operations and growth strategy depend on obtaining and maintaining the right to access these environmental resources. Our environmental performance and management of environmental impacts on the communities in which we operate are critical to creating social value.

We have comprehensive governance, risk management, policies and processes that set the basis for how we manage risk and realise opportunities to achieve our environmental objectives. Our approach to environmental management is set out in the *Our Requirements for Environment and Climate Change* and *Our Requirements for Risk Management* standards. These standards have been designed taking account of the ISO management system requirements, such as ISO14001 for Environmental Management. In FY2019, we began updating the *Our Requirements for Environment and Climate Change* standard to reflect recent changes in BHP's Risk Framework and other *Our Requirements* standards, new Technical Standards for water and our evolving climate change and water stewardship programs.

Responsibly managing land and supporting biodiversity

Our assets have plans and processes in place that reflect local biodiversity risks and regulatory requirements. We have a five-year target to improve marine and terrestrial biodiversity outcomes by developing a framework to evaluate and verify the benefits of our actions, in collaboration with others. This will allow us to better monitor, avoid, reduce and offset biodiversity impacts of our activities in a coordinated way.

We started work on the framework in FY2018 and completed initial phase pilot testing using data from three operating sites and a social investment project during FY2019. We are progressing this work with Conservation International and Proteus, a voluntary partnership between the UN Environment World Conservation Monitoring Centre and 12 extractive industry companies. We intend to use the framework to track achievement of our longer-term biodiversity goal: 'in line with United Nations Sustainable Development Goals 14 and 15, BHP will, by FY2030, have made a measurable contribution to the conservation, restoration and sustainable use of marine and terrestrial ecosystems in all regions where we operate'.

Rehabilitation and closure

We are committed to implementing a planned approach to closure and rehabilitation through the life cycle of our operations. We do this by following our closure management process, detailed in the *Our Requirements for Closure* standard, taking into consideration our values, obligations, commitment to safety, cost risks/benefits and expectations of external stakeholders, and developing a closure management plan that delivers enduring environmental and social benefits.

The focus is to aim to achieve an optimal closure outcome in consultation with local communities and other stakeholders. In addition to environmental rehabilitation, closure outcomes may include further local economic opportunities, recreational and/or other community uses.

In November 2018, 1,176 hectares of rehabilitated subsidence with a post-mining land use of mixed cropping and grazing at Gregory Crinum Mine (now sold to Sojitz) was certified as complete. At the Norwich Park Mine in Queensland, a further 294 hectares of spoil dump was certified as complete for grazing in February 2019, bringing the total rehabilitated land area certified as complete to 1,470 hectares. In total, in FY2019, rehabilitation and closure strategies for assets in Australia delivered just under 20,000 hectares rehabilitated land.

Contributing to a resilient environment

BHP recognises that we have a broader role to play in contributing to environmental resilience. We achieve this through our Social Investment Framework, and work with strategic partners and communities to invest in voluntary projects that contribute to the management of areas of national or international conservation significance.

Since 2011, we have committed more than US\$75 million to biodiversity conservation through our alliance with Conservation International and other partners. We look for projects that can provide multiple benefits, improve water quality or quantity, nature-based solutions to climate change, local livelihoods or cultural benefits, as well as improve biodiversity conservation.

Towards water stewardship

Water stewardship is about safeguarding our natural water resources for future generations. This requires collaboration at every level of society, be it communities, government, business and civil society, and we are committed to working with such stakeholders to ensure that fresh and marine water resources are conserved, become resilient and continue to support healthy communities and ecosystems, maintain cultural and spiritual values and sustain economic growth.

Water is integral to what we do and is vital to the sustainability of our business. We cannot operate without it. We interact with water in a number of ways including extracting water for activities such as ore processing, cooling, dust suppression and processing mine tailings; managing it to access ore through dewatering, and at our closed operations; providing drinking water and sanitation facilities, and discharging it back to the receiving environment. In addition, we interact with marine water resources through our offshore Petroleum business as part of the oil recovery process and port facilities and utilise marine water for desalination.

We recognise our responsibility to effectively manage our interactions and minimise impacts on water resources. Our work starts within our operations, where we must strive to build a foundation from which we can credibly collaborate with others toward solutions to shared water challenges. Responsible water interactions will ultimately make our business more resilient in the long term, and positively contribute to an enduring environment and social value.

Our Water Stewardship Strategy was adopted in FY2017 to improve our management of water, increase transparency and contribute to the resolution of shared water challenges. In FY2019, we developed our Water Stewardship Position Statement, BHP's expression of commitment to and advocacy focus for water stewardship.

Implementation of the Position Statement will commence in FY2020.

Our five-year Group-wide target and longer-term goal focused on water were revised in 2017. The Group-wide target is to reduce FY2022 freshwater withdrawal⁽¹⁾ by 15 per cent from FY2017 levels. It is focused on the use of freshwater as it is generally the most important water resource for the communities in which we operate and the environment.

Our longer-term goal is to collaborate to enable integrated water resource management in all catchments where we operate by FY2030. It is aligned to the UN Sustainable Development Goal 6 that seeks to 'ensure availability and sustainable management of water and sanitation for all'.

Freshwater withdrawal increased 9 per cent in FY2019 compared to FY2018. However, overall we remain on track to attain the 15 per cent reduction target by FY2022, with FY2019 withdrawals 1 per cent below the FY2017 adjusted baseline.⁽²⁾

Transition to the ICMM Water Reporting Guidelines has continued in FY2019. Improvements in the quality of data, particularly at WAIO and our Queensland Coal assets, resulted in data changes that required restatements to FY2017 data which form part of the FY2017 baseline. Reductions in freshwater continued because of increased throughput of the desalination plant at Escondida and the subsequent reduced reliance on the region's aquifers. The most material increase in water withdrawal was at WAIO, due to increases in water used for production and dust suppression.

Much of our initial collective action work is directed at supporting local integrated water resource management (IWRM) initiatives. During FY2019, we commenced the development of guidance on how to approach collective action in support of IWRM. Effective disclosure is fundamental to the success of IWRM initiatives and we have continued to collaborate with the CEO Water Mandate to support harmonisation of water accounting standards. We see this as a critical step to enhancing transparency and collaboration across all sectors for improved water governance. In line with our Water Stewardship Position Statement, we anticipate releasing the initial set of context-based, business-level targets by FY2022.



For details on our approach to water stewardship and water performance in FY2019, see our Sustainability Report 2019.

1.10.5 Engaging with communities

We believe we are successful when we work in partnership with communities to achieve long-term social, environmental and economic outcomes. To support this, we must consider social value in our decision-making and work with communities where we have a presence. Social value is the sum of our contribution to society underpinned by respectful and mutually beneficial partnerships, and working collectively to prioritise social, environmental and economic outcomes.

In FY2019, we completed an in-depth review of how we understand and support social value. The review focused on how we can improve our capacity to connect to communities, understand their ambitions and work to empower these communities.

Engaging with communities

Our Code of Conduct and the Our Requirements for Communications, Community and External Engagement standard govern our actions in making a positive contribution to communities where we have a presence and minimising adverse impacts where these cannot be avoided.

Our community practitioners apply a range of systems, processes and tools across our operations to help us understand, plan, implement and evaluate our engagement activities. This includes

social baseline analysis, social impact and opportunity assessments, human rights impact assessments, stakeholder mapping and community perception surveys. This information informs our approach to community engagement, community development and social investment activities that aim to be culturally sensitive and socially inclusive.

Supporting local economic growth

BHP proudly supports the growth of local businesses in the regions where we operate, through sourcing and promoting locally available products and services. Our assets develop local procurement plans that identify opportunities for local suppliers, including small businesses to deliver capacity building and employment creation initiatives. These initiatives are designed to be sustainable post BHP's presence.

During FY2019, 14 per cent of our external expenditure was with local suppliers. An additional 82 per cent of our supply expenditure was located within the regions in which we operate.

Our expenditure with local suppliers in FY2019 was mostly in Trinidad and Tobago (57 per cent), the United States (31 per cent), Chile (14 per cent) and Australia (12 per cent).

Social investment

Through our long-standing commitment to investing not less than 1 per cent of our pre-tax profit in social and environmental projects and donations, we generate social value through greater engagement with a broad set of stakeholders. Our contribution to sustainability challenges at the local, regional, national and global levels is a key element in managing current and future risk. It also provides an opportunity to build long-term reciprocal relationships with stakeholders.

We seek to develop strategic social investment partnerships by advocating collective action, bringing together key stakeholders to support the self-determination of communities, with a shared approach to solving local challenges and building local opportunities. We generate social value through our contribution to grass roots initiatives, such as community donations, employee volunteering, our Local Buying Program and BHP's Matched Giving Program.

Our voluntary social investment in FY2019 totalled US\$93.5 million,⁽³⁾ consisting of US\$55.7 million in direct community development projects and donations, US\$8.9 million equity share to non-operated joint venture programs, a US\$16.57 million donation to the BHP Foundation and US\$4 million to the Matched Giving and community small grants programs. Administrative costs to facilitate direct social investment activities at our assets totalled US\$6.27 million and US\$2 million supported the operations of the BHP Foundation.

In FY2019, we commenced the management of our social investment contracts for community projects and donations through our Global Contract Management System. The new system enables an integrated end-to-end partnership management approach that is auditable, transparent and enhances our ability to communicate and report on our social investment activities.

1.10.6 Respecting human rights

We believe respecting human rights and contributing to the positive realisation of rights is not only critical to the sustainable operation of our business, it is the right thing to do. We are committed to respecting internationally recognised human rights as set out in the Universal Declaration on Human Rights and the Voluntary Principles on Security and Human Rights and operating in a manner consistent with the UN Guiding Principles on Business and Human Rights and the 10 UN Global Compact Principles.

Human rights related to workplace health, safety and labour conditions, activities of security providers, land access and use, and water and sanitation are the most relevant to BHP's business. Of equal importance are the rights of Indigenous peoples and other communities impacted by BHP's operations.

(1) Where 'withdrawal' is defined as water withdrawn and intended for use (in accordance with 'A Practical Guide to Consistent Water Reporting', ICMM (2017)).

'Freshwater' is defined as waters other than sea water, waste water from third parties and hypersaline ground water. Freshwater withdrawal also excludes entrained water that would not be available for other uses. These exclusions have been made to align with the target's intent to reduce the use of freshwater sources subject to competition from other users or the environment.

(2) The FY2017 baseline data has been adjusted to account for: the materiality of the strike affecting water withdrawals at Escondida in FY2017 and improvements to water balance methodologies at WAIO and Queensland Coal in FY2019. Discontinued operations (Onshore US assets) have been excluded from the FY2017 baseline data.

(3) Our voluntary social investment is calculated as 1 per cent of the average of the previous three years' pre-tax profit.

1.10.6 Respecting human rights continued



Our Code of Conduct sets the standards of behaviour and human rights commitments for our people, as well as our contractors, suppliers and others who perform work for BHP. The commitments in Our Code of Conduct are implemented through mandatory minimum human rights performance requirements in the Our Requirements standards and through our policy statements.

Human rights are also integrated into BHP's Risk Framework through these standards. Using that Framework, human rights risks were assessed in functional, exploration and project risk assessments in FY2019. This included inputs into a risk assessment for exploration activities in Ecuador and a human rights and Indigenous peoples' assessment for activities in Mexico.

We consolidated our existing human rights commitments and management approaches in FY2019 into a Group-wide policy statement. This action reflects Principle 16 of the UN Guiding Principles on Business and Human Rights. Our Human Rights Policy Statement (available on bhp.com) sets out the expectations of our people, business partners and other relevant parties to respect human rights.

A new globally consistent approach to human rights impact assessments in FY2019 was also developed to enable a more comprehensive understanding of our human rights exposures across our assets and functions. The new methodology will be mandated under the Our Requirements standards.

We are taking a multi-year, systemic approach to integrating human rights due diligence for our supply chain process. At the centre of our approach is engagement with our direct suppliers to assess and encourage continuous improvement in their own capacity to manage human rights risks (including modern slavery) in their subcontractors and broader supply chain.

Modern slavery

Our 2019 Modern Slavery Act Statement provides a detailed overview of our approach to managing human rights risks, in particular those relating to modern slavery and trafficking in our supply chain. It is prepared under the UK Modern Slavery Act (2015) and available online at bhp.com.

Australian legislation for modern slavery was passed in December 2018 and our first statement under this legislation is expected to be published for FY2020 by 31 December 2020.

1.10.7 Indigenous peoples

For BHP, Indigenous peoples are critical partners and stakeholders in many of our operations. We respect the rights of Indigenous peoples and the special connection they often have with the land, water and natural environment, and we understand that this connection can be spiritual, reaching beyond tangible objects or locations.

BHP's Indigenous Peoples Policy Statement articulates our approach to engagement and support for Indigenous peoples and our commitment to the International Council of Mining and Metals Indigenous Peoples Position Statement. Our Indigenous Peoples Strategy guides the implementation of our Policy Statement.

In FY2019, each of our regions had an active Indigenous Peoples Plan that operationalised the Indigenous Peoples Strategy across our regions. Each plan is aligned with the Indigenous Peoples Strategy and prioritises the local and regional context and operational footprint and relevant Indigenous stakeholders.

In April 2019, BHP publicly released our FY2019–FY2023 South American Indigenous Peoples Plan in San Pedro de Atacama, Chile, which focuses on opportunities for advocacy and strengthening opportunities for Indigenous employment. The Plan is the first of its kind by a mining company in Chile.

BHP also contributes to and engages in programs and public policy to advance the interests of Indigenous peoples. After significant reflection and consultation with critical stakeholders, in January 2019, our CEO Andrew Mackenzie announced BHP's support for the Uluru Statement from the Heart. As part of this support, we committed to a number of activities in support of the areas of Voice, Treaty and Truth; key themes from the Uluru Statement from the Heart.

1.10.8 Climate change



Our climate change strategy focuses on reducing our operational greenhouse gas (GHG) emissions, investing in low emissions technologies, promoting product stewardship, managing climate-related risk and opportunity, and working with others to enhance the global policy and market response.

Climate change is a global challenge that requires collaboration. Resources companies such as BHP, our customers and governments must play their part to meet this challenge.

Responding to climate change remains a priority governance and strategic issue for us. Our Board is actively engaged in the governance of climate change issues, including our strategic approach, supported by the Sustainability Committee. Management has primary responsibility for the design and implementation of our climate change strategy and our performance against our targets (outlined below) is reflected in senior executive and leadership remuneration. From 2021, the link between our targets and management remuneration will be strengthened to reinforce the strategic importance of action to reduce emissions.

Operational emissions

As a major energy consumer, managing energy use, ensuring energy security and reducing GHG emissions at our operations are key components of our climate change strategy. We set targets in order to hold ourselves accountable for these goals, and regularly review them as our strategy and circumstances change.

Our five-year GHG emissions reduction target, which took effect from 1 July 2017, is to maintain our total operational emissions in FY2022 at or below FY2017 levels⁽¹⁾ while we continue to grow our business. Our target builds on our success in achieving our previous five-year target.

We have also set the longer-term goal of achieving net-zero operational GHG emissions in the latter half of this century, consistent with the Paris Agreement. In order to set the trajectory towards achieving that goal, in FY2020 we intend to develop a medium-term target for operational emissions.

Operational emissions performance

Our combined Scope 1 and Scope 2 emissions (operational emissions) in FY2019 totalled 14.7 million tonnes of carbon dioxide equivalent (CO₂-e), 3 per cent below our FY2017 target baseline.⁽²⁾ This decrease is primarily due to a change in the electricity emissions factor for Minerals Americas that resulted from the interconnection of Chile's northern grid system, which is mainly fossil fuel-based, and southern grid system, which has a higher proportion of renewable energy.

We have disclosed operational emissions performance at the asset level for the first time in this year's Report (see section 6.5 Climate change data).

Operational greenhouse gas emissions (million tonnes CO₂-e)^{(a)(b)}

Year ended 30 June	2019	2018	2017
Scope 1 GHG emissions ^(c)	9.7	10.6	10.5
Scope 2 GHG emissions ^(d)	5.0	5.9	5.8
Total operational GHG emissions	14.7	16.5	16.3

(a) Scope 1 and 2 emissions have been calculated on an operational control basis in accordance with the GHG Protocol Corporate Accounting and Reporting Standard.

(b) FY2017 and FY2018 data includes Continuing operations and Discontinued operations (Onshore US assets). FY2019 data includes Continuing operations and Discontinued operations (Onshore US assets) to 31 October 2018.

(c) Scope 1 refers to direct GHG emissions from operated assets.

(d) Scope 2 refers to indirect GHG emissions from the generation of purchased electricity and steam that is consumed by operated assets (calculated using the market-based method).

Our FY2019 GHG emissions intensity was 2.2 tonnes of CO₂-e per tonne of copper equivalent production (FY2018: 2.3 tonnes of CO₂-e). Our FY2019 energy intensity was 22 gigajoules per tonne of copper equivalent production (FY2018: 21 gigajoules).⁽³⁾

(1) FY2017 baseline will be adjusted for any material acquisitions and divestments based on GHG emissions at the time of the transaction. Carbon offsets will be used as required.

(2) Calculated on a Continuing operations basis. The FY2017 baseline has been adjusted for the divestment of our Onshore US assets to ensure ongoing comparability of performance.

(3) Copper equivalent production has been calculated based on FY2019 average realised product prices for FY2019 production, and FY2018 average realised product prices for FY2018 production.

1.10.8 Climate change continued

Investing in low emissions technologies

Defining a pathway to net-zero GHG emissions for our long-life assets requires planning for the long term and a deep understanding of the development pathway for low emissions technologies (LETs).

Our LET strategy is threefold. First, we work to adapt mature technologies such as light electric vehicles, in order to integrate them safely and effectively into our operations. Second, in the medium term, we create road maps for development and adoption of LETs that support our goal of net-zero emissions, which may include trials and demonstrations of technology in our production environments. Finally, we look for early stage LETs that hold high potential for future results. For these emerging technologies, we seek opportunities for collaboration, research and other ways to accelerate their development and adoption.

Our LET strategy has been developed to address BHP's key sources of operational GHG emissions. Emissions from electricity use make up 43 per cent of our operational emissions.⁽¹⁾ This includes the power we generate ourselves as well as the power we buy from grids around the world. Our strategy seeks to accelerate the transition to lower carbon sources of electricity while balancing cost, reliability and emissions reductions.

Emissions from fuel and distillate make up 42 per cent of our operational emissions, much of which is from diesel used in moving material (for example, haul trucks). Our strategy is to accelerate and de-risk technologies and innovations that can transition operations over time to alternate fuels and greater electrification of mining equipment and mining methods.

Fugitive methane emissions from our petroleum and coal assets make up 15 per cent of our operational emissions. Our strategy is to pursue innovation in mitigation technologies for these emissions, which are among the most technically and economically challenging to reduce.

Scope 3 emissions

While reducing our operational emissions is vital, emissions from our value chain (Scope 3 emissions) are significantly higher than those from our own operations. We work with our customers, suppliers and other value chain participants to seek to influence emissions reductions across the life cycle of our products.

As we work to develop an integrated product stewardship strategy in FY2020 we intend to look to identify additional opportunities to work with others in our value chain to influence emissions reductions. We also intend to set public goals related to Scope 3 emissions.

Supporting the development of climate change solutions

In July 2019, our CEO Andrew Mackenzie announced that BHP's Board had approved a new Climate Investment Program that will invest in technologies to reduce emissions, and research and development of potential future solutions.

The Program will build on BHP's existing program of investing in low emissions technologies and carbon capture and storage. It includes a total investment amount of up to US\$400 million over five years from FY2020. Investments will target operational emissions reduction and potential reductions of Scope 3 emissions, including from the processing and use of our products.

The Program will target mature and disruptive technologies, designed to achieve both near-term emissions outcomes and longer-term, higher-risk goals. We expect technology investment to be critical in meeting our short- and medium-term targets for operational emissions reduction, our long-term goal of operational net-zero emissions, and our goals for addressing Scope 3 emissions. The Program will also drive investment in nature-based solutions.

(1) Includes Scope 1 emissions from our natural gas-fired power generation as well as Scope 2 emissions from purchased electricity.

Scope 3 emissions performance

The most significant contributions to Scope 3 emissions in our value chain come from the downstream processing and use of our products, in particular emissions emanating from the steelmaking process (the processing and use of our iron ore and metallurgical coal). In FY2019 emissions associated with the processing of our non-fossil fuel commodities (iron ore to steel; copper concentrate and cathode to copper wire) were 305 million tonnes of CO₂-e. Emissions associated with the use of our fossil fuel commodities (metallurgical and energy coal, oil and gas) were 233 million tonnes of CO₂-e.

Scope 3 greenhouse gas emissions (million tonnes CO₂-e)^{(1) (2)}

Year ended 30 June	2019	2018	2017
Upstream			
Purchased goods and services (including capital goods)			
Fuel and energy related activities	1.3	8.2	7.7
Upstream transportation and distribution ⁽³⁾	3.6	1.4	1.4
Business travel	0.1	3.6	3.2
Employee commuting	<0.1	<0.1	<0.1
Downstream			
Downstream transportation and distribution ⁽⁴⁾	4.0	5.0	2.8
Processing of sold products ⁽⁵⁾	304.7	322.6	313.7
– Iron ore to steel	299.6	317.4	309.5
– Copper to copper wire	5.1	5.2	4.2
Use of sold products	232.7	253.8	254.1
– Metallurgical coal	111.4	112.3	105.5
– Energy coal	67.0	71.0	72.1
– Natural gas	28.3	36.4	38.3
– Crude oil and condensates ⁽⁶⁾	23.3	29.6	33.1
– Natural gas liquids	2.8	4.5	5.1
Investments (i.e. our non-operated assets) ⁽⁷⁾	3.1	1.7	1.9

(1) Scope 3 refers to all other indirect GHG emissions (not included in Scope 2) from activities across our value chain, including upstream emissions related to the extraction and production of purchased materials and fuels; downstream emissions related to the processing and use of our products; upstream and downstream transportation and distribution; and emissions from our non-operated joint ventures. Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

(2) FY2017 and FY2018 data includes Continuing operations and Discontinued operations (Onshore US assets). FY2019 data includes Discontinued operations (Onshore US) to 31 October 2019 and Continuing operations.

(3) Includes product transport where freight costs are covered by BHP, for example under Cost and Freight (CFR) or similar terms, as well as purchased transport services for process inputs to our operations.

(4) Product transport where freight costs are not covered by BHP, for example under Free on Board (FOB) or similar terms.

(5) All iron ore production is assumed to be processed into steel and all copper production is assumed to be processed into copper wire for end use. Processing of nickel, zinc, gold, silver, ethane and uranium oxide is not currently included, as production volumes are much lower than iron ore and copper, and a large range of possible end uses apply. Processing/refining of petroleum products is also excluded as these emissions are considered immaterial compared to the end-use product combustion reported in the 'Use of sold products' category.

(6) All crude oil and condensates are conservatively assumed to be refined and combusted as diesel.

(7) Covers the Scope 1 and 2 emissions (on an equity basis) from our assets that are owned as a joint venture but not operated by BHP.

Scope 3 emissions reporting necessarily requires a degree of overlap in reporting boundaries due to our involvement at multiple points in the life cycle of the commodities we produce and consume. A significant example of this is that Scope 3 emissions reported under the 'Processing of sold products' category in the table above include the processing of our iron ore to steel. This third party activity also consumes metallurgical coal as an input, a portion of which is produced by us. For reporting purposes, we account for Scope 3 emissions from combustion of metallurgical coal with all other fossil fuels under the 'Use of sold products' category, such that a portion of metallurgical coal emissions is accounted for under two categories.

This is an expected outcome of emissions reporting between the different scopes defined under standard GHG accounting practices and is not considered to detract from the overall value of our Scope 3 emissions disclosure. This double counting means that the emissions reported under each category should not be added up, as to do so would give an inflated total figure. For this reason, we do not report a total Scope 3 emissions figure. Further details of the calculation methodologies, assumptions and key references used in the preparation of our Scope 3 emissions data can be found in the associated Scope 3 calculation methodology document available online at bhp.com/climate.

Accelerating the development of carbon capture and storage

We are working in partnership with others across our value chain to accelerate the development of technologies with the potential to reduce emissions from the processing and use of our products. Carbon capture and storage (CCS) is a key low emissions technology with the potential to play a pivotal role in reducing emissions from industrial processes, such as steel production, as well as emissions from the power sector and from oil and gas production.

While we recognise progress is required in developing policy frameworks to support the wider deployment of this technology, our CCS investments and partnerships focus on mechanisms to reduce costs and accelerate development timeframes. Our investments include activities aimed at knowledge sharing from commercial-scale projects, development of sectoral deployment road maps and funding for research and development at leading universities and research institutes.



For further information, refer to our Sustainability Report 2019, available online at bhp.com.

Contributing to the global response

Climate change is a global challenge that requires collaboration. We prioritise working with others to enhance the global policy and market response.

Promoting market mechanisms to reduce global emissions

In addition to measures to reduce our emissions, we support the development of market mechanisms that reduce global GHG emissions through projects that generate carbon credits.

Our climate change strategy includes a focus on reducing emissions from deforestation through support for REDD+, the UN program that aims to reduce emissions from deforestation and forest degradation. For example, in partnership with the International Finance Corporation (IFC) and Conservation International (CI) we developed a first-of-its-kind US\$152 million Forests Bond, issued by the IFC in 2016. We provide a price-support mechanism for the bond, which supports the Kasigau Corridor REDD project in Kenya. During FY2019, we purchased additional carbon credits from the Kasigau Corridor project.

In partnership with CI and Baker McKenzie, we developed the Finance for Forests (F4F) initiative in FY2018, which aims to share our experiences to help encourage replication of these investments and provide a suite of innovative financial mechanisms to channel private sector investment in REDD+.

Supporting the development of effective climate and energy policy

Industry has a key role to play in supporting policy development. We engage with governments and other stakeholders to contribute to the development of an effective, long-term policy framework that can deliver a measured transition to a lower carbon economy.

We believe an effective policy framework should include a complementary set of measures, including a price on carbon, support for low emissions technology and measures to build resilience. We are a signatory to the World Bank's Putting a Price on Carbon statement and a partner in the Carbon Pricing Leadership Coalition, a global initiative that brings together leaders from industry, government, academia and civil society with the goal of putting in place effective carbon pricing policies. Our CEO Andrew Mackenzie has also been appointed to the World Bank's High-Level Commission on Carbon Pricing and Competitiveness.

We also advocate for a framework of policy settings that will accelerate the deployment of CCS. We are a member of the Global CCS Institute and the UK Government's Council on Carbon Capture Usage and Storage.

Industry association membership

We believe industry associations have the capacity to play a key role in advancing the development of standards, best practices and constructive policy that are of benefit to members, the economy and society. We also recognise there is stakeholder interest in the nature and role of industry associations and the extent to which the positions of industry associations on key issues are aligned with those of member companies.

We were one of the first major companies to review our alignment with the advocacy positions on climate and energy policy taken by industry associations to which we belong, and to share the findings and outcomes of this review publicly. Our initial review was published in December 2017.

We continue to monitor the climate and energy policy positions of our industry association memberships and to keep our memberships of industry associations that hold an active position on climate and energy policy under review. A further review of our industry associations was commenced during FY2019.



More information on our approach to industry associations, including our updated register of material differences on climate and energy policy, is available online at bhp.com.

1.10.8 Climate change continued

Managing risk and opportunity

We recognise the physical and non-physical impacts of climate change may affect our assets, productivity, the markets in which we sell our products and the communities in which we operate. Risks related to the physical impacts of climate change include acute risks resulting from increased severity of extreme weather events and chronic risks resulting from longer-term changes in climate patterns. Non-physical risks arise from a variety of policy, regulatory, legal, technological and market responses to the challenges posed by climate change and the transition to a lower carbon economy.

A broader discussion of our climate-related risk factors and risk management approach is provided as part of our Task Force on Climate-related Financial Disclosures (TCFD)-aligned disclosures throughout this Report, as described below.

Adapting to the physical impacts of climate change

We take a risk-based approach to adapting to the physical impacts of climate change. We work with globally recognised agencies to obtain regional analyses of climate science to inform resilience planning at an asset level and improve our understanding of the potential climate vulnerabilities of our operations and communities where we operate.

Our operations are required to build climate resilience into their activities through compliance with the *Our Requirements for Environment and Climate Change* standard. We also require new investments to assess and manage risks associated with the forecast physical impacts of climate change. As well as this ongoing business resilience planning, we continue to look at ways we can contribute to community and ecosystem resilience.

Evaluating the resilience of our portfolio

We consider the impacts of climate change in our strategy process. We recognise the world could respond in a number of different ways to address climate change. We use a broad range of scenarios to consider how divergent policy, technology, market and societal outcomes could impact our portfolio, including low plausibility, extreme shock events. We also continually monitor a range of data sources to identify climate change-related developments that would serve as a call to action for us to reassess the resilience of our portfolio.

Our investment evaluation process includes an assessment of non-quantifiable risks, such as those that could impact the people and environment that underpin our contribution to social value. The process has also incorporated market and sector-based carbon prices for more than a decade.

Our Climate Change: Portfolio Analysis (2015) and Climate Change: Portfolio Analysis – Views after Paris (2016) reports, which are available online at bhp.com/climate, describe in more detail how we have used scenario analysis to evaluate the resilience of our portfolio to both an orderly and a more rapid transition to a 2°C world. We will update our portfolio analysis in FY2020, evaluating the potential impacts of a broader range of scenarios including a transition to well below 2°C.

We are committed to keeping our stakeholders informed of the potential impact of climate change on our business and continue to review and consider developing best practices and evolving stakeholder expectations.

Engagement and disclosure

Our climate change strategy is supported by active engagement with our stakeholders, including investors, policymakers and non-governmental organisations, and with peer companies where appropriate.

We periodically hold one-on-one and group meetings with investors and their advisers to explain our approach to climate change. In FY2019, our climate-related investor engagement included meetings held in Australia, the United Kingdom, the Netherlands and the United States.

We also seek input and insight from external experts, such as the BHP Forum on Corporate Responsibility (FCR). The FCR, which is composed of civil society leaders and BHP executives, has played a critical role in the development of our position on climate change. During FY2019, the FCR met twice, with one of the meetings including discussion of the review of our climate change strategy.

Informed by this engagement, we regularly review our approach to climate change in response to emerging scientific knowledge, changes in global climate policy and regulation, developments in low emissions technologies and evolving stakeholder expectations.



Climate-related financial disclosures

BHP was one of the first companies to align our disclosures with the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD). We believe the TCFD recommendations represent an important step towards establishing a widely accepted framework for climate-related financial risk disclosure and we have been a firm supporter of this work. Our Vice President of Sustainability and Climate Change, Dr Fiona Wild, is a member of the Task Force.

We are committed to continuing to work with the TCFD and our peers in the resources sector to support the wider adoption of the TCFD recommendations and the development of more effective disclosure practices within the sector.

As responding to climate change is an integral part of our strategy and operations, our TCFD-aligned disclosures can be found throughout this Report. The table below shows how our disclosures in this Report align to the TCFD recommendations and where the relevant information can be found.



Location of TCFD-aligned disclosures

TCFD recommendation	BHP disclosure	Reference
Governance – Disclose the organisation’s governance around climate-related risks and opportunities		
a) Describe the Board’s oversight of climate-related risks and opportunities.	Risk management Board skills and experience – climate change Sustainability committee – role and focus	1.6.4 2.8 2.13.4
b) Describe management’s role in assessing and managing climate-related risks and opportunities.	Risk management Climate change – managing risk and opportunity Sustainability committee – role and focus FY2019 STIP performance outcomes Note 11 Property, plant and equipment – Impairment of non-current assets	1.6.4 1.10.8 2.13.4 3.3.2 5.1.6
Strategy – Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation’s businesses, strategy, and financial planning where such information is material		
a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	Risk management – Risk factors (climate change, greenhouse gas emissions and energy) Climate change – managing risk and opportunity	1.6.4 1.10.8
b) Describe the impact of climate-related risks and opportunities on the organisation’s businesses, strategy, and financial planning.	Risk management – Risk factors (climate change, greenhouse gas emissions and energy) Climate change – managing risk and opportunity	1.6.4 1.10.8
c) Describe the resilience of the organisation’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Climate change – evaluating the resilience of our portfolio	1.10.8
Risk management – Disclose how the organisation identifies, assesses, and manages climate-related risks		
a) Describe the organisation’s processes for identifying and assessing climate-related risks.	Risk management	1.6.4
b) Describe the organisation’s processes for managing climate-related risks.	Risk management – Risk factors (climate change, greenhouse gas emissions and energy)	1.6.4
c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation’s overall risk management.	Risk management Non-financial KPIs – sustainability KPIs Risk management – Risk factors (climate change, greenhouse gas emissions and energy)	1.6.4 1.5.2 1.6.4
Metrics and targets – Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material		
a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Non-financial KPIs – sustainability KPIs Climate change – Operational emissions Climate change – Scope 3 emissions	1.5.2 1.10.8 1.10.8
b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	Non-financial KPIs – sustainability KPIs Climate change – operational emissions performance Climate change – Scope 3 emissions performance Climate change data	1.5.2 1.10.8 1.10.8 6.5
c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Non-financial KPIs – sustainability KPIs Climate change – operational emissions performance FY2019 STIP performance outcomes	1.5.2 1.10.8 3.3.2

1.11 Our businesses

The maps in this section should be read in conjunction with the information on mining operations table in section 6.1.

1.11.1 Minerals Australia

The Minerals Australia asset group includes operated assets in Western Australia, Queensland, New South Wales and South Australia.



Copper asset

Olympic Dam

Overview

Located 560 kilometres north of Adelaide, Olympic Dam is one of the world's most significant deposits of copper, gold, silver and uranium.

Olympic Dam is made up of underground and surface operations and operates a fully integrated processing facility from ore to metal. Ore mined underground is hauled by an automated train system to crushing, storage and ore hoisting facilities, or trucked directly to the surface via declines.

The processing plant consists of two grinding circuits in which high-quality copper concentrate is extracted from sulphide ore through a flotation extraction process. Olympic Dam has a fully integrated metallurgical complex with a grinding and concentrating circuit, a hydrometallurgical plant incorporating solvent extraction circuits for copper and uranium, a copper smelter, a copper refinery and a recovery circuit for precious metals.

Key developments during FY2019

Olympic Dam began operating its third access ramp or decline, opening up the southern mine area. The new decline, known as the Kalta decline, supports productivity and potential growth at the mine as it improves traffic flow for Olympic Dam's underground trucking fleet.

BHP's research and development trials into heap leaching technology were successfully completed. Heap leaching works by drip-feeding acid through a large stockpile (or heap) of ore to leach out metals. The program, which began in 2012, was conducted with the support of the South Australian Government, and confirmed the viability of the technology.

Looking ahead

In November 2018, BHP announced a discovery 65 kilometres southeast of Olympic Dam. A potential new iron oxide, copper and gold mineralised system was uncovered as part of our ongoing copper exploration program. The results are still in an early phase and more geological information is required.

Olympic Dam has a range of future growth options to consider as part of its sustained, long-term growth strategy, including the Brownfield Expansion project.

The Brownfield Expansion project has the potential to result in production growing at Olympic Dam to approximately 240-300 kilotonnes per annum (ktpa).



Iron ore asset

Western Australia Iron Ore

Overview

Western Australia Iron Ore (WAIO) is an integrated system of four processing hubs and five mines connected by more than 1,000 kilometres of rail infrastructure and port facilities in the Pilbara region of northern Western Australia.

WAIO's Pilbara reserve base is relatively concentrated, allowing development to be planned around integrated mining hubs that are connected to the mines and satellite orebodies by conveyors or spur lines. This approach enables the value of installed infrastructure to be maximised by using the same processing plant and rail infrastructure for a number of orebodies.

The ore is crushed, beneficiated (where necessary) and blended at each processing hub – Newman operations, Yandi, Mining Area C and Jimblebar – to create high-grade lump and fines products. Iron ore products are then transported along the Port Hedland–Newman rail line to the Finucane Island and Nelson Point port facilities at Port Hedland.

There are four main WAIO joint ventures (JVs): Mt Newman, Yandi, Mt Goldsworthy and Jimblebar. BHP's interest in each of the joint ventures is 85 per cent, with Mitsui and ITOCHU owning the remaining 15 per cent. The joint ventures are unincorporated, except Jimblebar.

BHP, Mitsui and ITOCHU are also participants in the POSMAC JV, a joint venture with a subsidiary of POSCO that involves the sublease of parts of one of WAIO's existing mineral leases. The ore from the POSMAC JV is sold to the Mt Goldsworthy JV.

All ore is transported by rail on the Mt Newman JV and Mt Goldsworthy JV rail lines to the port facilities. WAIO's port facilities at Nelson Point are owned by the Mt Newman JV and Finucane Island is owned by the Mt Goldsworthy JV.

Key developments during FY2019

Construction of the US\$3.6 billion (100 per cent basis) South Flank project started in July 2018 and by the end of FY2019 was more than 30 per cent complete.

South Flank remains on track to deliver first ore in CY2021 and is expected to produce 80 million tonnes per annum (Mtpa), replacing volumes from Yandi as Yandi reaches its end of economic life in the early-to-mid 2020s.

 **For more information about South Flank, refer to section 6.4.**

WAIO production was broadly unchanged in FY2019 compared to FY2018. This was a positive result given the production impacts, including a train derailment in November 2018 and Tropical Cyclone Veronica in March 2019.

Jimblebar had record production of 58.5 million tonnes (Mt) in FY2019, compared to 55.8 Mt in FY2018.

A range of cost and improvement initiatives contributed to productivity, including changes to maintenance planning, materials handling and truck fleet utilisation.

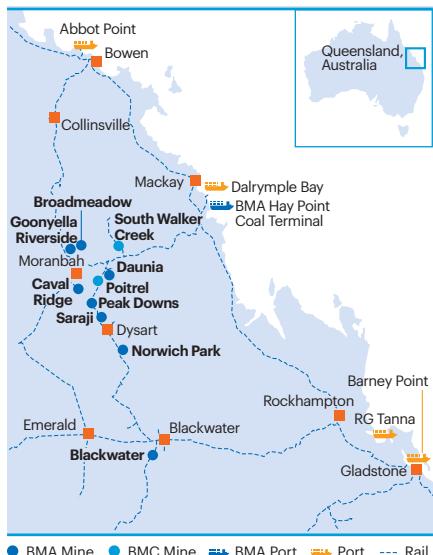
Looking ahead

South Flank is expected to reach its peak construction workforce of around 3,000 people as the project moves into the second full year of construction.

Within WAIO, our focus will remain on supply chain stability, quality improvement and operating discipline.

In addition to equipment productivity, prioritisation of resource recovery optimisation and stable supply of high-quality product to market will continue. There will also be a focus on embedding our transformation programs into the WAIO business. For example, the BHP Operating System is currently being deployed at Port, in the Perth Repair Centre and at Jimblebar and will soon be deployed at Mining Area C, Nickel West's Mt Keith operations and our Integrated Remote Operations Centre during FY2020.

1.11.1 Minerals Australia continued



Coal assets

Our coal assets in Australia consist of open-cut and underground mines. At our open-cut mines, overburden is removed after blasting, using either draglines or truck and shovel. Coal is then extracted using excavators or loaders and loaded onto trucks to be taken to stockpiles or directly to a beneficiation facility.

At our underground mine, coal is extracted by either longwall or continuous miner. The coal is then transported to stockpiles on the surface by conveyor. Coal from stockpiles is crushed and, for a number of the operations, washed and processed through a coal preparation plant. Domestic coal is transported to nearby customers via conveyor or rail, while export coal is transported to ports on trains. Single and multi-user rail and port infrastructure is used as part of the coal supply chain.

Queensland Coal

Overview

Queensland Coal comprises the BHP Mitsubishi Alliance (BMA) and BHP Mitsui Coal (BMC) assets in the Bowen Basin in Central Queensland, Australia.

The Bowen Basin's high-quality metallurgical coals are ideally suited to efficient blast furnace operations. The region's proximity to Asian customers means it is well positioned to competitively supply the seaborne market.

Queensland Coal has access to key infrastructure in the Bowen Basin, including a modern, multi-user rail network and its own coal loading terminal at Hay Point, located near the city of Mackay. Queensland Coal also has contracted capacity at three other multi-user port facilities – the Port of Gladstone (RG Tanna Coal Terminal), Dalrymple Bay Coal Terminal and Abbot Point Coal Terminal.

BHP Mitsubishi Alliance (BMA)

BMA is Australia's largest coal producer and supplier of seaborne metallurgical coal. It is owned 50:50 by BHP and Mitsubishi Development.

BMA operates seven Bowen Basin mines (Goonyella Riverside, Broadmeadow, Daunia, Peak Downs, Saraji, Blackwater and Caval Ridge) and owns and operates the Hay Point Coal Terminal near Mackay. BMA also owns Norwich Park Mine, which is in care and maintenance. With the exception of the Broadmeadow underground longwall operation, BMA's mines are open-cut, using draglines and truck and shovel fleets for overburden removal.

BHP Mitsui Coal (BMC)

BMC owns and operates two open-cut metallurgical coal mines in the Bowen Basin – South Walker Creek Mine and Poitrel Mine. BMC is owned by BHP (80 per cent) and Mitsui and Co (20 per cent).

South Walker Creek Mine is located on the eastern flank of the Bowen Basin, 35 kilometres west of the town of Nebo and 132 kilometres west of the Hay Point Port facilities. Poitrel Mine is situated southeast of the town of Moranbah and began open-cut operations in October 2006.

Key developments during FY2019

BMA completed the sale of the Gregory Crinum Mine to Sojitz Corporation on 27 March 2019. In addition to the sale of the mine to Sojitz, BMA has provided Sojitz funding for rehabilitation of existing areas of disturbance at the site.

For BMA, the construction of the Caval Ridge Southern Circuit (CRSC) project in the Bowen Basin was completed with the first conveying of coal in October 2018. The CRSC project includes an 11-kilometre overland conveyor system that transports coal from Peak Downs Mine to the coal handling preparation plant at the nearby Caval Ridge Mine, enabling utilisation of the latent capacity of the Caval Ridge coal handling preparation plant.

The introduction of productivity initiatives targeting system hours, the haul cycle, payload, our trucking strategy and enabling activities were initiated in FY2019 to improve pre-strip productivity across the Queensland Coal business. By further improving our productivity in truck and shovel operations, we expect to accelerate the rate at which coal is uncovered and ensure a continuous feed for our wash plants.

The Integrated Remote Operations Centre has been focused on ultra-class truck utilisation improvements through the use of analytics and technology to optimise on-circuit trucks. This has minimised process delays through effective refuelling, meal breaks and shift change practices and embedded improvements in the 24-hour mine planning process.



Coal assets

Looking ahead

For BMA, continued delivery of initiatives and improved operating discipline through the site-level integrated operational plans are expected to support delivery of productivity improvement. In the medium term, trucking performance is expected to improve to benchmark rates, as well as the realisation of transformation initiative benefits, through leveraging latent coal handling preparation plant and logistics capacity.

BMA's safety performance requires significant improvement. With three fatalities over the last four years, BMA is focusing its efforts to drive a change in safety through the consistent application of improved safety standards, increasing the standardisation of work, improving the quality of task-based risk assessments and decreasing fatal risk exposure through investment in hard controls.

BMC will work to continue to improve the quality of field leadership, hazard reporting and risk management at both South Walker Creek and Poitrel Mines, and the Red Mountain coal handling preparation plant. We will also focus on improving truck and shovel productivity to ensure optimal utilisation of our coal handling preparation plants. BMC will reopen Ramp 10 at Poitrel to increase available mining areas, target delivery of the Mulgrave Resource Area 2C project at South Walker Creek to release lower strip ratio resources in the medium term, and continue to prioritise low capital de-bottlenecking opportunities.

New South Wales Energy Coal

Overview

New South Wales Energy Coal (NSWEC) consists of the Mt Arthur Coal open-cut energy coal mine in the Hunter Valley region of New South Wales, Australia. The site produces coal for domestic and international customers in the energy sector.

Key developments during FY2019

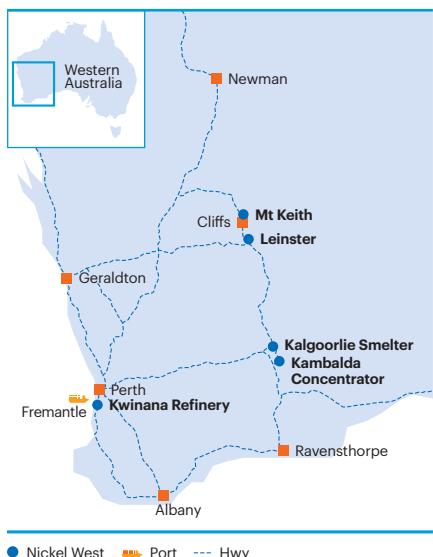
In October 2018, BHP awarded Thiess a mining services contract to complete end-to-end mining services in the Ayredale and Roxburgh pits (referred to as Mt Arthur South) over five years. Thiess was identified as the preferred contractor, with expertise in existing operations at the southern area of the main pit and terrace mining techniques demonstrated at nearby operations. Under the new contract, Thiess is appointed statutory mine operator of Mt Arthur South, with scope including vegetation clearing, mine planning, drill and blast, overburden and coal mining.

BHP will remain mine and lease holder of Mt Arthur South and Mt Arthur North, and mine operator of Mt Arthur North.

Looking ahead

NSWEC is transitioning to a strategy of optimising product quality. Volume is expected to decrease and unit costs to increase in the short term. We expect that benefits of the multiple elevated roadways project and continued improvements to truck and shovel productivity will lead to lower unit costs in the medium term.

1.11.1 Minerals Australia continued



Nickel West

Overview

Nickel West is a fully integrated mine-to-market nickel business. All nickel operations (mines, concentrators, a smelter and refinery) are located in Western Australia. The integrated business adds value throughout our nickel supply chain, with the majority of Nickel West's current production sold as powder and briquettes.

Low-grade disseminated sulphide ore is mined from the large open-pit operation at Mt Keith. The ore is crushed and processed on-site to produce nickel concentrate. High-grade nickel sulphide ore is mined at the Cliffs and Leinster underground mines and Rocky's Reward open-pit mine. The ore is processed through a concentrator and dryer at Leinster. Nickel West's concentrator plant in Kambalda processes concentrate purchased from third parties through its dryer, with its mill currently on care and maintenance.

The three streams of nickel concentrate come together at the Nickel West Kalgoorlie smelter. The smelter uses a flash furnace to smelt concentrate to produce nickel matte. Nickel West Kwinana then refines granulated nickel matte from the Kalgoorlie smelter into premium-grade nickel powder and briquettes containing 99.8 per cent nickel. Nickel matte and metal are exported to overseas markets via the Port of Fremantle.

Key developments in FY2019

Nickel West made significant progress in FY2019 on its transition to become a leading supplier to the battery materials market, selling more than 70 per cent of its production to this sector in FY2019. In addition, it was announced that Nickel West will be retained in the BHP portfolio.

Construction of a nickel sulphate plant at the Kwinana Nickel Refinery is underway. Stage 1 is expected to produce up to 100 ktpa of nickel sulphate.

In FY2019, Nickel West signed an agreement with the traditional owners of the land surrounding used by Nickel West's operations in the northern Goldfields. In addition to formalising BHP's relationship with the Tjiwarl people, the agreement provides support for the Mt Keith Satellite mine development, which will supply additional ore to the Mt Keith concentrator. Work has begun on the Mt Keith Satellite mine development with excavation of the northern pit (Six Mile Well) and construction of the haul road.

Work has commenced at our underground Venus Mine near Leinster and work on the new main ventilation shaft and pastefill plant are progressing well. Nickel West will operate the underground infrastructure for the Venus mine.

Development on the undercut for Leinster B11 (block cave) is proceeding in line with expectations, with key underground infrastructure recommissioned and in use.

Looking ahead

Nickel West offers a number of development options and potential enhancements to its resource position through exploration and processing innovation. Our short-term focus is the upstream segment of the nickel value chain through increased exploration activities in Western Australia and continuing nickel mine development in the northern Goldfields.

First production from the nickel sulphate plant at the Kwinana Nickel Refinery is expected in the first half of CY2020.

First ore from the Mt Keith Satellite project is expected by the end of CY2019. Additional capacity from the project will be matched to meet the Mt Keith mill requirements.

We expect first production ore from the Leinster B11 undercut in the second half of CY2020, pending external approvals.

**Case study:
South Flank update**



BHP continues to be committed to creating shared value for local economies in the places in which we operate. Our investment in South Flank is also an investment in Western Australian-based businesses. By the end of June 2019, we had awarded more than A\$3.3 billion of work on South Flank – 78 per cent of which is Australian-based work, including 37 per cent that is Pilbara based and 39 per cent that is based in the rest of Western Australia.

Two of these local operators, Monadelphous and Clough, deliver significant structural, mechanical, process, electrical and instrumentation works for South Flank. When operational, South Flank will be the largest producing iron ore mine BHP has ever developed, integrating the latest advances in autonomous-ready fleets and digital connectivity.

Monadelphous, an Australian engineering group headquartered in Perth, has been contracted to expand an existing stockyard within the rail loop, resulting in the creation of 600 jobs. We have worked with Monadelphous for more than 20 years on construction and maintenance projects.

Similarly, Clough, a Western Australian engineering and construction business celebrating 100 years of local operation in CY2019, has been contracted to construct the South Flank ore handling plant and coarse ore stockpile. BHP expects more than 600 ongoing operational roles over the life of the 25-year mine.



1.11.2 Minerals Americas

The Minerals Americas asset group includes projects, operated assets and non-operated joint ventures in Canada, Chile, Peru, the United States, Colombia and Brazil.

Operated assets



Copper

Our operated copper assets in the Americas, Escondida and Pampa Norte, are open-cut mines. At these mines, overburden is removed after blasting, using truck and shovel. Ore is then extracted and further processed into high-quality copper concentrate or cathodes. Copper concentrate is obtained through a grinding and flotation process, while copper cathodes are produced through a leaching, solvent extraction and electrowinning process. Copper concentrate is transported to ports via pipeline, while cathodes are transported by either rail or road. From the port, copper is exported to our customers around the world.

Escondida (Chile)

Overview

We own 57.5 per cent of the Escondida mine, a leading producer of copper concentrate and cathodes located in the Atacama Desert in northern Chile. Escondida's two pits feed three concentrator plants, as well as two leaching operations (oxide and sulphide).

Key developments during FY2019

Escondida copper production in FY2019 decreased by 6 per cent to 1,135 kilotonnes (kt), as a consequence of an expected 12 per cent decline in copper grades, partially offset by a record level of ore milled reflecting a full year of operation with three concentrators.

The Escondida Water Supply Expansion (EWSE) project progressed according to schedule during FY2019 and is expected to deliver its first water in the first half of FY2020. The EWSE project comprises the expansion of the Escondida Water Supply conveyance system by 1,300 litres per second and the desalination water production by 800 litres per second. This project is key to enabling Escondida achieve its production plans while also reducing its reliance on groundwater sources. The proportion of desalinated water in use at Escondida at the end of FY2019 was 40 per cent.

On 17 August 2018, Escondida successfully completed negotiations with Union N°1 and signed a new collective agreement, effective for 36 months from 1 August 2018. On 17 April 2019, Escondida reached an agreement with an intercompany union that includes 105 workers that were formerly part of Union N°1.

Looking ahead

Production of between 1,160 and 1,230 kt is expected for FY2020, reflecting a further uplift in ore milled and higher recoveries at the cathode process.

Escondida plans to continue to unlock latent capacity through the maximisation of concentrator throughput, increased use of the cathode circuit and improvements in mine fleet performance. This will be enabled by focusing on continuous improvement and leveraged by the implementation of the BHP Operating System and the Maintenance Centre of Excellence. We will also implement technology projects to enhance our decision making and automate key activities. We expect these initiatives will allow Escondida to operate with a medium-term unit cost of less than US\$1.15 per pound despite the continuation of grade decline and the increasing water costs as we progress toward our goal to cease freshwater usage altogether by CY2030.



Copper

Pampa Norte (Chile)

Overview

Pampa Norte consists of two wholly owned assets in the Atacama Desert in northern Chile – Spence and Cerro Colorado. Spence and Cerro Colorado produce high-quality copper cathodes through leaching, solvent extraction and electrowinning processes.

Key developments during FY2019

Pampa Norte copper production for FY2019 decreased by 7 per cent to 247 kt, mostly due to a fire event in the electrowinning plant at Spence in September 2018, which had a production impact of 18 kt. This was partially offset by a 19 per cent increase in production at Cerro Colorado due to higher throughput and recoveries.

The Spence Growth Option (SGO) to construct a 95 kilotonnes per day (ktpd) ore concentrator and the outsourcing of a 1,000 litre per second desalination plant progressed according to schedule and at the end of FY2019 had an overall progress of 60 per cent. The project is expected to incrementally increase copper production capacity by approximately 185 ktpa, with first production expected in the first half of FY2021. For more information about SGO, refer to section 6.4.

In July 2018, Compañía Minera Cerro Colorado and its Supervisors and Staff Union signed a new collective agreement for 36 months, effective from 1 July 2018. In September 2018, Cerro Colorado and the Operators and Maintainers Union N°1 signed a new collective agreement for 36 months, effective from 1 September 2018.

On December 2018, BHP terminated the sale agreement of Cerro Colorado to the private equity manager, EMR Capital, as the financing conditions were not met by the buyer. BHP will continue to operate Cerro Colorado.

Looking ahead

Production at Pampa Norte is expected to be between 230 and 250 kt in FY2020, despite the expected 11 per cent decline in copper grades across both operations. Plans are on track to redesign the approach to operations at Spence to optimally balance the requirements of the concentrate and cathodes processes, as well as changes in the loading and hauling fleet following completion of the SGO. Spence will introduce a new Ultra-Class truck fleet over the medium term, with the first units expected to arrive during FY2020. This change, along with technology enabled solutions, is expected to lead to reduced health and safety risks and operating costs.

Production at Cerro Colorado is expected to remain relatively stable during FY2020. The commissioning of a recovery optimisation project is expected to be completed during the first half of FY2020.

1.11.2 Minerals Americas continued



Potash

Potash is a potassium-rich salt mainly used in fertiliser to improve the quality and yield of agricultural production. As an essential nutrient for plant growth, potash is a vital link in the global food supply chain. The demands on that supply chain are intensifying; there will be more people to feed in future, as well as rising calorific intake comprising more varied diets. The strains this will place on finite land supply mean sustainable increases in crop yields will be crucial and potash fertilisers will be critical in replenishing our soils.

Jansen Potash Project (Canada)

Overview

BHP holds exploration permits and mining leases covering approximately 9,600 square kilometres in the province of Saskatchewan, Canada. The Jansen Potash Project is located approximately 140 kilometres east of Saskatoon. We currently own 100 per cent of the Project.

Jansen's large resource endowment provides the opportunity to develop it in stages, with anticipated initial capacity of between 4.3 and 4.5 Mtpa for Jansen Stage 1, with sequenced brownfield expansions of up to 12 Mtpa (4 Mtpa per stage).

Key developments during FY2019

Having safely excavated the two 7.3-metre diameter service and production shafts to their full depths in August 2018, focus turned to preparing the temporary liners for the final watertight composite concrete and steel liners, and removing the two shaft boring roadheader (SBR) machines that excavated the shafts. The SBRs were removed from the shafts in April 2019.

The service shaft and production shaft are 1,005 metres and 975 metres deep, respectively. Jansen is intended to mine the Lower Patience Lake potash formation, which lies between 935 metres and 940 metres.

Looking ahead

Future work will include installing watertight composite concrete and steel final liners from a depth of approximately 800 metres upwards in both shafts. We expect the shafts to be completed in the first half of CY2021 and we continue to assess how to reduce risk and unlock value as we conclude this work. At the end of FY2019, the current scope of work was 84 per cent complete. We will continue the selection of a port option on the North American west coast from which Jansen's potash would be exported. As with all decisions relating to the deployment of capital, the next steps of the Project will be assessed in line with our Capital Allocation Framework.

Non-operated minerals joint ventures

BHP holds interests in companies and joint ventures that we do not operate. Our non-operated minerals joint ventures (NOJVs) include Antamina (33.75 per cent ownership), Resolution (45 per cent ownership), Cerrejón (33.33 per cent ownership) and Samarco (50 per cent ownership).

We engage with our NOJV partners and operator companies through our NOJV team, which seeks to sustainably maximise returns through managing risk. While NOJVs have their own operating and management standards, we seek to enhance governance processes and influence operator companies to adopt international standards (within the limits of the relevant joint venture agreements).

Since the creation of the NOJV team, our focus has been to reinforce strong practices in governance, risk management and value optimisation. Our achievements to date include:

- **Governance:** We continue to work in our NOJV boards and committees to improve governance practices and standards, benchmarking against best practice. In collaboration with our shareholder partners, we identify and implement annual governance improvement plans for each operator company.
- **Risk management:** Our FY2019 strategy continued to focus on understanding the NOJV operator's risk management processes and influencing them to align with international standards (including ISO 31000). This included analysing and challenging their risk profiles and prioritising management of those risks.



More information on health, safety and environment performance at our NOJVs is available in our Sustainability Report 2019, available online at bhp.com.

Non-operated minerals joint ventures



Antamina (Peru)

Overview

We own 33.75 per cent of Antamina, a large, low-cost copper and zinc mine in north central Peru. Antamina is a joint venture between BHP (33.75 per cent), Glencore (33.75 per cent), Teck Resources (22.5 per cent) and Mitsubishi Corporation (10 per cent), and is operated independently by Compañía Minera Antamina S.A. Antamina by-products include molybdenum and silver.

Key developments during FY2019

Copper production for FY2019 increased by 6 per cent to 147 kt, with zinc decreasing by 18 per cent to 98 kt, reflecting higher copper head grades and lower zinc head grades, in line with the mine plan. Throughout FY2019, Antamina progressed studies to debottleneck the operation with a strong focus on evaluating new technologies to secure a more sustainable operation in the long term and to maintain cost competitiveness. The three-year Antamina Union Agreement was signed in June 2019, expiring on 31 July 2021.

Looking ahead

Antamina remains focused on improving productivity and reducing unit cash costs. Copper production of approximately 135 kt and zinc production of approximately 110 kt is expected in FY2020.

Resolution Copper (United States)

Overview

We hold a 45 per cent interest in the Resolution Copper project in the US state of Arizona, which is operated by Rio Tinto (55 per cent interest). Resolution Copper is one of the largest undeveloped copper projects in the world and has the potential to become the largest copper producer in North America. The Resolution Copper deposit lies more than 1,600 metres beneath the surface. Resolution Copper is working with regulators and the community to plan the development of the resource and obtain the necessary permits.

Key developments during FY2019

Restoration of the historic No. 9 shaft, originally constructed in 1971, was successfully completed safely and on budget in December 2018. The second phase of the project is to deepen the shaft from its current depth at 1,460 metres below the surface to a final depth of 2,086 metres and link it with the existing No. 10 shaft via development activities underground.

During FY2019, the Resolution project continued to move forward to identify the best development pathway for the project. The multi-year National Environmental Policy Act (NEPA) permitting process and community engagement are progressing positively. Our share of project expenditure for FY2019 was US\$85 million.

Looking ahead

We remain focused on optimising the Resolution Copper project and working with the operator, Rio Tinto, to develop the project in a manner that creates sustainable benefits for all stakeholders. The next key milestones for the project will take place in the June 2020 quarter with the completion of a final version of the environmental impact study and in the December 2020 quarter with the completion of the selection phase. A single preferred investment alternative is yet to be selected.



Cerrejón (Colombia)

Overview

We have a one-third interest in Cerrejón, which owns, operates and markets (through an independent company) one of the world's largest open-cut energy coal mines, located in the Guajira province of Colombia. Cerrejón also owns and operates integrated rail and port facilities through which the majority of its production is exported to European, North American and South American customers.

Cerrejón's coal assets consist of an open-cut mine with several pits. Overburden is removed after blasting, using truck and shovel. Coal is then extracted using excavators or loaders and loaded onto trucks to be taken to stockpiles.

Coal from stockpiles is crushed, of which a certain portion is washed and processed through the coal preparation plant. Export coal is transported to the port via a 150-kilometre railway.

Key developments during FY2019

FY2019 concluded with stable safety and operational performance at Cerrejón. Production declined 13 per cent to 9,230 kt in FY2019, due to severe weather impacts and a lower volume plan compared with FY2018.

Looking ahead

Cerrejón is focused on stability of throughput with current installed capacity and securing the necessary permits to access ore reserves.

1.11.2 Minerals Americas continued



Iron ore

Samarco (Brazil)

BHP Billiton Brasil Limitada and Vale S.A. each have a 50 per cent shareholding in Samarco Mineração S.A. (Samarco), the owner of the Samarco iron ore mine in Brazil.

Overview

As a result of the tragic failure of the Fundão dam at Samarco in November 2015, operations at Samarco remain suspended.

Samarco comprises a mine and three concentrators located in the state of Minas Gerais and four pellet plants and a port located in Anchieta in the state of Espírito Santo. Three 400-kilometre pipelines connect the mine site to the pelletising facilities.

Samarco's main product is iron ore pellets. Prior to the suspension of operations, the extraction and beneficiation of iron ore were conducted at the Germano facilities in the municipalities of Mariana and Ouro Preto. Front end loaders were used to extract the ore and convey it from the mines. Ore beneficiation then occurred in concentrators, where crushing, milling, desliming and flotation processes produced iron ore concentrate. The concentrate would leave the concentrators as slurry and be pumped through the slurry pipelines from the Germano facilities to the pelletising plants in Ubu, Anchieta, where the concentrate was processed into pellets. The iron ore pellets were then heat treated. The pellet output was stored in a stockpile yard before being shipped out of the Samarco-owned Port of Ubu in Anchieta.

All geotechnical structures within the Germano facilities, including tailings dams, are monitored 24 hours a day, by more than 650 pieces of monitoring and safety equipment, including cameras, weather forecast stations, drones and accelerometers.

In addition, sirens are installed along the river up to 100 kilometres downstream of Samarco. Geotechnical engineers and technicians monitor data from the instrumentation in an Integrated Monitoring Control Room, undertake daily field inspections and perform monthly third party audits.

Key developments during FY2019

The new Santarém dam was commissioned and is operating as planned and drainage preparation commenced at the bottom area of the Fundão Valley, which is part of the Degraded Area Recovery Plan. The Alegria Sul pit tailings disposal system implementation commenced and services completion is expected in September 2019.

Following Vale's Brumadinho dam tragedy on 25 January 2019, Brazil's National Mining Agency announced a requirement for all upstream construction tailings dams to be decommissioned by various dates, depending on their size. The relevant deadline for the Germano Main Pit is September 2025 and for the Germano Main Dam is September 2027. Samarco has hired STANTEC, an international consulting company, to develop a detailed design of the decommissioning plan for the Germano facilities, to be submitted by December 2019.

In May 2019, Brazil's National Sanitary Surveillance Agency (ANVISA) attested to the safe consumption in certain quantities of fish and crustaceans from the Doce River basin and coastal region, within daily limits of 200 grams per adult and 50 grams per child. Given the significant impacts of the fishing bans on the livelihoods of commercial and subsistence fisherfolk and the social cohesion within their communities, BHP Billiton Brasil has continued providing technical support to Fundação Renova to accelerate the collection of data to address the concerns of regulators and the community. This includes analysis of the safety of fish for human consumption and the status of fish populations to support lifting of the fishing bans that currently remain in place.

Looking ahead

The development of the decommissioning plan for the Germano facilities is the highest priority for Samarco. The plan will include the design of downstream reinforcement, a surface drainage management system and instrumentation and monitoring systems. Restart of Samarco's operations also remains a focus, provided it is safe, economically viable and has the support of the community. Activities required for the granting of licences by state and federal authorities are complete or near completion. These include completion of the Alegria Sul pit tailings disposal system and the construction of a new filtration plant.

1.11.3 Petroleum

Conventional petroleum

BHP has owned oil and gas assets since the 1960s. We have high-margin conventional assets located in the US Gulf of Mexico, Australia, Trinidad and Tobago, and Algeria, as well as appraisal and exploration options in Mexico, Deepwater Trinidad and Tobago, Western Gulf of Mexico, Eastern Canada and Barbados. Our conventional petroleum business includes exploration, appraisal, development and production activities. We produce crude oil and condensate, gas and natural gas liquids (NGLs) that are sold on the international spot market or delivered domestically under contracts with varying terms, depending on the location of the asset.



Petroleum

United States Gulf of Mexico

Overview

We operate two fields in the US waters of the Gulf of Mexico – Shenzi (44 per cent interest) and Neptune (35 per cent interest).

We hold non-operating interests in two other fields – Atlantis (44 per cent interest) and Mad Dog (23.9 per cent interest).

All our producing fields are located between 155 and 210 kilometres offshore from the US state of Louisiana. We also own 25 per cent and 22 per cent, respectively, of the companies that own and operate the Caesar oil pipeline and the Cleopatra gas pipeline. These pipelines transport oil and gas from the Green Canyon area, where our US Gulf of Mexico fields are located, to connecting pipelines that transport product onshore.

Key developments during FY2019

Mad Dog Phase 2, located in the Green Canyon area in the deepwater Gulf of Mexico, is an extension of the existing Mad Dog field. The Mad Dog Phase 2 project is in response to the successful Mad Dog South appraisal well, which confirmed significant hydrocarbons in the southern portion of this field.

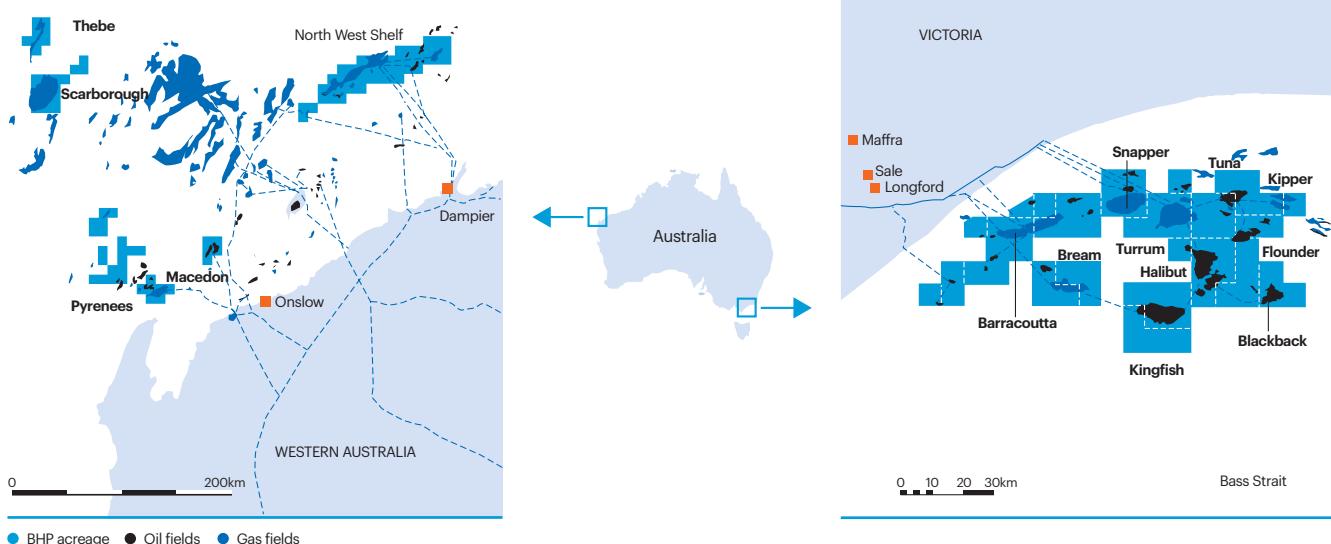
The project includes a new floating production facility with the capacity to produce up to 140,000 gross barrels of crude oil per day from up to 14 production wells. Production is expected to begin in CY2022.

On 13 February 2019, the BHP Board approved the development of the Atlantis Phase 3 project in the US Gulf of Mexico. The project includes a subsea tie back of eight new production wells and is expected to increase production by an estimated 38,000 gross barrels of oil equivalent per day at its peak.



For more information on Mad Dog Phase 2 and Atlantis Phase 3, refer to section 6.4.

1.11.3 Petroleum continued



Australia

Overview

Bass Strait

We have produced oil and gas from Bass Strait (50 per cent interest) for over 50 years. Our operations are located between 25 and 80 kilometres off the southeastern coast of Australia. The Gippsland Basin Joint Venture, operated by Esso Australia (a subsidiary of ExxonMobil), participated in the original discovery and development of hydrocarbons in the basin. The Kipper gas field under the Kipper Unit Joint Venture (32.5 per cent interest), also operated by Esso Australia, has brought online additional gas and liquids production that are processed via existing Gippsland Basin Joint Venture facilities.

The majority of our Bass Strait crude oil and condensate production is sold to local refineries in Australia. Gas is piped onshore to the Gippsland Joint Venture's Longford processing facility, from where we sell our share of production to domestic retailers and end users. Liquefied petroleum gas (LPG) is dispatched via pipeline, road tanker or sea tanker. Ethane is dispatched via pipeline to a petrochemical plant in western Melbourne.

North West Shelf

We are a joint venture participant in the North West Shelf project (12.5–16.67 per cent interest), located approximately 125 kilometres northwest of Dampier in Western Australia. The North West Shelf project supplies gas to the Western Australian domestic market and liquefied natural gas (LNG) to buyers primarily in Japan, South Korea and China.

North West Shelf gas is piped from offshore fields to the onshore Karratha Gas Plant for processing. LPG, condensate and LNG are transported to market by ship, while domestic gas is transported by the Dampier-to-Bunbury and Pilbara Energy pipelines to buyers.

We are also a joint venture partner in four nearby oil fields produced through the Okha floating, production, storage and off-take (FPSO) facility (16.67 per cent interest) – Cossack, Wanaea, Lambert and Hermes. All North West Shelf gas and oil joint ventures are operated by Woodside Energy Limited (Woodside).

Pyrenees

BHP operates six oil fields in Pyrenees, which are located offshore around 23 kilometres northwest of Northwest Cape, Western Australia. We had an effective 63 per cent interest in the fields as at 30 June 2019 based on inception-to-date production from two permits in which we have interests of 71.43 per cent and 40 per cent, respectively. The development uses a FPSO facility.

Macedon

We are the operator of Macedon (71.43 per cent interest), an offshore gas field located around 75 kilometres west of Onslow, Western Australia and an onshore gas processing facility, located around 17 kilometres southwest of Onslow.

The operation consists of four subsea wells, with gas piped onshore to the processing plant. After processing, the gas is delivered into a pipeline and sold to the Western Australian domestic market.

Minerva

BHP operates the Minerva Joint Venture (90 per cent interest), a gas field located 11 kilometres south-southwest of Port Campbell in western Victoria. The operation consists of two subsea wells, with gas piped onshore to a processing plant. After processing, the gas is delivered into a pipeline and sold domestically.

On 1 May 2018, BHP entered into an agreement for the sale of its interests in the onshore gas plant with subsidiaries of Cooper Energy and Mitsui E&P Australia Pty Ltd. The agreement, which is conditional on completion of regulatory approvals and assignments, provides for the transfer of the plant and associated land after the cessation of current operations processing gas from the Minerva gas field. Following Minerva's end-of-field life, the wells will be plugged and abandoned.



Petroleum

Key developments during FY2019

North West Shelf – Greater Western Flank-B

The Greater Western Flank-B project was sanctioned by the Board in December 2015 and represents the second phase of development of the core Greater Western Flank fields, behind the Greater Western Flank-A development. It is located to the southwest of the existing Goodwyn A platform. The development comprises six fields and eight subsea wells. First production was achieved during the December 2018 quarter ahead of schedule and under budget.

Scarborough

BHP holds a 25 per cent non-operated interest in Scarborough (WA-1-R) and a 50 per cent non-operated interest in Jupiter, North Scarborough and Thebe titles (WA-61-R, WA-62-R and WA-63-R), located offshore northwest Australia. Opportunities to develop the Scarborough gas field are being actively studied, including the potential to utilise available capacity at nearby onshore LNG processing facilities.

Woodside became the operator of the WA-1-R lease in March 2018 following its acquisition of Esso's working interest in the title. BHP has an option to acquire a further 10 per cent interest in WA-1-R from Woodside on equivalent terms to its Esso transaction. This option may be exercised at any time prior to the earlier of 31 December 2019 and the date the Scarborough Joint Venture approves entry into the front-end engineering and design phase of the development of the Scarborough gas field. BHP continues to evaluate the option as we progress our assessment of the Scarborough development opportunity.

Bass Strait West Barracouta

The Bass Strait West Barracouta project was approved during the December 2018 quarter. The A\$200 million investment (which is BHP's share) is expected to produce first gas in CY2021, and help offset Bass Strait production decline and deliver competitive returns. The project includes a two well brownfield subsea tieback to existing Gippsland Basin Joint Venture facilities and is expected to supply the Australian domestic market.

Other conventional petroleum assets

Overview

Trinidad and Tobago

BHP operates the Greater Angostura field (45 per cent interest in the production sharing contract), an integrated oil and gas development located offshore 40 kilometres east of Trinidad. The crude oil is sold on a spot basis to international markets, while the gas is sold domestically under term contracts.

Algeria

Our Algerian asset comprises an effective 29.3 per cent interest in the ROD Integrated Development, which consists of the ROD, SF SFNE and four satellite oil fields that pump oil back to a dedicated processing train. The oil is sold on a spot basis to international markets. ROD Integrated Development is jointly operated by Sonatrach and ENI.

United Kingdom

On 30 November 2018, BHP completed the sale of our interests in the Bruce and Keith oil and gas fields in the United Kingdom to Serica Energy UK Ltd, with an effective date of 1 January 2018.



For more information, refer to section 1.13.1.

Key developments during FY2019

Ruby is an offshore shallow water oil and gas development in Trinidad and Tobago that would consist of five production wells tied back into existing operated processing facilities. BHP is the operator (68 per cent interest) and the project has an expected investment of US\$283 million (which is BHP's share). The project was approved by the BHP Board on 8 August 2019 with first production targeted in CY2021. The relevant operating agreement requires at least two parties and 65 per cent of the working interest to approve the investment.

Unconventional petroleum

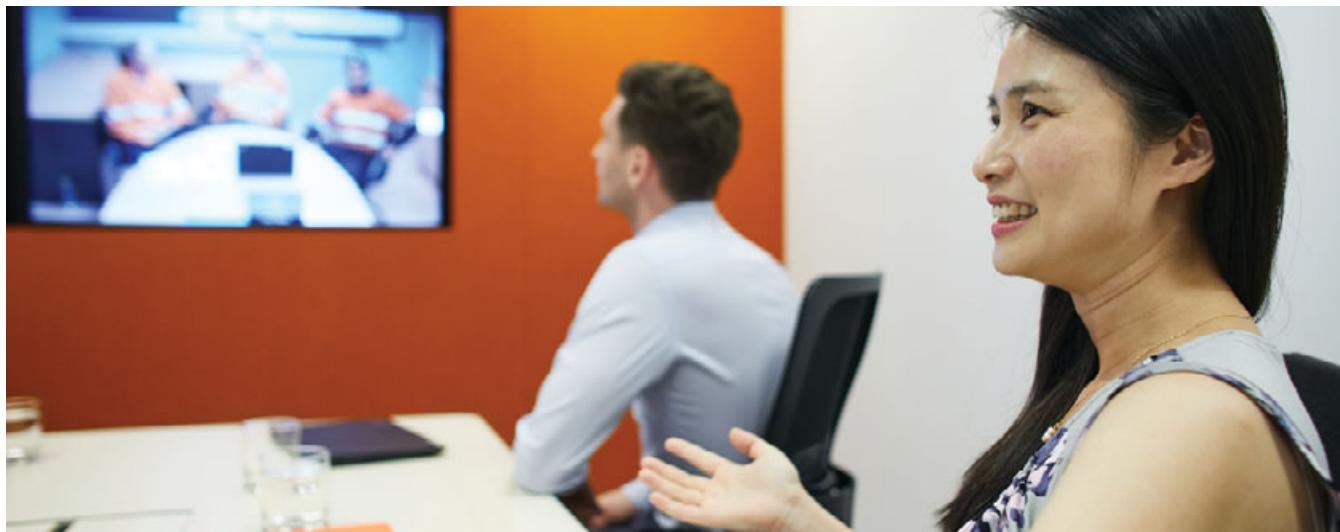
Onshore US

The Onshore US sales process was completed on 31 October 2018, with the net proceeds of US\$10.4 billion. The Fayetteville Onshore US gas assets were sold to a company owned by Merit Energy Company. BHP's interests in the Eagle Ford, Haynesville and Permian Onshore US oil and gas assets were sold to BP America Production Company, a subsidiary of BP Plc.



**For more information, refer to note 27
'Discontinued operations' in section 5.**

1.11.4 Commercial



The purpose of the Commercial function is to optimise value creation and minimise costs across our end-to-end supply chain.

The function is organised around our core value chain activities – Sales and Marketing; Maritime and Supply Chain Excellence; Procurement; and Warehousing Inventory and Logistics and Property – supported by short and long-term market insights, strategy and planning activities, and close partnership with our assets.

Our Operating Model enables us to provide improved service levels and deliver optimised commercial outcomes by embedding deep functional expertise and market insights. By embracing our strategic end-to-end supply chain mandate and influencing suppliers and customers to partner with BHP, the Commercial function also creates social value through supply chain integrity and sustainability focus.

Sales and Marketing

Sales and Marketing creates value by connecting BHP's resources to market through commercial expertise, optimised sales and operations planning, deep customer insights and proactive risk management. They present a single face to markets across multiple assets, thereby allowing our assets to focus on their operations.

Maritime and Supply Chain Excellence

Maritime and Supply Chain Excellence is accountable for BHP's enterprise-wide transportation strategy and chartering ocean freight (to meet BHP's inbound and outbound transportation needs). They work to ensure consistent safety standards across BHP's maritime supply chain and lead the industry toward a safer and more sustainable global ecosystem. The team maintains a

strong focus on supply chain excellence and on sourcing marine freight coverage at the lowest available cost.

Procurement

Our global Procurement sub-functions purchase all the goods and services that are used by projects, our assets and functions. Procurement works with our business to optimise equipment performance, reduce operating cost and improve working capital. They manage supply chain risk and develop sustainable relationships with global suppliers and local businesses in our communities.

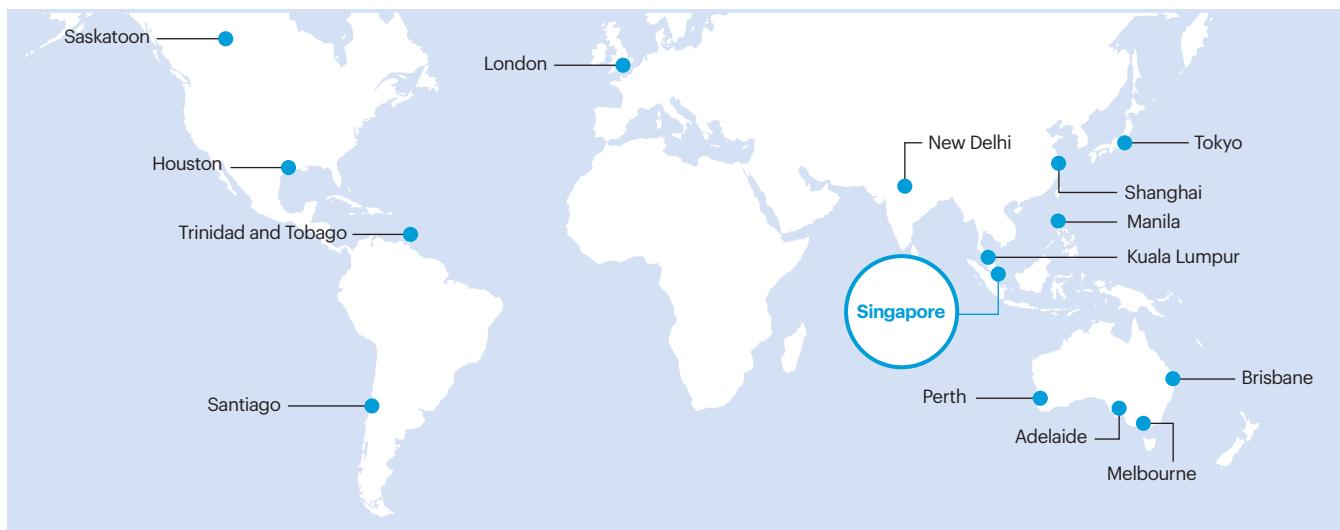
Warehousing Inventory and Logistics and Property

Warehousing Inventory and Logistics and Property is accountable for the design and operation of our inbound supply chain networks for the delivery of spare parts, operating supplies and consumables to enable our assets to achieve superior performance. They design and operate our office workspaces globally to provide a collaborative and productive work environment for our employees and contractors.

Market Analysis and Economics

Our Market Analysis and Economics team is responsible for developing the Company's independent view on the outlook for commodity demand and commodity prices. The team works closely with our Procurement, Maritime, and Sales and Marketing sub-functions to help optimise end-to-end commercial value. The team also works closely with the Finance and External Affairs functions to help identify and respond to long-run strategic changes in our operating environment.

Commercial: Strategically located close to our key markets and Assets



1.12 Summary of financial performance

1.12.1 Group overview

We prepare our Consolidated Financial Statements in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board. We publish our Consolidated Financial Statements in US dollars. All Consolidated Income Statement, Consolidated Balance Sheet and Consolidated Cash Flow Statement information below has been derived from audited financial statements. For more information, refer to section 5.

Unless otherwise stated, comparative financial information for FY2017, FY2016 and FY2015 has been restated to reflect the sale of the Onshore US assets, as required by IFRS 5/AASB 5 'Non-current Assets Held for Sale and Discontinued Operations'. Consolidated Balance Sheet information for these periods has not been restated as accounting standards do not require it.

Information in this section has been presented on a Continuing operations basis to exclude the contribution from Onshore US assets and assets that were demerged with South32 in FY2015, unless otherwise noted. Details of the contribution of the Onshore US assets to the Group's results are disclosed in note 27 'Discontinued operations' in section 5.

Year ended 30 June US\$M	2019	2018	2017	2016	2015
Consolidated Income Statement (section 5.1.1)					
Revenue ⁽¹⁾	44,288	43,129	35,740	28,567	40,413
Profit from operations	16,113	15,996	12,554	2,804	12,887
Profit/(loss) after taxation from Continuing operations	9,520	7,744	6,694	(312)	7,306
Loss after taxation from Discontinued operations	(335)	(2,921)	(472)	(5,895)	(4,428)
Profit/(loss) after taxation from Continuing and Discontinued operations attributable to BHP shareholders (Attributable profit/(loss)) ⁽²⁾	8,306	3,705	5,890	(6,385)	1,910
Dividends per ordinary share – paid during the period (US cents)	220.0	98.0	54.0	78.0	124.0
Dividends per ordinary share – determined in respect of the period (US cents)	235.0	118.0	83.0	30.0	124.0
Basic earnings/(loss) per ordinary share (US cents) ⁽²⁾⁽³⁾	160.3	69.6	110.7	(120.0)	35.9
Diluted earnings/(loss) per ordinary share (US cents) ⁽²⁾⁽³⁾	159.9	69.4	110.4	(120.0)	35.8
Basic earnings/(loss) from Continuing operations per ordinary share (US cents) ⁽³⁾	166.9	125.0	119.8	(10.2)	119.6
Diluted earnings/(loss) from Continuing operations per ordinary share (US cents) ⁽³⁾	166.5	124.6	119.5	(10.2)	119.3
Number of ordinary shares (million)					
– At period end	5,058	5,324	5,324	5,324	5,324
– Weighted average	5,180	5,323	5,323	5,322	5,318
– Diluted	5,193	5,337	5,336	5,322	5,333
Consolidated Balance Sheet (section 5.1.3)⁽⁴⁾					
Total assets	100,861	111,993	117,006	118,953	124,580
Net assets	51,824	60,670	62,726	60,071	70,545
Share capital (including share premium)	2,686	2,761	2,761	2,761	2,761
Total equity attributable to BHP shareholders	47,240	55,592	57,258	54,290	64,768
Consolidated Cash Flow Statement (section 5.1.4)					
Net operating cash flows ⁽⁵⁾	17,871	18,461	16,804	10,625	19,296
Capital and exploration expenditure ⁽⁶⁾	7,566	6,753	5,220	7,711	13,412
Other financial information					
Net debt ⁽⁷⁾	9,215	10,934	16,321	26,102	24,417
Underlying attributable profit ⁽⁷⁾	9,124	8,933	6,732	1,215	7,109
Underlying EBITDA ⁽⁷⁾	23,158	23,183	19,350	11,720	19,816
Underlying EBIT ⁽⁷⁾	17,065	16,562	13,190	5,324	13,296
Underlying basic earnings per share (US cents) ⁽⁷⁾	176.1	167.8	126.5	22.8	133.7

(1) FY2018 and FY2017 have been restated to reflect the impact of the accounting standard, IFRS 15 Revenue from Contracts with Customers, which became effective from 1 July 2018 with restatements applied to comparative periods in section 5. FY2016 and FY2015 have not been restated. For more information on revenue, refer to note 2 'Revenue' in section 5.

(2) Includes Loss after taxation from Discontinued operations attributable to BHP shareholders.

(3) For more information on earnings per share, refer to note 7 'Earnings per share' in section 5.

(4) The Consolidated Balance Sheet for FY2018 includes the assets and liabilities held for sale in relation to Onshore US as IFRS 5/AASB 5 'Non-current Assets Held for Sale and Discontinued Operations' does not require the Consolidated Balance Sheet to be restated for comparative periods.

(5) Net operating cash flows are after dividends received, net interest paid and net taxation paid and includes Net operating cash flows from Discontinued operations.

(6) Capital and exploration expenditure is presented on a cash basis and represents purchases of property, plant and equipment plus exploration expenditure from the Consolidated Cash Flow Statement in section 5 and includes purchases of property, plant and equipment plus exploration expenditure from Discontinued operations. For more information, refer to note 27 'Discontinued operations' in section 5. Purchase of property, plant and equipment includes capitalised deferred stripping of US\$1,022 million for FY2019 (FY2018: US\$880 million) and excludes capitalised interest. Exploration expenditure is capitalised in accordance with our accounting policies, as set out in note 11 'Property, plant and equipment' in section 5.

(7) We use alternative performance measures to reflect the underlying performance of the Group. Underlying attributable profit and Underlying basic earnings per share includes Continuing and Discontinued operations. Refer to section 1.12.4 for a reconciliation of alternative performance measures to their respective IFRS measure. Refer to section 1.12.5 for the definition and method of calculation of alternative performance measures. Refer to note 19 'Net debt' in section 5 for the composition of Net debt.

1.12.2 Financial results

The following table expands on the Consolidated Income Statement in section 5.1.1, to provide more information on the revenue and expenses of the Group in FY2019.

Year ended 30 June	2019 US\$M	2018 US\$M Restated	2017 US\$M Restated
Continuing operations			
Revenue⁽¹⁾	44,288	43,129	35,740
Other income	393	247	662
Employee benefits expense	(4,032)	(3,990)	(3,694)
Changes in inventories of finished goods and work in progress	(496)	142	743
Raw materials and consumables used	(4,591)	(4,389)	(3,830)
Freight and transportation	(2,378)	(2,294)	(1,786)
External services	(4,745)	(4,786)	(4,037)
Third party commodity purchases	(1,069)	(1,374)	(1,060)
Net foreign exchange gains/(losses)	147	93	(103)
Government royalties paid and payable	(2,538)	(2,168)	(1,986)
Exploration and evaluation expenditure incurred and expensed in the current period	(516)	(641)	(610)
Depreciation and amortisation expense	(5,829)	(6,288)	(6,184)
Impairment of assets	(264)	(333)	(193)
Operating lease rentals	(405)	(421)	(391)
All other operating expenses	(1,306)	(1,078)	(989)
Expenses excluding net finance costs	(28,022)	(27,527)	(24,120)
(Loss)/profit from equity accounted investments, related impairments and expenses	(546)	147	272
Profit from operations	16,113	15,996	12,554
Net finance costs	(1,064)	(1,245)	(1,417)
Total taxation expense	(5,529)	(7,007)	(4,443)
Profit after taxation from Continuing operations	9,520	7,744	6,694
Discontinued operations			
Loss after taxation from Discontinued operations	(335)	(2,921)	(472)
Profit after taxation from Continuing and Discontinued operations	9,185	4,823	6,222
Attributable to non-controlling interests	879	1,118	332
Attributable to BHP shareholders	8,306	3,705	5,890

(1) Includes the sale of third party products.

Profit after taxation attributable to BHP shareholders increased from a profit of US\$3.7 billion in FY2018 to a profit of US\$8.3 billion in FY2019.

Revenue of US\$44.3 billion increased by US\$1.2 billion, or 3 per cent, from FY2018. This increase was primarily attributable to higher average realised prices for iron ore, petroleum and metallurgical coal, and higher sales volumes at WAIO as a result of record production at Jimblebar and the expiry of the Wheelarra Joint Venture. This was partially offset by lower average realised prices for copper and thermal coal, the impact from Tropical Cyclone Veronica and a train derailment at WAIO, lower volumes from Escondida (lower grade partially offset by record concentrator throughput) and Pampa Norte (fire at electrowinning plant at Spence and heavy rainfall), coupled with lower volumes from Petroleum due to planned Pyrenees dry-dock maintenance and natural field decline. For information on our average realised prices and production of our commodities, refer to section 1.13.

Total expenses of US\$28.0 billion increased by US\$0.5 billion or 2 per cent, from FY2018. The increase in changes in inventories of finished goods and work in progress of US\$638 million was primarily driven by higher recoveries at the leach pad and inventory drawdowns as more ore was redirected to the concentrators in line with the Los Colorados Extension commissioning at Escondida, and inventory drawdown at Coal due to Tropical Cyclone Trevor and general wet weather affecting all operations at Queensland Coal. Raw materials and consumables used increased by US\$202 million driven by higher diesel prices across the Group. Third party commodity purchases have decreased by US\$305 million driven primarily by a decrease in copper price. Government royalties paid and payable have increased by US\$370 million reflecting higher iron ore prices. Depreciation and amortisation expense decreased by US\$459 million reflecting lower depreciation and amortisation at Petroleum (lower production at Shenzi and increase in estimated remaining reserves at Atlantis) and lower depreciation at Escondida (increase in asset life of the Escondida Water Supply project).

(Loss)/profit from equity accounted investments, related impairments and expenses of US\$(546) million has decreased by US\$693 million from FY2018. The decrease is primarily due to the Samarco dam failure provision updated assumptions relating to the fishing ban, financial assistance, compensation programs and resettlement of communities and Samarco Germano dam accelerated decommissioning provision following legislative changes in Brazil. This is coupled with lower coal production volumes at Cerrejón due to adverse weather and lower average realised prices for copper at Antamina in FY2019.

Net finance costs of US\$1.1 billion decreased by US\$0.2 million, or 15 per cent, from FY2018 mainly due to higher interest earned on increased term deposit holdings and a lower average debt balance following the repayment on maturity of Group debt. For more information on net finance costs, refer to section 1.12.3 and note 19 'Net debt' in section 5.

Total taxation expense of US\$5.5 billion decreased by US\$1.5 billion from FY2018, primarily due to the impacts of the US tax reform in FY2018. For more information on income tax expense, refer to note 6 'Income tax expense' in section 5.

Principal factors that affect Revenue, Profit from operations and Underlying EBITDA

The following table describes the impact of the principal factors that affected Revenue, Profit from operations and Underlying EBITDA for FY2019 and relates them back to our Consolidated Income Statement. For information on the method of calculation of the principal factors that affect Revenue, Profit from operations and Underlying EBITDA, refer to section 1.12.6.

	Revenue US\$M	Total expenses, Other income and (Loss)/profit from equity accounted investments US\$M	Profit from operations US\$M	Depreciation, amortisation and impairments and Exceptional Items US\$M	Underlying EBITDA US\$M
Year ended 30 June 2018					
Revenue	43,129				
Other income		247			
Expenses excluding net finance costs		(27,527)			
(Loss)/profit from equity accounted investments, related impairments and expenses		147			
Total other income, expenses excluding net finance costs and Profit from equity accounted investments, related impairments and expenses		(27,133)			
Profit from operations			15,996		
Depreciation, amortisation and impairments ⁽¹⁾				6,621	
Exceptional items				566	
Underlying EBITDA					23,183
Change in sales prices	1,591	(36)	1,555	–	1,555
Price-linked costs	–	(353)	(353)	–	(353)
Net price impact	1,591	(389)	1,202	–	1,202
Productivity volumes	304	(161)	143	–	143
Growth volumes	(17)	(58)	(75)	–	(75)
Changes in volumes	287	(219)	68	–	68
Operating cash costs	–	(1,176)	(1,176)	–	(1,176)
Exploration and business development	–	142	142	–	142
Change in controllable cash costs⁽²⁾	–	(1,034)	(1,034)	–	(1,034)
Exchange rates	(107)	1,104	997	–	997
Inflation on costs	–	(400)	(400)	–	(400)
Fuel and energy	–	(180)	(180)	–	(180)
Non-cash	–	81	81	–	81
One-off items	(350)	(46)	(396)	–	(396)
Change in other costs	(457)	559	102	–	102
Asset sales	–	29	29	–	29
Ceased and sold operations	23	(264)	(241)	–	(241)
Other	(285)	134	(151)	–	(151)
Depreciation, amortisation and impairments ⁽¹⁾	–	528	528	(528)	–
Exceptional items	–	(386)	(386)	386	–
Year ended 30 June 2019					
Revenue	44,288				
Other income		393			
Expenses excluding net finance costs		(28,022)			
(Loss)/profit from equity accounted investments, related impairments and expenses		(546)			
Total other income, expenses excluding net finance costs and Profit from equity accounted investments, related impairments and expenses		(28,175)			
Profit from operations			16,113		
Depreciation, amortisation and impairments				6,093	
Exceptional items				952	
Underlying EBITDA					23,158

(1) Depreciation and impairments that we classify as exceptional items are excluded from depreciation, amortisation and impairments. Depreciation, amortisation and impairments includes non-exceptional impairments of US\$264 million (FY2018: US\$333 million).

(2) Collectively, we refer to the change in operating cash costs and change in exploration and business development as change in controllable cash costs. Operating cash costs by definition do not include non-cash costs. The change in operating cash costs also excludes the impact of exchange rates and inflation, changes in fuel and energy costs, changes in exploration and business development costs and one-off items. These items are excluded so as to provide a consistent measurement of changes in costs across all segments, based on the factors that are within the control and responsibility of the segment. Change in controllable cash costs and change in operating cash costs are not measures that are recognised by IFRS. They may differ from similarly titled measures reported by other companies.

1.12.2 Financial results continued

The total decrease in Underlying EBITDA relating to productivity initiatives in FY2019 was US\$1.0 billion compared to a decrease of US\$96 million in FY2018. The following table reconciles relevant factors with changes in the Group's productivity:

Year ended 30 June ⁽¹⁾	2019 US\$m	2018 US\$m
Change in controllable cash costs	(1,034)	(1,243)
Change in volumes attributed to productivity	143	1,024
Change in productivity in Underlying EBITDA	(891)	(219)
Change in capitalised exploration	(124)	123
Change attributable to productivity initiatives	(1,015)	(96)

(1) Productivity initiatives exclude Onshore US.

Higher average realised prices increased Underlying EBITDA by US\$1.6 billion in FY2019 reflecting higher iron ore, petroleum and metallurgical coal prices, partially offset by lower copper and thermal coal prices. This was partially offset by an increase to price-linked costs of US\$353 million mainly reflecting higher royalty charges.

Productivity volumes in Underlying EBITDA improved by US\$143 million primarily as a result of record throughput at Escondida following the Los Colorados Extension commissioning and increased sales volumes at WAIO (record production at Jimblebar and improved material handling and equipment reliability), partially offset by lower head grade at Escondida, the WAIO train derailment and fire at the Spence electrowinning plant. This was partially offset by US\$75 million lower growth volumes at Petroleum due to planned Pyrenees dry-dock maintenance, higher gas to liquids production mix and natural field decline partially offset by higher uptime in the US Gulf of Mexico and Australia and increased tax barrels in Trinidad and Tobago.

Higher costs reflect unfavourable fixed cost dilution related to unplanned production outages at Olympic Dam, WAIO, Spence and Nickel West during the first half of FY2019, higher strip ratios and contractor stripping costs at our Australian coal operations, inventory drawdowns related to the Los Colorados Extension commissioning, increased maintenance activities, partially offset by the benefit from higher overall volumes at Olympic Dam as a result of the smelter maintenance campaign in the prior year. This was partially offset by lower Petroleum exploration expense (the Ocean Bottom Node survey acquisition costs in the Gulf of Mexico were less than the prior year impact of expensing the Scimitar well) and lower study costs (following development approval of the Escondida Water Supply Extension project in March 2018).

Overall, underlying improvements in productivity of US\$1.0 billion were offset by the impact of unplanned production outages at Olympic Dam, WAIO, Spence and Nickel West of US\$0.8 billion during the December 2018 half year; higher than expected unit costs at Queensland Coal (lower volumes, wet weather and increased contractor stripping costs), New South Wales Energy Coal (higher strip ratio and contractor stripping costs) and Nickel West (mine plan changes) of US\$0.4 billion; and grade decline in copper of US\$0.8 billion.

A stronger US dollar against the Australian dollar and Chilean peso increased Underlying EBITDA by US\$997 million during the period.

Cash flow

The following table provides a summary of the Consolidated Cash Flow Statement contained in section 5.1.4 to show the key sources and uses of cash during the periods presented:

Year ended 30 June	2019 US\$M	2018 US\$M	2017 US\$M
Cash generated from operations	23,428	22,949	18,612
Dividends received	516	709	636
Net interest paid	(903)	(887)	(984)
Proceeds/(settlements) of cash management related instruments	296	(292)	(140)
Net taxation paid	(5,940)	(4,918)	(2,248)
Net operating cash flows from Continuing operations	17,397	17,561	15,876
Net operating cash flows from Discontinued operations	474	900	928
Net operating cash flows	17,871	18,461	16,804
Purchases of property, plant and equipment	(6,250)	(4,979)	(3,697)
Exploration expenditure	(873)	(874)	(966)
Subtotal: Capital and exploration expenditure	(7,123)	(5,853)	(4,663)
Exploration expenditure expensed and included in operating cash flows	516	641	610
Net investment and funding of equity accounted investments	(630)	204	(234)
Other investing activities	(140)	(52)	563
Net investing cash flows from Continuing operations	(7,377)	(5,060)	(3,724)
Net investing cash flows from Discontinued operations	(443)	(861)	(437)
Proceeds from divestment of Onshore US, net of its cash	10,427	–	–
Net investing cash flows	2,607	(5,921)	(4,161)
Net repayment of interest bearing liabilities	(2,514)	(3,878)	(5,501)
Share buy-back – BHP Group Limited	(5,220)	–	–
Dividends paid	(11,395)	(5,220)	(2,921)
Dividends paid to non-controlling interests	(1,198)	(1,582)	(575)
Other financing activities	(188)	(171)	(108)
Net financing cash flows from Continuing operations	(20,515)	(10,851)	(9,105)
Net financing cash flows from Discontinued operations	(13)	(40)	(28)
Net financing cash flows	(20,528)	(10,891)	(9,133)
Net (decrease)/increase in cash and cash equivalents	(10,477)	1,649	3,510
Net (decrease)/increase in cash and cash equivalents from Continuing operations	(10,495)	1,650	3,047
Net increase/(decrease) in cash and cash equivalents from Discontinued operations	18	(1)	463

Net operating cash inflows of US\$17.9 billion decreased by US\$0.6 billion. This decrease reflects increased costs (including outages and weather impact) and higher Australian and Chilean income tax payments in FY2019 offset by strong commodity prices and record production from several of our operations.

Net investing cash inflows of US\$2.6 billion increased by US\$8.5 billion. The increase reflects the proceeds from the divestment of Onshore US, net of its cash partially offset by continued investment in high-return latent capacity projects, and increased investment in South Flank, Mad Dog Phase 2 and the Spence Growth Option. Higher net investment and funding of equity accounted investments relate to the FY2018 cash receipt from Newcastle Coal Infrastructure Group not repeating in FY2019 and investment in SolGold and Resolution.

 **For more information and a breakdown of capital and exploration expenditure on a commodity basis, refer to section 1.13.**

Net financing cash outflows of US\$20.5 billion increased by US\$9.6 billion. This reflects the off-market buy-back of BHP Group Limited shares of US\$5.2 billion in December 2018, the special dividend of US\$5.2 billion paid in January 2019 from the Onshore US asset sale (net proceeds) and higher dividends to BHP shareholders of US\$1.0 billion partially offset by lower repayments of interest bearing liabilities of US\$1.6 billion and lower dividends to non-controlling interests of US\$0.4 billion.

 **For more information, refer to section 1.12.3 and note 19 'Net debt' in section 5.**

1.12.3 Debt and sources of liquidity

Our policies on debt and liquidity management have the following objectives:

- a strong balance sheet through the cycle;
- diversification of funding sources;
- maintain borrowings and excess cash predominantly in US dollars.

Interest bearing liabilities, net debt and gearing

At the end of FY2019, Interest bearing liabilities were US\$24.8 billion (FY2018: US\$26.8 billion) and Cash and cash equivalents were US\$15.6 billion (FY2018: US\$15.9 billion). This resulted in net debt⁽¹⁾ of US\$9.2 billion, which represented a decrease of US\$1.7 billion compared with the net debt position at 30 June 2018. Gearing, which is the ratio of net debt to net debt plus net assets, was 15.1 per cent at 30 June 2019, compared with 15.3 per cent at 30 June 2018.

During FY2019, the Group continued to reduce its debt. This included the decision not to refinance US\$2.4 billion of Group-level debt (being €1.3 billion of European medium-term notes and US\$0.8 billion of senior notes which matured in November 2018 and April 2019 respectively).

This both extended BHP's average debt maturity profile and enhanced BHP's capital structure.

At the subsidiary level, Escondida has refinanced US\$0.3 billion of maturing long-term debt.

Funding sources

No new Group-level debt was issued in FY2019 and debt that matured during the year was not refinanced.

Our Group-level borrowing facilities are not subject to financial covenants. Certain specific financing facilities in relation to specific assets are the subject of financial covenants that vary from facility to facility, but this would be considered normal for such facilities. In addition to the Group's uncommitted debt issuance programs, we hold the following committed standby facilities:

	Facility available 2019 US\$M	Drawn 2019 US\$M	Undrawn 2019 US\$M	Facility available 2018 US\$M	Drawn 2018 US\$M	Undrawn 2018 US\$M
Revolving credit facility ⁽²⁾	6,000	–	6,000	6,000	–	6,000
Total financing facilities	6,000	–	6,000	6,000	–	6,000

(1) We use alternative performance measures to reflect the underlying performance of BHP, refer to section 1.12.4. For the definition and method of calculation of alternative performance measures, refer to section 1.12.5. For the composition of net debt, refer to note 19 'Net debt' in section 5.

(2) BHP's committed US\$6.0 billion revolving credit facility operates as a back-stop to the Group's uncommitted commercial paper program. The combined amount drawn under the facility or as commercial paper will not exceed US\$6.0 billion. As at 30 June 2019, US\$ nil commercial paper was drawn (FY2018: US\$ nil), therefore US\$6.0 billion of committed facility was available to use (FY2018: US\$6.0 billion). The revolving credit facility expires on 7 May 2021. A commitment fee is payable on the undrawn balance and an interest rate comprising an interbank rate plus a margin applies to any drawn balance. The agreed margins are typical for a credit facility extended to a company with BHP's credit rating.

 **For more information on the maturity profile of our debt obligations and details of our standby and support agreements, refer to note 21 'Financial risk management' in section 5.**

In BHP's opinion, working capital is sufficient for its present requirements. BHP's credit ratings are currently A2/P-1 outlook stable (Moody's – long-term/short-term) and A/A-1 outlook stable (Standard & Poor's – long-term/short-term). A credit rating is not a recommendation to buy, sell or hold securities and may be subject to suspension, reduction or withdrawal at any time by an assigning rating agency. Any rating should be evaluated independently of any other information.

The following table expands on the net debt, to provide more information on the cash and non-cash movements in FY2019.

Year ended 30 June	2019 US\$M	2018 US\$M
Net debt at the beginning of the financial year	(10,934)	(16,321)
Net operating cash flows	17,871	18,461
Net investing cash flows	2,607	(5,921)
Free cash flow	20,478	12,540
Carrying value of interest bearing liability repayments	2,351	3,573
Net settlements of interest bearing liabilities and debt related instruments	(2,514)	(3,878)
Share buy-back – BHP Group Limited	(5,220)	–
Dividends paid	(11,395)	(5,220)
Dividends paid to non-controlling interests	(1,198)	(1,582)
Other financing activities ⁽¹⁾	(201)	(211)
Other cash movements	(18,177)	(7,318)
Interest rate movements ⁽²⁾	(729)	353
Foreign exchange impacts on debt ⁽³⁾	311	(245)
Foreign exchange impacts on cash ⁽³⁾	(170)	56
Others	6	1
Non-cash movements	(582)	165
Net debt at the end of the financial year	(9,215)	(10,934)

(1) Other financing activities mainly comprises purchases of shares by Employee Share Option Plan trusts of US\$188 million (FY2018: US\$171 million).

(2) Interest rate movements reflect the movement in the mark to market (fair value) adjustment of corporate bond interest rates.

(3) Foreign exchange impacts reflect the revaluation of local currency debt and cash to US dollars, the Group's functional currency.

The Group hedges against the volatility in both exchange and interest rates on debt, and also exchange on cash, with associated movements in derivatives reported in Other financial assets/liabilities as effective hedged derivatives (cross currency and interest rate swaps), in accordance with accounting standards. For more information, refer to note 21 'Financial risk management' in section 5.

1.12.4 Alternative performance measures

We use various alternative performance measures (APMs) to reflect our underlying performance.

These indicators are not defined or specified under the requirements of IFRS, but are derived from the Group's Consolidated Financial Statements prepared in accordance with IFRS. The APMs are consistent with how management reviews financial performance of the Group with the Board and the investment community.

Section 1.12.5 outlines why we believe the APMs are useful and the calculation methodology. We believe these APMs provide useful information, but they should not be considered as an indication of, or as a substitute for, statutory measures as an indicator of actual operating performance, such as profit, net operating cash flow or any other measure of financial performance or position presented in accordance with IFRS, or as a measure of a company's profitability, liquidity or financial position.

The following tables provide reconciliations between the APMs and their nearest respective IFRS measure.

The measures and below reconciliations included in this section for the year ended 30 June 2019 and comparative periods are unaudited and have been derived from the Group's Consolidated Financial Statements.

Exceptional items

To improve the comparability of underlying financial performance between reporting periods, some of our APMs adjust the relevant IFRS measures for exceptional items. For more information on exceptional items, refer to note 3 'Exceptional items' in section 5.

Exceptional items are those gains or losses where their nature, including the expected frequency of the events giving rise to them, and amount is considered material to the Group's Consolidated Financial Statements. The exceptional items included within the Group's profit from Continuing and Discontinued operations for the fiscal year are detailed below.

Year ended 30 June	2019 US\$M	2018 US\$M	2017 US\$M
Continuing operations			
Revenue	-	-	-
Other income	50	-	169
Expenses excluding net finance costs, depreciation, amortisation and impairments	(57)	(57)	(416)
Depreciation and amortisation	-	-	(212)
Net impairments	-	-	(5)
(Loss)/profit from equity accounted investments, related impairments and expenses	(945)	(509)	(172)
Profit/(loss) from operations	(952)	(566)	(636)
Financial expenses	(108)	(84)	(127)
Financial income	-	-	-
Net finance costs	(108)	(84)	(127)
Profit/(loss) before taxation	(1,060)	(650)	(763)
Income tax benefit/(expense)	242	(2,320)	(243)
Royalty-related taxation (net of income tax benefit)	-	-	-
Total taxation benefit/(expense)	242	(2,320)	(243)
Profit/(loss) after taxation from Continuing operations	(818)	(2,970)	(1,006)
Discontinued operations			
Profit/(loss) after taxation from Discontinued operations	-	(2,258)	-
Profit/(loss) after taxation from Continuing and Discontinued operations	(818)	(5,228)	(1,006)
Total exceptional items attributable to non-controlling interests	-	-	(164)
Total exceptional items attributable to BHP shareholders	(818)	(5,228)	(842)
Exceptional items attributable to BHP shareholders per share (US cents)	(15.8)	(98.2)	(15.8)
Weighted basic average number of shares (Million)	5,180	5,323	5,323

1.12.4 Alternative performance measures continued

APMs derived from Consolidated Income Statement

Underlying attributable profit

Year ended 30 June	2019 US\$M	2018 US\$M	2017 US\$M
Profit after taxation from Continuing and Discontinued operations attributable to BHP shareholders	8,306	3,705	5,890
Total exceptional items attributable to BHP shareholders ⁽¹⁾	818	5,228	842
Underlying attributable profit	9,124	8,933	6,732

(1) For more information, refer to note 3 'Exceptional items' in section 5.

Underlying attributable profit – Continuing operations

Year ended 30 June	2019 US\$M	2018 US\$M	2017 US\$M
Profit after taxation from Continuing and Discontinued operations attributable to BHP shareholders	8,306	3,705	5,890
Loss attributable to members of BHP for Discontinued operations	342	2,947	485
Total exceptional items attributable to BHP shareholders ⁽¹⁾	818	5,228	842
Total exceptional items attributable to BHP shareholders for Discontinued operations ⁽¹⁾	–	(2,258)	–
Underlying attributable profit – Continuing operations	9,466	9,622	7,217

(1) For more information, refer to note 3 'Exceptional items' in section 5.

Underlying basic earnings per share

Year ended 30 June	2019 US cents	2018 US cents	2017 US cents
Basic earnings per ordinary share	160.3	69.6	110.7
Exceptional items attributable to BHP shareholders per share ⁽¹⁾	15.8	98.2	15.8
Underlying basic earnings per ordinary share	176.1	167.8	126.5

(1) For more information, refer to note 3 'Exceptional items' in section 5.

Underlying EBITDA

Year ended 30 June	2019 US\$M	2018 US\$M	2017 US\$M
Profit from operations	16,113	15,996	12,554
Exceptional items included in profit from operations ⁽¹⁾	952	566	636
Underlying EBIT	17,065	16,562	13,190
Depreciation and amortisation expense	5,829	6,288	6,184
Net impairments	264	333	193
Exceptional item included in Depreciation, amortisation and impairments ⁽¹⁾	–	–	(217)
Underlying EBITDA	23,158	23,183	19,350

(1) For more information, refer to note 3 'Exceptional items' in section 5.

Underlying EBITDA – Segment

Year ended 30 June 2019 US\$M	Petroleum	Copper	Iron Ore	Coal	Group and unallocated items/ elimination ⁽²⁾	Total Group
Profit from operations	2,220	2,587	8,426	3,400	(520)	16,113
Exceptional items included in profit from operations ⁽¹⁾	–	–	971	–	(19)	952
Depreciation and amortisation expense	1,560	1,835	1,653	632	149	5,829
Net impairments	21	128	79	35	1	264
Exceptional item included in Depreciation, amortisation and impairments ⁽¹⁾	–	–	–	–	–	–
Underlying EBITDA	3,801	4,550	11,129	4,067	(389)	23,158

Year ended 30 June 2018 US\$M	Petroleum	Copper	Iron Ore	Coal	Group and unallocated items/ elimination ⁽²⁾	Total Group
Profit from operations	1,546	4,389	6,656	3,682	(277)	15,996
Exceptional items included in profit from operations ⁽¹⁾	–	–	539	–	27	566
Depreciation and amortisation expense	1,719	1,920	1,721	686	242	6,288
Net impairments	76	213	14	29	1	333
Exceptional item included in Depreciation, amortisation and impairments ⁽¹⁾	–	–	–	–	–	–
Underlying EBITDA	3,341	6,522	8,930	4,397	(7)	23,183

Year ended 30 June 2017 US\$M	Petroleum	Copper	Iron Ore	Coal	Group and unallocated items/ elimination ⁽²⁾	Total Group
Profit from operations	1,367	1,460	6,994	3,214	(481)	12,554
Exceptional items included in profit from operations ⁽¹⁾	–	546	203	(164)	51	636
Depreciation and amortisation expense	1,648	1,737	1,828	719	252	6,184
Net impairments	102	14	52	20	5	193
Exceptional item included in Depreciation, amortisation and impairments ⁽¹⁾	–	(212)	–	(5)	–	(217)
Underlying EBITDA	3,117	3,545	9,077	3,784	(173)	19,350

(1) For more information, refer to note 3 'Exceptional items' in section 5.

(2) Group and unallocated items includes functions and other unallocated operations, including Potash and Nickel West and consolidation adjustments.

Year ended 30 June 2019 US\$M	Profit from operations	Exceptional items included in profit from operations ⁽¹⁾	Depreciation and amortisation	Net impairments	Exceptional item included in Depreciation, amortisation and impairments ⁽¹⁾	Underlying EBITDA
Potash	(131)	–	4	–	–	(127)
Nickel West	91	–	11	–	–	102
Corporate and eliminations	(480)	(19)	134	1	–	(364)
Total	(520)	(19)	149	1	–	(389)

Year ended 30 June 2018 US\$M	Profit from operations	Exceptional items included in profit from operations ⁽¹⁾	Depreciation and amortisation	Net impairments	Exceptional item included in Depreciation, amortisation and impairments ⁽¹⁾	Underlying EBITDA
Potash	(139)	–	4	–	–	(135)
Nickel West	215	–	76	–	–	291
Corporate and eliminations	(353)	27	162	1	–	(163)
Total	(277)	27	242	1	–	(7)

Year ended 30 June 2017 US\$M	Profit from operations	Exceptional items included in profit from operations ⁽¹⁾	Depreciation and amortisation	Net impairments	Exceptional item included in Depreciation, amortisation and impairments ⁽¹⁾	Underlying EBITDA
Potash	(118)	–	5	5	–	(108)
Nickel West	(43)	–	87	–	–	44
Corporate and eliminations	(320)	51	160	–	–	(109)
Total	(481)	51	252	5	–	(173)

(1) For more information, refer to note 3 'Exceptional items' in section 5.

1.12.4 Alternative performance measures continued

Underlying EBITDA margin

Year ended 30 June 2019 US\$M	Petroleum	Copper	Iron Ore	Coal	Group and unallocated items/ elimination ⁽⁴⁾	Total Group
Revenue – Group production	5,920	9,729	17,223	9,102	1,116	43,090
Revenue – Third party products	10	1,109	32	19	28	1,198
Revenue	5,930	10,838	17,255	9,121	1,144	44,288
Underlying EBITDA – Group production ⁽¹⁾	3,801	4,434	11,115	4,068	(389)	23,029
Underlying EBITDA – Third party products ⁽¹⁾	–	116	14	(1)	–	129
Underlying EBITDA	3,801	4,550	11,129	4,067	(389)	23,158
Segment contribution to the Group's Underlying EBITDA ⁽²⁾	16%	19%	48%	17%		100%
Underlying EBITDA margin ⁽³⁾	64%	46%	65%	45%		53%

Year ended 30 June 2018 US\$M	Petroleum	Copper	Iron Ore	Coal	Group and unallocated items/ elimination ⁽⁴⁾	Total Group
Revenue – Group production	5,396	11,432	14,756	8,887	1,222	41,693
Revenue – Third party products	12	1,349	54	2	19	1,436
Revenue	5,408	12,781	14,810	8,889	1,241	43,129
Underlying EBITDA – Group production ⁽¹⁾	3,340	6,462	8,929	4,398	(8)	23,121
Underlying EBITDA – Third party products ⁽¹⁾	1	60	1	(1)	1	62
Underlying EBITDA	3,341	6,522	8,930	4,397	(7)	23,183
Segment contribution to the Group's Underlying EBITDA ⁽²⁾	14%	28%	39%	19%		100%
Underlying EBITDA margin ⁽³⁾	62%	57%	61%	49%		55%

Year ended 30 June 2017 US\$M	Petroleum	Copper	Iron Ore	Coal	Group and unallocated items/ elimination ⁽⁴⁾	Total Group
Revenue – Group production	4,713	6,930	14,543	7,578	867	34,631
Revenue – Third party products	9	1,012	81	–	7	1,109
Revenue	4,722	7,942	14,624	7,578	874	35,740
Underlying EBITDA – Group production ⁽¹⁾	3,114	3,522	9,054	3,784	(173)	19,301
Underlying EBITDA – Third party products ⁽¹⁾	3	23	23	–	–	49
Underlying EBITDA	3,117	3,545	9,077	3,784	(173)	19,350
Segment contribution to the Group's Underlying EBITDA ⁽²⁾	16%	18%	47%	19%		100%
Underlying EBITDA margin ⁽³⁾	66%	51%	62%	50%		56%

(1) We differentiate sales of our production from sales of third party products to better measure the operational profitability of our operations as a percentage of revenue. These tables show the breakdown between our production and third party products, which is necessary for the calculation of the Underlying EBITDA margin and margin on third party products.

We engage in third party trading for the following reasons:

- Production variability and occasional shortfalls from our assets means that we sometimes source third party materials to ensure a steady supply of product to our customers.
- To optimise our supply chain outcomes, we may buy physical product from third parties.
- To support the development of liquid markets, we will sometimes source third party physical product and manage risk through both the physical and financial markets.

(2) Percentage contribution to Group Underlying EBITDA, excluding Group and unallocated items.

(3) Underlying EBITDA margin excludes third party products.

(4) Group and unallocated items includes functions and other unallocated operations, including Potash and Nickel West and consolidation adjustments. Revenue not attributable to reportable segments comprises the sale of freight and fuel to third parties. Exploration and technology activities are recognised within relevant segments.

Effective tax rate

Year ended 30 June	2019			2018			2017		
	Profit before taxation US\$M	Income tax expense US\$M	%	Profit before taxation US\$M	Income tax expense US\$M	%	Profit before taxation US\$M	Income tax expense US\$M	%
Statutory effective tax rate	15,049	(5,529)	36.7	14,751	(7,007)	47.5	11,137	(4,443)	39.9
Adjusted for:									
Exchange rate movements	–	(25)		–	(152)		–	88	
Exceptional items ⁽¹⁾	1,060	(242)		650	2,320		763	243	
Adjusted effective tax rate	16,109	(5,796)	36.0	15,401	(4,839)	31.4	11,900	(4,112)	34.6

(1) For more information, refer to note 3 'Exceptional items' in section 5.

APMs derived from Consolidated Cash Flow Statement

Capital and exploration expenditure

Year ended 30 June	2019 US\$M	2018 US\$M	2017 US\$M
Capital expenditure (purchases of property, plant and equipment)	6,250	4,979	3,697
Add: Exploration expenditure	873	874	966
Capital and exploration expenditure (cash basis) – Continuing operations	7,123	5,853	4,663
Capital and exploration expenditure – Discontinued operations	443	900	555
Capital and exploration expenditure (cash basis) – Total operations	7,566	6,753	5,218

Free cash flow

Year ended 30 June	2019 US\$M	2018 US\$M	2017 US\$M
Net operating cash flows	17,871	18,461	16,804
Net investing cash flows	2,607	(5,921)	(4,161)
Free cash flow	20,478	12,540	12,643

Free cash flow – Continuing operations

Year ended 30 June	2019 US\$M	2018 US\$M	2017 US\$M
Net operating cash flows from Continuing operations	17,397	17,561	15,876
Net investing cash flows from Continuing operations	(7,377)	(5,060)	(3,724)
Free cash flow – Continuing operations	10,020	12,501	12,152

APMs derived from Consolidated Balance Sheet

Net debt and gearing ratio

Year ended 30 June	2019 US\$M	2018 US\$M
Interest bearing liabilities – Current	1,661	2,736
Interest bearing liabilities – Non current	23,167	24,069
Total interest bearing liabilities	24,828	26,805
Less: Cash and cash equivalents	15,613	15,871
Net debt	9,215	10,934
Net assets	51,824	60,670
Gearing	15.1%	15.3%

Net debt waterfall

Year ended 30 June	2019 US\$M	2018 US\$M
Net debt at the beginning of the period	(10,934)	(16,321)
Net operating cash flows	17,871	18,461
Net investing cash flows	2,607	(5,921)
Net financing cash flows	(20,528)	(10,891)
Net (decrease)/increase in cash and cash equivalents from Continuing and Discontinued operations	(50)	1,649
Carrying value of interest bearing liability repayments	2,351	3,573
Interest rate movements	(729)	353
Foreign exchange impacts on debt	311	(245)
Foreign exchange impacts on cash	(170)	56
Others	6	1
Non-cash movements	(582)	165
Net debt at the end of the period	(9,215)	(10,934)

1.12.4 Alternative performance measures continued

Net operating assets

The following table reconciles Net operating assets for the Group to Net assets on the Consolidated Balance Sheet:

Year ended 30 June	2019 US\$M	2018 US\$M
Net assets	51,824	60,670
Less: Non-operating assets		
Cash and cash equivalents	(15,613)	(15,871)
Trade and other receivables ⁽¹⁾	(222)	(36)
Other financial assets ⁽²⁾	(1,188)	(974)
Current tax assets	(124)	(106)
Deferred tax assets	(3,764)	(4,041)
Assets held for sale ⁽³⁾	—	(11,939)
Add: Non-operating liabilities		
Trade and other payables ⁽⁴⁾	328	363
Interest bearing liabilities	24,828	26,805
Other financial liabilities ⁽⁵⁾	1,020	1,218
Current tax payable	1,546	1,773
Non-current tax payable	187	137
Deferred tax liabilities	3,234	3,472
Liabilities held for sale ⁽³⁾	—	1,222
Net operating assets	62,056	62,693
Petroleum	7,228	8,052
Copper	24,088	23,679
Iron Ore	17,486	18,320
Coal	9,674	9,853
Group and unallocated items ⁽⁶⁾	3,580	2,789
Total	62,056	62,693

(1) Represents loans to associates of US\$33 million (FY2018: US\$13 million), external finance receivable and accrued interest receivable of US\$51 million (FY2018: US\$23 million) included within other receivables.

(2) Represents cross currency and interest rate swaps, forward exchange contracts of US\$35 million (FY2018: US\$140 million) and investment in shares and other investments (refer to note 21 'Financial risk management' in section 5) included in other financial assets.

(3) Represents Onshore US assets and liabilities treated as held for sale.

(4) Represents accrued interest payable included within other payables.

(5) Represents cross currency and interest rate swaps (refer to note 21 'Financial risk management' in section 5) included in other financial liabilities.

(6) Group and unallocated items include functions and other unallocated operations including Potash and Nickel West and consolidation adjustments.

1.12.5 Definition and calculation of alternative performance measures

Alternative performance measure (APM)	Reasons why we believe the APMs are useful	Calculation methodology
Underlying attributable profit	Allows the comparability of underlying financial performance by excluding the impacts of exceptional items and is a performance indicator against which short-term incentive outcomes for our senior executives are measured. It is also the basis on which our dividend payout ratio policy is applied.	Profit after taxation attributable to BHP shareholders excluding any exceptional items attributable to BHP shareholders.
Underlying basic earnings per share	On a per share basis, allows the comparability of underlying financial performance by excluding the impacts of exceptional items.	Underlying attributable profit divided by the weighted basic average number of shares.
Underlying EBITDA	Used to help assess current operational profitability excluding the impacts of sunk costs (i.e. depreciation from initial investment). Each is a measure that management uses internally to assess the performance of the Group's segments and make decisions on the allocation of resources.	Earnings before net finance costs, depreciation, amortisation and impairments, taxation expense, Discontinued operations and exceptional items. Underlying EBITDA includes BHP's share of profit/(loss) from investments accounted for using the equity method including net finance costs, depreciation, amortisation and impairments and taxation expense/(benefit).
Underlying EBITDA margin		Underlying EBITDA excluding third party product EBITDA, divided by revenue excluding third party product revenue.
Underlying EBIT	Used to help assess current operational profitability excluding net finance costs and taxation expense (each of which are managed at the Group level), as well as Discontinued operations and any exceptional items.	Earnings before net finance costs, taxation expense, Discontinued operations and any exceptional items. Underlying EBIT includes BHP's share of profit/(loss) from investments accounted for using the equity method including net finance costs and taxation expense/(benefit).
Capital and exploration expenditure	Used as part of our Capital Allocation Framework to assess efficient deployment of capital. Represents the total outflows of our operational investing expenditure.	Purchases of property, plant and equipment and exploration expenditure.
Free cash flow	It is a key measure used as part of our Capital Allocation Framework. Reflects our operational cash performance inclusive of investment expenditure, which helps to highlight how much cash was generated in the period to be available for the servicing of debt and distribution to shareholders.	Net operating cash flows less Net investing cash flows.
Net debt	Net debt shows the position of gross debt offset by cash immediately available to pay debt if required. Net debt, along with the gearing ratio, is used to monitor the Group's capital management by relating Net debt relative to equity from shareholders.	Interest bearing liabilities less Cash and cash equivalents for the Group at the reporting date.
Gearing ratio		Ratio of Net debt to Net debt plus Net assets.
Net operating assets	Enables a clearer view of the physical assets deployed to generate earnings by highlighting the net operating assets of the business separate from the financing and tax balances. This measure helps provide an indicator of the underlying performance of our assets and enhances comparability between them.	Operating assets net of operating liabilities, including the carrying value of equity accounted investments and predominantly excludes cash balances, loans to associates, interest bearing liabilities, derivatives hedging our debt and tax balances.
Adjusted effective tax rate	Provides an underlying tax rate to allow comparability of underlying financial performance by excluding the impacts of exceptional items.	Total taxation expense/(benefit) excluding exceptional items and exchange rate movements included in taxation expense/(benefit) divided by Profit before taxation and exceptional items.
Unit cost	Used to assess the controllable financial performance of the Group's assets for each unit of production. Unit costs are adjusted for site specific non-controllable factors to enhance comparability between the Group's assets.	<p>Ratio of Net costs of the assets to the equity share of sales tonnage. Net costs is defined as revenue less Underlying EBITDA and excludes freight and other costs, depending on the nature of each asset. Freight is excluded as the Group believes it provides a similar basis of comparison to our peer group.</p> <p>Conventional petroleum unit costs exclude:</p> <ul style="list-style-type: none"> • exploration, development and evaluation expense as these costs do not represent our cost performance in relation to current production and the Group believes it provides a similar basis of comparison to our peer group; • other costs that do not represent underlying cost performance of the business. <p>Escondida unit costs exclude:</p> <ul style="list-style-type: none"> • by-product credits being the favourable impact of by-products (such as gold or silver) to determine the directly attributable costs of copper production. <p>WAIO, Queensland Coal and NSWEC unit cash costs exclude royalties as these are costs that are not deemed to be under the Group's control, and the Group believes exclusion provides a similar basis of comparison to our peer group.</p> <p>See section 1.13 for unit cost information.</p>

1.12.6 Definition and calculation of principal factors

The method of calculation of the principal factors that affect Revenue, Profit from operations and Underlying EBITDA is as follows:

Principal factor	Method of calculation
Change in sales prices	Change in average realised price for each operation from the prior period to the current period, multiplied by current period sales volumes.
Price-linked costs	Change in price-linked costs (mainly royalties) for each operation from the prior period to the current period, multiplied by current period sales volumes.
Productivity volumes	Change in sales volumes for each operation not included in the Growth category from the prior period to the current period, multiplied by the prior year Underlying EBITDA margin.
Growth volumes	Comprises: (1) Underlying EBITDA for operations that are new or acquired in the current period minus Underlying EBITDA for operations that are new or acquired in the prior period; (2) change in sales volumes for operations identified as a growth project from the prior period to the current period multiplied by the prior year Underlying EBITDA margin; and (3) change in sales volumes for our petroleum assets from the prior period to the current period multiplied by the prior year Underlying EBITDA margin.
Controllable cash costs	Total of operating cash costs and exploration and business development costs.
Operating cash costs	Change in total costs, other than price-linked costs, exchange rates, inflation on costs, fuel and energy costs, non-cash costs and one-off items as defined below for each operation from the prior period to the current period.
Exploration and business development	Exploration and business development expense in the current period minus exploration and business development expense in the prior period.
Exchange rates	Change in exchange rate multiplied by current period local currency revenue and expenses.
Inflation on costs	Change in inflation rate applied to expenses, other than depreciation and amortisation, price-linked costs, exploration and business development expenses, expenses in ceased and sold operations and expenses in new and acquired operations.
Fuel and energy	Fuel and energy expense in the current period minus fuel and energy expense in the prior period.
Non-cash	Change in net impact of capitalisation and depletion of deferred stripping from the prior period to the current period.
One-off items	Change in costs exceeding a pre-determined threshold associated with an unexpected event that had not occurred in the last two years and is not reasonably likely to occur within the next two years.
Asset sales	Profit/(loss) on the sale of assets or operations in the current period minus profit/(loss) on sale of assets or operations in the prior period.
Ceased and sold operations	Underlying EBITDA for operations that ceased or were sold in the current period minus Underlying EBITDA for operations that ceased or were sold in the prior period.
Share of operating profit from equity accounted investments	Share of operating profit from equity accounted investments for the current period minus share of operating profit from equity accounted investments in the prior period.
Other	Variances not explained by the above factors.

Productivity

Comprises changes in controllable cash costs, changes in volumes attributed to productivity and changes in capitalised exploration (being capitalised exploration in the current period less capitalised exploration in the prior period as reported in the cash flow statement).

1.13 Performance by commodity

Management believes the following financial information presented by commodity provides a meaningful indication of the underlying performance of the assets, including equity accounted investments, of each reportable segment. Information relating to assets that are accounted for as equity accounted investments are shown to reflect BHP's share, unless otherwise noted, to provide insight into the drivers of these assets.

For the purposes of this financial information, segments are reported on a statutory basis in accordance with IFRS 8 'Operating Segments'. The tables for each commodity include an 'adjustment for equity accounted investments' to reconcile the equity accounted results to the statutory segment results.

1.13.1 Petroleum



Detailed below is financial information for our Petroleum assets excluding Onshore US for FY2019 and FY2018 and an analysis of Petroleum's financial performance for FY2019 compared with FY2018.

Year ended 30 June 2019 US\$M	Revenue ⁽¹⁾	Underlying EBITDA	D&A	Underlying EBIT	Net operating assets ⁽⁸⁾	Capital expenditure	Exploration gross ⁽²⁾	Exploration to profit ⁽³⁾
Australia Production Unit ⁽⁴⁾	507	332	192	140	513	13		
Bass Strait	1,237	915	427	488	2,217	32		
North West Shelf	1,657	1,220	298	922	1,371	106		
Atlantis	979	824	261	563	1,060	31		
Shenzi	540	437	151	286	658	30		
Mad Dog	319	268	59	209	1,232	362		
Trinidad/Tobago	287	181	56	125	302	23		
Algeria	258	201	26	175	49	7		
Exploration	-	(388)	58	(446)	1,039	-		
Other ⁽⁵⁾	153	73	55	18	(109)	41		
Total Petroleum from Group production	5,937	4,063	1,583	2,480	8,332	645	685	409
Closed mines ⁽⁶⁾	-	(260)	-	(260)	(1,104)	-		
Third party products	10	-	-	-	-	-		
Total Petroleum	5,947	3,803	1,583	2,220	7,228	645	685	409
Adjustment for equity accounted investments ⁽⁷⁾	(17)	(2)	(2)	-	-	-	-	-
Total Petroleum statutory result	5,930	3,801	1,581	2,220	7,228	645	685	409

Year ended 30 June 2018 US\$M	Revenue ⁽¹⁾	Underlying EBITDA	D&A	Underlying EBIT	Net operating assets ⁽⁸⁾	Capital expenditure	Exploration gross ⁽²⁾	Exploration to profit ⁽³⁾
Australia Production Unit ⁽⁴⁾	568	422	247	175	740	-		
Bass Strait	1,285	948	494	454	2,504	29		
North West Shelf	1,400	1,058	230	828	1,574	167		
Atlantis	833	666	332	334	1,307	159		
Shenzi	576	470	193	277	743	32		
Mad Dog	229	160	50	110	947	189		
Trinidad/Tobago	161	(53)	38	(91)	256	16		
Algeria	234	186	28	158	37	6		
Exploration	-	(516)	127	(643)	953	-		
Other ⁽⁵⁾	126	54	59	(5)	(142)	58		
Total Petroleum from Group production	5,412	3,395	1,798	1,597	8,919	656	709	592
Closed mines ⁽⁶⁾	-	(52)	-	(52)	(867)	-		
Third party products	12	1	-	1	-	-		
Total Petroleum	5,424	3,344	1,798	1,546	8,052	656	709	592
Adjustment for equity accounted investments ⁽⁷⁾	(16)	(3)	(3)	-	-	-	-	-
Total Petroleum statutory result	5,408	3,341	1,795	1,546	8,052	656	709	592

(1) Total Petroleum statutory result Revenue includes: crude oil US\$3,171 million (2018: US\$2,933 million), natural gas US\$1,259 million (2018: US\$1,124 million), LNG US\$1,179 million (2018: US\$920 million), NGL US\$263 million (2018: US\$294 million) and other US\$58 million (2018: US\$137 million) which includes third party products.

(2) Includes US\$297 million of capitalised exploration (2018: US\$193 million).

(3) Includes US\$21 million of exploration expenditure previously capitalised, written off as impaired (included in depreciation and amortisation) (2018: US\$76 million).

(4) Australia Production Unit includes Macedon, Pyrenees and Minerva.

(5) Predominantly divisional activities, business development, UK (divested in November 2018), Neptune and Genesis. Also includes the Caesar oil pipeline and the Cleopatra gas pipeline, which are equity accounted investments. The financial information for the Caesar oil pipeline and the Cleopatra gas pipeline presented above, with the exception of net operating assets, reflects BHP's share.

(6) Comprises closed mining and smelting operations in Canada and the United States.

(7) Total Petroleum statutory result Revenue excludes US\$17 million (2018: US\$16 million) revenue related to the Caesar oil pipeline and the Cleopatra gas pipeline.

Total Petroleum statutory result Underlying EBITDA includes US\$2 million (2018: US\$3 million) D&A related to the Caesar oil pipeline and the Cleopatra gas pipeline.

(8) Refer to section 1.12.4 for a reconciliation of Net operating assets to Net assets and section 1.12.5 for the definition and method of calculation of Net operating assets.

1.13.1 Petroleum continued

Key drivers of conventional petroleum's financial results

Price overview

Trends in each of the major markets are outlined below.

Crude oil

Our average realised sales price for crude oil was US\$66.59 per barrel (FY2018: US\$60.57 per barrel). While crude oil prices were higher on average compared to the previous financial year, geopolitics and shifts in OPEC policy contributed to increased price volatility. Brent hit a four-year high in the first half of FY2019, ahead of US sanctions on Iran taking effect, but then fell sharply in December on mounting oversupply concerns. Deeper supply cuts by OPEC and its non-member allies ('OPEC plus'), coupled with increased US sanctions and unplanned outages supported a recovery in the second half of FY2019. However, this was moderated by rising US supply and concerns over demand growth in response to ongoing trade tensions. A roughly balanced market is expected in CY2019. Our long-term outlook remains positive, underpinned by rising demand from the developing world and natural field decline.

Liquefied natural gas

Our average realised sales price for LNG was US\$9.43 per Mcf (FY2018: US\$8.07 per Mcf). The Japan-Korea Marker (JKM) price for LNG reached a three-year high in September 2018 on strong demand growth in Asia, led by China. However, prices declined sharply in the second half as Asian demand slowed, while new supply volume increased. European imports increased substantially year-on-year, playing a key role to help balance the market. We expect the market to remain well supplied through to CY2020. Our long-term outlook for LNG remains positive, underpinned by rising energy demand from emerging economies and the need for low emission and flexible fuels to supplement intermittent renewables. Depleting indigenous gas supplies are also expected to increase the dependence of some major consumers on the export market.

Production

Total petroleum production for FY2019 increased by 1 per cent to 121 MMboe as a result of higher uptime and stronger field performance at Atlantis, Mad Dog and North West Shelf offset by natural field decline and a 70-day planned dry dock maintenance program at Pyrenees.

For more information on individual asset production in FY2019, FY2018 and FY2017, refer to section 6.2.

Financial results

Petroleum revenue for FY2019 increased by US\$522 million to US\$5.9 billion. Gulf of Mexico, which includes Atlantis, Shenzi and Mad Dog, increased by US\$200 million to US\$1.8 billion. In Australia, Bass Strait and North West Shelf collectively increased by US\$209 million to US\$2.9 billion. The Trinidad Production Unit increased by US\$126 million to US\$0.3 billion while the Australian Production Unit, which includes Macedon, Pyrenees and Minerva, decreased by US\$61 million to US\$0.5 billion.

Underlying EBITDA for Petroleum increased by US\$460 million to US\$3.8 billion. Price impacts, net of price-linked costs, increased Underlying EBITDA by US\$599 million. Controllable cash costs decreased by US\$27 million reflecting lower exploration expenses due to the ocean bottom node seismic survey acquisition costs in the Gulf of Mexico less than the prior year impact of expensing the Scimitar well, partially offset by additional maintenance activity at our Australian assets. Ceased and sold operations decreased by US\$167 million reflecting the revaluation of the closed mines provision partially offset by the sale of our interests in the Bruce and Keith oil and gas fields. Lower volumes decreased Underlying EBITDA by US\$75 million mainly due to planned Pyrenees dry-dock maintenance, higher gas to liquids production mix, natural field decline across the portfolio and an increase in overlift positions in Australia. Other items such as exchange rate, inflation and revaluation of embedded derivatives in the Trinidad and Tobago gas contract also positively impacted Underlying EBITDA by US\$76 million.

Conventional petroleum unit costs increased by 5 per cent to US\$10.54 per barrel of oil equivalent due to additional planned maintenance partially offset by higher volumes. The calculation of conventional petroleum unit costs is set out in the table below.

Conventional petroleum unit costs ⁽¹⁾ US\$m	FY2019	FY2018
Revenue	5,930	5,408
Underlying EBITDA	4,061	3,393
Gross costs	1,869	2,015
Less: exploration expense ⁽²⁾	388	516
Less: freight	152	152
Less: development and evaluation	46	34
Less: other ⁽³⁾	8	106
Net costs	1,275	1,207
Production (MMboe, equity share)	121	120
Cost per Boe (US\$)⁽⁴⁾	10.54	10.06

(1) Conventional petroleum assets exclude divisional activities reported in Other and closed mining and smelting operations in Canada and the United States.

(2) Exploration expense represents conventional petroleum's share of total exploration expense.

(3) Other includes non-cash profit on sales of assets, inventory movements, exchange and the impact from the revaluation of embedded derivatives in the Trinidad and Tobago gas contract.

(4) FY2019 based on an average exchange rate of AUD/USD 0.72.

Delivery commitments

We have delivery commitments of natural gas and LNG in conventional petroleum of approximately 2.1 billion cubic feet through FY2034 (65 per cent Australia and Asia, 35 per cent Trinidad). We have crude and condensate delivery commitments of around 10.8 million barrels through FY2020 (51 per cent United States, 46 per cent Australia and Asia, 3 per cent others). We have sufficient proved reserves and production capacity to fulfil these delivery commitments.

We have obligations of US\$53 million for contracted capacity on transportation pipelines and gathering systems through FY2024, on which we are the shipper. The agreements have annual escalation clauses.

Other information

Drilling

The number of wells in the process of drilling and/or completion as of 30 June 2019 was as follows:

	Exploratory wells		Development wells		Total	
	Gross	Net ⁽¹⁾	Gross	Net ⁽¹⁾	Gross	Net ⁽¹⁾
Australia	-	-	-	-	-	-
United States	-	-	5	1	5	1
Other ⁽²⁾	-	-	1	1	1	1
Total	-	-	6	2	6	2

(1) Represents our share of the gross well count.

(2) Other is comprised of Algeria.

Conventional petroleum

BHP's net share of capital development expenditure in FY2019, which is presented on a cash basis within this section, was US\$645 million (FY2018: US\$656 million). While the majority of the expenditure in FY2019 was incurred by operating partners at our Australian and Gulf of Mexico non-operated assets, we also incurred capital expenditure at our operated Australian, Gulf of Mexico, and Trinidad and Tobago assets.

Australia

BHP's net share of capital development expenditure in FY2019, which is presented on a cash basis within this section, was US\$151 million. The expenditure was primarily related to:

- North West Shelf: Karratha Gas Plant refurbishment projects, external corrosion compliance and Greater Western Flank-B subsea tie back well development;
- West Barracouta subsea tie back development, Snapper A21a development project and rationalisation of crude processing facility onshore.

Gulf of Mexico

BHP's net share of capital development expenditure in FY2019, which is presented on a cash basis within this section, was US\$423 million. The expenditure was primarily related to:

- Atlantis: execution of approved development on Atlantis Phase 3 Project;
- Mad Dog: execution phase of Phase 2 development, including ongoing drilling activity, with additional development activity on one well at Spar A.

Exploration and appraisal wells drilled, or in the process of drilling, during the year included:

Well	Location	Target	BHP equity	Spud date	Water depth	Total well depth	Status
Victoria-1	Trinidad and Tobago Block TTDAA 5	Gas	65% (BHP Operator)	12 Jun 2018	1,828 m	3,282 m	Hydrocarbons encountered; plugged and abandoned
Bongos-1	Trinidad and Tobago Block 14	Gas	70% (BHP Operator)	20 Jul 2018	1,909 m	2,469 m	Plugged and abandoned due to mechanical failure
Bongos-2	Trinidad and Tobago Block 14	Gas	70% (BHP Operator)	22 Jul 2018	1,910 m	5,151 m	Hydrocarbons encountered; plugged and abandoned
Samurai-2	US Gulf of Mexico GC432	Oil	50% (Murphy Operator)	16 Apr 2018	1,088 m	9,777 m	Hydrocarbons encountered; plugged and abandoned
Samurai-2 STO1 (sidetrack)	US Gulf of Mexico GC 476	Oil	50% (Murphy Operator)	25 Aug 2018	1,088 m	10,088 m	Plugged and abandoned (sidetrack)
Concepcion-1	Trinidad and Tobago Block 5	Gas	65% (BHP Operator)	30 Sep 2018	1,721 m	3,506 m	No commercial hydrocarbons encountered; plugged and abandoned
Trion-2DEL	Mexico Block AE-0093	Oil	60% (BHP Operator)	15 Nov 2018	2,379 m	4,659 m	Hydrocarbons encountered; plugged and abandoned
Trion-2DEL STO1	Mexico Block AE-0093	Oil	60% (BHP Operator)	4 Jan 2019	2,379 m	5,002 m	Hydrocarbons encountered; plugged and abandoned
Bele-1	Trinidad and Tobago Block 23(a)	Gas	70% (BHP operator)	2 Mar 2019	2,102 m	3,982 m	Hydrocarbons encountered; plugged and abandoned
Tuk-1	Trinidad and Tobago Block 23(a)	Gas	70% (BHP Operator)	24 Apr 2019	1,954 m	4,511 m	Hydrocarbons encountered; plugged and abandoned
Hi-Hat-1	Trinidad and Tobago Block 14	Gas	70% (BHP Operator)	20 May 2019	1,782 m	3,804 m	Hydrocarbons encountered; plugged and abandoned
Achernar-1	Western Australia WA-28-P	Gas	15.8% (Woodside Operator)	2 May 2019	122 m	3,285 m	Dry hole; plugged and abandoned

In Trinidad and Tobago, we continued phase 2 of our deepwater drilling program. Victoria-1 and Concepcion-1 were drilled in our southern licences to further assess the commercial potential of the Magellan play. Victoria-1 encountered gas, while Concepcion-1 did not encounter commercial hydrocarbons. Analysis is ongoing. Phase 2 drilling also included Bongos-2, which spud on 22 July 2018 and discovered gas in the Pliocene and Late Miocene.

Following the Bongos-2 discovery, a Phase 3 drilling program in Trinidad and Tobago in the second half of the year included three wells (Bele-1, Tuk-1 and Hi-Hat-1) to establish additional volumes around the Bongos discovery. All three wells encountered gas and analysis of the results is ongoing.

In Mexico, we drilled our first operated well at Trion, following acquisition of the discovery in 2017. Trion 2DEL encountered oil in line with expectations and was followed by a down-dip sidetrack to delineate the field and provide information about the oil water contact. Another appraisal well, Trion 3DEL, spud on 9 July 2019

Conventional petroleum exploration and appraisal

The majority of the expenditure incurred in FY2019 was in our focus areas, including Gulf of Mexico (US and Mexico) and Trinidad and Tobago. We also incurred expenditure in Canada.

Access

BHP was successful in its bids to acquire a 100 per cent interest in, and operatorship of, two exploration licences for blocks 8 and 12 in the Orphan Basin, offshore Eastern Canada. BHP's aggregate bid amount of US\$625 million reflects the costs of the drilling and seismic work likely to be performed during the exploration phase, although there is no minimum work program under the licence agreements. The maximum forfeiture amount under the licence agreements if no work is performed is approximately US\$119 million for block 8 and US\$38 million for block 12.

Exploration program expenditure details

Our gross expenditure on exploration was US\$685 million in FY2019, of which US\$388 million was expensed.

and based on preliminary results, the well encountered oil in the reservoir's up-dip from all previous well intersections. Evaluation and analysis is ongoing.

In Australia, as part of the North West Shelf Joint Venture, we participated in the Achernar-1 exploration to fulfil a well commitment on the WA-28-P exploration permit. The well was a dry hole and was plugged and abandoned.

Following the Wildling-2 well in FY2018 in the US Gulf of Mexico, technical work is continuing as we advance evaluation of the development options to optimise value of the resource discovered in this area.



For more information on conventional petroleum exploration, refer to section 1.6.3.

1.13.1 Petroleum continued

Outlook

In our conventional business, volumes are expected to be between 110 and 116 MMboe in FY2020 as a result of planned maintenance at Atlantis and natural field decline across the portfolio.

Conventional unit costs are expected to be between US\$10.50 and US\$11.50 per barrel (based on an average exchange rate of AUD/USD 0.70) in FY2020 reflecting the impact of lower volumes, partially offset by lower maintenance activities at our Australian assets. In the medium term, we expect an increase in unit costs to less than US\$13 per barrel (based on an average exchange rate of AUD/USD 0.70) as a result of natural field decline.

Conventional petroleum capital expenditure of approximately US\$1.2 billion is planned in FY2020. Conventional petroleum capital expenditure for FY2020 includes US\$1.1 billion of development and US\$0.1 billion of maintenance.

A US\$0.7 billion exploration and appraisal program is planned for FY2020.

Onshore US: Discontinued operations

On 28 September 2018, BHP completed the sale of 100 per cent of the issued share capital of BHP Billiton Petroleum (Arkansas) Inc. and 100 per cent of the membership interests in BHP Billiton Petroleum (Fayetteville) LLC, which held the Fayetteville assets, for a gross cash consideration of US\$0.3 billion.

On 31 October 2018, BHP completed the sale of 100 per cent of the issued share capital of Petrohawk Energy Corporation, the BHP subsidiary that held the Eagle Ford (being Black Hawk and Hawkvile), Haynesville and Permian assets, for a gross cash consideration of US\$10.3 billion (net of preliminary customary completion adjustments of US\$0.2 billion).

While the effective date at which the right to economic profits transferred to the purchasers was 1 July 2018, the Group continued to control the Onshore US assets until the completion dates of their respective transactions. As such, the Group continued to recognise its share of revenue, expenses, net finance costs and associated income tax expense related to the operation until the completion date. In addition, the Group provided transitional services to the buyer, which ceased in July 2019. Results from the Onshore US assets are disclosed as Discontinued operations.



For further information, refer to note 27
'Discontinued operations' in section 5.

1.13.2 Copper



Detailed below is financial information for our Copper assets for FY2019 and FY2018 and an analysis of Copper's financial performance for FY2019 compared with FY2018.

Year ended 30 June 2019 US\$m	Revenue	Underlying EBITDA	D&A	Underlying EBIT	Net operating assets ⁽⁷⁾	Capital expenditure	Exploration gross	Exploration to profit
Escondida ⁽¹⁾	6,876	3,384	1,245	2,139	12,726	1,036		
Pampa Norte ⁽²⁾	1,502	701	381	320	2,937	1,194		
Antamina ⁽³⁾	1,144	723	108	615	1,345	229		
Olympic Dam	1,351	273	331	(58)	7,133	485		
Other ⁽³⁾⁽⁴⁾	–	(315)	8	(323)	(53)	21		
Total Copper from Group production	10,873	4,766	2,073	2,693	24,088	2,965		
Third party products	1,109	116	–	116	–	–		
Total Copper	11,982	4,882	2,073	2,809	24,088	2,965	66	65
Adjustment for equity accounted investments ⁽⁵⁾	(1,144)	(332)	(110)	(222)	–	(230)	(4)	(3)
Total Copper statutory result	10,838	4,550	1,963	2,587	24,088	2,735	62	62

Year ended 30 June 2018 US\$m	Revenue ⁽⁶⁾	Underlying EBITDA	D&A	Underlying EBIT	Net operating assets ⁽⁷⁾	Capital expenditure	Exploration gross	Exploration to profit
Escondida ⁽¹⁾	8,346	4,921	1,601	3,320	13,666	997		
Pampa Norte ⁽²⁾	1,831	924	298	626	1,967	757		
Antamina ⁽³⁾	1,305	955	111	844	1,313	183		
Olympic Dam	1,255	267	228	39	6,937	669		
Other ⁽³⁾⁽⁴⁾	–	(193)	8	(201)	(204)	5		
Total Copper from Group production	12,737	6,874	2,246	4,628	23,679	2,611		
Third party products	1,349	60	–	60	–	–		
Total Copper	14,086	6,934	2,246	4,688	23,679	2,611	53	53
Adjustment for equity accounted investments ⁽⁵⁾	(1,305)	(412)	(113)	(299)	–	(183)	–	–
Total Copper statutory result	12,781	6,522	2,133	4,389	23,679	2,428	53	53

(1) Escondida is consolidated under IFRS 10 and reported on a 100 per cent basis.

(2) Includes Spence and Cerro Colorado.

(3) Antamina, SolGold and Resolution are equity accounted investments and their financial information presented above with the exception of net operating assets reflects BHP Group's share.

(4) Predominantly comprises divisional activities, greenfield exploration and business development. Includes Resolution and SolGold (acquired in October 2018).

(5) Total Copper statutory result Revenue excludes US\$1,144 million (2018: US\$1,305 million) revenue related to Antamina. Total Copper statutory result Underlying EBITDA includes US\$110 million (2018: US\$113 million) D&A and US\$222 million (2018: US\$299 million) net finance costs and taxation expense related to Antamina, Resolution and SolGold that are also included in Underlying EBIT. Total Copper Capital expenditure excludes US\$229 million (2018: US\$183 million) related to Antamina and US\$1 million (2018: US\$ nil) related to SolGold. Exploration gross excludes US\$4 million (2018: US\$ nil) related to SolGold of which US\$3 million (2018: US\$ nil) was expensed.

(6) Comparative financial information has been restated for the new accounting standard, IFRS15 Revenue from Contracts with Customers, which became effective from 1 July 2018.

(7) Refer to section 1.12.4 for a reconciliation of Net operating assets to Net assets and section 1.12.5 for the definition and method of calculation of Net operating assets.

Key drivers of Copper's financial results

Price overview

Our average realised sales price for FY2019 was US\$2.62 per pound (FY2018: US\$3.00) per pound. Copper prices decreased in FY2019 as rising global trade uncertainty affected investor sentiment. Labour negotiations in Chile and Peru during CY2018 went relatively smoothly with limited volume disruptions. Despite the lower price, refined copper stocks at exchanges decreased year-on-year. In the near term, incremental mine production from committed projects and rising scrap availability should continue to meet demand needs. In the longer term, we expect demand to grow steadily, led by a solid performance in traditional end-use sectors. Exposure to the electrification megatrend provides some upside. A deficit is expected to emerge early to middle of next decade as grade declines, a rise in costs and a scarcity of high-quality future development opportunities are likely to constrain the industry's ability to cheaply meet this demand growth.

Production

Total Copper production for FY2019 decreased by 4 per cent to 1.7 Mt.

Escondida copper production decreased by 6 per cent to 1,135 kt, as an expected 12 per cent decline in copper grade was partially offset by record average concentrator throughput of 344 ktpd. Pampa Norte copper production decreased by 7 per cent to 247 kt, due to adverse weather impacts and a production outage at Spence following a fire at the electrowinning plant in September 2018. This was partially offset by record ore milled at Spence and Cerro Colorado after implementing maintenance improvement initiatives as part of our broader transformation program. Olympic Dam copper production increased by 17 per cent to 160 kt as a result of the major smelter maintenance campaign in the prior period, which was partially offset by an unplanned acid plant outage in August 2018 and two minor production outages relating to the smelter and to the refinery crane during the year. Antamina copper production increased by 6 per cent to 147 kt and zinc production decreased by 18 per cent to 98 kt, reflecting higher copper head grades and lower zinc head grades, in line with the mine plan.



For more information on individual asset production in FY2019, FY2018 and FY2017, refer to section 6.2.

Financial results

Copper revenue decreased by US\$1.9 billion to US\$10.8 billion in FY2019. Escondida revenue decreased by US\$1.5 billion to US\$6.9 billion.

Underlying EBITDA for Copper decreased by US\$2.0 billion to US\$4.6 billion. Price impacts, net of price-linked costs, decreased Underlying EBITDA by US\$1.3 billion. Lower volumes decreased Underlying EBITDA by US\$315 million mainly driven by lower grades at Escondida and lower production at Pampa Norte after a fire at the electrowinning plant at Spence and heavy rainfall, partially offset by a record concentrator throughput at Escondida following the Los Colorados Extension commissioning and record ore milled at Pampa Norte.

Controllable cash costs increased by US\$321 million, mainly due to Olympic Dam unfavourable fixed cost dilution related to the acid plant outage, Escondida inventory drawdowns related to the Los Colorados Extension commissioning, change in estimated recoverable copper contained in the Escondida sulphide leach pad which benefited costs in the prior year and end-of-negotiation bonus payments. This was partially offset by the Olympic Dam acid plant outage self-insurance recoveries, inventory movements at Pampa Norte and the benefit from higher overall volumes at Olympic Dam as a result of the smelter maintenance campaign in the prior year.

Unit costs at Escondida increased by 7 per cent to US\$1.14 per pound, driven by an expected 12 per cent decline in copper grade and labour settlement costs. The calculation of Escondida unit costs is set out in the table below.

	Escondida unit costs	
US\$M	FY2019	FY2018
Revenue	6,876	8,346
Underlying EBITDA	3,384	4,921
Gross costs	3,492	3,425
Less: by-product credits	490	447
Less: freight	149	123
Net costs	2,853	2,855
Sales (kt, equity share)	1,131	1,209
Sales (Mlb, equity share)	2,493	2,664
Cost per pound (US\$)⁽¹⁾	1.14	1.07

(1) FY2019 based on average exchange rates of AUD/USD 0.72 and USD/CLP 673.

Outlook

Total Copper production of between 1,705 and 1,820 kt is expected in FY2020. Escondida production of between 1,160 and 1,230 kt is expected in FY2020, underpinned by a further uplift in concentrator throughput to compensate grade decline. Production at Pampa Norte is expected to be between 230 and 250 kt in FY2020, as the Spence Growth Option continues to progress on schedule and budget, with initial production targeted in FY2021. At Olympic Dam, production is expected to be between 180 and 205 kt in FY2020 reflecting improved operational performance, partially offset by planned maintenance related to the replacement of the refinery crane.

Escondida unit costs are expected to increase to between US\$1.20 and US\$1.35 per pound (based on an average exchange rate of USD/CLP 683) in FY2020 reflecting lower by-product credits and higher deferred stripping costs. The impact of a decline in copper grade of approximately 5 per cent is expected to be offset by increased concentrator throughput. In the medium term, unit costs are expected to remain less than US\$1.15 per pound (based on an average exchange rate of USD/CLP 683) with expected higher power and water costs offset by transformation programs focused on efficiency improvements and optimised maintenance strategies.

1.13.3 Iron Ore



Detailed below is financial information for our Iron Ore assets for FY2019 and FY2018 and an analysis of Iron Ore's financial performance for FY2019 compared with FY2018.

Year ended 30 June 2019 US\$M	Revenue	Underlying EBITDA	D&A	Underlying EBIT	Net operating assets	Capital expenditure	Exploration gross ⁽¹⁾	Exploration to profit
Western Australia Iron Ore	17,066	11,053	1,707	9,346	19,208	1,600		
Samarco ⁽²⁾	–	–	–	–	(1,908)	–		
Other ⁽³⁾	157	62	25	37	186	11		
Total Iron Ore from Group production	17,223	11,115	1,732	9,383	17,486	1,611		
Third party products ⁽⁴⁾	32	14	–	14	–	–		
Total Iron Ore	17,255	11,129	1,732	9,397	17,486	1,611	93	41
Adjustment for equity accounted investments	–	–	–	–	–	–	–	–
Total Iron Ore statutory result	17,255	11,129	1,732	9,397	17,486	1,611	93	41

Year ended 30 June 2018 US\$M	Revenue	Underlying EBITDA	D&A	Underlying EBIT	Net operating assets ⁽⁵⁾	Capital expenditure	Exploration gross ⁽¹⁾	Exploration to profit
Western Australia Iron Ore	14,596	8,869	1,721	7,148	19,406	1,047		
Samarco ⁽²⁾	–	–	–	–	(1,278)	–		
Other ⁽³⁾	160	60	14	46	192	27		
Total Iron Ore from Group production	14,756	8,929	1,735	7,194	18,320	1,074		
Third party products ⁽⁴⁾	54	1	–	1	–	–		
Total Iron Ore	14,810	8,930	1,735	7,195	18,320	1,074	84	44
Adjustment for equity accounted investments	–	–	–	–	–	–	–	–
Total Iron Ore statutory result	14,810	8,930	1,735	7,195	18,320	1,074	84	44

(1) Includes US\$52 million of capitalised exploration (2018: US\$40 million).

(2) Samarco is an equity accounted investment and its financial information presented above, with the exception of net operating assets, reflects BHP Billiton Brasil Ltda's share. All financial impacts following the Samarco dam failure have been reported as exceptional items in both reporting periods.

(3) Predominantly comprises divisional activities, towage services, business development and ceased operations.

(4) Includes inter-segment and external sales of contracted gas purchases.

(5) Refer to section 1.12.4 for a reconciliation of Net operating assets to Net assets and section 1.12.5 for the definition and method of calculation of Net operating assets.

Key drivers of Iron Ore's financial results

Price overview

Iron Ore's average realised sales price for FY2019 was US\$66.68 per wet metric tonne (wmt) (FY2018: US\$56.71 per wmt). The Platts 62% Fe Iron Ore Fines index has been elevated since the tailings dam collapse in Brazil disrupted the market in late January 2019. In addition to the decline in Brazilian exports, prices responded to stronger than expected Chinese pig iron production and cyclone disruptions to Australian supply. In the longer term, supply is expected to return to a more normal trajectory and the marginal tonne being provided by a higher cost, lower value-in-use exporter from Australia or Brazil.

Production

Total Iron Ore production from WAIO for FY2019 was broadly unchanged at 238 Mt, or 270 Mt on a 100 per cent basis. This reflected record production at Jimblebar and inventory impacts from the Mt Whaleback fire in the prior period offset by the impacts of planned maintenance in September 2018, a train derailment in November 2018 and Tropical Cyclone Veronica in March 2019.



For more information on individual asset production in FY2019, FY2018 and FY2017, refer to section 6.2.

Financial results

Total Iron Ore revenue increased by US\$2.4 billion to US\$17.3 billion in FY2019.

Underlying EBITDA for Iron Ore increased by US\$2.2 billion to US\$11.1 billion. Price impact, net of price-linked costs, increased Underlying EBITDA by US\$2.1 billion. Higher volumes increased Underlying EBITDA by US\$382 million driven by record production at Jimblebar, expiry of the Wheelarra joint venture and improved supply chain reliability and performance. This was partially offset by a train derailment and the impact from Tropical Cyclone Veronica. Lower controllable cash costs from favourable inventory movements partially offset by increased maintenance activities increased Underlying EBITDA by US\$103 million.

WAIO unit costs decreased by 1 per cent to US\$14.16 per tonne reflecting higher volumes, continued productivity improvements and favourable exchange movements, partially offset by the impacts of a train derailment and Tropical Cyclone Veronica. The calculation of WAIO unit costs is set out in the table below.

WAIO unit costs (US\$M)	FY2019	FY2018
Revenue	17,066	14,596
Underlying EBITDA	11,053	8,869
Gross costs	6,013	5,727
Less: freight	1,308	1,276
Less: royalties	1,322	1,075
Net costs	3,383	3,376
Sales (kt, equity share)	238,836	236,771
Cost per tonne (US\$)⁽¹⁾	14.16	14.26

(1) FY2019 based on an average exchange rate of AUD/USD 0.72.

Outlook

WAIO production of between 242 and 253 Mt, or between 273 and 286 Mt on a 100 per cent basis is expected in FY2020. This reflects a significant maintenance program at Port Hedland designed to improve productivity and provide a stable base for our tightly coupled supply chain as we sustainably increase production towards 290 Mtpa (100 per cent basis). As part of this, a major car dumper maintenance campaign is planned for the September 2019 quarter, with a corresponding impact expected on production.

WAIO unit costs are expected to decrease to between US\$13 and US\$14 per tonne (based on an average exchange rate of AUD/USD 0.70) in FY2020. In the medium term, we expect to lower our unit costs to less than US\$13 per tonne (based on an average exchange rate of AUD/USD 0.70).

1.13.4 Coal



Detailed below is financial information for our Coal assets for FY2019 and FY2018 and an analysis of Coal's financial performance for FY2019 compared with FY2018.

Year ended 30 June 2019 US\$M	Revenue	Underlying EBITDA	D&A	Underlying EBIT	Net operating assets ⁽⁵⁾	Capital expenditure	Exploration gross	Exploration to profit
Queensland Coal	7,679	3,722	532	3,190	8,232	549		
New South Wales Energy Coal ⁽¹⁾	1,527	431	166	265	920	102		
Colombia ⁽¹⁾	698	274	101	173	853	104		
Other ⁽²⁾	2	(110)	2	(112)	(331)	5		
Total Coal from Group production	9,906	4,317	801	3,516	9,674	760		
Third party products	19	(1)	–	(1)	–	–		
Total Coal	9,925	4,316	801	3,515	9,674	760	23	15
Adjustment for equity accounted investments ⁽³⁾⁽⁴⁾	(804)	(249)	(134)	(115)	–	(105)	–	–
Total Coal statutory result	9,121	4,067	667	3,400	9,674	655	23	15

Year ended 30 June 2018 US\$M	Revenue	Underlying EBITDA	D&A	Underlying EBIT	Net operating assets ⁽⁵⁾	Capital expenditure	Exploration gross	Exploration to profit
Queensland Coal	7,388	3,647	596	3,051	8,355	391		
New South Wales Energy Coal ⁽¹⁾	1,605	652	149	503	994	18		
Colombia ⁽¹⁾	818	395	95	300	883	54		
Other ⁽²⁾	–	(10)	3	(13)	(379)	–		
Total Coal from Group production	9,811	4,684	843	3,841	9,853	463		
Third party products	2	(1)	–	(1)	–	–		
Total Coal	9,813	4,683	843	3,840	9,853	463	21	21
Adjustment for equity accounted investments ⁽³⁾⁽⁴⁾	(924)	(286)	(128)	(158)	–	(54)	–	–
Total Coal statutory result	8,889	4,397	715	3,682	9,853	409	21	21

(1) Newcastle Coal Infrastructure Group and Cerrejón are equity accounted investments and their financial information presented above with the exception of net operating assets reflects BHP Group's share.

(2) Predominantly comprises divisional activities and ceased operations.

(3) Total Coal statutory result Revenue excludes US\$698 million (2018: US\$818 million) revenue related to Cerrejón. Total Coal statutory result Underlying EBITDA includes US\$101 million (2018: US\$95 million) D&A and US\$70 million (2018: US\$108 million) net finance costs and taxation expense related to Cerrejón, that are also included in Underlying EBIT. Total Coal statutory result Capital expenditure excludes US\$104 million (2018: US\$54 million) related to Cerrejón.

(4) Total Coal statutory result Revenue excludes US\$106 million (2018: US\$106 million) revenue related to Newcastle Coal Infrastructure Group. Total Coal statutory result excludes US\$78 million (2018: US\$83 million) Underlying EBITDA, US\$33 million (2018: US\$33 million) D&A and US\$45 million (2018: US\$50 million) Underlying EBIT related to Newcastle Coal Infrastructure Group until future profits exceed accumulated losses. Total Coal Capital expenditure excludes US\$1 million (2018: US\$ nil) related to Newcastle Coal Infrastructure Group.

(5) Refer to section 1.12.4 for a reconciliation of Net operating assets to Net assets and section 1.12.5 for the definition and method of calculation of Net operating assets.

Key drivers of Coal's financial results

Price overview

Metallurgical coal

Our average realised sales price for FY2019 was US\$199.61 per tonne for hard coking coal (FY2018: US\$194.59 per tonne) and US\$130.18 per tonne for weak coking coal (FY2018: US\$131.70 per tonne). Metallurgical coal prices reached a high in the middle of FY2019 amid supply constraints in Queensland on account of wet weather conditions. Prices eased from this peak due to weaker demand from India and uncertainties around Chinese imports. In the short term, supply should continue to improve with additional volumes expected from various regions. Within this broader view, the application of China's coal supply reform, and the design and enforcement of safety, environmental and water stewardship requirements will be critical signposts to monitor. Over the longer term, emerging markets such as India are expected to support seaborne demand growth. High-quality metallurgical coals will continue to offer steelmakers value-in-use benefits.

Energy coal

Our average realised sales price for FY2019 was US\$77.90 per tonne (FY2018: US\$86.94 per tonne). The Newcastle 6,000 kcal/kg price reached its peak in July 2018 and gradually declined over the course of FY2019. Weaker demand in North Asia, driven by increased nuclear and renewable power generation, and slower restocking post the winter season, weighed on price. Tighter import controls and softer demand from China also contributed to lower prices, particularly for the lower-heat 5,500 kcal/kg coals. In the long term, global energy coal demand is expected to grow only modestly, with Indian and South East Asian demand offsetting weakness in OECD countries amidst slowing demand from China.

Production

Metallurgical coal production for FY2019 was broadly flat at 42 Mt, or 75 Mt on a 100 per cent basis. At Queensland Coal, record annual production was achieved at BMC due to improved wash plant performance and increased yields at South Walker Creek and higher wash plant throughput at Poitrel. Despite record stripping, BMA's production decreased slightly due to unfavourable weather impacts and lower wash plant yields during the year. Energy coal production decreased 6 per cent to 27 Mt, as record stripping performance was offset by higher strip ratios and lower wash plant yields at New South Wales Energy Coal, and due to adverse weather and its impacts on mine sequencing at Cerrejón.

For more information on individual asset production in FY2019, FY2018 and FY2017, refer to section 6.2.

Financial results

Coal revenue increased by US\$0.2 billion to US\$9.1 billion in FY2019.

Underlying EBITDA for Coal decreased by US\$330 million to US\$4.1 billion. Prices, net of price-linked costs, decreased Underlying EBITDA by US\$115 million. Controllable cash costs decreased Underlying EBITDA by US\$415 million driven by increased contractor stripping activity and rates coupled with higher planned maintenance activity at Queensland Coal, and unfavourable inventory movements and increased contractor mining and stripping activity at New South Wales Energy Coal. Higher volumes increased Underlying EBITDA by US\$103 million supported by record production at South Walker Creek and Poitrel and prior year impacts from lower volumes at Broadmeadow (roof conditions) and Blackwater (geotechnical issues).

1.13.4 Coal continued

Queensland Coal unit costs increased by 2 per cent to US\$69 per tonne, mainly due to wet weather impacts and higher strip ratios, diesel prices and contractor stripping costs, partially offset by favourable exchange rate movements. New South Wales Energy Coal unit costs increased by 10 per cent to US\$50 per tonne, as

a result of higher strip ratios and contractor stripping costs, and unfavourable inventory movements. This was partially offset by the impact of favourable exchange rate movements. The calculation of Queensland Coal's and New South Wales Energy Coal's unit costs is set out in the table below.

US\$m	Queensland Coal unit costs		NSWEC unit costs	
	FY2019	FY2018	FY2019	FY2018
Revenue	7,679	7,388	1,421	1,501
Underlying EBITDA	3,722	3,647	353	569
Gross costs	3,957	3,741	1,068	932
Less: freight	156	150	–	–
Less: royalties	805	740	114	111
Net costs	2,996	2,851	954	821
Sales (kt, equity share)	43,145	41,899	19,070	18,022
Cost per tonne (US\$)⁽¹⁾	69.44	68.04	50.03	45.56

(1) FY2019 based on an average exchange rate of AUD/USD 0.72.

Outlook

Metallurgical coal production is expected to be between 41 and 45 Mt, or 73 and 79 Mt on a 100 per cent basis, in FY2020. With major wash plant shutdowns at Goonyella, Peak Downs and Caval Ridge planned in the September 2019 quarter, volumes are expected to be larger in the last three quarters of FY2020. Energy coal production is expected to be between approximately 24 to 26 Mt in FY2020.

Queensland Coal unit costs are expected to be between US\$67 and US\$74 per tonne (based on an average exchange rate of AUD/USD 0.70) in FY2020 as a result of increased wash plant maintenance and local inflationary pressures. In the medium term, we expect to lower our unit costs to between US\$54 and US\$61 per tonne (based on an average exchange rate of AUD/USD 0.70) reflecting higher volumes, lower strip ratios, optimised maintenance strategies and efficiency improvements from our transformation programs.

New South Wales Energy Coal unit costs are expected to be between US\$55 and US\$61 per tonne (based on an average exchange rate of AUD/USD 0.70) in FY2020 reflecting increased stripping costs and lower volumes as we continue to progress through the monocline, increase development stripping and focus on higher-quality products. In the medium term, unit costs are expected to be between US\$46 and US\$50 per tonne (based on an average exchange rate of AUD/USD 0.70), reflecting ongoing progression through the monocline and our focus on higher-quality products.

1.13.5 Other assets

Nickel West

Key drivers of Nickel West's financial results

Price overview

Our average realised sales price for FY2019 was US\$12,462 per tonne (FY2018: US\$12,591 per tonne). The average nickel price in FY2019 was similar to the previous financial year. Decreasing prices in the first half of the year could be attributed to trade uncertainty and a slow-down in industrial activities, while improvements in the second half were linked to stronger stainless steel output in China. Exchange stocks of refined nickel metal continued to decline throughout FY2019. In the near term, we expect Indonesian supply of stainless steel and nickel intermediates to continue to grow. However, the industry wide impact of Indonesia's nickel ore export policies is a source of uncertainty. In the long term, the battery sector is expected to provide strong growth in demand for high-purity nickel supply.

Production

Nickel West production in FY2019 decreased by 6 per cent to 87 kt following a fire at the Kalgoorlie smelter in September 2018.



For more information on individual asset production in FY2019, FY2018 and FY2017, refer to section 6.2.

Financial results

Lower production and lower realised sales prices resulted in revenue decreasing by US\$104 million to US\$1.2 billion in FY2019.

Underlying EBITDA for Nickel West decreased by US\$189 million to US\$102 million due to the transition to new ore bodies, which resulted in a drawdown of inventories and unfavourable fixed cost dilution from reduced volumes at Leinster and Mt Keith, and the impact from a fire at the Kalgoorlie smelter in the December 2018 half year.

Potash

Potash recorded an Underlying EBITDA loss of US\$127 million in FY2019, compared to a loss of US\$135 million in FY2018.

1.14 Other information

Application of critical accounting policies

The preparation of the Financial Statements requires management to make judgements and estimates and form assumptions that affect the amounts of assets, liabilities, contingent liabilities, revenues and expenses reported in the Financial Statements. On an ongoing basis, management evaluates its judgements and estimates in relation to assets, liabilities, contingent liabilities, revenue and expenses. Management bases its judgements and estimates on historical experience and on other factors it believes to be reasonable under the circumstances, the results of which form the basis of the reported amounts that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions and conditions.

The Group has identified a number of critical accounting policies under which significant judgements, estimates and assumptions are made. Actual results may differ for these estimates under different assumptions and conditions. This may materially affect financial results and the financial position to be reported in future. These critical accounting policies are as follows:

- significant events – Samarco dam failure;
- taxation;
- inventories;
- exploration and evaluation;
- development expenditure;
- overburden removal costs;
- depreciation of property, plant and equipment;
- impairments of non-current assets – recoverable amount;
- closure and rehabilitation provisions.

In accordance with IFRS, we are required to include information regarding the nature of the judgements and estimates and potential impacts on our financial results or financial position in the Financial Statements. This information can be found in section 5.1.

Quantitative and qualitative disclosures about market risk

We identified our principal market risks in section 1.6.4. A description of how we manage our market risks, including both quantitative and qualitative information about our market risk sensitive instruments outstanding at 30 June 2019, is contained in note 21 'Financial risk management' in section 5.1.

Off-balance sheet arrangements and contractual commitments

Information in relation to our material off-balance sheet arrangements, principally contingent liabilities, commitments for capital expenditure and commitments under leases at 30 June 2019 is provided in note 32 'Commitments' and note 33 'Contingent liabilities' in section 5.1.

Subsidiary information

Information about our significant subsidiaries is included in note 28 'Subsidiaries' in section 5.1 and in note 13 'Related undertakings of the Group' in section 5.2.

Related party transactions

Related party transactions are outlined in note 31 'Related party transactions' in section 5.1.

Significant changes since the end of the year

Significant changes since the end of the year are outlined in note 34 'Subsequent events' in section 5.1.

The Strategic Report is made in accordance with a resolution of the Board.

Ken MacKenzie
Chairman

Dated: 5 September 2019



BHP

Section 2

Governance at BHP

In this section



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2.1 Governance at BHP

2.1.1 Chairman's letter



'Alongside a lean and agile management culture, transformation has the potential to unlock value worth billions of dollars in the short and medium term.'

Ken MacKenzie
Chairman

Dear Shareholder,

At the 2018 Annual General Meeting, I once again discussed our priorities, safety, our portfolio, capital discipline, capability and culture, and social value. We made good progress with these priorities during FY2019, and I want to touch on a few aspects here that are relevant to governance.

Safety

Safety remains our first priority. We never forget the impact a fatality has on the families, friends and colleagues. The tragic death of our colleague Allan Houston at BMA's Saraji Mine in Queensland was a stark reminder of this. The results of an investigation into the fatality were considered by both the Sustainability Committee and the Board, and for the first time in many years, the cause was unable to be determined. However, our investigation identified a number of improvement areas and work is underway to implement these. Leaders have also shared findings broadly through interactive safety briefings with employees and contractors at all sites and major offices.

With regards to Samarco, the Board has continued to focus on responding to the tragedy. Please see section 1.7 for information on our ongoing response to the Samarco dam failure.

Portfolio

At BHP, our strategy is to have the best capabilities, commodities and assets to create long-term shareholder value and high returns. During the year we continued to reshape the portfolio with the completion of the sale of our Onshore US assets for net proceeds of US\$10.4 billion.

In addition, we have continued to explore for petroleum and copper assets. In Petroleum the Board approved US\$696 million in funding to develop the Atlantis Phase 3 project in the US Gulf of Mexico, and US\$256 million in funding to drill an additional appraisal well and perform further studies in the Trion field in Mexico, along with the successful bid for exploration blocks in the offshore Orphan Basin in Eastern Canada. In copper we confirmed the potential new iron oxide, copper and gold mineralised system located 65 kilometres south east of Olympic Dam. Our US\$2.46 billion Spence Growth Option project in Chile, which is expected to extend the mining operations by more than 50 years, is on schedule and on budget.

Capital discipline

Our Capital Allocation Framework remains key to how we assess decisions about the deployment of capital. During FY2019, we have kept capital expenditure below US\$8 billion per annum and reduced our net debt to US\$9.2 billion, reflecting strong cash generation. As a result of the sale of our Onshore US assets, BHP also completed the return of US\$10.4 billion to shareholders through the combination of an off-market buyback and a special dividend. These returns, when added to dividends determined in FY2019, delivered record annual cash returns to shareholders.

Culture and capability

There is significant opportunity ahead to create more shareholder value from BHP's assets. This will be made possible through BHP's Transformation work. That is why, in late 2018, a dedicated Transformation Office was established to focus on simplification, workforce capability and to accelerate adoption of the technology required to deliver greater efficiencies.

The Transformation programs will make BHP safer and operations more efficient and predictable. They will also help develop workforce capability so that our people are equipped for the rapid pace of change that lies ahead.

Alongside a lean and agile management culture, transformation has the potential to unlock value worth billions of dollars in the short and medium term.

Board composition

The Board has 11 members, including the CEO. I am a proponent of a relatively small Board. However, for a company like BHP, which has four key Board committees, a Board size of 10 to 12 is appropriate. In addition, diversity remains a focus and BHP has an aspiration to achieve gender balance on our Board by FY2025.

As referenced in last year's Corporate Governance Statement, we have a refreshed board skills matrix which we have used through FY2019 in our Board succession planning. This year, Wayne Murdy retired from the Board after the 2018 Annual General Meetings (AGMs). On behalf of shareholders, I thank Wayne for his dedicated service and leadership.

We also stated that our search for a new Non-executive Director with mining experience was well under way and on 1 April 2019 we appointed Ian Cockerill to the Board. Ian has extensive mining experience, including in chief executive, operational, strategic and technical roles. He was formerly the Chief Executive Officer of Anglo Coal and Gold Fields Limited, and a senior executive with AngloGold Ashanti and Anglo American Group. Ian has considerable public company board experience, including as Chairman of Polymetal International plc, and as a former Non-executive Director of Orica Limited, Ivanhoe Mines Ltd and Endeavour Mining Corporation, and the former Chairman of Blackrock World Mining Trust plc.

Susan Kilsby also joined the Board on 1 April 2019. She has extensive experience in finance and strategy, having held several roles in global investment banking. From 1996 to 2014, she held senior executive roles at Credit Suisse, including as a Senior Adviser, and Chairman of EMEA Mergers and Acquisitions. Susan brings to the BHP Board her Non-executive experience across multiple industries. Until recently, she was the Chairman of Shire plc and Senior Independent Director of BBA Aviation plc. She is currently a Non-executive Director of Unilever N.V and Unilever plc, Diageo plc and Fortune Brands Home & Security Inc.

I also want to acknowledge Carolyn Hewson, a Board member for over nine years, who will be retiring from the Board, as planned, at this year's Annual General Meeting. On behalf of her colleagues on the Board and the many employees she has closely interacted with over her term, I want to thank Carolyn for her counsel on the Board and as Chairman of the Remuneration Committee. Carolyn has made an outstanding contribution to BHP and we wish her all the very best for the future.

Social value

Throughout its history, BHP has recognised its corporate responsibility. Over the last decade, the business landscape has shifted and the expectations of shareholders and stakeholders have changed.

As a Company, we recognise we must work with others to address issues and opportunities, both inside and outside the mine gate, and we must work with a range of stakeholders to make a positive contribution. That is consistent with our longer-term interests and the long-term interests of our shareholders. Without the overt support of communities and other stakeholders, BHP cannot succeed.

We also strive to build social value through trust and transparency. That is why we disclose that in FY2019, our total direct economic contribution was US\$46.2 billion. This includes payments to suppliers, wages and employee benefits, dividends to shareholders, and taxes and royalties to government.

We consider social value throughout the value chain, from our local operational footprint, to our impact on society. We continue to focus on local businesses through initiatives such as the Local Buying Program to support suppliers in our communities. We also take a global perspective. This year we announced measures to address global warming, including a five-year US\$400 million Climate Investment Program (CIP).

Conclusion

During the past year, I have continued to meet with many of our institutional shareholders along with members of our retail shareholder base. Direct engagement with investors remains invaluable to the Board and the management of BHP.

I have also continued to visit many of our operations around the world. These visits reinforce the quality of BHP's assets and people, which gives me confidence that BHP can create long-term value for our shareholders.



Ken MacKenzie
Chairman

2.1.2 Governance structure

Our philosophy of governance goes beyond compliance. We believe high-quality governance supports long-term value creation: simply put, good governance is good business. Our approach is to adopt what we consider to be the best of the prevailing governance standards in Australia, the United Kingdom and the United States.

In the same spirit, we do not see governance as just a matter for the Board. Good governance is also the responsibility of executive management and is embedded throughout BHP. In this, the Board and management are guided by *Our Charter* values, including our value of Sustainability, in how we operate our business, interact with our stakeholders and plan for the future.

Update on governance reforms in Australia and the United Kingdom

In July 2018, the Financial Reporting Council released the 2018 UK Corporate Governance Code and the Guidance on Board Effectiveness. The UK Code emphasises the importance of demonstrating, through reporting, how the governance of a company contributes to its long-term sustainable success and achieves wider objectives. We agree that good governance contributes to sustainable success, and we recognise the renewed emphasis on a business building trust by forging strong relationships with key stakeholders. We also understand the importance of a corporate culture that is aligned with BHP's purpose and strategy, and which promotes integrity and includes diversity.

As anticipated in last year's Annual Report, BHP is well placed to comply with the UK Code. We have begun implementing new policies and procedures in line with the new Code, and will report against it in full in next year's Annual Report.

One of the main UK Code changes relates to how the Board engages with the workforce and takes into account their views. During the year under review, the Board for example:

- visited operational sites in a number of countries and engaged with a broad cross-section of the working population, both in the field and in small-group discussions and meetings to hear first-hand the views of our people;
- during a Board meeting in Brisbane, met with employees in a range of settings and at multiple levels to hear their perspectives, and learn more about their day-to-day work experience including working in one of our Integrated Remote Operations Centres and a virtual reality underground mine walkthrough;
- attended the annual HSEC awards, which celebrate excellence in HSEC implementation, and met with employees and award finalists to hear their improvement ideas and projects;

BHP governance structure



- heard from a range of employees at each Board meeting on topics such as the health and safety of our people, workforce relations, our purpose as a company, human rights, conduct concerns and diversity;
- participated in a half-day immersive in Melbourne led by employees on different transformation projects and their impact on the experience of our workforce, communities and suppliers;
- discussed the results of the annual employee Engagement and Perception Survey which covers employees' engagement levels, the state of the culture and level of inclusiveness and development.

The Board continues to consider additional mechanisms for workforce engagement.

In addition, the Terms of Reference of the Remuneration Committee have been updated so that the Committee will periodically review workforce remuneration and related policies and the alignment of incentives and reward with the Group's culture and will also engage with the workforce to explain how executive remuneration aligns with the wider company pay policy. The Board is finalising its approach to ensure it meets the spirit of the revised UK Code and more details on employee engagement and the other Code provisions will be provided in the 2020 Annual Report.

The Fourth Edition of the ASX Corporate Governance Council's Principles and Recommendations was released in February 2019 and takes effect from 1 July 2020. We are currently reviewing our practices to determine any changes needed to align fully with the revised Principles and Recommendations and will adopt early to the extent possible.

BHP governance structure

The following diagram describes the governance framework at BHP. It shows the interaction between our shareholders and the Board, as well as the relationship between the Board and the CEO. It also illustrates the flow of delegation from shareholders.

Robust processes are in place to ensure the delegation flows through the Board and its committees to the CEO, the Executive Leadership Team (ELT) and into the organisation. At the same time, accountability flows upwards from the Group to shareholders. This process helps ensure alignment with shareholders.

Our Charter is central to the governance framework of BHP. It embodies our corporate purpose, strategy and values and defines when we are successful. We foster a culture that values and rewards high ethical standards, personal and corporate integrity and respect for others.

2.2 Board of Directors and Executive Leadership Team

2.2.1 Board of Directors



Ken MacKenzie
BEng, FIEA, FAICD, 55

Chairman and Independent Non-executive Director

Director of BHP Group Limited and BHP Group Plc since September 2016.

Chairman of BHP Group Limited and BHP Group Plc from 1 September 2017.

Skills and experience:

Mr MacKenzie has extensive global and executive experience and a deeply strategic approach, with a focus on capital discipline and the creation of long-term value. He has insight and understanding in relation to organisational culture, the external environment, the diverse interests of our stakeholders and emerging issues related to the creation of social value.

Mr MacKenzie was the Managing Director and Chief Executive Officer of Amcor Limited, a global packaging company with operations in over 40 countries, from 2005 until 2015. During his 23-year career with Amcor, Mr MacKenzie gained extensive experience across all of Amcor's major business segments in developed and emerging markets in the Americas, Australia, Asia and Europe.

Other directorships and offices (current and recent):

- Advisory Board member of American Securities Capital Partners LLC (since January 2016)
- Former Advisory Board member of Adamantem Capital (from September 2016 to May 2019)
- Former Senior Adviser to McKinsey & Company (from January 2016 to June 2017)
- Former Managing Director and Chief Executive Officer of Amcor Limited (from July 2005 to April 2015)

Board Committee membership:

- Chairman of the Nomination and Governance Committee



Andrew Mackenzie
BSc (Geology), PhD (Chemistry), 62

Non-independent

Director of BHP Group Limited and BHP Group Plc since May 2013.

Mr Mackenzie was appointed Chief Executive Officer on 10 May 2013.

Skills and experience:

Mr Mackenzie has over 30 years' experience, including in oil and gas, minerals, strategy and capital discipline over long-term cycles, technology, global markets, public policy and commodity value chains. He also has non-executive director experience.

Mr Mackenzie joined BHP in November 2008 as Chief Executive Non-Ferrous, with responsibility for over half of BHP's 100,000 strong workforce across four continents. He was appointed Chief Executive Officer in May 2013. Prior to BHP, Mr Mackenzie held various executive roles at Rio Tinto, including as Chief Executive of Diamonds and Minerals, and at BP, where he held a number of senior roles, including as Group Vice President for Technology and Engineering, and Group Vice President for Chemicals. Mr Mackenzie was previously a non-executive director of Centrica plc.

Other directorships and offices (current and recent):

- Fellow of the Royal Society of London (since May 2014)
- Director (since May 2013) and Deputy Chair (since November 2017) of the International Council on Mining and Metals
- Former Director of the Grattan Institute (from May 2013 to November 2017)
- Former Non-executive Director of Centrica plc (from September 2005 to May 2013)



Terry Bowen
BAcc, FCPA, MAICD, 52

Independent Non-executive Director

Director of BHP Group Limited and BHP Group Plc since October 2017.

Skills and experience:

Mr Bowen has significant executive experience across a range of diversified industries. He has deep financial expertise, and extensive experience in capital allocation discipline, commodity value chains and strategy.

He served as an Executive Director and Finance Director of Wesfarmers Limited from 2009 to 2017, which included chairing a number of Wesfarmers' operating divisions. Wesfarmers is a conglomerate with interests predominantly in Australian and New Zealand retail, chemicals, fertilisers, coal mining and industrial and safety products. Prior to this, Mr Bowen held various senior executive roles within Wesfarmers, including as Finance Director of Coles, Managing Director of Industrial and Safety and Finance Director of Wesfarmers Landmark. He also served as the inaugural Chief Financial Officer of Jetstar Airways Limited from 2003 to 2005 and before this, held senior finance roles over an 11-year career with Tubemakers of Australia Limited. Mr Bowen is a former Director of Gresham Partners and past President of the National Executive of the Group of 100 Inc. He is also currently the Head of the Operations Group at BGH Capital.

The Board is satisfied that Mr Bowen meets the criteria for financial experience as outlined in the UK Corporate Governance Code, competence in accounting and auditing as required by the UK Financial Conduct Authority's Corporate Governance Rules and the audit committee financial expert requirements under the US Securities and Exchange Commission (SEC) Rules.

Other directorships and offices (current and recent):

- Head of the Operations Group at BGH Capital (since 2018)
- Director of West Coast Eagles Football Club (since 2017)
- Director of Navitas (since 2019)
- Former Executive Director and Finance Director of Wesfarmers Limited (from 2009 to 2017)
- Former Chairman of West Australian Opera Company Incorporated (from 2014 to 2017)
- Former Director of Gresham Partners Holdings Limited and Gresham Partners Group Limited (from 2009 to 2017)
- Former Director of the Harry Perkins Institute of Medical Research Incorporated (from 2010 to 2013)
- Former Chief Financial Officer of Jetstar Airways Limited (from 2003 to 2005)

Board Committee membership:

- Member of the Risk and Audit Committee

2.2.1 Board of Directors continued



Malcolm Broomhead

MBA, BE, FAICD, 67

Independent Non-executive Director

Director of BHP Group Limited and BHP Group Plc since March 2010.

Skills and experience:

Mr Broomhead has extensive experience as a non-executive director of global organisations, and as a chief executive of large global industrial and mining companies. Mr Broomhead has a broad strategic perspective and understanding of the long-term cyclical nature of the resources industry and commodity value chains, with proven health, safety and environment, and capital allocation performance.

Mr Broomhead was Managing Director and Chief Executive Officer of Orica Limited from 2001 until September 2005. Prior to joining Orica, he held a number of senior positions at North Limited, including Managing Director and Chief Executive Officer and, prior to that, held senior management positions with Halcrow (UK), MIM Holdings, Peko Wallsend and Industrial Equity.

Other directorships and offices

(current and recent):

- Chairman of Orica Limited (since January 2016) and a Director (since December 2015)
- Former Chairman of Asciano Limited (from October 2009 to August 2016)
- Former Director of Coates Group Holdings Pty Ltd (from January 2008 to July 2013)
- Director of the Walter and Eliza Hall Institute of Medical Research (since July 2014)
- Former Chairman of the Australia China One Belt One Road Advisory Board (from August 2016 to February 2019)

Board Committee membership:

- Chairman of the Sustainability Committee
- Member of the Nomination and Governance Committee



Ian Cockerill

MSc (Mineral Production Management), BSc (Hons.) (Geology), AMP – Oxford Templeton College, 65

Independent Non-executive Director

Director of BHP Group Limited and BHP Group Plc since April 2019.

Skills and experience:

Mr Cockerill has extensive global mining operational, project and executive experience having initially trained as a geologist. He was formerly the Chief Executive Officer of Anglo American Coal and Chief Executive Officer and President of Gold Fields Limited, and a senior executive with AngloGold Ashanti and Anglo American Group. Mr Cockerill is the Chairman of Polymetal International plc.

Mr Cockerill is the former Chairman of BlackRock World Mining Trust, the former Lead Independent Director of Ivanhoe Mines Ltd and former Director of Orica Limited and Endeavour Mining Corporation.

Other directorships and offices

(current and recent):

- Chairman of Polymetal International plc (since April 2019)
- Former Director of Orica Limited (from 2010 to 2019)
- Former Director (from 2013 to 2019) and Chairman (from 2016 to 2019) of BlackRock World Mining Trust plc
- Former Director (from 2011 to June 2019) and Lead Independent Director (from 2012 to June 2019) of Ivanhoe Mines Ltd
- Former Director of Endeavour Mining Corporation (from 2013 to 2019)
- Former Executive Director and executive Chairman (from 2010 to 2013) and Non-executive Chairman (from 2013 to 2017) of Petmin Limited
- Former Chairman of Hummingbird Resources plc (from 2009 to 2014)

Board Committee membership:

- Member of the Risk and Audit Committee
- Member of the Sustainability Committee



Anita Frew

BA (Hons), MRes, Hon. D.Sc, 62

Independent Non-executive Director

Director of BHP Group Limited and BHP Group Plc since September 2015.

Skills and experience:

Ms Frew has an extensive breadth of non-executive experience in diverse industries, including chemicals, engineering, industrial and finance. In particular, Ms Frew has valuable insight and experience in the creation of shareholder value, organisational change, mergers and acquisitions, financial and non-financial risk, and health, safety and environment.

Ms Frew is the Chairman of Croda International Plc (a British speciality chemicals company) and Deputy Chairman and Senior Independent Director of Lloyds Banking Group Plc. Prior to this, she was the Chairman of Victrex Plc, Senior Independent Director of Aberdeen Asset Management Plc and IMI Plc and a Non-executive Director of Northumbrian Water.

Other directorships and offices

(current and recent):

- Director (since March 2015) and Chairman (since September 2015) of Croda International Plc
- Director (since 2010), Deputy Chairman (since December 2014) and Senior Independent Director (since May 2017) of Lloyds Banking Group Plc
- Former Senior Independent Director of Aberdeen Asset Management Plc (from October 2004 to September 2014)
- Former Senior Independent Director of IMI Plc (from March 2006 to May 2015)
- Former Chairman of Victrex Plc (from 2008 to October 2014)

Board Committee membership:

- Member of the Remuneration Committee
- Member of the Risk and Audit Committee



Carolyn Hewson
AO, BEC (Hons), MA, FAICD, 64

Independent Non-executive Director

Director of BHP Group Limited and BHP Group Plc since March 2010.

Skills and experience:

Ms Hewson has extensive non-executive experience in a number of sectors, as well as executive experience in financial markets, risk management and investment management. Through her non-executive roles, Ms Hewson brings a breadth of experience and insight on strategy and portfolio optimisation through cycles, financial and non-financial risk, social value, organisational culture and the changing external environment.

Ms Hewson is a former investment banker with over 35 years' experience in the finance sector. She was previously an Executive Director of Schroders Australia Limited and has extensive financial markets, risk management and investment management expertise. Ms Hewson is a former Director of Stockland Group, BT Investment Management Limited, Westpac Banking Corporation, AMP Limited, CSR Limited, AGL Energy Limited, the Australian Gas Light Company, South Australian Water and the Economic Development Board of South Australia.

Other directorships and offices (current and recent):

- Member of Federal Government Growth Centres Advisory Committee (since January 2015)
- Director of Infrastructure SA (since January 2019)
- Former Director of Stockland Group (from March 2009 to September 2018)
- Former Trustee Westpac Foundation (from May 2015 to 2019)
- Former Member of Australian Federal Government Financial Systems Inquiry (from January 2014 to December 2014)
- Former Member of the Advisory Board of Nanosonics Limited (from June 2007 to August 2015)
- Former Director of BT Investment Management Limited (from December 2007 to December 2013)
- Former Director of Australian Charities Fund Operations Limited (from June 2000 to February 2014)
- Former Director and Patron of the Neurosurgical Research Foundation (from April 1993 to December 2013)
- Former Trustee and Chairman of Westpac Buckland Fund (from January 2011 to December 2013) and Chairman of Westpac Matching Gifts Limited (from August 2011 to December 2013), together known as the Westpac Foundation
- Former Director of Westpac Banking Corporation (from February 2003 to June 2012)

Board Committee membership:

- Chairman of the Remuneration Committee
- Member of the Nomination and Governance Committee



Susan Kilsby
MBA, BA, 60

Independent Non-executive Director

Director of BHP Group Limited and BHP Group Plc since April 2019.

Skills and experience:

Ms Kilsby has extensive experience in mergers and acquisitions, and finance and strategy, having held several roles in global investment banking. From 1996 to 2014, she held senior executive roles at Credit Suisse, including as a Senior Adviser, and Chairman of EMEA Mergers and Acquisitions. Ms Kilsby also has non-executive experience across multiple industries. Until recently, she was the Chairman of Shire plc and the Senior Independent Director at BBA Aviation plc. Ms Kilsby is currently a Non-executive Director of Unilever N.V and Unilever plc, Diageo plc and Fortune Brands Home & Security Inc.

Other directorships and offices (current and recent):

- Director of Diageo plc (since 2018)
- Director of Fortune Brands Home & Security Inc. (since 2015)
- Director of Unilever N.V and Unilever plc (since August 2019)
- Member of the UK Takeover Panel
- Former Director (from 2011 to 2019) and Chairman (from 2014 to 2019) of Shire plc
- Former Director (from 2012 to 2019) and Senior Independent Director (from 2016 to 2019) of BBA Aviation Plc
- Former Director of Goldman Sachs International (from 2016 to 2018)
- Former Director of Keurig Green Mountain (from 2013 to 2016)
- Former Director of Coca-Cola HBC (from 2013 to 2015)
- Former Director of L'Occitane International (from 2010 to 2012)

Board Committee membership:

- Member of the Remuneration Committee



Lindsay Maxsted
DipBus (Gordon), FCA, FAICD, 65

Independent Non-executive Director

Director of BHP Group Limited and BHP Group Plc since March 2011.

Skills and experience:

Mr Maxsted has extensive experience in non-executive roles, including as chairman of two global companies. Mr Maxsted is also a corporate recovery specialist who has managed a number of Australia's largest corporate insolvency and restructuring engagements and, until 2011, continued to undertake consultancy work in the restructuring advisory field. He was the Chief Executive Officer of KPMG Australia between 2001 and 2007.

Mr Maxsted has a breadth of understanding and insight in relation to the creation of long-term value through cycles, financial and non-financial risk, capital allocation discipline and the external environment.

The Board is satisfied that Mr Maxsted meets the criteria for recent and relevant financial experience as outlined in the UK Corporate Governance Code, competence in accounting and auditing as required by the UK Financial Conduct Authority's Corporate Governance Rules. In addition, he is the Board's nominated 'audit committee financial expert' for the purposes of the SEC Rules.

Other directorships and offices (current and recent):

- Chairman of Westpac Banking Corporation (since December 2011) and a Director (since March 2008)
- Chairman of Transurban Group (since August 2010) and a Director (since March 2008)
- Director and Honorary Treasurer of Baker Heart and Diabetes Institute (since June 2005)

Board Committee membership:

- Chairman of the Risk and Audit Committee

2.2.1 Board of Directors continued



John Mogford

BEng, 66

Independent Non-executive Director

Director of BHP Group Limited and BHP Group Plc since October 2017.

Skills and experience:

Mr Mogford has significant global executive experience, including in oil and gas, capital allocation discipline, commodity value chains and health, safety and environment. Mr Mogford has also held roles as a non-executive director on a number of boards.

Mr Mogford spent the majority of his career in various leadership, technical and operational roles at BP Plc. He was the Managing Director and an Operating Partner of First Reserve, a large global energy focused private equity firm, from 2009 until 2015, during which he served on the boards of First Reserve's investee companies, including as Chairman of Amromco Energy LLC and White Rose Energy Ventures LLP. Mr Mogford retired from the boards of Weir Group Plc, and one of First Reserve's portfolio companies, DOF Subsea AS, in 2018, and is a Non-executive Director of ERM Worldwide Group Limited.

**Other directorships and offices
(current and recent):**

- Non-executive Director of ERM Worldwide Group Limited (since 2015)
- Former Non-executive Director of Network Rail Limited (from 2016 to 2017)
- Former Managing Director (from 2012 to 2015) and Operating Partner (from 2009 to 2012) of First Reserve Corporation
- Former Non-executive Director of Midstates Petroleum Company Inc. (from 2011 to 2016)
- Former Non-executive Director of CHC Group Limited (from 2014 to 2015) and CHC Helicopters SA (from 2012 to 2015)
- Former Non-executive Director of DOF Subsea AS (from 2009 to 2018)
- Former Non-executive Director of Weir Group Plc (from 2008 to 2018)

Board Committee membership:

- Member of the Sustainability Committee



Shriti Vadera

MA, 57

Senior Independent Director, BHP Group Plc

Director of BHP Group Limited and BHP Group Plc since January 2011.

Skills and experience:

Ms Vadera brings wide-ranging and global experience in economics, public policy and strategy, as well as deep understanding and insight in relation to global and emerging markets and the macro-political and economic environment.

Ms Vadera has held executive roles and has broad non-executive experience. She is Chairman of Santander UK Group Holdings Plc and Santander UK Plc, and was a Director of AstraZeneca Plc from 2011 to 2018. She was an investment banker with S G Warburg/UBS from 1984 to 1999, on the Council of Economic Advisers, HM Treasury from 1999 to 2007, Minister in the UK Department of International Development in 2007, Minister in the Cabinet Office and Business Department from 2008 to 2009 with responsibility for dealing with the financial crisis and G20 Adviser from 2009 to 2010. Ms Vadera advised governments, banks and investors on the Eurozone crisis, banking sector, debt restructuring and markets from 2010 to 2014.

**Other directorships and offices
(current and recent):**

- Chairman of Santander UK Group Holdings Plc and Santander UK Plc (since March 2015)
- Former Director of AstraZeneca Plc (from January 2011 to December 2018)
- Former Trustee of Oxfam (from 2000 to 2005)

Board Committee membership:

- Member of the Nomination and Governance Committee
- Member of the Remuneration Committee



Caroline Cox

BA (Hons), MA, LLB, BCL, 49

Group General Counsel & Company Secretary and Chairman of the Disclosure Committee

Ms Cox was appointed Group Company Secretary of BHP effective March 2019. Ms Cox joined BHP in 2015 as Vice President Legal and was appointed Group General Counsel in March 2016, a role she continues to hold. Prior to BHP, Ms Cox was a Partner at Herbert Smith Freehills, a firm she was with for 11 years, specialising in cross-border regulatory investigations, inquiries and disputes. Earlier in her career, Ms Cox was a solicitor at the Canadian law firm, Osler Hoskin & Harcourt and clerked for Judges at the Alberta Court of Appeal and Court of Queen's Bench.

2.2.2 Executive Leadership Team



Andrew Mackenzie
BSc (Geology), PhD (Chemistry), 62
Chief Executive Officer
(See section 2.2.1 for biography)



Peter Beaven
BAcc, CA, 52
Chief Financial Officer
Mr Beaven was appointed Chief Financial Officer in October 2014. Previously he was the President of Copper and prior to that appointment in May 2013, President of Base Metals, President of BHP's Manganese Business, and Vice President and Chief Development Officer for Carbon Steel Materials. He has wide experience across a range of regions and businesses in BHP, UBS Warburg, Kleinwort Benson and PricewaterhouseCoopers.



Geoff Healy
BEc, LLB, 53
Chief External Affairs Officer
Mr Healy joined BHP as Chief Legal Counsel in June 2013 and was appointed Chief External Affairs Officer in February 2016. Prior to joining BHP, Mr Healy was a partner at Herbert Smith Freehills for 16 years and a member of its Global Partnership Council, working widely across its network of Australian and international offices.



Mike Henry
BSc (Chemistry), 53
President Operations, Minerals Australia
Mr Henry joined BHP in 2003. He served as President, Coal from January 2015 to February 2016 when he was appointed President Operations, Minerals Australia. Prior to January 2015, he was President, HSE, Marketing & Technology. His earlier career with BHP included a number of commercial roles covering Minerals and Petroleum, including the role of Chief Marketing Officer.



Diane Jurgens
BSEE, MSEE, MBA, 57
Chief Technology Officer
Ms Jurgens joined BHP in 2015 and was appointed Chief Technology Officer in February 2016. Prior to joining BHP, Ms Jurgens was based in China for nearly 10 years, serving as Board Member and Managing Director of Shanghai OnStar Telematics Company, in addition to prior roles as Chief Information Officer and Strategy Board member for General Motors' International and China Operations. Ms Jurgens' early career was with the Boeing Company where she worked for 12 years in engineering, information technology and business development leadership roles.



Daniel Malchuk
BEng, MBA, 53
President Operations, Minerals Americas
Mr Malchuk was appointed President Operations, Minerals Americas in February 2016 based in Santiago, Chile. Previously he was President of the Copper Business. Mr Malchuk has held a number of roles in BHP, including President Aluminium, Manganese and Nickel, President of Minerals Exploration, and Vice President Strategy and Development Base Metals. He has worked in four countries with BHP, since joining the Company in April 2002.

2.2.2 Executive Leadership Team continued



Vandita Pant

BCom (Hons), MBA, Business Administration, 49

Chief Commercial Officer

Ms Pant joined BHP in 2016 and was appointed Chief Commercial Officer in July 2019, with global accountabilities for Marketing, Procurement, Maritime and Logistics and for developing the Company's views on global commodities markets. Prior to this role she was Group Treasurer and Head of Europe. Before joining BHP, she held roles with ABN Amro and Royal Bank of Scotland and has lived and worked in Singapore, India, Japan and the UK.



Jonathan Price

MEng (Hons), Metallurgy & Materials Science, MBA, Business Administration, 43

Chief Transformation Officer

Mr Price joined BHP in 2006 and was appointed Chief Transformation Officer in March 2019. Prior to this, he was Transformation Director, and held senior roles in Nickel, Marketing, Iron Ore, and Finance, where he has worked with governments, joint venture partners, customers, industry peers, investors and advisors. Before joining BHP, he held roles at ABN AMRO investment bank in London, servicing metals and mining clients through a period of industry consolidation.



Geraldine Slattery

BSc, Physics, MSc, International Management (Oil & Gas), 50

President Operations, Petroleum

Ms Slattery joined BHP in 1994 and was appointed President Operations, Petroleum in March 2019. Ms Slattery has 25 years' of experience with BHP, most recently as Asset President Conventional, and prior to that in several senior operational and business leadership roles across the Petroleum business in the United Kingdom, Australia and the United States.



Laura Tyler

BSc (Geology (Hons)), MSc (Mining Engineering), 52

Chief Geoscientist

Ms Tyler joined BHP in 2004 and was appointed Chief Geoscientist in 2019 in addition to her role as Asset President of Olympic Dam. Previously, Ms Tyler was Chief of Staff to the CEO, Asset President of the Cannington Mine, and held technical and operational roles at the EKATI Diamond Mine in Canada and corporate HSEC in London. Prior to joining BHP, Ms Tyler worked for Western Mining Corporation, Newcrest Mining and Mount Isa Mines in various technical and operational roles.



Athalie Williams

BA (Hons), FAHRI, 49

Chief People Officer

Ms Williams joined BHP in 2007 and was appointed to the role of President, Human Resources in January 2015. Ms Williams' title changed to Chief People Officer effective 1 July 2015. She has previously held senior Human Resources positions, including Vice President Human Resources Marketing, Vice President Human Resources for the Uranium business and Group HR Manager, Executive Resourcing & Development. Prior to BHP, Ms Williams was an organisation strategy adviser with Accenture (formerly Andersen Consulting) and National Australia Bank. Ms Williams is a member of Chief Executive Women and a Director of the BHP Foundation.

2.3 Shareholder engagement

Part of the Board's commitment to high-quality governance is expressed through the approach BHP takes to engaging and communicating with its shareholders. We encourage shareholders to make their views known to us.

Our shareholders are based around the globe. As well as the two AGMs, which are an important part of the governance and investor engagement process, the Board uses a range of formal and informal communication channels to understand the views of shareholders. This ensures the Board represents shareholders in governing BHP. We regularly engage with institutional shareholders and investor representative organisations in Australia, South Africa, Europe and the United States. The purpose of these meetings is to discuss governance and strategy of BHP. The meetings are an important opportunity to build relationships and to engage directly

with governance managers, fund managers and governance advisers. The Chairman and the CEO also meet regularly with retail shareholder representatives and their members, such as the Australian Shareholders' Association, the UK Shareholders' Association and ShareSoc.

We take a coordinated approach to engagement on corporate governance and during FY2019, we responded to a wide range of shareholders, their representatives and non-governmental organisations. Issues covered included tailings dams, Samarco, non-operated joint ventures, industry associations, tax and transparency, corporate purpose, remuneration, human rights, climate change, social value and workforce relations. Engagement with other stakeholder groups, including non-governmental organisations, is outlined in section 1.10.

Investor engagement in FY2019

Topic	Led by	Purpose	FY2019 activity
Strategy, governance and remuneration	Chairman	Discuss Board priorities and seek shareholder feedback.	<ul style="list-style-type: none"> ○ Meetings held in July 2018 in Australia and in May 2019 in the US. The Chairman also participated in the Remuneration meetings in Australia and the UK referenced below. ○ Retail shareholder event, held in conjunction with the Australian Shareholders' Association in July 2018, in line with our intention to make this annual. Event in June 2019 with UK Shareholders' Association and ShareSoc.
Remuneration	Chairman of the Remuneration Committee	Remuneration policy consultation	<ul style="list-style-type: none"> ○ Meetings held in Australia in April 2019 and the UK in May 2019.
Strategy, finance and operating performance	CEO, CFO, senior management and Investor Relations	Update shareholders on results or other key announcements. We also engage with other capital providers; for example, through meetings with bondholders.	<ul style="list-style-type: none"> ○ Live webcasts of important announcements. ○ Face-to-face investor meetings held in Australia, Canada, Hong Kong, Singapore, South Africa, Spain, UK and the US. ○ Debt investor meetings held in London in September. ○ Debt investor teleconferences held in August 2018 and February 2019 were attended by investors in Australia, France, Singapore, Switzerland, the UK and the US.
Health, Safety, Environment and Community (HSEC)	Head of Health, Safety and Environment	Update investors on key HSEC issues.	<ul style="list-style-type: none"> ○ Meetings held in Australia in September and in the UK and Europe in October to re-align with the release of the Sustainability Report and in June 2019 following the appointment of a new Group Head of HSE.
Governance strategy and briefings	Group Governance	Provides a conduit to enable the Board and its committees to remain abreast of evolving investor expectations and to continuously enhance the governance processes of BHP.	<ul style="list-style-type: none"> ○ Meetings held in Australia and the UK throughout the year and the US in March. Multiple briefings on Samarco and an update in June in Australia and the UK covering BHP's approach to tailings dams. Conversations relating to remuneration were also held with the Vice President Reward in August 2018 in advance of the broader consultation about the remuneration policy.
Climate change	Vice President, Sustainability and Climate Change	Update investors on our strategy on climate change.	<ul style="list-style-type: none"> ○ Ad hoc meetings held in Australia, Europe and the US throughout the year.

Shareholder communications

Shareholders can communicate with BHP and our registrar electronically. Shareholders can contact us at any time through our Investor Relations team, with contact details available online at bhp.com. Shareholder and analyst feedback is shared with the Board through the Chairman, the Senior Independent Director, the Chairman of the Remuneration Committee, other Directors, the CEO, the CFO and the Group Company Secretary. In addition, Investor Relations and Group Governance provide regular reports to the Board on shareholder and governance manager feedback and analysis. This approach provides a robust mechanism to ensure that Directors are aware of issues raised and have a good understanding of current shareholder views.

Annual General Meetings

The AGMs provide a forum to facilitate the sharing of shareholder views and are important events in the BHP calendar. These meetings provide an update for shareholders on our performance and offer an opportunity for shareholders to ask questions and vote.

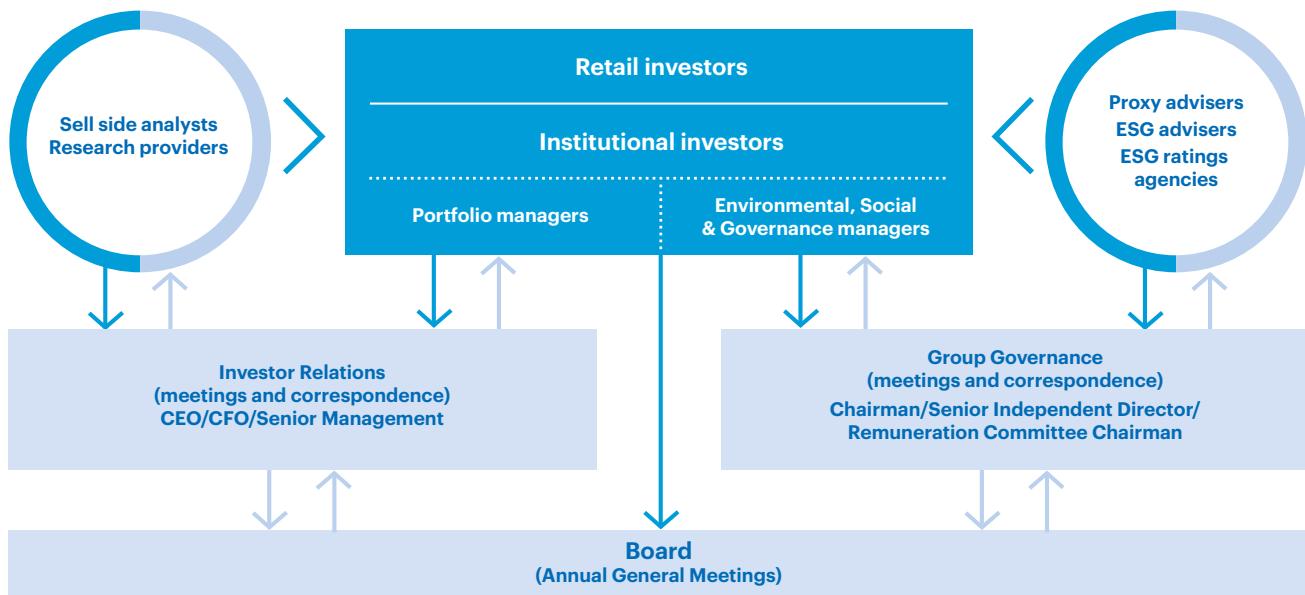
Key members of management, including the CEO and CFO, are present and available to answer questions. The External Auditor attends the AGMs and is also available to answer questions.

Proceedings at shareholder meetings are webcast live from our website. Copies of the speeches delivered by the Chairman and CEO to the AGMs are released to the relevant stock exchanges and posted on our website. A summary of proceedings and the outcome of voting on the items of business are released to the relevant stock exchanges and posted on our website as soon as they are available following completion of the BHP Group Limited AGM.



Information relating to our AGMs is available online at bhp.com/meetings.

Understanding shareholder views



2.4 Role and responsibilities of the Board

The Board's role is to represent the shareholders. It is accountable to shareholders for creating and delivering value through the effective governance of BHP. This role requires a high-performing Board, with all Directors contributing to the Board's collective decision-making processes.

The *Board Governance Document* is a statement of the practices and processes the Board has adopted to discharge its responsibilities. It includes the processes the Board has implemented to undertake its own tasks and activities; the matters it has reserved for its own consideration and decision-making; the authority it has delegated to the CEO, including the limits on the way in which the CEO can execute that authority; and guidance on the relationship between the Board and the CEO.

The *Board Governance Document* specifies the role of the Chairman, the membership of the Board and the role and conduct

of Non-executive Directors. It also provides that the Group Company Secretary is accountable to the Board and advises the Chairman and, through the Chairman, the Board and individual Directors on all matters of governance process.

The CEO is required to report regularly to the Board in a spirit of openness and trust on the progress being made by BHP. Open dialogue between individual members of the Board and the CEO and other members of the management team is encouraged to enable Directors to gain a better understanding of the Group.

For more information,
refer to sections 2.5 to 2.8.

The Board Governance Document is available online at bhp.com/governance.

Matters reserved for Board decision

Topic	Matter
Succession	<ul style="list-style-type: none"> ○ Appointment of the CEO and determination of the terms of the appointment. ○ Succession planning for direct reports to the CEO. ○ Approval of the appointment of executives reporting to the CEO and membership of the ELT, and material changes to the organisational structure involving direct reports to the CEO.
Strategic matters	<ul style="list-style-type: none"> ○ Strategy, annual budgets, balance sheet management and funding strategy. ○ Determination of commitments, capital and non-capital items, acquisitions and divestments above specified thresholds. ○ Setting dividend policy and determining dividends. ○ Market risk management strategy and limits.
Monitoring	<ul style="list-style-type: none"> ○ Performance assessment of the CEO and the Group and the remuneration of the CEO. ○ Management of Board composition processes and performance. ○ Review and monitoring systems of risk management and internal control. ○ Establishment and assessment of measurable diversity objectives.
Reporting and regulation	<ul style="list-style-type: none"> ○ Determination and adoption of documents (including the publication of reports and statements to shareholders) that are required by the Group's constitutional documents, statute or by other external regulation. ○ Determination and approval of matters that are required by the Group's constitutional documents, statute or by other external regulation to be determined or approved by the Board.

Key Board activities during FY2019

The Board considered a range of matters during FY2019, as outlined below.

Strategic matters	
Capital allocation (Capital Allocation Framework, capital prioritisation and development outcomes)	<ul style="list-style-type: none"> ○ Dividend policy and dividend recommendations ○ Capital prioritisation and portfolio development options ○ Capital execution watchlist ○ Sale of Onshore US distribution options and considerations
Funding (annual budgets, balance sheet management, liquidity management)	<ul style="list-style-type: none"> ○ Two-year budget, including transformation ○ Funding updates ○ Euro medium-term note renewal ○ Distribution of sale of Onshore US proceeds
Portfolio (Group scenarios, commodity and asset review, growth options, approving commitments, capital and non-capital items and acquisitions and divestments above a specified threshold, and geopolitical and macro-environmental impacts)	<ul style="list-style-type: none"> ○ Portfolio review – options and alternatives ○ Transformation overview and initiatives ○ Risk appetite statement ○ Group scenarios – signposts update ○ Commodity price protocols ○ Transaction updates ○ Climate change ○ Samarco strategy update and funding ○ Energy Coal review ○ Nickel West review ○ Nickel commodity attractiveness ○ Petroleum exploration ○ Atlantis project overview and execution ○ Appraisal well funding – Trion Mexico ○ Jansen ○ Autonomous haulage
Monitoring and assurance matters	
Includes matters and/or documents required by the Group's constitutional documents, statute or by other external regulation	<ul style="list-style-type: none"> ○ Saraji fatality ICAM ○ Tailings dams ○ BHP purpose ○ Investor relations reports ○ CEO reports ○ HSEC reports ○ Risk and Audit Committee report-outs ○ Sustainability Committee report-outs including Site Visit report-outs ○ Nomination and Governance Committee report-outs ○ Remuneration Committee report-outs ○ Approval of the CEO's remuneration ○ Reviewing and approving the Annual Report suite ○ Site visits and Board meetings held outside of Melbourne and London
Chairman's matters	
Board composition, succession planning, performance and culture	<ul style="list-style-type: none"> ○ Committee succession ○ Board composition and succession ○ Board evaluation ○ Inclusion and diversity update and FY2019 targets ○ Reviewing the ELT succession and talent pipeline ○ Corporate Governance updates ○ Board culture framework

2.5 Board membership

The Board currently has 11 members. The Non-executive Directors are considered by the Board to be independent of management and free from any business relationship or other circumstance that could materially interfere with the exercise of objective, unfettered or independent judgement. For more information on the process for assessing independence, refer to section 2.10.

The Nomination and Governance Committee retains the services of external recruitment specialists to assist in the identification of potential candidates for the Board.

The Board believes there is an appropriate balance between Executive and Non-executive Directors to promote shareholder interests and govern BHP effectively. While the Board includes a smaller number of Executive Directors than is common for UK-listed companies, its composition is appropriate for the Dual Listed Company structure and is in line with Australian-listed company practice. In addition, the Board has extensive access to members of senior management who frequently attend Board meetings, where they make presentations and engage in discussions with Directors, answer questions and provide input and perspective on their areas of responsibility. The CFO attends all Board meetings. The Board, led by the Chairman, also holds discussions in the absence of management at each Board meeting.



The Directors of BHP, along with their biographical details, are listed in section 2.2.1.

Inclusion and diversity

Our Charter and the Our Requirements for Human Resources standard guide management on all aspects of human resource management, including inclusion and diversity. Underpinning the Our Requirements standards and supporting the achievement of diversity across BHP are principles and measurable objectives that define our approach to diversity and our focus on creating an inclusive work environment.

The Board considers that many facets of diversity are required for the Board, as set out in section 2.8, in order to meet the corporate purpose. Diversity is a core consideration in ensuring the Board and its committees have the right blend of perspectives so that the Board oversees BHP effectively for shareholders.

Part of the Board's role is to consider and approve measurable objectives for workforce diversity each financial year and to assess annually both the objectives and our progress in achieving those objectives. This progress will continue to be disclosed in the Annual Report, along with the proportion of women in our workforce, in senior management positions and on the Board, with our aspirational goal being to achieve gender balance across the business and the Board by CY2025. For more information on inclusion and diversity at BHP, including our progress against our measurable objectives and our employee profile more generally, refer to section 1.9.

2.6 Chairman

Mr MacKenzie was considered by the Board to be independent on his appointment as Chairman and was an independent Non-executive Director from his appointment to the Board effective 22 September 2016. The Board considered that none of Mr MacKenzie's other commitments (set out in section 2.2.1) interfered with the discharge of his responsibilities to BHP during the year under review. The Board is satisfied that as Chairman, Mr MacKenzie made sufficient time available to serve BHP effectively.

2.7 Renewal and re-election

Renewal

BHP adopts a structured and rigorous approach to Board succession planning. We consider Board size, tenure and the skills, experience and attributes required to effectively govern and manage risk within BHP. This process is continuous and planning is based on a nine-year tenure, allowing the Board to ensure we have the right balance on the Board between experience and fresh perspectives, noting the value of non-executive and executive experience. It also ensures the Board continues to be fit-for-purpose and evolves to take account of the rapidly changing external environment and BHP's circumstances. Further information is set out in section 2.13.3 Nomination and Governance Committee Report.

When considering new appointments to the Board, the Nomination and Governance Committee oversees the preparation of a role description, which includes the criteria and attributes set out in the *Board Governance Document* and section 2.8, which is provided to an external search firm retained to conduct a global search.

Once a candidate is identified, the Board, with the assistance of external consultants, conducts appropriate background and reference checks. The candidate is also interviewed by each Board member ahead of the Board deciding whether to appoint the candidate to the Board.

The Board has adopted a letter of appointment that contains the terms on which Non-executive Directors will be appointed, including the basis upon which they will be indemnified by the Group. The letter of appointment clearly defines the role of Directors, including the expectations in terms of independence, participation, time commitment and continuous improvement.



A copy of the terms of appointment for Non-executive Directors is available online at bhp.com/governance.

Director re-election

The Board adopted a policy in 2011, consistent with the UK Corporate Governance Code, under which all Directors must seek re-election by shareholders annually if they wish to remain on the Board. The Board believes annual re-election promotes and supports accountability to shareholders. The combined voting outcome of the BHP Group Plc and BHP Group Limited 2018 AGMs was that each Director received more than 96.9 per cent in support of their re-election.

Board support for re-election is not automatic. Directors who are seeking re-election are subject to a performance appraisal overseen by the Nomination and Governance Committee. Annual re-election effectively means all Directors are subject to a performance appraisal annually. The Board, on the recommendation of the Nomination and Governance Committee, makes a determination as to whether it will endorse a retiring Director for re-election. The Board will not endorse a Director for re-election if his or her performance is not considered satisfactory. The Notice of Meeting provides information that is material to a shareholder's decision whether or not to re-elect a Director, including whether or not re-election is supported by the Board.

2.8 Director skills, experience and attributes

Skills, experience and attributes required

The Board and its Nomination and Governance Committee work to ensure that the Board continues to have the right balance necessary to discharge its responsibilities in accordance with the highest standards of governance. The requirements for Board composition are articulated in an overarching statement, with the desired skills and experience included in the skills and experience matrix.

The overarching statement, skills, experience and attributes take into account, and respond to, the external environment and BHP's core business characteristics, including:

- BHP's strategy and the long-term cyclical nature of the business;
- that BHP is a global natural resources company operating in global markets;
- the continued need to focus on financial and non-financial risk (including HSEC risks);
- the increasing challenge related to social value and the many stakeholders that are impacted by BHP, including civil society, communities, investors, government, regulators, customers and employees;
- the increasing importance of technology and innovation to the sustainability of BHP;
- ongoing and continued focus on capital allocation, and improving shareholder and capital returns.

Overarching statement of Board requirements

The BHP Board will be diverse in terms of gender, background, nationality, skills, expertise and geographic location. The Board will comprise Directors who have proven past performance and the level of business, executive and non-executive experience required to:

- provide the breadth and depth of understanding necessary to effectively create long-term shareholder value;
- protect and promote the interests of BHP and its social licence to operate;
- ensure the talent, capability and culture of the Group to support the long-term delivery of BHP's strategy.

Attributes

The Board considers that each of the Non-executive Directors has the following attributes: sufficient time to undertake the responsibilities of the role; honesty and integrity; and a preparedness to question, challenge and critique. The Executive Director brings additional perspectives to the Board through a deeper understanding of BHP's business and day-to-day operations.

Skills matrix

During FY2018, the Nomination and Governance Committee and the Board conducted a review of the Board skills matrix, which took into account the skills and experience the Board requires for the next period of BHP's development, having regard to BHP's circumstances and the changing external environment.

Fewer Directors meet each of the skills and experience contained in the updated matrix than was the case previously. This is intentional, but all Directors satisfy both the overarching statement and the key attributes. Further information about the skills and attributes of each Director is set out in their biographies.

Board skills and experience: Climate change

The strategic issues facing the Board change over time. It is important the Board is able to identify these issues and access the best possible advice.

Climate change is a multi-faceted issue that affects investment decisions, our portfolio, oversight of the sustainability of our operations and engagement with government, investors, suppliers and customers. The Board includes an appropriate mix of skills and experience to understand the implications of climate change on our operations, market and society.

Climate change is treated as a Board-level governance issue and is discussed regularly, including during Board strategy discussions, portfolio review and investment decisions, and in the context of scenario triggers and signposts. The Sustainability Committee spends a significant amount of time considering systemic climate change matters relating to the resilience of, and opportunities for, BHP's portfolio.

As a Board-level governance issue requiring experience of managing in the context of uncertainty and an understanding of the risk environment of the Group, the Non-executive Directors bring relevant experience to our climate change discussions.

Board members bring significant sectoral experience, which equips them to consider potential implications of climate change on the Group and its operational capacity. Board members also possess extensive experience in energy, governance and sustainability. There is also wide-ranging experience in finance, economics and public policy, which helps BHP understand the nature of the debate and the international policy response as it develops. In addition, there is a deep understanding of systemic risk and the potential impacts on our portfolio.

Collectively, this means the Board has the experience and skills to assist the Group in the optimal allocation of financial, capital and human resources for the creation of long-term shareholder value. It also means the Board understands the importance of meeting the expectations of stakeholders, including in respect of the natural environment.

To enhance that experience, the Board has taken a number of measures to ensure that its decisions are appropriately informed by climate change science and expert advisers.

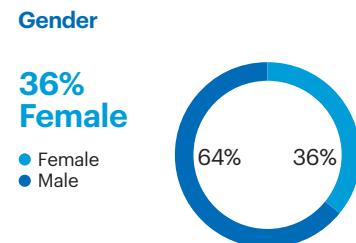
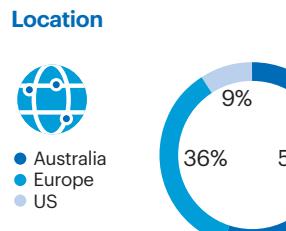
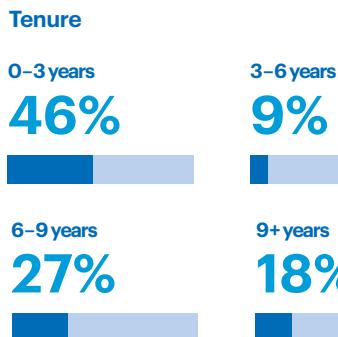
The Board seeks the input of management (including Dr Fiona Wild, our Vice President Sustainability and Climate Change), our Forum on Corporate Responsibility (which advises the Board on sustainability issues and includes Don Henry, former CEO of the Australian Conservation Foundation and Changhua Wu, former Greater China Director, the Climate Group) and other independent advisers.

During the year the Board received an update relating to the Group's climate change strategy and approved a range of actions to support ongoing delivery, including strengthening the link between emissions performance and executive remuneration, establishing a new medium-term, science-based target for scope one and two emissions in line with the Paris Agreement, and the framework for a Climate Investment Program, which includes an amount of US\$400 million as set out by the CEO in July 2019.

Skills and experience	Board
Total Directors	11
Mining Senior Executive who has deep operating or technical mining experience with a large company operating in multiple countries; successfully optimised and led a suite of large, global, complex operating assets that have delivered consistent and sustaining levels of high performance (related to cost, returns and throughput); successfully led exploration projects with proven results and performance; delivered large capital projects that have been successful in terms of performance and returns; and a proven record in terms of health, safety and environmental performance and results.	3
Oil and gas Senior executive who has deep technical and operational oil and gas experience with a large company operating in multiple countries; successfully led production operations that have delivered consistent and sustaining levels of high performance (related to cost, returns and throughput); successfully led exploration projects with proven results and performance; delivered large capital projects that have been successful in terms of performance and returns; and a proven record in terms of health, safety and environmental performance and results.	2
Global experience Global experience working in multiple geographies over an extended period of time, including a deep understanding of and experience with global markets, and the macro-political and economic environment.	7
Strategy Experience in enterprise-wide strategy development and implementation in industries with long cycles, and developing and leading business transformation strategies.	9
Risk Experience and deep understanding of systemic risk and monitoring risk management frameworks and controls, and the ability to identify key emerging and existing risks to the organisation.	11
Commodity value chain expertise End-to-end value or commodity chain experience – understanding of consumers, marketing demand drivers (including specific geographic markets) and other aspects of commodity chain development.	6
Financial expertise Extensive relevant experience in financial regulation and the capability to evaluate financial statements and understand key financial drivers of the business, bringing a deep understanding of corporate finance, internal financial controls and experience probing the adequacy of financial and risk controls.	11/2⁽¹⁾
Relevant public policy expertise Extensive experience specifically and explicitly focused on public policy or regulatory matters, including ESG (in particular climate change) and community issues, social responsibility and transformation, and economic issues.	3
Health, safety, environment and community Extensive experience with complex workplace health, safety, environmental and community risks and frameworks.	7
Technology Recent experience and expertise with the development, selection and implementation of leading and business transforming technology and innovation, and responding to digital disruption.	2
Capital allocation and cost efficiency Extensive direct experience gained through a senior executive role in capital allocation discipline, cost efficiency and cash flow, with proven long-term performance.	7

(1) Eleven Directors meet the criteria of financial expertise outlined above. Two of these Directors also meet the criteria for recent and relevant financial experience as outlined in the UK Corporate Governance Code, competence in accounting and auditing as required by the UK Financial Conduct Authority's Corporate Governance Rules in DTR7 and the audit committee financial expert requirements under the US Securities and Exchange Commission rules.

Board tenure and diversity (as at 30 June 2019)



2.9 Director induction, training and development

The development of industry and Group knowledge is a continuous and ongoing process. The Board's development activity reflects the diversification of the portfolio through the provision of regular updates to Directors on BHP's assets, commodities, geographies and markets, and on the changing external environment, to enable the Board to remain up-to-date.

Upon appointment, each new Non-executive Director undertakes an induction program specifically tailored to his or her needs.



A copy of an indicative induction program is available online at bhp.com/governance.

Training and development in FY2019

Area	Purpose	FY2019 activity
Briefings and development sessions	Provide each Director with a deeper understanding of the activities, environment, key issues and direction of the assets along with HSEC and public policy considerations.	<ul style="list-style-type: none"> ○ Transformation initiatives ○ BHP and China 2035 ○ Climate change ○ Market overviews ○ HSEC Awards ○ Virtual reality underground mine walkthrough ○ Integrated Remote Operations Centre tour
Site visits	Briefings on the assets, operations and other relevant issues and meetings with key personnel.	<ul style="list-style-type: none"> ○ Western Australia Iron Ore, Iron Ore, Australia ○ Escondida, Copper, Chile ○ Spence, Copper, Chile ○ BMA (Hay Point, Broadmeadow, Goonyella, Peak Downs), Metallurgical Coal, Australia ○ Integrated Remote Operated Centre, Metallurgical Coal, Australia

These sessions and site visits also allow an opportunity to discuss in detail the changing risk environment and the potential for impacts on the achievement of our corporate purpose and strategy. For information on the management of principal risks, refer to section 1.6.4.

The Chairman throughout the year discusses development areas with each Director. Board committees in turn review and agree their training needs. The benefit of this approach is that induction and learning opportunities can be tailored to Directors' committee memberships, as well as the Board's specific areas of focus.

Following the induction program, Non-executive Directors participate in continuous improvement activities (Training and Development Program), which are overseen by the Nomination and Governance Committee. The Training and Development Program covers a range of matters of a business nature, including environmental, social and governance matters. Programs are designed to maximise the effectiveness of the Directors throughout their tenure and reflect their individual performance evaluations.

2.10 Independence

The Board is committed to ensuring a majority of Directors is independent. The Board considers that all of the current Non-executive Directors, including the Chairman, are independent.

Process to determine independence

The Board has adopted a policy which it uses to determine the independence of its Directors. This determination is carried out upon appointment, annually and at any other time where the changed circumstances of a Director warrant reconsideration.



A copy of the policy on Independence of Directors is available online at bhp.com/governance.

Under the policy, an 'independent' Director is one who is: *'independent of management and any business or other relationship that could materially interfere with the exercise of objective, unfettered or independent judgement by the Director or the Director's ability to act in the best interests of the BHP Group.'*

Where a Director is considered by the Board to be independent but is affected by circumstances that appear relevant to the Board's assessment of independence, the Board has undertaken to explain the reasons why it reached its conclusion. In applying the independence test, the Board considers relationships with management, major shareholders, subsidiary and associated companies and other parties with whom BHP transacts business against pre-determined materiality thresholds, all of which are set out in the policy.

Tenure

As at the end of the year under review, Malcolm Broomhead and Carolyn Hewson, who were appointed in March 2010, had served on the Board for more than nine years. The Board does not believe

This approach also ensures a coordinated process in relation to succession planning, Board renewal, training and development and committee composition, which are all relevant to the Nomination and Governance Committee's role in identifying appropriate Non-executive Director candidates.

Each Board committee provides a standing invitation for any Non-executive Director to attend committee meetings (rather than just limiting attendance to committee members). Committee agendas and papers are provided to all Directors to ensure Directors are aware of matters to be considered by the committees and any Director can elect to attend meetings where appropriate.

that their tenure materially interferes with their ability to act in the best interests of the Group. The Board believes they have retained independence of character and judgement and have not formed associations with management (or others) that might compromise their ability to exercise independent judgement or act in the best interests of the Group.

Relationships and associations

Lindsay Maxsted was the CEO of KPMG in Australia from 2001 until 2007. The Board believes this prior relationship with KPMG does not materially interfere with Mr Maxsted's exercise of objective, unfettered or independent judgement, or his ability to act in the best interests of BHP. The Board has determined, consistent with its policy on the independence of Directors, that Mr Maxsted is independent. The Board notes in particular that:

- at the time of his appointment to the Board, more than three years had elapsed since Mr Maxsted's retirement from KPMG. The Director independence rules and guidelines that apply to the Group – which are a combination of Australian, UK and US rules and guidelines – all use three years as the benchmark 'cooling off' period for former audit firm partners;
- Mr Maxsted has no financial (e.g. pension, retainer or advisory fee) or consulting arrangements with KPMG;
- Mr Maxsted was not part of the KPMG audit practice after 1980, and while at KPMG was not in any way involved in, or able to influence, any audit activity associated with BHP.

The Board believes Mr Maxsted's financial acumen and extensive experience in the corporate restructuring field to be important in the discharge of the Board's responsibilities. His membership of the Board and Chairmanship of the Risk and Audit Committee are considered by the Board to be appropriate and desirable.

Some of the Directors hold, or have previously held, positions in companies with which BHP has commercial relationships. Those positions and companies are set out in the Director profiles in section 2.2.1. The Board has assessed all of the relationships between the Group and companies in which Directors hold or held positions, and has concluded that in all cases the relationships do not interfere with the Directors' exercise of objective, unfettered or independent judgement or their ability to act in the best interests of BHP.

A specific instance is Malcolm Broomhead and Ian Cockerill who were both Directors of Orica Limited (a company with which BHP has commercial dealings) during the year under review. Orica provides commercial explosives, blasting systems and mineral processing chemicals and services to the mining and resources industry, among others. Mr Cockerill was appointed to the Orica Board in 2010 (prior to his appointment to the BHP Board) and Mr Broomhead was appointed to the Orica Board in 2016 (after his appointment to the BHP Board). At the time of Mr Broomhead's appointment to the Board of Orica, and at the time of Ian Cockerill's appointment to the Board of BHP, the BHP Board assessed the relationship between BHP and Orica and determined (and remains satisfied) that Mr Broomhead and Mr Cockerill are able to apply objective, unfettered and independent judgement and to act in the best interests of BHP. Ian Cockerill retired from the Board of Orica during August 2019.

Transactions during FY2019 that amounted to related party transactions with Directors or Director-related entities under International Financial Reporting Standards (IFRS) are outlined in note 31 'Related party transactions' in section 5.

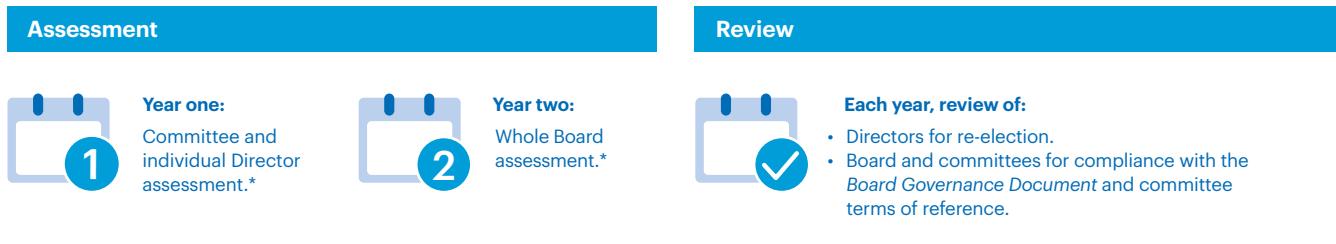
Executive Director

The Executive Director, Andrew Mackenzie, is not considered independent because of his executive responsibilities. Mr Mackenzie does not hold directorships in any other company included in the ASX 100 or FTSE 100.

2.11 Board evaluation

The Board is committed to transparency in assessing the performance of Directors. The Board conducts regular evaluations of its performance, the performance of its committees, the

Evaluation process



* May be internally or externally facilitated assessment. Our approach is to conduct an externally facilitated assessment of the Board or Directors and committees at least every three years.

The evaluation considers the balance of skills, experience, independence and knowledge of the Group and the Board, its overall diversity, including gender diversity, and how the Board works together as a unit.

Directors provide anonymous feedback on their peers' performance and individual contributions to the Board, which is passed on to the relevant Director via the Chairman. In respect of the Chairman's performance, feedback is provided directly to the Senior Independent Director. External independent advisers are engaged to assist with these processes, as necessary. The involvement of an independent third party has assisted in the evaluation processes being rigorous and fair, and ensuring continuous improvement in the operation of the Board and committees, as well as the contributions of individual Directors.

Conflicts of interest

The UK Companies Act 2006 requires that BHP Directors avoid a situation where they have or can have an unauthorised direct or indirect interest that conflicts, or possibly may conflict, with the Group's interests, unless approved by non-interested Directors. In accordance with the UK Companies Act 2006, BHP Group Plc's Articles of Association allow the Directors to authorise conflicts and potential conflicts where appropriate. A procedure operates to ensure the disclosure of conflicts and for the consideration and, if appropriate, the authorisation of those conflicts by non-conflicted Directors. The Nomination and Governance Committee supports the Board in this process by reviewing requests from Directors for authorisation of situations of actual or potential conflict and making recommendations to the Board, and by regularly reviewing any situations of actual or potential conflict that have previously been authorised by the Board, and making recommendations regarding whether the authorisation remains appropriate. In addition, in accordance with Australian law, if a situation arises for consideration in which a Director has a material personal interest, the affected Director takes no part in decision-making unless authorised by non-interested Directors. Provisions for Directors' interests are set out in the Constitution of BHP Group Limited.

In FY2019, there was one occasion where a commercial dealing between BHP and Orica was considered by the Board. At its June 2019 meeting, the Board considered a prospective explosives contract between BHP and Orica. On that occasion, relevant papers were withheld and both Mr Broomhead and Mr Cockerill stepped out of the meeting room. They therefore played no role in the decision-making, in accordance with relevant legal requirements and the BHP Articles of Association and Constitution.

Chairman, individual Directors and the governance processes that support the Board's work. The Board evaluation process comprises both assessment and review, as summarised in the diagram below.

Director assessment

The assessment of individual Directors focuses on the contribution of the Director to the work of the Board and the expectations of Directors as specified in the Group's governance framework. The performance of individual Directors is assessed against a range of criteria, including the ability of the Director to:

- focus on creating long-term shareholder value;
- contribute to the development of strategy;
- understand the major risks affecting BHP;
- provide clear direction to management;
- contribute to Board effectiveness;
- contribute to discussions relating to organisational culture and behaviour;
- commit the time required to fulfil the role and perform their responsibilities effectively;
- listen to and respect the ideas of fellow Directors and members of management.

Board effectiveness

The effectiveness of the Board as a whole and of its committees is assessed against the accountabilities set out in the *Board Governance Document* and each committee's terms of reference. Matters considered in evaluations include the:

- effectiveness of discussion and debate at Board and committee meetings;
- effectiveness of the Board's and committees' processes and relationship with management;
- quality and timeliness of meeting agendas, Board and committee papers and secretariat support;
- composition of the Board and each committee, focusing on the blend of skills, experience, independence and knowledge of the Group and its diversity, including geographic location, nationality and gender.

The process is managed by the Chairman, with feedback on the Chairman's performance being provided to him by the Senior Independent Director.

 For information on the performance review process for executives, refer to section 2.15.

Assessments conducted in respect of FY2019

During FY2019, the Board commenced an external evaluation using Consilium, which has no other connection with the Group. This covered Board, Committee and Chairman effectiveness, along with an individual assessment of the Directors. The Board evaluation focused on Board performance, the value of individual contributions, training and development, Board and committee succession and composition, support provided by Group Governance, considerations for further improvement and external engagement. The evaluation included seeking feedback from the CEO, ELT, Group Company Secretary and senior management. These assessments were completed in early FY2020 and have been discussed with the Board.

In addition, a Board committee assessment was undertaken, which required each committee member to consider the relevant committee's compliance with its respective terms of reference. The Board considered its compliance with the *Board Governance Document*.

The outcomes of the assessment for each committee are set out in the following relevant sections.

Director review

An assessment of Directors' performance was conducted in respect of FY2019. The assessments were undertaken with the assistance of an external service provider (Consilium), which does not have any other connection with the Group. The Consilium-led assessment of the individual Directors focused on consistently taking the perspective of creating shareholder value, contributing to Board cohesion and effective relationships with fellow Directors, and committing the time required to fulfil their role and effectively perform their responsibilities. Directors were specifically asked to comment on areas where their fellow directors contribute the greatest value and on potential areas for development.

Consilium sought feedback and provided it to the Chairman and the Senior Independent Director, and this was then discussed with the Directors. Feedback on the performance of the Chairman was discussed in a closed session without the Chairman or CEO present. The outcomes of the review supported the Board's decision to endorse all Directors standing for re-election.

Board evaluation in action

A number of improvements were agreed and implemented following the FY2019 Board and committee evaluation. The key areas of agreed focus were to further enhance agenda planning; include an annual strategy day between the Board and the ELT, in addition to the strategy sessions held at each Board meeting; and provide further opportunities to increase the detailed understanding of the operations and transformation, including through updates to the Board induction program and continuation of asset reviews at Board meetings.

2.12 Board meetings and attendance

The Board meets as often as is appropriate to fulfil its role. Directors are required to allocate sufficient time to BHP to perform their responsibilities effectively, including adequate time to prepare for Board meetings. During the reporting year, the Board met 10 times, with eight of those meetings held in Australia and two in the United Kingdom. Regularly scheduled Board meetings generally run over three days (including committee meetings and Director training and development sessions).

Members of the ELT and other members of senior management attended meetings of the Board by invitation, with the CFO attending each meeting.

Attendance at Board and standing Board committee meetings during FY2019 is set out in the following table.

Board and Board Committee attendance in FY2019

	Board		Risk and Audit		Nomination and Governance		Remuneration		Sustainability		Tenure as at 30 June 2019
	A	B	A	B	A	B	A	B	A	B	
Terry Bowen	10	10	11	10 ⁽²⁾	-	-	-	-	-	-	1 year 9 months
Malcolm Broomhead	10	10	-	-	6	6	-	-	5	5	9 years 3 months
Ian Cockerill	2	2	2	2	-	-	-	-	2	2	3 months
Anita Frew	10	9 ⁽¹⁾	11	11	-	-	5	5	-	-	3 years 10 months
Carolyn Hewson	10	10	-	-	6	6	5	5	-	-	9 years 3 months
Susan Kilsby	2	2	-	-	-	-	2	2	-	-	3 months
Andrew Mackenzie	10	10	-	-	-	-	-	-	-	-	6 years 3 months
Ken MacKenzie	10	10	-	-	6	6	-	-	3	3	2 years 10 months
Lindsay Maxsted	10	10	11	11	-	-	-	-	-	-	8 years 3 months
John Mogford	10	10	-	-	-	-	-	-	5	5	1 year 9 months
Wayne Murdy	5	5	5	5	-	-	2	2	-	-	Retired on 2 November 2018
Shriti Vadera	10	10	-	-	6	6	5	5	-	-	8 years 5 months

Column A: Scheduled indicates the number of scheduled and ad-hoc meetings held during the period the Director was a member of the Board and/or committee. Column B: Attended indicates the number of scheduled and ad-hoc meetings attended by the Director during the period the Director was a member of the Board and/or committee. The following Directors were not able to attend certain meetings:

(1) Ms Frew did not attend the meeting on 19 March due to an administrative oversight by BHP.

(2) Mr Bowen was unable to attend the RAC meeting on 12 February due to a prior engagement.

2.13 Board committees

The Board has established committees to assist it in exercising its authority, including monitoring the performance of BHP to gain assurance that progress is being made towards the corporate purpose within the limits imposed by the Board.

Each of the permanent committees has terms of reference under which authority is delegated by the Board.

Group Governance provides secretariat services for each of the committees. Committee meeting agendas, papers and minutes

are made available to all members of the Board. Subject to appropriate controls and the overriding scrutiny of the Board, Committee Chairmen are free to use whatever resources they consider necessary to discharge their responsibilities.

Reports from each of the committees follow.



The terms of reference for each committee are available online at bhp.com/governance.

2.13.1 Risk and Audit Committee Report

Role and focus

The role of the Risk and Audit Committee (RAC) is to assist the Board in monitoring the decisions and actions of the CEO and the Group and to gain assurance that progress is being made towards achieving the corporate purpose within the limits imposed by the Board, as set out in the *Board Governance Document*.

The RAC discharges its responsibilities by overseeing:

- the integrity of BHP's Financial Statements and Annual Report;
- the appointment, performance and remuneration of the External Auditor and integrity of the external audit process;
- the effectiveness of the systems of risk management and internal control;
- the plans, performance, objectivity and leadership of the Internal Audit function and the integrity of the internal audit process;
- capital management (capital structure and funding, and capital management planning and initiatives) and other matters.

Risk and Audit Committee members during the year

Name	Independent	Status	Attendance
Lindsay Maxsted (Chairman) ⁽¹⁾	Yes	Member for whole period	11/11
Terry Bowen ⁽²⁾	Yes	Member for whole period	10/11
Ian Cockerill	Yes	Member from 1 April 2019	2/2
Anita Frew	Yes	Member for whole period	11/11
Wayne Murdy	Yes	Member until 2 November 2018	5/5

(1) Mr Maxsted is the Committee's financial expert nominated by the Board.

(2) Mr Bowen was unable to attend the meeting on 12 February 2019 due to a prior engagement.

Committee activities in FY2019

Integrity of Financial Statements and funding matters

- Accounting matters for consideration, materiality limits, half-year and full-year results
- SOX compliance, reserves and resources
- Capital Allocation Framework
- Funding update and net debt target
- Euro medium-term note program update
- FY2019 portfolio valuation review
- Cost of capital and country risk premium review
- Business RAC meetings
- Deed of cross guarantee

- Internal assessments of performance of Internal Audit and Assurance
- Fraud and misappropriation report
- Committee and Group Assurance Officer and Chief Risk Officer closed sessions
- Ethics and compliance report
- Insurance update and Directors' and Officers' insurance update
- Material disputes update

External auditor and integrity of the audit process

- External audit report
- External audit letters of engagement, external audit fees and non-audit services
- Management and external auditor closed sessions
- Audit plan, review of performance and quality of service
- EY independence and non-audit services
- EY audit transition and preliminary audit plan

Other governance matters

- Inter-company loans and group guarantees update
- Tax/royalty disputes update
- New accounting standards update
- Management of data protection and privacy risks update
- World Class Functions
- Technology risks
- Financial governance procedures

Business Risk and Audit Committees

Business Risk and Audit Committees, covering each asset group, assist management in providing the information necessary to allow the RAC to discharge its responsibilities. They are management committees and perform an important monitoring function in the overall governance of BHP. The meetings take place annually as part of our financial governance framework.

As management committees, the responsible member of the Executive Leadership Team participates, but the committee is chaired by a member of the RAC. Each committee also includes the Group Financial Controller, the Chief Risk Officer and the Group Assurance Officer.

Significant operational and risk matters raised at Business RAC meetings are reported to the RAC by management.

Activities undertaken by RAC during FY2019

Fair, balanced and understandable

Directors are required to confirm that they consider the Annual Report, taken as a whole, to be fair, balanced and understandable and provides the information necessary for shareholders to assess BHP's position, performance, business model and strategy.

BHP has a substantial governance framework in place for the Annual Report. This includes management representation letters, certifications, RAC oversight of the Financial Statements and a range of other financial governance procedures focused on the financial section of the Annual Report, together with verification procedures for the narrative reporting section of the Report.

The RAC advises the Board on whether the Annual Report meets the fair, balanced and understandable requirement. The process to support the giving of this confirmation involved the following:

- ensuring all individuals involved in the preparation of any part of the Annual Report are briefed on the fair, balanced and understandable requirement through training sessions for each content manager that detail the key attributes of 'fair, balanced and understandable';
- employees who have been closely involved in the preparation of the Financial Statements review the entire narrative for the fair, balanced and understandable requirement, and sign off an appropriate sub-certification;
- key members of the team preparing the Annual Report confirm they have taken the fair, balanced and understandable requirement into account and they have raised, with the Annual Report project team, any concerns they have in relation to meeting this requirement;
- the Annual Report suite sub-certification incorporates a fair, balanced and understandable declaration;
- in relation to the requirement for the auditor to review parts of the narrative report for consistency with the audited Financial Statements, asking the External Auditor to raise any issues of inconsistency at an early stage.

As a result of the process outlined above, the RAC, and then the Directors, were able to confirm their view that BHP's Annual Report 2019 taken as a whole is fair, balanced and understandable. For the Board's statement on the Annual Report, refer to the Directors' Report in section 4.

Integrity of Financial Statements

The RAC assists the Board in assuring the integrity of the Financial Statements. The RAC evaluates and makes recommendations to the Board about the appropriateness of accounting policies and practices, areas of judgement, compliance with accounting standards, stock exchange and legal requirements and the results of the external audit. It reviews the half-yearly and annual Financial Statements and makes recommendations on specific actions or decisions (including formal adoption of the Financial Statements and reports) the Board should consider in order to maintain the integrity of the Financial Statements.

For the FY2019 full-year and the half-year, the CEO and CFO have certified that BHP's financial records have been properly maintained and that the FY2019 Financial Statements present a true and fair view, in all material respects, of our financial condition and operating results and are in accordance with accounting standards and applicable regulatory requirements.

Significant issues

In addition to the Group's key judgements and estimates disclosed throughout the FY2019 Financial Statements, the Committee also considered the following significant issues relating to financial reporting:

Carrying value of long-term assets

The assessment of carrying values of long-term assets uses a number of significant judgements and estimates.

The Committee examined management's review of impairment triggers and potential impairment charges or reversals for the Group's cash generating units.

The results of impairment assessments for the Jansen potash assets in Canada were reviewed and the Committee concluded that no impairment was required.

Specific consideration was given to the most recent short, medium and long-term price forecasts, sanction date, expected production volumes and ramp up development plans, operating and capital costs, discount rates and other market indicators of fair value.

Conclusions from these reviews are reflected in note 11 'Property, plant and equipment' in section 5.

Samarco dam failure

On 5 November 2015, the Samarco Mineração S.A (Samarco) iron ore operation in Minas Gerais, Brazil experienced a tailings dam failure that resulted in a release of mine tailings, flooding the community of Bento Rodrigues and impacting other communities downstream. Samarco is jointly owned by BHP Billiton Brasil Limitada (BHP Billiton Brasil) and Vale S.A. (Vale). BHP Billiton Brasil's 50 per cent interest in Samarco is accounted for as an equity accounted joint venture investment.

Samarco's provisions and contingent liabilities

The Committee reviewed updates to matters relating to the Samarco dam failure, including developments on existing and new legal proceedings, and changes to the estimated costs of remediation and provisions relating to the decommissioning of Samarco's Germano tailings dam complex.

BHP Billiton Brasil has recognised a share of additional losses recorded by Samarco during the year ended 30 June 2019.

Potential direct financial impacts to BHP Billiton Brasil

The Committee considered:

- the impact of Brazilian Government legislation requiring the accelerated decommissioning of upstream raised tailings dams, specifically for Samarco's Germano tailings dam complex;
- the accounting implications of funding provided to the Renova Foundation and Samarco to support activities under the Framework Agreement, carry out remediation and stabilisation work and support Samarco's operations;
- changes to the estimated cost of remediation and compensation Programs under the Framework Agreement;
- developments in existing and new legal proceedings, on the provision related to the Samarco dam failure and related disclosures;
- the provisions recognised and contingent liabilities disclosed by BHP Billiton Brasil or other BHP entities.

Based on currently available information, the Committee concluded that the accounting for the equity investment in Samarco, the provision recognised by BHP Billiton Brasil (including the decommissioning of the Germano tailings dam complex) and contingent liabilities disclosed in the Group's Financial Statements are appropriate.

For further information refer to note 4 'Significant events – Samarco dam failure' in section 5.

Onshore US divestment

The Committee considered and concurred with the accounting implications of the completion of the Group's Onshore US asset divestment, including the allocation of revenue and costs to discontinuing operations and tax accounting of the divestment. The Committee also reviewed the disclosure of the Financial Statement impacts resulting from the divestment including the discontinued operations disclosure.

Conclusions from these reviews are reflected in note 27 'Discontinued operations' in section 5.

Impact of new accounting standards

The Committee considered and approved accounting policy changes resulting from the application of new standards and interpretations commencing 1 July 2019, including IFRS 16/AASB 16 'Leases'.

2.13.1 Risk and Audit Committee Report continued

The Committee reviewed management's analysis of the adoption implications for the Group, including the selection of transition options, and concurred with its recommendations.

For further information, refer to note 38 'New and amended accounting standards and interpretations' in section 5.

Tax and royalty liabilities

The Group is subject to a range of tax and royalty matters across many jurisdictions. The Committee considered updates on changes to the wider tax landscape, estimates and judgements supporting the measurement and disclosure of tax and royalty provisions and contingent liabilities including the following:

- tax risks (including transfer pricing risks) arising from the Group's cross-border operations and transactions, including settlement of the transfer pricing dispute with the Australian Taxation Office relating to the Group's marketing operations in Singapore;
- settlement of a dispute with the Western Australian Government in relation to a long-standing deduction made by the Group and its Joint Venture Partners in the calculation of royalties;
- other matters where uncertainty exists in the application of the law.

The Committee concluded that provisions recognised and contingent liabilities disclosed for these matters were appropriate considering the range of possible outcomes, currently available information and legal advice obtained.

For further information refer to notes 6 'Income tax expense' and 33 'Contingent liabilities' in section 5.

Closure and rehabilitation provisions

Determining the closure and rehabilitation provision is a complex area requiring significant judgement and estimates, particularly given the timing and quantum of future costs, the unique nature of each site and the long timescales involved.

The Committee considered the various changes in estimates for closure and rehabilitation provisions recognised during the year. Consideration was given to the results of the most recently completed surveying data, current cost estimates and appropriate inclusion of contingency in cost estimates to allow for both known and residual risks. The Committee concluded that the assumptions and inputs for closure and rehabilitation cost estimates were reasonable and the related provisions recorded were appropriate.

For further information, refer to note 14 'Closure and rehabilitation provisions' in section 5.

External Auditor

The RAC manages the relationship with the External Auditor on behalf of the Board. It considers the reappointment of the External Auditor each year, as well as remuneration and other terms of engagement and makes a recommendation to the Board. There are no contractual obligations that restrict the RAC's capacity to recommend a particular firm for appointment as auditor.

The lead audit engagement partners for KPMG in Australia and the United Kingdom (together, ('KPMG')), were rotated every five years. The most recent Australian audit engagement partner was appointed at the start of FY2015, while the UK audit engagement partner took formal responsibility at the start of FY2018 following a transition period. Audit engagement partners have been appointed in Australia and the United Kingdom to represent EY for commencement from 1 July 2019.

Change in Registrant's Certifying Accountant/Audit tender and transition

BHP confirms that during FY2019 it was in compliance with the provisions of The Statutory Audit Services for Large Companies Market Investigation (Mandatory Use of Competitive Tender Processes and Audit Committee Responsibilities) Order 2014.

Consistent with the UK and EU requirements in regard to audit firm tender and rotation, the Committee conducted an audit tender process during FY2017 to appoint a new external auditor.

In August 2017, consistent with the Committee's recommendation, the Board announced that it had selected EY to be appointed as the Group's auditor from the financial year beginning 1 July 2019, subject to shareholder approval. The Board intends to seek shareholder approval at the AGMs in 2019 of the appointment of EY as external auditor. KPMG, BHP's current external auditor, did not participate in the tender due to UK and EU requirements which require a new external auditor to be in place by 1 July 2023. KPMG's appointment as external auditor will come to an end on completion of its procedures on BHP's Consolidated Financial Statements for the financial year ending 30 June 2019 and the filing of the related Form-20F.

During the financial years ended 30 June 2018 and 2019, (1) KPMG has not issued any reports on the financial statements of BHP that contained an adverse opinion or a disclaimer of opinion, nor were the auditors' reports of BHP qualified or modified as to uncertainty, audit scope, or accounting principles, and (2) there has not been any disagreement over any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedures, which disagreements if not resolved to KPMG's satisfaction would have caused it to make reference to the subject matter of the disagreement in connection with its auditor's reports for such years, or any "reportable event" as described in Item 16F(a)(1)(v) of Form 20-F.

BHP has provided KPMG with a copy of the foregoing disclosure and has requested that they furnish BHP with a letter addressed to the SEC stating whether or not they agree with the above statements.

During FY2018 and FY2019, BHP did not consult with EY regarding: (i) the application of accounting principles to any specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on the Consolidated Financial Statements of the Group; or (ii) any matter that was either the subject of a disagreement as defined in Item 16F(a)(1)(iv) of Form 20-F or reportable event as defined in Item 16F(a)(1)(v) of Form 20-F.

In FY2019, the RAC received updates from EY on the audit transition and preparation for commencement of its audit, including EY's process in meeting all relevant independence criteria, audit plan for commencement from 1 July 2019 and reports on any non-audit services.

Evaluation of External Auditor and external audit process

The RAC evaluates the performance of the External Auditor during its term of appointment against specified criteria, including delivering value to shareholders and BHP, and also assesses the effectiveness of the external audit process. It does so through a range of means:

- the Committee considers the External Audit Plan, in particular to gain assurance that it is tailored to reflect changes in circumstances from the prior year;
- throughout the year, the Committee meets with the audit partners, particularly the lead Australian and UK audit engagement partners, without management present;
- following the completion of the audit, the Committee considers the quality of the External Auditor's performance drawing on survey results. The survey is based on a two-way feedback model where the BHP and KPMG teams assess each other against a range of criteria. The criteria against which the BHP team evaluates KPMG's performance include ethics and integrity, insight, service quality, communication and reporting, and responsiveness;
- reviewing the terms of engagement of the External Auditor;
- discussing with the audit engagement partners the skills and experience of the broader audit team;

- reviewing audit quality inspection reports on KPMG published by the UK Financial Reporting Council in considering the effectiveness of the audit;
- overseeing (and approving where relevant) non-audit services as described below.

The RAC also reviews the integrity, independence and objectivity of the External Auditor and assesses whether there is any element of the relationship that impairs, or appears to impair, the External Auditor's judgement or independence. This review includes:

- confirming the External Auditor is, in its judgement, independent of BHP;
- obtaining from the External Auditor an account of all relationships between the External Auditor and BHP;
- monitoring the number of former employees of the External Auditor currently employed in senior positions within BHP;
- considering the various relationships between BHP and the External Auditor;
- determining whether the compensation of individuals employed by the External Auditor who conduct the audit is tied to the provision of non-audit services;
- reviewing the economic importance of BHP to the External Auditor.

The External Auditor also certifies its independence to the RAC.

Non-audit services

Although the External Auditor does provide some non-audit services, the objectivity and independence of the External Auditor are safeguarded through restrictions on the provision of these services. For example, certain types of non-audit services may be undertaken by the External Auditor only with the prior approval of the RAC (as described in this section), while other services may not be undertaken at all, including services where the External Auditor:

- may be required to audit its own work;
- participates in activities that would normally be undertaken by management;
- is remunerated through a 'success fee' structure;
- acts in an advocacy role for BHP.

The RAC has adopted a policy entitled 'Provision of Audit and Other Services by the External Auditor' covering the RAC's pre-approval policies and procedures to maintain the independence of the External Auditor.



Our policy on Provision of Audit and Other Services by the External Auditor is available online at bhp.com/governance.

In addition to audit services, the External Auditor is permitted to provide other (non-audit) services that are not, and are not perceived to be, in conflict with the role of the External Auditor. In accordance with the requirements of the Exchange Act and guidance contained in Public Company Accounting Oversight Board (PCAOB) Release 2004-001, certain specific activities are listed in our detailed policy that have been 'pre-approved' by the RAC.

The categories of 'pre-approved' services are as follows:

- Audit and audit-related services – work that constitutes the agreed scope of the statutory audit and includes the statutory audits of BHP and its entities (including interim reviews). This category also includes work that is reasonably related to the performance of an audit or review and is a logical extension of the audit or review scope. The RAC monitors the audit services engagements and if necessary, approves any changes in terms and conditions resulting from changes in audit scope, Group structure or other relevant events.
- Other assurance services – work that is outside the required scope of the statutory audit but is consistent with the role of the external statutory auditor, is of an assurance or compliance nature and is work the External Auditor must or is best placed to undertake.
- Other services – work of an advisory nature that does not compromise the independence of the External Auditor.

Activities not listed specifically are therefore not 'pre-approved' and must be approved by the RAC prior to engagement, regardless of the dollar value involved. Additionally, any engagement for other services with a value over US\$100,000, even if listed as a 'pre-approved' service, requires the approval of the RAC. All engagements for other services whether 'pre-approved' or not and regardless of the dollar value involved are reported quarterly to the RAC.

While not specifically prohibited by BHP's policy, any proposed non-audit engagement of the External Auditor relating to internal control (such as a review of internal controls or assistance with implementing the regulatory requirements, including those of the Exchange Act) requires specific prior approval from the RAC. With the exception of the external audit of BHP's Financial Statements, any engagement identified that contains an internal control-related element is not considered to be pre-approved. In addition, while the categories of 'pre-approved' services include a list of certain pre-approved services, the use of the External Auditor to perform such services will always be subject to our overriding governance practices as articulated in the policy.

An exception can be made to the policy where it is in BHP's interests and appropriate arrangements are put in place to ensure the integrity and independence of the External Auditor. Any such exception requires the specific prior approval of the RAC and must be reported to the Board. No exceptions were approved during the year ended 30 June 2019.

In addition, the RAC approved no services during the year ended 30 June 2019 pursuant to paragraph (c)(7)(i)(C) of Rule 2-01 of SEC Regulation S-X (provision of services other than audit).

Fees paid to BHP's External Auditor during FY2019 for audit and other services were US\$14.5 million, of which 64 per cent comprised audit fees, 32 per cent related to legislative requirements (including US Sarbanes-Oxley Act of 2002 as amended (SOX)) and 4 per cent was for other services. Details of the fees paid are set out in note 35 'Auditor's remuneration' in section 5.

Based on the review by the RAC, the Board is satisfied that the External Auditor is independent and that the incoming auditor is also independent.

Risk function

The role of the Risk function is to own the Group's end to end Risk Framework, to create, maintain, govern, support and report on the effective implementation of the risk management framework for all risks (including material and non-material, strategic, operational, reporting, compliance and emerging risks).

The RAC assists the Board with the oversight of risk management, although the Board retains overall accountability for BHP's risk profile. In addition, the Board specifically requires the CEO to implement a system of control for identifying and managing risk. The Directors, through the RAC, review the systems that have been established for this purpose, regularly review the effectiveness of those systems and monitor that necessary actions have been taken to remedy any significant failings or weaknesses identified from that review. The RAC regularly reports to the Board to enable the Board to review our Risk Framework. Refinements were made to BHP's Risk Framework during FY2019. For more information, refer to section 1.6.4.

Additional information about the effectiveness of risk management is set out as follows.

Internal Audit

The Internal Audit function is carried out by Internal Audit and Advisory (IAA). The role of IAA is to provide assurance as to whether risk management, internal control and governance processes are adequate and functioning. The Internal Audit function is independent of the External Auditor. The RAC evaluates and, if thought fit, approves the terms of reference of IAA, the staffing levels and its scope of work to ensure it is appropriate in light of the key risks we face. It also reviews and approves the annual internal audit plan and monitors and reviews the overall effectiveness of the internal audit activities.

2.13.1 Risk and Audit Committee Report continued

The RAC also approves the appointment and dismissal of the Group Assurance Officer and assesses his or her performance, independence and objectivity. The position was held until September 2018 by Kirsty Wallace, when Rama Devarajan was appointed to the role. Both Ms Wallace and Mr Devarajan reported directly to the RAC. During the period, functional oversight of IAA was provided by the Chief External Affairs Officer.

Effectiveness of systems of internal control and risk management (RAC and Board)

In delegating authority to the CEO, the Board has established CEO limits set out in the *Board Governance Document*. Limits on the CEO's authority require the CEO to ensure there is a system of control in place for identifying and managing risk in BHP. Through the RAC, the Directors review the systems that have been established for this purpose and regularly review their effectiveness. These reviews include assessing whether processes continue to meet evolving external governance requirements.

The RAC oversees and reviews the internal controls and risk management systems. In undertaking this role, the RAC reviews the following:

- procedures for identifying material risks and controlling their impact on the Group, and the operational effectiveness of these procedures;
- processes and systems for managing budgeting, forecasting and financial reporting;
- the Group's strategy and standards in respect of insurance;
- the Group's standards and procedures in respect of reporting of reserves and resources;
- the Group's standards and procedures in respect of the closure and rehabilitation provision;
- standards and practices for detecting, reporting and preventing fraud, serious breaches of business conduct and whistleblowing procedures supporting reporting to the Committee;
- procedures for ensuring compliance with relevant regulatory and legal requirements;
- arrangements for the protection of the Group's information and data systems and other non-physical assets;
- operational effectiveness of the Business RAC structures;
- overseeing the adequacy of the internal controls and allocation of responsibilities for monitoring internal financial controls.

For more information on our approach to risk management, refer to section 1.6.4. Section 1.6.4 includes a description of the most significant Group risks which could materially and adversely affect our business, financial performance, financial condition, prospects or reputation, leading to a loss of long-term shareholder and/or investor confidence. Section 1.6.4 also provides an explanation of how those risks are managed.

During FY2019, management presented an assessment of the material business risks facing BHP and the level of effectiveness of risk management over the material business risks. The reviews were overseen by the RAC, with findings and recommendations reported to the Board. In addition to considering key risks facing BHP, the Board received an assessment of the effectiveness of internal controls over key risks identified through the work of the Board committees.

The Board is satisfied with the effectiveness of risk management and internal control systems.

Management's assessment of internal control over financial reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) and Rule 15d-15(f) under the Exchange Act).

Committee assessment

Following the committee assessment, the RAC was satisfied that it had continued to meet its terms of reference in FY2019.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements and, even when determined to be effective, can only provide reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of our management, including our CEO and CFO, the effectiveness of BHP's internal control over financial reporting has been evaluated based on the framework and criteria established in Internal Controls – Integrated Framework (2013), issued by the Committee of the Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, management has concluded that internal control over financial reporting was effective as at 30 June 2019. There were no material weaknesses in BHP's internal controls over financial reporting identified by management as at 30 June 2019.

BHP has engaged our independent registered public accounting firms, KPMG and KPMG LLP, to issue an audit report on our internal control over financial reporting for inclusion in the Financial Statements section of the Annual Report and the Annual Report on Form 20-F as filed with the SEC.

There have been no changes in our internal control over financial reporting during FY2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

The CEO and CFO have certified to the Board that the Financial Statements for the full-year and half-year are founded on a sound system of risk management and internal control and the system is operating efficiently and effectively.

During FY2019, the RAC reviewed our compliance with the obligations imposed by SOX, including evaluating and documenting internal controls as required by section 404 of SOX.

Management's assessment of disclosure controls and procedures

Management, with the participation of our CEO and CFO, performed an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as at 30 June 2019. Disclosure controls and procedures are designed to provide reasonable assurance that the material financial and non-financial information required to be disclosed by BHP, including in the reports that it files or submits under the Exchange Act, is recorded, processed, summarised and reported on a timely basis and that such information is accumulated and communicated to BHP's management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure. Based on the evaluation, management, including the CEO and CFO, has concluded that as at 30 June 2019, our disclosure controls and procedures are effective in providing that reasonable assurance.

There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives.

Further, in the design and evaluation of our disclosure controls and procedures, management was required to apply its judgement in evaluating the cost-benefit relationship of possible controls and procedures.



The terms of reference for the RAC are available online at bhp.com/governance.

2.13.2 Remuneration Committee Report

Role and focus

The role of the Remuneration Committee is to assist the Board in overseeing:

- the remuneration policy and its specific application to the CEO and other Key Management Personnel (those who have authority and responsibility for planning, directing and controlling the activities of the Group directly or indirectly), and its general application to all employees;
- the adoption of annual and longer-term incentive plans;
- the determination of levels of reward for the CEO and approval of reward for other Key Management Personnel;
- the annual evaluation of the performance of the CEO, by giving guidance to the Chairman;
- leaving entitlements;
- the preparation of the Remuneration Report for inclusion in the Annual Report;
- compliance with applicable legal and regulatory requirements associated with remuneration matters;
- the review, at least annually, of remuneration by gender.

The Sustainability Committee and the Risk and Audit Committee assist the Remuneration Committee in determining appropriate HSEC and financial metrics, respectively, to be included in senior executive scorecards and in assessing performance against those measures.

The Remuneration Committee met five times during FY2019 and also considered some matters out of session. Information on meeting attendance by Committee members is included in the following table.

Certain items the Committee discussed are set out below. For full details of the Committee's work on behalf of the Board, refer to the Remuneration Report in section 3.

Remuneration Committee members during the year

Name	Independent	Status	Attendance
Carolyn Hewson (Chairman)	Yes	Member for whole period	5/5
Anita Frew	Yes	Member for whole period	5/5
Susan Kilsby	Yes	Member from 1 April 2019	2/2
Wayne Murdy	Yes	Member until 2 November 2018	2/2
Shriti Vadera	Yes	Member for whole period	5/5

Committee activities in FY2019

Remuneration of the KMP and the Board

- Remuneration policy review
- Remuneration of CEO and other Key Management Personnel
- KPIs, performance levels, award outcomes
- Long-Term Incentive Plan sector peer group review
- Chairman fees

Other

- Induction, training and development program
- Board committee procedures, including closed sessions

Other remuneration matters

- Shareplus enrolment update
- Remuneration by gender
- Director travel expenses policy
- Shareholder engagement
- Share plan rule update
- UK BEIS Committee report
- Corporate Governance code provisions
- Proxy adviser consultation

Committee assessment

Following the committee assessment, the Remuneration Committee was satisfied that it had continued to meet its terms of reference in FY2019. Subsequent to year end, updates were made to the terms of reference, to reflect the latest version of the UK Corporate Governance Code.



The terms of reference for the Remuneration Committee are available online at bhp.com/governance.

2.13.3 Nomination and Governance Committee Report

Role and focus

The role of the Nomination and Governance Committee is to assist the Board in ensuring that the Board comprises individuals who are best able to discharge the responsibilities of a Director, having regard to the highest standards of governance, the strategic direction of BHP and the diversity aspirations of the Board. It does so by focusing on:

- the succession planning process for the Board and its committees, including the identification of suitable candidates for appointment to the Board taking into account the skills, experience, independence and knowledge required on the Board, as well as the attributes required of potential Directors;
- the succession planning process for the Chairman;
- the succession planning process for the CEO and periodic evaluation of the process;
- Board and Director performance evaluation, including evaluation of Directors seeking re-election prior to their endorsement by the Board as set out in sections 2.7 and 2.11;
- the provision of appropriate training and development opportunities for Directors;
- the independence of Non-executive Directors;
- the time required from Non-executive Directors;
- the assessment and, if appropriate, authorisation of situations of actual and potential conflict notified by Directors;
- BHP's corporate governance practices.

For details on the Board succession planning process, refer to section 2.8.

The Nomination and Governance Committee met six times during FY2019. Information on meeting attendance by Committee members is included in the following table. In addition to the regular business of the year, the Committee considered the appointments of Ian Cockerill and Susan Kilsby as Non-executive Directors and the retirement of Wayne Murdy. The Committee also oversaw several other targeted searches for Non-executive Director candidates in FY2019 which are continuing.

Board changes

Ian Cockerill and Susan Kilsby joined the Board on 1 April 2019. As set out in the 2018 Annual Report, Wayne Murdy retired with effect from 2 November 2018. Our search for a new Non-executive Director with mining experience commenced in FY2017 and the appointment of Ian Cockerill satisfies that requirement as he has extensive mining experience, including in chief executive, operational, strategic and technical roles.

Nomination and Governance Committee members during the year

Name	Independent	Status	Attendance
Ken MacKenzie (Chairman)	Chairman of the Board	Member for whole period	6/6
Malcolm Broomhead	Yes	Member for whole period	6/6
Carolyn Hewson	Yes	Member for whole period	6/6
Shriti Vadera	Yes	Member for whole period	6/6

Committee activities in FY2019

Succession planning processes

- Implementation of the new skills and experience matrix
- Identification of suitable Non-executive Director candidates
- Board and committee succession
- Partnering with new search firms regarding candidate searches

Evaluation and training

- Board evaluation approach for FY2019
- Board and Director performance evaluation
- Provision of appropriate training and development opportunities
- Induction
- Committee assessment

Committee assessment

Following the committee assessment, the Nomination and Governance Committee was satisfied that it had continued to meet its terms of reference in FY2019.

Susan Kilsby has extensive experience in finance and strategy, having held several roles in global investment banking. Both new Directors also bring extensive Non-executive Director experience. Ian Cockerill was appointed to the Risk and Audit Committee and the Sustainability Committee, and Susan Kilsby was appointed to the Remuneration Committee.

Carolyn Hewson will retire from the Board after 2019 BHP Group Limited Annual General Meeting.

Board policy on inclusion and diversity

Our Charter and the *Our Requirements for Human Resources* standard guide management on all aspects of human resource management, including inclusion and diversity. Underpinning the *Our Requirements* standards and supporting the achievement of diversity across BHP are principles and measurable objectives that define our approach to diversity and our focus on creating an inclusive work environment.

The Board and management believe that many facets of diversity are required in order to meet the corporate purpose as set out in section 2.8. Diversity is a core consideration in ensuring the Board and its committees have the right blend of perspectives so that the Board oversees BHP effectively for shareholders.

The Board believes that critical mass is important for diversity and diversity of all types remains a priority as the Board continues to be refreshed and renewed, as set out in section 2.8. We also have an aspirational goal to achieve gender balance across our workforce – and on our Board – by FY2025. We believe this will help create a more diverse, inclusive, empowered and connected workforce, underpinned by *Our Charter* values.

Part of the Board's role is to consider and approve BHP's measurable objectives for workforce diversity each financial year and to oversee our progress in achieving those objectives. BHP's progress will continue to be disclosed in the Annual Report, along with the proportion of women in our workforce, in senior management positions and on the Board. For more information on inclusion and diversity at BHP, including our progress against our FY2019 measurable objectives and our employee profile more generally, refer to sections 1.9.1 and 1.9.2.

External recruitment specialists

The Committee retained the services of external recruitment specialists. Heidrick and Struggles, Russell Reynolds and MWM Consulting assisted with Non-executive Director candidate searches throughout the year.

Corporate governance practices

- Independence of Non-executive Directors
- Authorisation of situations of actual or potential conflict
- Corporate Governance Statement
- Update on UK governance reforms
- Implementing new UK Corporate Governance Code provisions

Other governance matters

- Board and management advisory committees framework



The terms of reference for the Nomination and Governance Committee are available online at bhp.com/governance.

2.13.4 Sustainability Committee Report

Role and focus

The role of the Sustainability Committee is to assist the Board in its oversight of the Group's health, safety, environment and community (HSEC) performance and the adequacy of the Group's HSEC framework, and in relation to various other governance responsibilities related to HSE and Community.

The Group's HSEC framework consists of:

- the CEO limits set out in the *Board Governance Document*. The *Board Governance Document* establishes the remit of the Board and delegates authority to the CEO, including in respect of the HSEC Management System, subject to CEO limits;
- the Sustainability Committee, which is responsible for assisting the Board in overseeing the adequacy of the Group's HSEC Framework and HSEC Management System (among other things);
- the HSEC Management System, established by management in accordance with the CEO's delegated authority. The HSEC Management System provides the processes, resources, structures and performance standards for the identification, management and reporting of HSEC risks and the investigation of any HSEC incidents;
- a robust and independent internal audit process overseen by the RAC, in accordance with its terms of reference;
- independent advice on HSEC matters, which may be requested by the Board and its committees where deemed necessary in order to meet their respective obligations.

Our approach to sustainability is reflected in *Our Charter*, which defines our values, purpose and how we measure success, and in our sustainability performance targets, which define our public commitments to safety, health, environment and community. HSEC considerations are also taken into account in employee and executive remuneration. More information is available in our Sustainability Report 2019 and the Remuneration Report 2019.

The Committee provides oversight of the preparation and presentation of the Sustainability Report by management, and reviewed and recommended to the Board the approval

of the Sustainability Report for publication. The Sustainability Report identifies our targets for HSEC matters and our performance against those targets. Our targets rely on fact-based measurement and quality data, and reflect a desire to move BHP to a position of industry leadership.



A copy of the Sustainability Report is available online at bhp.com.

2

Activities of the Sustainability Committee

The Sustainability Committee met five times during FY2019 and continued to assist the Board in its oversight of HSEC issues and performance. A summary of the main areas discussed and information on meeting attendance by Committee members is included in the following table. However, one of the major topics discussed by the Committee, particularly following the dam failure at Vale's Brumadinho iron ore mine, was tailings storage facilities. These discussions included dam risk review actions, the industry review led by the ICMM and the Church of England Pensions Board led initiative. Further information about our approach to tailings storage facilities is set out in section 1.8. Water stewardship was also important as the Group worked to finalise the Water Stewardship report in August 2018. The Committee continues to monitor the work of the water stewardship project.

Members of the Sustainability Committee also visited a number of operated and non-operated sites during FY2019 as part of a formal program of committee visits. These included West Australian Iron Ore, Iron Ore, Australia; Escondida and Spence, Copper, Chile; and Broadmeadow and Goonyella, BMA, Metallurgical Coal, Australia. During these site visits, Committee members received briefings on relevant HSEC matters and the management of material HSEC risks, and met with key personnel. These visits offer access to a diverse cross-section of the workforce from frontline through to the leadership team, including, where possible, risk and control owners. This provides Directors with a sense of the risk management processes and culture at each site.

Sustainability Committee members during the year

Name	Independent	Status	Attendance
Malcolm Broomhead (Chairman)	Yes	Member for whole period	5/5
Ian Cockerill	Yes	Member from 1 April 2019	2/2
Ken MacKenzie	Yes	Member until 1 April 2019	3/3
John Mogford	Yes	Member for whole period	5/5

Committee activities in FY2019

Assurance and adequacy of HSEC framework and HSEC management system

- Key HSEC risks, including tailings dams and a deep dive on the risk of blasting incidents
- Audit planning and reporting in relation to HSEC risks and processes
- Contractor management

Compliance and reporting

- Compliance with HSEC legal and regulatory requirements
- Updates on key legal and regulatory changes
- Sustainability Report, including consideration of processes for preparation and assurance provided by KPMG

Performance

- Performance of BHP in relation to HSEC matters
- Considering proposed HSEC KPIs for KMP scorecard and considering performance against such KPIs
- Monitoring against the FY2018–FY2022 HSEC performance targets
- Updates on Samarco remediation and Renova Foundation
- Tailings management industry review
- BHP dam review and actions
- Field leadership
- Saraji fatality ICAM
- Performance and key issues on sustainable development and community relations, including community issues update
- Water stewardship and position statement
- Climate change updates
- Social licence and social value

Other governance matters

- Induction, training and development of Committee members
- HSEC emerging trends
- Site visits and site visit reports to Board
- Investor approach to environmental, social and governance issues
- Modern Slavery Act Statement

2.13.4 Sustainability Committee Report continued

Sustainable development governance

Our approach to HSEC and sustainable development governance is characterised by:

- the Sustainability Committee assisting the Board in its oversight of material HSEC matters and risks across BHP, including seeking continuous improvement and policy advocacy as applicable;
- management having primary responsibility for the design and implementation of an effective HSEC Management System;
- management having accountability for HSEC performance;
- the HSE function and Community sub-function providing advice and guidance directly to the Sustainability Committee and the Board;
- the Board, Sustainability Committee and management seeking input and insight from external experts, such as the BHP Forum on Corporate Responsibility; and
- clear links between executive remuneration and HSEC performance.

The key areas of focus for the Committee, management and the HSE function and Community sub-function are outlined in the Sustainability Report 2019.

Climate change

Climate change is treated as a Board-level governance issue, with the Sustainability Committee playing a key supporting role. The Committee work during FY2019 included reviewing the proposed approach to reduction in greenhouse gas emissions and the product stewardship project which aims to improve identification, assessment and management of climate change risks and opportunities in the value chain. For more information on our climate change position and how we consider the impacts on our portfolio, refer to section 1.10.8.

Social investment

We also continued to monitor our progress in relation to our social investment and met our target for investments in community programs. This was the equivalent of not less than 1 per cent of our pre-tax profit, calculated on the average of the previous three years' pre-tax profit. Our social investment performance in FY2019 saw BHP deliver projects with a continued focus on good governance, human capability and social inclusion and environment. Our voluntary social investment in FY2019 totalled US\$93.5 million, consisting of US\$55.7 million in direct community development projects and donations, US\$8.9 million equity share to non-operated joint venture programs, a US\$16.57 million donation to the BHP Foundation and US\$4 million to the Matched Giving and community small grants programs. Administrative costs to facilitate social investment activities at our assets totalled US\$6.27 million and US\$2 million supported the operations of the BHP Foundation.

HSEC matters and remuneration

In order to link HSEC matters to remuneration, 25 per cent of the short-term incentive opportunity for Key Management Personnel was based on HSEC performance during FY2019. The Sustainability Committee assists the Remuneration Committee in determining appropriate HSEC metrics to be included in the KMP scorecard and also assists in relation to assessment of performance against those measures. The Board believes this method of assessment is transparent, rigorous and balanced, and provides an appropriate, objective and comprehensive assessment of performance. For more information on the metrics and their assessment, refer to the Remuneration Report in section 3.

Committee assessment

Following the committee assessment, the Sustainability Committee was satisfied that it had continued to meet its terms of reference in FY2019.



The terms of reference for the Sustainability Committee are available online at bhp.com/governance.

2.14 Risk management governance structure

We believe the identification and management of risk are central to achieving the corporate purpose. Our approach to risk and risk governance, including the role of the BHP Board and its committees is set out in section 1.6.4.

2.15 Management

Below the level of the Board, key management decisions are made by the CEO, the ELT, other management committees and individual members of management to whom authority has been delegated.

Management committees perform roles in relation to risk and control. Strategic risks and opportunities arising from changes in our business environment are regularly reviewed by the ELT and discussed by the Board. The Financial Risk Management Committee (FRMC) reviews the effectiveness of internal controls relating to commodity price risk, counterparty credit risk, currency risk, financing risk, interest rate risk and insurance. Minutes of the FRMC meetings are provided to the Board through the RAC. The Investment Review Committee (IRC) provides oversight for investment processes across BHP and coordinates the investment toll-gating process for major investments. Reports are made to the Board on findings by the IRC in relation to major capital projects. The Disclosure Committee oversees BHP's compliance with securities dealing and continuous and periodic disclosure requirements, including reviewing information that may require disclosure through stock exchanges and overseeing processes to ensure information disclosed is timely, accurate and complete.

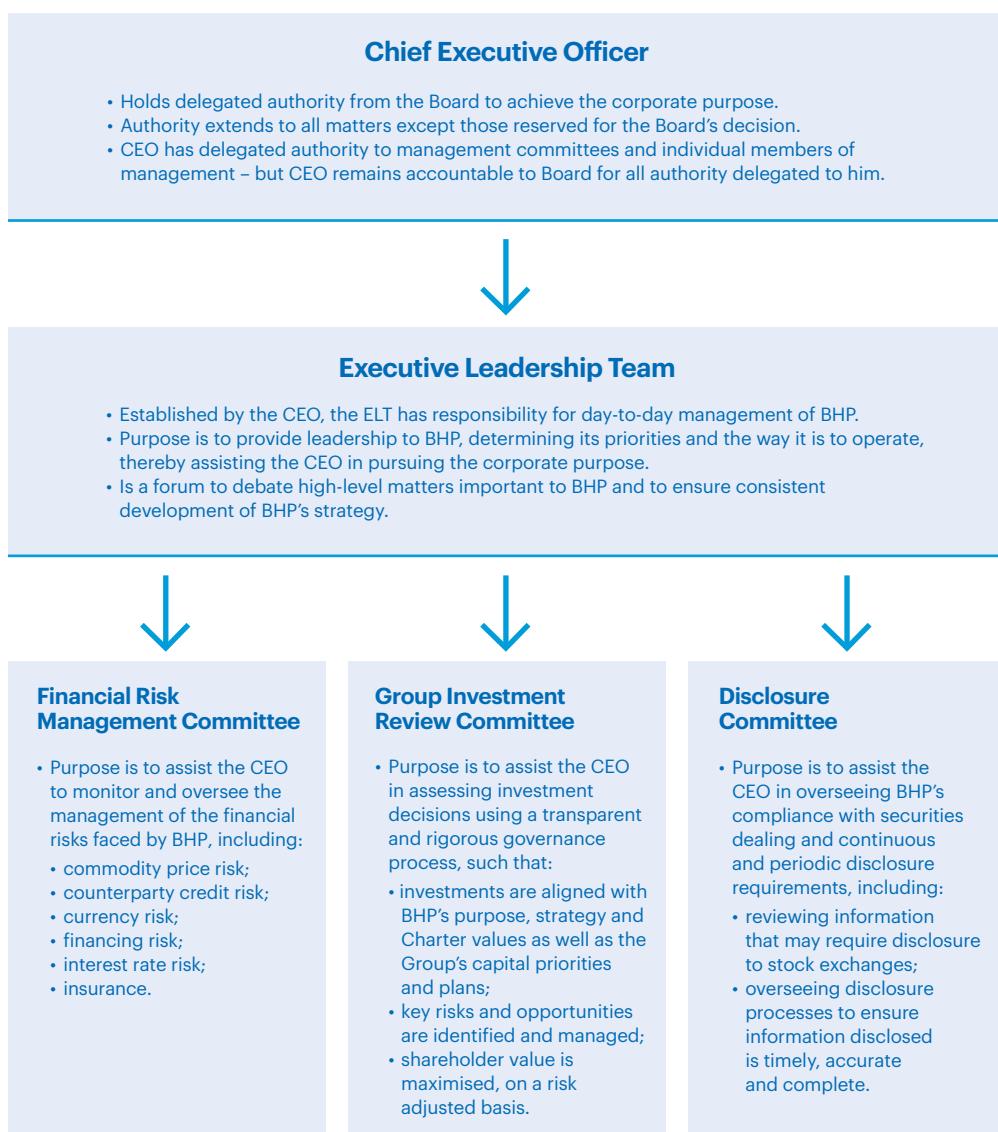
The following diagram describes the responsibilities of the CEO and four key management committees.

Performance evaluation for executives

The performance of executives and other senior employees is reviewed on an annual basis. For the members of the ELT, this review includes their contribution, engagement and interaction at Board level. The annual performance review process that we employ considers the performance of executives against criteria designed to capture both 'what' is achieved and 'how' it is achieved. All performance assessments of executives include how effective they have been in undertaking their role; what they have achieved against their specified key performance indicators; how they match up to the behaviours prescribed in our leadership model; and how those behaviours align with *Our Charter* values. The assessment is therefore holistic and balances absolute achievement with the way performance has been delivered. Progression within BHP is driven equally by personal leadership behaviours and capability to produce excellent results.

A performance evaluation as outlined was conducted for all members of the ELT during FY2019. For the CEO, the performance evaluation was led by the Chairman of the Board on behalf of all the Non-executive Directors, and was discussed with the Remuneration Committee.

CEO and management committee responsibilities



2.16 Our conduct

Our Charter and Our Code of Conduct

Our Charter is central to our business. It articulates the values we uphold, our strategy and how we measure success.

Our Code of Conduct (Our Code) is based on Our Charter values. Our Code sets out standards of behaviour for our people when using BHP resources, in their dealings with governments and communities, third parties and each other. Our Code describes the behaviours expected to support a safe, respectful and a legally compliant working environment.

Working with integrity is a condition of employment with BHP and in some cases a contractual obligation of many of our contractors and suppliers. All our people are required to undertake annual training on Our Code to promote awareness and understanding of the behaviours expected of them. Demonstration of the values described in Our Charter and Our Code is part of the annual employee performance review process.



Our Code is accessible to all our people and external stakeholders online at bhp.com.

BHP's EthicsPoint

We have mechanisms in place for anyone to raise a report if they feel Our Code has been breached. Employees and contractors can raise reports through line leaders or Human Resources. Processes for the community to report potential breaches of Our Code are available at the asset level and these are then reported to a central grievances system.

Reports can also be raised by anyone, whether they are employees, contractors, vendors/suppliers, customers, shareholders or community members, through EthicsPoint, a 24-hour, multilingual service for confidential reporting of potential misconduct. This service is accessible online or via telephone and reports can be raised anonymously.

We acknowledge, investigate as appropriate and document all matters reported. Where matters are investigated and substantiated, we take appropriate remedial actions, advise the reporter (where possible) and document the outcome.

BHP does not tolerate any form of retaliation against anyone for speaking up about potential misconduct or participating in an investigation.

Enhancements

With culture at the centre of key strategic priorities, we have several initiatives to improve our policies, procedures and practices, building on changes already made. They include the implementation of:

- an updated *Our Requirements for Business Conduct* standard, to strengthen our investigations framework, including providing clear guidance how each EthicsPoint concern is assessed and triaged;
- an independent, dedicated Central Investigation team within our Ethics and Compliance function that investigates the most serious allegations of misconduct, including, allegations of sexual harassment, fraud, conflicts of interest, compliance related matters and any other *Our Code of Conduct* allegations raised in relation to senior managers. The Central Investigations Team also provides guidance to drive a standardised, quality investigation process throughout BHP;
- an Integrity Working Group, Chaired by our Chief Compliance Officer and comprised of senior leaders across the Health, Safety and Environment; Risk; Internal Audit; Legal; and Ethics and Compliance functions, with accountability for oversight of the operational effectiveness of the Investigations Framework, including oversight of investigations completed by the Central Investigations team.

Complaints raised through EthicsPoint provide valuable insight into cultural issues and areas for organisational improvement. Complaints are reported biannually to the Board's Risk and Audit Committee by the Chief Compliance Officer. In FY2019, we improved the EthicsPoint process, ethics reporting capability and the quality of investigations and investigations outcomes. These changes will make the reporting more holistic and permit detailed reporting of ethical culture issues to management and the Board.

Political donations

We maintain a position of impartiality with respect to party politics and do not make political contributions or expenditure/donations for political purposes to any political party, politician, elected official or candidate for public office. We do, however, contribute to the public debate of policy issues that may affect BHP in the countries in which we operate. As explained in the Directors' Report, the Australian Electoral Commission (AEC) disclosure requirements are broad and amounts that are not political donations can be reportable for AEC purposes. For example, where a political party or organisation owns shares in BHP, the AEC filing requires the political party or organisation to disclose the dividend payments received for their shareholding.

2.17 Market disclosure

We are committed to maintaining the highest standards of disclosure, ensuring that all investors and potential investors have the same access to high-quality, relevant information in an accessible and timely manner to assist them in making informed decisions. The Disclosure Committee manages our compliance with market disclosure obligations and is responsible for implementing reporting processes and controls and setting guidelines for the release of information. As part of our commitment to continuous improvement, we continue to ensure alignment with best practice as it develops in the jurisdictions in which BHP is listed.

Disclosure officers have been appointed in BHP's Asset groups, Marketing, Procurement, Maritime and Logistics, and functions. These officers are responsible for identifying and providing the Disclosure Committee with referral information about the activities of the asset or functional areas using disclosure guidelines developed by the Committee. The Committee then makes the decision whether a particular piece of information is material and therefore needs to be disclosed to the market.

To safeguard the effective dissemination of information, we have developed the *Our Requirements for market disclosure* standard, which outlines how we identify and distribute information to shareholders and market participants.



A copy of the market disclosure and communications document is available online at bhp.com/governance.

Copies of announcements to the stock exchanges on which BHP is listed, investor briefings, Financial Statements, the Annual Report and other relevant information can be found online at bhp.com. Any person wishing to receive advice by email of news releases can subscribe at bhp.com.

2.18 Remuneration

Details of our remuneration policies and practices, and the remuneration paid to the Directors (Executive and Non-executive) and other members of the KMP, are set out in the Remuneration Report in section 3.

2.19 Directors' share ownership

Non-executive Directors have agreed to apply at least 25 per cent of their remuneration (base fees plus committee fees) to the purchase of BHP shares until they achieve a shareholding equivalent in value to one year's remuneration (base fees plus committee fees). Thereafter, they must maintain at least that level of shareholding throughout their tenure. All dealings by Directors are subject to the *Our Requirements for Securities Dealing* standard and are reported to the Board and to the stock exchanges.

Information on our policy governing the use of hedging arrangements over shares in BHP by Directors and other members of the KMP is set out in section 3.3.21.



Details of the shares held by Directors are set out in section 3.3.20.

2.20 Conformance with corporate governance standards

Our compliance with the governance standards in our home jurisdictions of Australia and the United Kingdom, and with the governance requirements that apply to us as a result of our New York Stock Exchange (NYSE) listing and our registration with the SEC in the United States, is summarised in this Corporate Governance Statement, the Remuneration Report, the Directors' Report and the Financial Statements.

The Listing Rules and the Disclosure and Transparency Rules of the UK Financial Conduct Authority require companies listed in the United Kingdom to report how they have applied the Main Principles and the extent to which they have complied with the provisions of the UK Corporate Governance Code (UK Code), and explain the reasons for any non-compliance. The UK Code is available online at frc.org.uk/Our-Work/Corporate-Governance-Reporting/Corporate-governance.aspx.

The Listing Rules of the ASX require ASX-listed companies to report on the extent to which they meet the ASX Principles and Recommendations and explain the reasons for any non-compliance. The ASX Principles and Recommendations are available online at asx.com.au/regulation/corporate-governance-council.htm.

Both the UK Code and the ASX Principles and Recommendations require the Board to consider the application of the relevant corporate governance principles, while recognising that departures from those principles are appropriate in some circumstances. We have applied the Main Principles and complied with the provisions set out in the 2016 edition of the UK Code and with the ASX Principles and Recommendations during the financial period, with no exceptions.



Appendix 4G, summarising our compliance with the ASX Principles and Recommendations is available online at bhp.com/governance.

BHP Group Limited and BHP Group Plc are registrants with the SEC in the United States. Each company is classified as a foreign private issuer and each has American Depository Shares listed on the NYSE.

We have reviewed the governance requirements applicable to foreign private issuers under SOX, including the rules promulgated by the SEC and the rules of the NYSE, and are satisfied that we comply with those requirements.

Section 303A of the NYSE-Listed Company Manual contains a broad regime of corporate governance requirements for NYSE-listed companies. Under the NYSE rules, foreign private issuers, such as BHP, are permitted to follow home country practice in lieu of the requirements of Section 303A, except for the rule relating to compliance with Rule 10A-3 of the Exchange Act (audit committee independence) and certain notification provisions contained in Section 303A of the Listed Company Manual. Section 303A.11 of the Listed Company Manual, however, requires us to disclose any significant ways in which our corporate governance practices differ from those followed by US companies under the NYSE corporate governance standards. After a comparison of our corporate governance practices with the requirements of Section 303A of the Listed Company Manual followed by US companies, the following significant difference was identified:

- Rule 10A-3 of the Exchange Act requires NYSE-listed companies to ensure their audit committees are directly responsible for the appointment, compensation, retention and oversight of the work of the External Auditor unless the company's governing law or documents or other home country legal requirements require or permit shareholders to ultimately vote on or approve these matters. While the RAC is directly responsible for remuneration and oversight of the External Auditor, the ultimate responsibility for appointment and retention of the External Auditor rests with our shareholders, in accordance with UK law and our constitutional documents. The RAC does, however, make recommendations to the Board on these matters, which are in turn reported to shareholders.

While the Board is satisfied with its level of compliance with the governance requirements in Australia, the United Kingdom and the United States, it recognises that practices and procedures can always be improved and there is merit in continuously reviewing its own standards against those in a variety of jurisdictions. The Board's program of review will continue throughout the year ahead.

2.21 Additional UK disclosure

The information specified in the UK Financial Conduct Authority Disclosure Guidance and Transparency Rules, DTR 7.2.6, is located elsewhere in this Annual Report. The Directors' Report in section 4 provides cross-references to where the information is located.

This Corporate Governance Statement was current and approved by the Board on 5 September 2019, and signed on its behalf by:

Ken MacKenzie
Chairman
5 September 2019



Section 3

Remuneration Report



In this section

- 3.1 Annual statement by the Remuneration Committee Chairman
- 3.2 Remuneration policy report
 - Remuneration policy for the Executive Director
 - Remuneration policy for Non-executive Directors
- 3.3 Annual report on remuneration
 - Remuneration for the Executive Director (the CEO)
 - Remuneration for other Executive KMP (excluding the CEO)
 - Remuneration for Non-executive Directors
 - Remuneration governance
 - Other statutory disclosures

This Remuneration Report describes the remuneration policies, practices, outcomes and governance for the KMP of BHP.

BHP's DLC structure means that we are subject to remuneration disclosure requirements in both the United Kingdom and Australia. This results in some complexity in our disclosures, as there are some key differences in the requirements and the information that must be disclosed. For example, UK requirements give shareholders the right to a binding vote on the remuneration policy every three years, and as a result, the remuneration policy needs to be described in a separate section in the Remuneration Report. Our remuneration policy is set out in section 3.2. In Australia, BHP is required to make certain disclosures for KMP as defined by the Australian Corporations Act 2001, Australian Accounting Standards and IFRS.

The UK requirements focus on the remuneration of executive and non-executive directors. At BHP, this is our Board, including the CEO, who is our sole Executive Director. In contrast, the Australian requirements focus on the remuneration of KMP, defined as those who have authority and responsibility for planning, directing and controlling the activities of the Group directly or indirectly. KMP includes the Board, as well as certain members of our senior executive team.

After due consideration, the Committee has determined the KMP for FY2019 comprised: all Non-executive Directors, the CEO, the Chief Financial Officer, the President Operations, Minerals Australia, the President Operations, Minerals Americas, and the President Operations, Petroleum.

The following individuals have held their positions and were KMP for the whole of FY2019, unless stated otherwise:

- CEO and Executive Director, Andrew Mackenzie;
- Non-executive Directors - see section 3.3.13 for details of the Non-executive Directors, including dates of appointment or cessation (where relevant);
- Other Executive KMP, as set out in the table below.

Name	Title
Peter Beaven	Chief Financial Officer
Mike Henry	President Operations, Minerals Australia
Daniel Malchuk	President Operations, Minerals Americas
Steve Pastor	President Operations, Petroleum (to 17 March 2019)
Geraldine Slattery	President Operations, Petroleum (from 18 March 2019)

Abbreviation	Item
AASB	Australian Accounting Standards Board
AGM	Annual General Meeting
CDP	Cash and Deferred Plan
CEO	Chief Executive Officer
DEP	Dividend Equivalent Payment
DLC	Dual Listed Company
ELT	Executive Leadership Team
GSTIP	Group Short-Term Incentive Plan
HPIF	High Potential Injury Frequency
HSEC	Health, Safety, Environment and Community
IFRS	International Financial Reporting Standards
KMP	Key Management Personnel
KPI	Key Performance Indicator
LTIP	Long-Term Incentive Plan
MAP	Management Award Plan
MSR	Minimum Shareholding Requirement
ROC	Return on Capital
STIP	Short-Term Incentive Plan
TRIF	Total Recordable Injury Frequency
TSR	Total Shareholder Return
UAP	Underlying Attributable Profit

3.1 Annual statement by the Remuneration Committee Chairman



'Our FY2019 remuneration outcomes are aligned with performance, and the proposed enhancements to our remuneration policy will further strengthen this linkage and ensure our remuneration arrangements continue to support the delivery of our strategy.'

Carolyn Hewson
Chairman, Remuneration Committee

Dear Shareholders,

I am pleased to introduce BHP's Remuneration Report for FY2019. During the past two years, the Remuneration Committee invested time reviewing the Company's remuneration policy, to ensure it supports the attraction and motivation of talented executives and, at the same time, aligns business performance and remuneration outcomes. Based on the findings of this review, several enhancements to the remuneration policy are being proposed.

Why change?

The purpose of BHP's remuneration arrangements is to drive the delivery of strategy, attract and motivate talented executives, and ensure long-term alignment with our shareholders' interests.

Shareholder support of BHP's remuneration arrangements has been strong over many years, and we believe they have served stakeholders well. However, it is appropriate to regularly review opportunities to enhance the Group's remuneration arrangements to deliver on their intended purpose. The LTIP is well understood, transparent and aligned to the interests of shareholders, yet the reviews conducted in recent years have identified the following tendencies:

- The LTIP rewards volatility in performance rather than sustained outperformance, which is an aspiration for BHP.
- There are material time lags between key long-dated decisions and their LTIP outcomes, leading to a discrepancy between participants who are the decision-makers, and those who eventually experience the positive or negative remuneration outcomes.
- The LTIP tends to deliver 'all or nothing' outcomes, often for extended periods.
- When the LTIP next vests at 100 per cent (or similarly high levels), there is likely to be significant scrutiny by shareholders and other stakeholders, due to the overall remuneration accruing from the awards granted.

The enhancements to the remuneration policy being proposed mitigate these concerns, without relinquishing the well understood and supported benefits of the LTIP.

Consultation with shareholders

During FY2019, the Committee engaged with shareholders on the concerns above and discussed various possible improvements; then with the benefit of valuable shareholder input from those discussions, several proposed changes were tested with shareholders in a second round of discussions. While a majority of those consulted were comfortable with the rationale for, and the specifics of, the proposed changes, constructive feedback was also received in relation to certain aspects. Three modifications were made to the proposal based on this shareholder feedback (see 'Before and after comparison' on page 139).

What is proposed?

The following changes to the remuneration policy are proposed for the CEO:

- A change in the balance of incentive arrangements comprising:
 - A reduced LTIP grant size from 400 per cent to 200 per cent of base salary (on a face value basis);
 - A CDP that has a longer-term focus than the current STIP. The CDP will include a cash award, plus two-year and five-year deferred share awards each of equivalent value to the actual cash award, which will align participants' incentive remuneration with performance over the short, medium and long term;
- In aggregate, these two changes in combination do not materially alter the target value or vesting profile of incentive remuneration, but result in a 12 per cent reduction in the maximum value of total annual remuneration.
- A reduction in the pension contribution rate from 25 per cent of base salary down to 10 per cent of base salary (the estimated workforce average is approximately 11.5 per cent of base salary), and because of this change, overall target remuneration is reduced by 4 per cent.
 - The introduction of a two-year post-retirement shareholding requirement for the CEO.

What is the impact?

The proposed changes mitigate the leverage of the overall remuneration package and the likelihood of unpalatable quantum outcomes is reduced significantly. The chart below shows the 'all or nothing' LTIP vesting outcome pattern since 2009, projected to 2022.

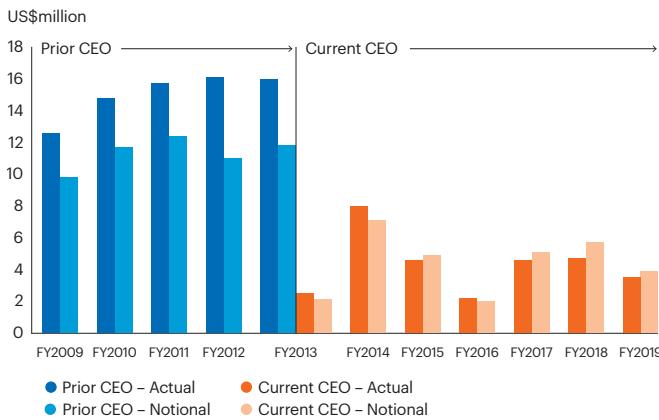
LTIP vesting



While no LTIP awards have vested since 2014, performance-to-date to 30 June 2019 for the next three LTIP awards indicates projected vesting of 70 per cent in FY2020, 100 per cent in FY2021 and 100 per cent in FY2022. Such vesting would continue the 'all or nothing' pattern, potentially giving rise to significant scrutiny of overall remuneration outcomes by shareholders and other stakeholders.

A comparison of actual total remuneration outcomes from FY2009–FY2019 against notional outcomes over the same period under the proposed changes, indicates the prior CEO's total remuneration would have been lower by US\$19 million (25 per cent lower) under the proposed remuneration policy. Conversely, the current CEO's total remuneration would have been marginally higher by US\$1 million (2 per cent higher). The Remuneration Committee consider that these remuneration outcomes would have been more appropriate, given the performance of the Group and the experience of shareholders over the period.

Comparison of actual and notional outcomes under the proposed changes



In addition, the de-weighting of the LTIP in the overall remuneration package mitigates the other concerns referred to above. The changes to pension arrangements and the introduction of post-retirement shareholding requirements conform to best practice governance.

Before and after comparison

The following table details the elements of the CEO's remuneration package that are changing and those that are not.

As noted above, three changes to the proposed remuneration policy were made based on shareholder feedback during the consultation meetings. These are referred to in the table; however, for ease of reference, they are:

- Increasing the weighting on financial measures from 45 per cent to 50 per cent in the CDP scorecard (with a commensurate reduction from 30 per cent to 25 per cent for individual measures).
- Replacing the CDP absolute underlying attributable profit financial measure with a return on capital measure.
- Applying a policy of pro-rata reduction to the CDP five-year deferred shares for leavers entitled to retain awards, instead of vesting in full (note that vesting is not accelerated; it will occur on their scheduled vesting date).

Element	Before	After	Change
Fixed pay	Base salary	Fixed amount per annum	No change
	Pension contribution	25% of base salary	Reduced to below workforce average of approximately 11.5% of base salary
	Benefits	Specified benefits up to a maximum of 10% of base salary	No change
Variable pay	STIP / CDP	<p>STIP – Cash award with a target of 80% of base salary (maximum 120%) with an award of two-year deferred shares equivalent in value to the actual cash award</p> <p>HSEC:</p> <ul style="list-style-type: none"> 25% weighting Includes circa 4% on climate change <p>Financial:</p> <ul style="list-style-type: none"> 45% weighting Absolute underlying attributable profit metric <p>Individual:</p> <ul style="list-style-type: none"> 30% weighting <p>Good leavers:</p> <ul style="list-style-type: none"> Two-year deferred shares vest in full on their scheduled vesting dates 	<p>CDP – Cash award with a target of 80% of base salary (maximum 120%) with awards of two-year and five-year deferred shares each equivalent in value to the actual cash award</p> <p>HSEC:</p> <ul style="list-style-type: none"> 25% weighting From 1 July 2020 to include increased weighting, specificity and transparency on climate change <p>Financial:</p> <ul style="list-style-type: none"> 50% weighting Underlying return on capital metric <p>Individual:</p> <ul style="list-style-type: none"> 25% weighting <p>Vesting underpin:</p> <ul style="list-style-type: none"> A five-year holistic review of performance <p>Good leavers:</p> <ul style="list-style-type: none"> Two-year deferred shares vest in full on their scheduled vesting dates Five-year deferred shares vest pro-rata for time served, vesting on their scheduled vesting date
	LTIP	<p>400% of base salary on a face value basis (164% fair value)</p> <p>Good leavers:</p> <ul style="list-style-type: none"> LTIP awards reduced pro-rata based for time served, vesting on their scheduled vesting date and subject to original performance conditions 	<p>200% of base salary on a face value basis (82% fair value)</p> <p>Good leavers:</p> <ul style="list-style-type: none"> LTIP awards reduced pro-rata based for time served, vesting on their scheduled vesting date and subject to original performance conditions
Remuneration package	At target	US\$7.7 million	Grant size reduced by half No other changes
	At maximum (fixed share price)	US\$13.1 million	Reduced by 12%
Shareholding requirements	500% of salary (based on owned shares only)	500% of salary (based on owned shares only) with a requirement to hold these shares for a minimum of two years post-retirement	Introduction of a two-year post-retirement shareholding requirement

Maintaining our long-term focus

One aspect of the proposal that attracted comment from a number of shareholders was whether a sufficiently long-term perspective would be retained despite a reduced weighting of five-year relative TSR in the overall remuneration arrangements. The Board and Remuneration Committee are committed to ensuring the CDP scorecard is a genuine combination of short-term business imperatives and progress towards long-term sustainable business outcomes that are subject to rigorous and transparent performance assessment. This will also be reflected in our disclosures in the annual remuneration report.

The scorecard set out below is a combination of short, medium and long-term elements that the Board and Remuneration Committee view as priorities for FY2020.

Categories	Item
HSEC (25%)	<ul style="list-style-type: none">Fatalities and other HSEC incidentsHPIF, TRIF and Occupational illnessesHSEC risk management (including climate change)HSEC initiatives linked to five-year Public Targets (including climate change)
Financial (50%)	<ul style="list-style-type: none">Return on Capital (adjusted for commodity prices, exchange movements and exceptional items that are not within management control during the performance year)
Individual (25%)	<ul style="list-style-type: none">Portfolio/strategy (i.e. aligned to long-term plans)Tailings damsFuture options and exploration (i.e. aligned to long-term plans)Culture and capability (including quantitative employee survey and diversity targets)Social value (including management of risk, community relationships and environmental performance linked to our long-term success)

Performance is measured on an annual basis against the scorecard, and CDP awards are made in the form of cash, two-year deferred shares and five-year deferred shares. While there are certain appropriate short-term components of the scorecard (e.g. financial performance), a number of the HSEC and Individual measures are long term elements which contribute to value creation in the longer term or will take multiple years to realise their full potential.

The Board and Committee take the view that long-term objectives (including items such as our public HSEC five-year targets, portfolio/strategy implementation, critical tailings dam work, capital projects, future options, exploration, culture, capability and social value) need to be broken down into milestones if they are to be successfully implemented and long-term value created. Many of these items in the scorecard are multi-year in nature, and while the Committee is measuring the milestones on an annual basis, they have been crafted to contribute to long-term successful implementation.

The CDP scorecard will be reviewed at the commencement of each performance year to ensure it captures the most important elements for the coming year. For example, the link between executive remuneration and climate change will be reviewed over FY2020, with a view to strengthening that link for the financial year that commences on 1 July 2020.

The first CDP awards will be made in late CY2020 in respect of FY2020. Awards to be made in late CY2019 in respect of FY2019 will be made under the existing STIP arrangements.

Vesting will also be subject to an underpin through a holistic performance review

To ensure the vesting of five-year deferred shares under the CDP is underpinned by ongoing performance post-grant, the vesting will also be subject to an underpin. This will take the form of a holistic review of performance at the end of the five-year vesting period, including a five-year view on HSEC performance, profitability, cash flow, balance sheet health, returns to shareholders, corporate governance and conduct.

If this holistic review determined that the scheduled vesting outcome would not be appropriate, the Committee has discretion to reduce vesting. The exercise of discretion – to adjust variable pay outcomes downwards – has been a feature of BHP's approach over many years where the status quo or a formulaic outcome does not align with the overall shareholder experience. For example, under the LTIP, this holistic review resulted in discretion being applied in 2013 when the LTIP vesting was reduced from 100 per cent to 65 per cent.

LTIP

The only change to the LTIP is a reduction in the size of the grant. The comparator groups, relative TSR condition, five-year performance term, vesting scale, leaver conditions, availability of discretion (downwards), malus and clawback are unchanged. While the LTIP is de-weighted in the overall remuneration package, it does focus executive effort on sustainable long-term value creation, and is seen as a successful program by many shareholders where remuneration outcomes and the shareholder experience are aligned.

In order to ensure there is a fair transitional outcome for participants, the LTIP grant to be made in late CY2019 will be made on the current 400 per cent of base salary (face value), with potential vesting five years later in mid-CY2024. The first five-year deferred shares that result from performance under the CDP will be granted in late CY2020 and will first vest five years later in mid-CY2025. The LTIP grant to be made in late CY2020 will be made on the reduced 200 per cent of base salary (face value), with potential vesting five years later also in mid-CY2025.

CEO remuneration outcomes

Since his appointment as CEO in 2013, Andrew Mackenzie has not received a base salary increase and, after review in 2019, the Committee has again determined his salary will remain unchanged at US\$1.700 million per annum. In addition, prior to the changes being proposed this year, the other components of his total target remuneration (pension contributions, benefits and short-term and long-term incentive targets) have also remained unchanged since 2013. Mr Mackenzie is BHP's only Executive Director.

From a performance perspective, while shareholders have benefited during FY2019 from positive share price growth and significant shareholder returns, the year was a challenging one operationally for BHP, and the remuneration outcomes for FY2019 for our senior executives reflect this.

The scorecard against which Mr Mackenzie's performance is assessed comprises both short-term business imperatives and progress towards long-term sustainable business outcomes, including HSEC, financial and individual performance elements, which have stretching performance measures subject to rigorous and transparent performance assessment. For FY2019, the Remuneration Committee has assessed Mr Mackenzie's performance and determined an STIP outcome of 48 per cent against the target of 100 per cent (which represents an outcome of 32 per cent against the maximum STIP opportunity available to him or 77 per cent of base salary).

This outcome took into account HSEC performance, which primarily reflected the tragic fatality that occurred at the Saraji coal mine in Queensland, Australia in December 2018. The Committee took advice from the Sustainability Committee, giving the Group's safety performance the greatest weighting in the HSEC category.

Controllable financial performance was below the threshold financial target set at the commencement of the year, mainly due to operational issues leading to below target production performance across the Group.

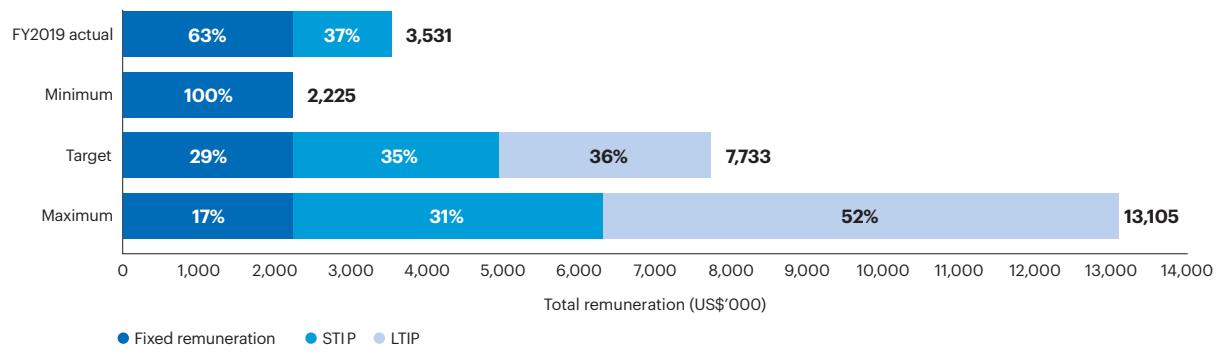
The Committee considered the CEO's performance against individual objectives to be ahead of target, including improved returns of major capital projects in development, progressing BHP's rigorous Capital Allocation Framework, positive outcomes from exploration, and the successful completion of the Onshore US divestment, with the proceeds distributed in a value accretive manner, contributing to the positive shareholder experience during the year.

In relation to the LTIP awards granted in 2014, BHP's TSR performance was positive 6.0 per cent over the five-year period from 1 July 2014 to 30 June 2019. This is below the weighted median TSR of peer companies of positive 15.3 per cent and below the TSR of the MSCI World index of positive 41.3 per cent. This level of performance results in zero vesting for the 2014 LTIP awards, and accordingly the awards have lapsed.

Overall, Mr Mackenzie's actual total remuneration for FY2019 was US\$3.531 million, compared with US\$4.657 million for FY2018, with the decrease due to a lower STIP outcome this year compared with FY2018. The LTIP outcome was zero in both years.

In line with the approach for Mr Mackenzie, after review in 2019, the base salaries for all other Executive KMP will also remain unchanged.

FY2019 CEO remuneration



FY2020 CEO remuneration

Fixed remuneration	CDP	LTIP
<ul style="list-style-type: none"> Base salary US\$1.700 million per annum. No change to base salary. Pension contribution 25% of base salary, reducing thereafter as follows: to 20% from 1 July 2020, to 15% from 1 July 2021, and to 10% from 1 July 2022 onwards. 	<ul style="list-style-type: none"> Target cash award of 80% of base salary (maximum 120%). Plus two awards of deferred shares each of equivalent value to the cash award, vesting in two and five years, respectively. Three categories: <ul style="list-style-type: none"> HSEC – 25% Financial – 50% Individual – 25%. 	<ul style="list-style-type: none"> The LTIP grant is to be based on a face value of 200%* of base salary. Our LTIP awards have rigorous relative TSR performance hurdles measured over five years. <p>* 400% of base salary for the late 2019 LTIP grant with the late 2020 LTIP grant to be made under the new remuneration policy.</p>

Chairman and Non-executive Director fees

Fee levels for the Chairman and Non-executive Directors are reviewed annually, including benchmarking against peer companies. No changes to the Chairman's fee will be made for FY2020. This follows a review in 2017, where a decision was made to reduce the Chairman's annual fee by approximately 8 per cent from US\$0.960 million to US\$0.880 million with effect from 1 July 2017, which followed an earlier reduction, effective 1 July 2015, of approximately 13 per cent from US\$1.100 million to US\$0.960 million.

Base fee levels for Non-executive Directors will also remain unchanged, after they were also reduced effective 1 July 2015 by approximately 6 per cent, from US\$0.170 million to US\$0.160 million per annum. Prior to the above reductions in fee levels for the Chairman and Non-executive Directors, their fees had remained unchanged since 2011.

Transition of the Remuneration Committee Chairman role

As you would be aware, this will be my last statement to shareholders as Chairman of the Remuneration Committee, as I will be retiring from the Board and the Committee after the Australian AGM later this year. A key focus during my tenure as Chairman of the Committee has been to arrive at pay outcomes that are fair to all stakeholders. That is, fair to executives reflecting the outcomes they have achieved, fair to shareholders in terms of the outcomes they have experienced, and fair to other stakeholders in terms of what is regarded as reasonable compensation for the complex and global roles our executives perform. Of course, sometimes this has not been straightforward, and it has involved careful consideration and balanced decisions on some occasions to achieve the right outcome.

I was fortunate when I assumed the role to have the wisdom and experience of my predecessors to lean on and to learn from, particularly Sir John Buchanan whom I succeeded as Chairman of the Committee. Sir John left a very strong legacy at BHP on remuneration matters for my fellow Committee members and me to build upon. I have taken that responsibility very seriously during my tenure and I am also committed to seeing this work continue.

To that end, I have been working closely with the BHP Chairman and Committee members on an effective and seamless transition. I am confident that my colleagues on the Board will appoint a Chairman of BHP's Remuneration Committee who, with the undoubted continuing support from the BHP Chairman and Committee members, will be very successful and effective.

Summary

The remuneration outcomes for FY2019 reflect an appropriate alignment between pay and performance during the year, and we are confident that shareholders will recognise this as a continuation of our long-held approach.

In late 2019, our remuneration policy enhancements will be put before shareholders at the UK and Australian AGMs for approval. BHP's Board and Remuneration Committee believe the proposed changes improve our senior executive remuneration arrangements and they will continue to promote long-term value creation. We look forward to your support.

As always, we look forward to ongoing dialogue with our shareholders, and welcome your feedback and comments on any aspect of this Report.

Carolyn Hewson

Chairman, Remuneration Committee
5 September 2019

Common questions and answers on the remuneration policy changes

Why are changes being made now?	<p>Having invested time reviewing the Group's remuneration policy, to ensure it supports the attraction and motivation of talented executives and, at the same time, aligns business performance and remuneration outcomes, the Remuneration Committee concluded that the time was right to make changes to mitigate concerns with our current arrangements, particularly regarding the LTIP.</p> <p>In addition, other changes are proposed to conform with best practice governance, namely reducing our pension contribution rate to 10 per cent of base salary, which is below the workforce average, and introducing two-year post-retirement shareholding requirements for the CEO.</p>
Is this a shift from the long-term to the short term?	<p>No, the current high level of focus on the long-term business performance is maintained. While the current five-year TSR-based LTIP is de-weighted, the CDP scorecard is a genuine combination of short-term business imperatives and progress towards long-term sustainable business outcomes that are subject to rigorous and transparent performance assessment. Disclosures in the annual remuneration report will reflect that.</p> <p>In addition, awards under the CDP (being rights to receive ordinary BHP shares at the end of the relevant deferral periods) will include five-year deferred shares, which provide ongoing share price exposure over the long-term. At the time of vesting, the five-year deferred shares will be subject to a holistic review of business performance over the prior five years since grant to ensure vesting is appropriate.</p>
What is the change to target and maximum remuneration outcomes?	<p>Total target remuneration will reduce by 4 per cent from the current arrangements, and maximum total remuneration (at a fixed share price) will reduce by 12 per cent.</p>
What reduction in quantum will apply for the switch from five-year LTIP to five-year CDP deferred shares?	<p>The size of the discount in award numbers varies depending on the assumed CDP scorecard outcome. For example, when comparing the current LTIP awards at face value to the future CDP awards:</p> <ul style="list-style-type: none">• At a target CDP outcome, the proposal incorporates a 60 per cent discount.• At a maximum CDP outcome, the proposal incorporates a 40 per cent discount (albeit, a maximum outcome under the scorecard has never been achieved previously). <p>In reviewing these discounts, the following has been considered:</p> <ul style="list-style-type: none">• The quantum of the CDP grant is directly related to the scorecard performance condition outcomes (i.e. it is not a grant of deferred shares without performance conditions).• Achieving a maximum outcome under the CDP is highly unlikely, whereas LTIP maximum outcomes have occurred in the past.• The average short-term incentive outcome over the past 11 years has been 53 per cent of maximum (or 79 per cent of target) and a maximum outcome has never been achieved, whereas LTIP maximum outcomes against the performance conditions have been achieved in five of the past 11 years.• An underpin review will apply to the vesting of the five-year deferred shares, and BHP has a strong track record of applying discretion which ensures appropriate remuneration outcomes.
Why weren't other measures introduced for the LTIP?	<p>Our current relative TSR approach in the LTIP is well understood, transparent and simple, and is demonstrably aligned to the interests of shareholders, particularly through its five-year duration, longer than most other LTIPs in the market.</p> <p>Through this and prior reviews, the Committee has concluded that it is difficult to identify substantive long-term KPIs as other measures for the LTIP that are an improvement on the current approach. Such KPIs do not generally have the transparency and rigour preferred by both shareholders and participants, or their nature can make it difficult to set new targets for each successive five-year performance period, or are derived from accounting results that can be volatile over the long-term due to movements in commodity prices and are challenging to measure against peer companies on a relative basis.</p>
Why is this year's LTIP grant being made at 400 per cent of base salary (face value)?	<p>This is to ensure the proposed changes align the equity award grant and vesting timings between the current and proposed arrangements so as not to inadvertently create a benefit or a penalty for the CEO because of the changes.</p> <p>The LTIP grant to be made in late CY2019 will be made on the current 400 per cent of base salary (face value), with potential vesting five years later in mid-CY2024. The first five-year deferred shares that result from performance under the CDP will be granted in late CY2020 and will first vest five years later in mid-CY2025. The LTIP grant to be made in late CY2020 will be made on the reduced 200 per cent of base salary (face value), with potential vesting five years later also in mid-CY2025.</p>
Why will the five-year deferred shares be pro-rated under the CDP for leavers entitled to retain them?	<p>The five-year LTIP has pro-rating applied for time served for leavers who are entitled to retain their awards. As the CDP five-year deferred shares are also long-term in nature, the same approach has been applied.</p> <p>As with the five-year LTIP, any retained CDP five-year deferred shares will only vest on the originally scheduled vesting date.</p>

Will there be greater scope for payment for failure?

The Board and Committee consider it is important to ensure that remuneration outcomes align to business performance over the long term. This is achieved by the use of long-term equity awards, which are only granted and vested after satisfying stretching performance targets, and which provide long-term share price exposure.

To ensure the vesting of five-year equity awards is underpinned by ongoing performance, any vesting, whether deferred shares under the CDP or performance shares under the LTIP, will be subject to a holistic review of performance as referred to above.

This review of business performance is an important safeguard against inappropriate remuneration outcomes. This process is also consistent with BHP's past exercise of appropriate downward discretion where the status quo or a formulaic outcome does not align with the overall shareholder experience. Other examples in recent years include reducing the CEO's remuneration package by 25 per cent in 2013, zero STI outcomes for the CEO (and Chief Executive Petroleum) in 2012 as a result of shale impairments, the reduction in Chairman fees in 2015 and 2017 and in Non-executive Director fees in 2015, and the zero STI outcome for the CEO in 2016 as a result of the dam failure at Samarco, and the ongoing decline in commodity markets and the associated negative impact on our performance.

Are the HSEC and Individual measures all qualitative?

No, many of the targets in the HSEC and Individual measure categories have quantitative targets. For example, in the HSEC measures, many of the targets are directly linked to the quantified five-year HSEC targets that BHP has published externally in its Sustainability Report. Additionally, under the Individual measures, many of the targets are expressed as quantified outcomes over which rigorous assessment can be applied.

Are the arrangements sufficiently linked and aligned to business performance?

The proposed variable pay arrangements have strong links to performance and the shareholder experience as outlined below:

- Determining the size of CDP award outcomes – a balanced scorecard with a mix of short, medium and long-term elements.
- Direct link to the share price – deferred shares under the CDP and performance shares under the LTIP vesting over the medium and long-term.
- A rigorous LTIP with vesting of awards determined by long-term relative performance – five-year performance shares with vesting driven by relative TSR.

The proposed variable pay arrangements include long-term, 'at-risk', equity-based features, to ensure the ultimate remuneration and wealth outcomes are aligned with performance. Of annual total target remuneration, almost 40 per cent is earned over a five-year timeframe, 75 per cent is performance-based variable pay and 'at risk', and almost 60 per cent is delivered in the form of equity awards with long-term share price exposure.

Once shares are owned, a significant MSR applies, being five times base salary for the CEO, and a two-year post-retirement shareholding requirement for the CEO from 1 July 2020. Together these ensure long-term, material share price exposure.

Are the targets under the CDP scorecard sufficiently stretching and robust? Will outcomes be easier to achieve?

The Board and Committee will ensure the CDP scorecard includes rigorous and stretching performance targets. Evidence of this is seen in the outcomes against the short-term incentive scorecard historically which have averaged 53 per cent of maximum (or 79 per cent of target) over the past 11 years for the CEO, and this rigorous and stretching approach will be unchanged.

Why is the pension contribution rate changing? Will it change immediately?

When the current CEO assumed the role in 2013, the pension contribution rate was reduced from the former CEO's 40 per cent of base salary to the current rate of 25 per cent of base salary. Our analysis indicates that the market-competitive pension contribution rates for a majority of employees across the Group's global locations range from 8–20 per cent of base salary, with an average of approximately 11.5 per cent of base salary. Accordingly, in order to promote a more equitable outcome, we have decided to reduce the pension contribution rate for senior executives to 10 per cent of base salary, lower than the workforce average.

In order to be fair to incumbents, this will be introduced gradually over the next three years. The rate of 25 per cent of base salary will apply until 30 June 2020, reducing to 20 per cent from 1 July 2020, reducing again to 15 per cent from 1 July 2021, and a rate of 10 per cent applying from 1 July 2022 onwards. For a new appointee, the pension contribution rate of 10 per cent of base salary will apply immediately.

3.2 Remuneration policy report

BHP has an overarching remuneration policy that guides the Remuneration Committee's decisions. Under UK legislation, shareholders have the opportunity to vote on our remuneration policy every three years, with binding effect in regard to the Directors (including the CEO). The Committee undertook a review of the policy during the past year and determined that while the current policy remains appropriate in many respects and aligned to our business priorities, certain proposed enhancements to variable pay and pension arrangements will support the delivery of our strategic priorities.

A summary of proposed changes to the remuneration policy for the Executive Director is outlined below. No changes are proposed to the remuneration policy for our Non-executive Directors. This remuneration policy is subject to a binding vote by shareholders at the 2019 AGMs, and if approved, will apply with effect from the November 2019 BHP Group Limited AGM.

Remuneration policy for the Executive Director

This section only refers to the remuneration policy for our CEO, who is our sole Executive Director. If any other executive were to be appointed an Executive Director, this remuneration policy would apply to that new role.

3.2.1 Components of remuneration

The following table shows the components of total remuneration, the link to strategy, the applicable operation and performance frameworks, and the maximum opportunity for each component, including a summary of the proposed enhancements to our variable pay plans and changes to pension arrangements.

In summary, the proposed remuneration policy enhancements are detailed below:

- A CDP which has a longer term focus than the STIP and which comprises a mix of short, medium and long-term award outcomes to align incentive remuneration with performance:
 - Cash award of 80 per cent of base salary at target; 120 per cent of base salary at maximum.
 - An amount equivalent to the actual cash award in deferred shares restricted for two years.
 - An amount equivalent to the actual cash award in deferred shares restricted for five years.
- Reduction of the maximum face value of the LTIP award by half, from 400 per cent of base salary to 200 per cent of base salary. All other terms of the current LTIP remain unchanged.
- Reduction in pension contribution rates for the existing CEO to 10 per cent of base salary from 25 per cent of base salary over the next three years.

Remuneration component and link to strategy	Operation and performance framework	Maximum ⁽¹⁾
Base salary A competitive base salary is paid in order to attract and retain a high-quality and experienced CEO, and to provide appropriate remuneration for this important role in the Group.	<ul style="list-style-type: none">• Base salary, denominated in US dollars, is broadly aligned with salaries for comparable roles in global companies of similar global complexity, size, reach and industry, and reflects the CEO's responsibilities, location, skills, performance, qualifications and experience.• Base salary is reviewed annually with effect from 1 September. Reviews are informed, but not led, by benchmarking to comparable roles (as above), changes in responsibility and general economic conditions. Substantial weight is also given to the general base salary increases for employees.• Base salary is not subject to separate performance conditions.	8% increase per annum (annualised), or inflation if higher in Australia.
Pension contributions Provides a market-competitive level of post-employment benefits provided to attract and retain a high-quality and experienced CEO.	<ul style="list-style-type: none">• Pension contributions are benchmarked to comparable roles in global companies and have been determined after considering the pension contributions provided to the wider workforce.• A choice of funding vehicles is offered, including a defined contribution plan, an unfunded retirement savings plan, an international retirement plan or a self-managed superannuation fund. Alternatively, a cash payment may be provided in lieu.	For the existing CEO, the current pension contribution rate of 25% of base salary will reduce as follows: <ul style="list-style-type: none">• 20% of base salary from 1 July 2020.• 15% of base salary from 1 July 2021.• 10% of base salary from 1 July 2022 onwards. For a new appointment, the pension contribution rate will be 10% of base salary immediately.
Benefits Provides personal insurances, relocation benefits and tax assistance where BHP's structure gives rise to tax obligations across multiple jurisdictions, and a market-competitive level of benefits to attract and retain a high-quality and experienced CEO.	<ul style="list-style-type: none">• Benefits may be provided, as determined by the Committee, and currently include costs of private family health insurance, death and disability insurance, car parking, and personal tax return preparation in the required countries where BHP has requested the CEO relocate internationally, or where BHP's DLC structure requires personal tax returns in multiple jurisdictions.• Costs associated with business-related travel for the CEO's spouse/partner, including for Board meetings, may be covered. Where these costs are deemed to be taxable benefits for the CEO, BHP may reimburse the CEO for these tax costs.• The CEO is eligible to participate in Shareplus, BHP's all-employee share purchase plan.• A relocation allowance and assistance is provided only where a change of location is made at BHP's request. The Group's mobility policies generally provide for 'one-off' payments with no material trailing entitlements.	Benefits as determined by the Committee but to a limit not exceeding 10% of base salary and (if applicable) a one-off taxable relocation allowance up to US\$700,000.

Remuneration component and link to strategy	Operation and performance framework	Maximum ⁽¹⁾
<p>CDP ⁽²⁾</p> <p>The purpose of the CDP is to encourage and focus the CEO's efforts on the delivery of the Group's strategic priorities for the relevant financial year to deliver short, medium and long-term success, and to motivate the CEO to strive to achieve stretch performance objectives.</p> <p>The performance measures for each year are chosen on the basis that they are expected to have a significant short, medium and long-term impact on the success of the Group.</p> <p>Delivery of two-thirds of CDP awards in deferred shares encourages a longer-term focus aligned to that of shareholders.</p>	<p>Setting performance measures and targets</p> <ul style="list-style-type: none"> The Committee sets a balanced scorecard of short, medium and long-term elements including HSEC, financial and individual performance measures, with targets and relative weightings at the beginning of the financial year in order to appropriately motivate the CEO to achieve outperformance that contributes to the long-term sustainability of the Group and shareholder wealth creation. Specific financial measures will constitute the largest weighting and are derived from the annual budget as approved by the Board for the relevant financial year. Appropriate HSEC measures that are consistent with the Company's long-term five-year public HSEC targets, and their weightings, are determined by the Remuneration Committee with the assistance of the Sustainability Committee. Individual measures are an important element of effective performance management, and are a combination of quantitative and qualitative targets. They are aligned with medium and long-term strategy aspirations that are intended to drive long-term value for shareholders and other stakeholders. For HSEC and for individual measures the target is ordinarily expressed in narrative form and will be disclosed near the beginning of the performance period. However, the target for each financial measure will be disclosed retrospectively. In the rare instances where this may not be prudent on grounds of commercial sensitivity, we will seek to explain why and give an indication of when the target may be disclosed. Should any other performance measures be added at the discretion of the Committee, we will determine the timing of disclosure of the relevant target with due consideration of commercial sensitivity. <p>Assessment of performance</p> <ul style="list-style-type: none"> At the conclusion of the financial year, the CEO's achievement against each measure is assessed by the Remuneration Committee and the Board, with guidance provided by other relevant Board Committees in respect of HSEC and other measures, and a CDP award determined. If performance is below the Threshold level for any measure, no CDP award will be provided in respect of that portion of the CDP award opportunity. The Board believes this method of assessment is transparent, rigorous and balanced, and provides an appropriate, objective and comprehensive assessment of performance. In the event that the Remuneration Committee does not consider the outcome that would otherwise apply to be a true reflection of the performance of the Group or should it consider that individual performance or other circumstances makes this an inappropriate outcome, it retains the discretion to not provide all or a part of any CDP award. This is an important mitigation against the risk of unintended award outcomes. <p>Delivery of award</p> <ul style="list-style-type: none"> CDP awards are provided under the CDP as cash and two awards of deferred shares, each of equivalent value to the cash award, vesting in two and five years respectively. The awards of deferred shares comprise rights to receive ordinary BHP shares in the future at the end of the deferral periods. Before the awards vest (or are exercised), these rights are not ordinary shares and do not carry entitlements to ordinary dividends or other shareholder rights; however, a DEP is provided on vested awards. The Committee also has a discretion to settle CDP awards in cash. <p>Underpin, malus and clawback</p> <ul style="list-style-type: none"> To ensure any vesting of five-year deferred shares under the CDP is underpinned by satisfactory performance post-grant, the vesting will be subject to an underpin. This will encompass a holistic review of performance at the end of the five-year vesting period, including a five-year view on HSEC performance, profitability, cash flow, balance sheet health, returns to shareholders, corporate governance and conduct. Both cash and deferred share CDP awards are subject to malus and clawback as described on page 146. 	<p>Maximum award</p> <p>A cash award of 120% of base salary plus two awards of deferred shares each of equivalent value to the cash award, vesting in two and five years respectively.</p> <p>Target performance</p> <p>A cash award of 80% of base salary plus two awards of deferred shares each of equivalent value to the cash award, vesting in two and five years respectively, for target performance on all measures.</p> <p>Threshold performance</p> <p>A cash award of 40% of base salary plus two awards of deferred shares each of equivalent value to the cash award, vesting in two and five years respectively, for threshold performance on all measures.</p> <p>Minimum award</p> <p>Zero.</p>

Remuneration component and link to strategy	Operation and performance framework	Maximum ⁽¹⁾
<p>LTIP</p> <p>The purpose of the LTIP is to focus the CEO's efforts on the achievement of sustainable long-term value creation and success of the Group (including appropriate management of business risks).</p> <p>It also encourages retention through long-term share exposure for the CEO over the five-year performance period (consistent with the long-term nature of resources), and aligns the long-term interests of the CEO and shareholders.</p> <p>The LTIP aligns the CEO's reward with sustained shareholder wealth creation in excess of that of relevant comparator group(s), through the relative TSR performance condition.</p> <p>Relative TSR has been chosen as an appropriate measure as it allows for an objective external assessment over a sustained period on a basis that is familiar to shareholders.</p>	<p>Relative TSR performance condition</p> <ul style="list-style-type: none"> The LTIP award is conditional on achieving five-year relative TSR ⁽³⁾ performance conditions as set out below. The relevant comparator group(s) and the weighting between relevant comparator group(s) will be determined by the Committee in relation to each LTIP grant. <p>Level of performance required for vesting</p> <ul style="list-style-type: none"> Vesting of the award is dependent on BHP's TSR relative to the TSR of relevant comparator group(s) over a five-year performance period. 25% of the award will vest where BHP's TSR is equal to the median TSR of the relevant comparator group(s), as measured over the performance period. Where TSR is below the median, awards will not vest. Vesting occurs on a sliding scale between the median TSR of the relevant comparator group(s) up to a nominated level of TSR outperformance ⁽⁴⁾ over the relevant comparator group(s), as determined by the Committee, above which 100% of the award will vest. Where the TSR performance condition is not met, there is no retesting and awards will lapse. The Committee also retains discretion to lapse any portion or all of the award where it considers the vesting outcome is not appropriate given Group or individual performance. This is an important mitigation against the risk of unintended outcomes. <p>Further performance measures</p> <ul style="list-style-type: none"> The Committee may add further performance conditions, in which case the vesting of a portion of any LTIP award may instead be linked to performance against the new condition(s). However, the Committee expects that in the event of introducing an additional performance condition(s), the weighting on relative TSR would remain the majority weighting. <p>Delivery of award</p> <ul style="list-style-type: none"> LTIP awards are provided under the LTIP approved by shareholders at the 2013 AGMs. When considering the value of the award to be provided, the Committee primarily considers the face value of the award, and also considers its fair value which includes consideration of the performance conditions. ⁽⁵⁾ LTIP awards consist of rights to receive ordinary BHP shares in the future if the performance and service conditions are met. Before vesting (or exercise), these rights are not ordinary shares and do not carry entitlements to ordinary dividends or other shareholder rights; however, a DEP is provided on vested awards. The Committee has a discretion to settle LTIP awards in cash. <p>Underpin, malus and clawback</p> <ul style="list-style-type: none"> If the specified performance conditions are satisfied in part or in full, to ensure any vesting of LTIP awards is underpinned by satisfactory performance through the performance period, the vesting will be subject to an underpin. This will encompass a holistic review of performance at the end of the five-year performance period, including a five-year view on HSEC performance, profitability, cash flow, balance sheet health, returns to shareholders, corporate governance and conduct. LTIP awards are subject to malus and clawback as described below. 	<p>Maximum award</p> <p>Face value of 200% of base salary. ⁽⁶⁾</p>

- (1) UK regulations require the disclosure of the maximum that may be paid in respect of each remuneration component. Where that is expressed as a maximum annual percentage increase which is annualised it should not be interpreted that it is BHP's current intention to award an increase of that size in total in any one year, or in each year, and instead it is a maximum required to be disclosed under the regulations.
- (2) Subject to shareholder approval, the CDP will operate for FY2020. The terms of CDP awards are similar to those provided under the former STIP. STIP awards approved by shareholders at the 2019 AGMs and provided to the CEO for performance in FY2019 will be in accordance with the remuneration policy approved by shareholders in 2017, and are scheduled to vest in August 2021.
- (3) BHP's TSR is a weighted average of the TSRs of BHP Group Limited and BHP Group Plc.
- (4) Maximum vesting is determined with reference to a position against each comparator group.
- (5) Fair value is calculated by the Committee's independent adviser and is different to fair value used for IFRS disclosures (which do not take into account forfeiture conditions on the awards). It reflects outcomes weighted by probability, taking into account the difficulty of achieving the performance conditions and the correlation between these and share price appreciation, together with other factors, including volatility and forfeiture risks. The current fair value is 41 per cent of the face value of an award, which may change should the Committee vary elements (such as adding a performance measure or altering the level of relative TSR outperformance).
- (6) In order to ensure there is a fair transitional outcome for participants, the LTIP grant to be made in late CY2019 will be made on the current 400 per cent face value basis, in accordance with the remuneration policy approved by shareholders in 2017, with potential vesting five years later in mid CY2024. The first five-year deferred shares that result from performance under the CDP for FY2020 will be granted in late CY2020 and will first vest five years later in mid-CY2025. The LTIP grant to be made in late CY2020 will be made on the reduced 200 per cent face value basis, with potential vesting five years later also in mid-CY2025.

The Remuneration Committee's discretion in respect of each remuneration component applies up to the maximum shown in the table above. Any remuneration elements awarded or granted under the previous remuneration policy approved by shareholders in 2014 and 2017, but which have not yet vested or been awarded or paid, shall continue to be capable of vesting, awarded or payment made on their existing terms.

3.2.2 Malus and clawback

The CDP, LTIP and STIP rule provisions allow the Committee to reduce or clawback awards in the following circumstances:

- the participant acting fraudulently or dishonestly or being in material breach of their obligations to the Group;
- where BHP becomes aware of a material misstatement or omission in the Financial Statements of a Group company or the Group; or
- any circumstances occur that the Committee determines in good faith to have resulted in an unfair benefit to the participant.

These malus and clawback provisions apply whether or not awards are made in the form of cash or equity, whether or not the equity has vested, and whether or not employment is ongoing.

3.2.3 Potential remuneration outcomes

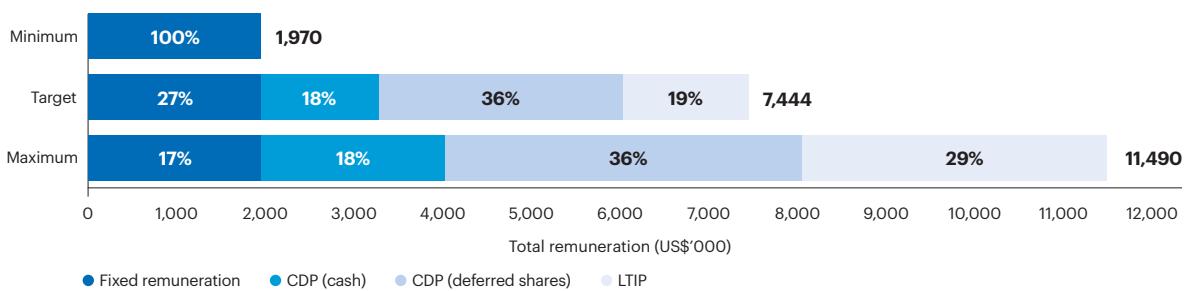
The Remuneration Committee recognises that market forces necessarily influence remuneration practices and it strongly believes the fundamental driver of remuneration outcomes should be business performance. It also believes that overall remuneration should be both fair to the individual, such that remuneration levels accurately reflect the CEO's responsibilities and contributions, and align with the expectations of our shareholders, while considering the positioning and relativities of pay and employment conditions across the wider BHP workforce.

The amount of remuneration actually received each year depends on the achievement of superior business and individual performance generating sustained shareholder value. Before deciding on the final incentive outcomes for the CEO, the Committee first considers the achievement against the pre-determined performance conditions. The Committee then applies its overarching discretion on the basis of what it considers to be a fair and commensurate remuneration level to decide if the outcome should be reduced. When the CEO was appointed in May 2013, the Board advised him that the Committee would exercise its discretion on the basis of what it considered to be a fair and commensurate remuneration level to decide if the outcome should be reduced.

In this way, the Committee believes it can set a remuneration level for the CEO that is sufficient to incentivise him and that is also fair to him and commensurate with shareholder expectations and prevailing market conditions.

The diagram below provides the scenario for the potential total remuneration of the CEO at different levels of performance under the new remuneration policy.

Remuneration mix for the CEO



Minimum: consists of fixed remuneration, which comprises base salary (US\$1.700 million), pension contributions (currently 25 per cent of base salary, but reducing as follows for the current CEO: 20 per cent of base salary from 1 July 2020, 15 per cent of base salary from 1 July 2021 and 10 per cent of base salary from 1 July 2022 onwards; 10 per cent of base salary would be applied immediately for a new appointee) and other benefits (US\$0.1 million).

Target: consists of fixed remuneration, target CDP (a cash award of 80 per cent of base salary plus two awards of deferred shares each of equivalent value to the cash award, vesting in two and five years respectively) and target LTIP. The LTIP target value is based on the fair value of the award, which is 41 per cent of the face value of 200 per cent of base salary. The potential impact of future share price movements is not included in the value of deferred CDP awards or LTIP awards.

Maximum: consists of fixed remuneration, maximum CDP (a cash award of 120 per cent of base salary plus two awards of deferred shares each of equivalent value to the cash award, vesting in two and five years respectively), and maximum LTIP (face value of 200 per cent of base salary). The potential impact of future share price movements is not included in the value of deferred CDP awards or LTIP awards. All other things being equal, if the share price at vesting of LTIP awards was 50 per cent higher than the share price at grant, then the total maximum value would be US\$13.190 million.

The maximum opportunity represented above is the most that could potentially be paid of each remuneration component, as required by UK regulations. It does not reflect any intention by the Group to award that amount. The Remuneration Committee reviews relevant benchmarking data and industry practices, and believes the maximum remuneration opportunity is appropriate.

3.2.4 Approach to recruitment and promotion remuneration

The remuneration policy as set out in section 3.2 of this Report will apply to the remuneration arrangements for a newly recruited or promoted CEO, or for another Executive Director should one be appointed. A market-competitive level of base salary will be provided. The pension contributions, benefits and variable pay will be in accordance with the remuneration policy table in section 3.2.1 of this Report.

For external appointments, the Remuneration Committee may determine that it is appropriate to provide additional cash and/or equity components to replace any remuneration forfeited or not received from a former employer. It is anticipated that any foregone equity awards would be replaced by equity. The value of the replacement remuneration would not be any greater than the fair value of the awards foregone or not received (as determined by the Committee's independent adviser). The Committee would determine appropriate service conditions and performance conditions within BHP's framework, taking into account the conditions attached to the foregone awards. The Committee is mindful of limiting such payments and not providing any more compensation than is necessary. For any internal CEO (or another Executive Director) appointment, any entitlements provided under former arrangements will be honoured according to their existing terms.

3.2.5 Service contracts and policy on loss of office

The terms of employment for the CEO are formalised in his employment contract. Key terms of the current contract and relevant payments on loss of office are shown below. If a new CEO or another Executive Director was appointed, similar contractual terms would apply, other than where the Remuneration Committee determines that different terms should apply for reasons specific to the individual or circumstances.

The CEO's current contract has no fixed term. It can be terminated by BHP on 12 months' notice. BHP can terminate the contract immediately by paying base salary plus pension contributions for the notice period. The CEO must give six months' notice for voluntary resignation. The table below sets out the basis on which payments on loss of office may be made.

	Leaving reason ^{(1) (2)}			
	Voluntary resignation	Termination for cause	Death, serious injury, illness, disability or total and permanent disablement	Cessation of employment as agreed with the Board ⁽³⁾
Base salary	<ul style="list-style-type: none"> Paid as a lump sum for the notice period or progressively over the notice period. 	<ul style="list-style-type: none"> No payment will be made. 	<ul style="list-style-type: none"> Paid for a period of up to six months, after which time employment may cease. 	<ul style="list-style-type: none"> Paid as a lump sum for the notice period or progressively over the notice period.
Pension contributions	<ul style="list-style-type: none"> Paid as a lump sum for the notice period or progressively over the notice period. 	<ul style="list-style-type: none"> No contributions will be provided. 	<ul style="list-style-type: none"> Paid for a period of up to six months, after which time employment may cease. 	<ul style="list-style-type: none"> Paid as a lump sum for the notice period or progressively over the notice period.
Benefits	<ul style="list-style-type: none"> May continue to be provided during the notice period. Accumulated annual leave entitlements and any statutory payments will be paid. May pay repatriation expenses to the home location where a relocation was at the request of BHP. Any unvested Shareplus Matched Shares held will lapse. 	<ul style="list-style-type: none"> No benefits will be provided. Accumulated annual leave entitlements and any statutory payments will be paid. May pay repatriation expenses to the home location where a relocation was at the request of BHP. Any unvested Shareplus Matched Shares held will lapse. 	<ul style="list-style-type: none"> May continue to be provided for a period of up to six months, after which time employment may cease. Accumulated annual leave entitlements and any statutory payments will be paid. May pay repatriation expenses to the home location where a relocation was at the request of BHP. Any unvested Shareplus Matched Shares held will vest in full. 	<ul style="list-style-type: none"> May continue to be provided for year in which employment ceases. Accumulated annual leave entitlements and any statutory payments will be paid. May pay repatriation expenses to the home location where a relocation was at the request of BHP. Any unvested Shareplus Matched Shares held will vest in full.
CDP/STIP – cash and deferred shares Where CEO leaves either during or after the end of the financial year, but before an award is provided.	<ul style="list-style-type: none"> No cash award will be paid. Unvested CDP/STIP deferred shares will lapse. Vested but unexercised CDP/STIP deferred shares will remain exercisable for the remaining exercise period unless the Committee determines they will lapse. Vested but unexercised CDP/STIP awards remain subject to malus and clawback. 	<ul style="list-style-type: none"> No cash award will be paid. Unvested CDP/STIP deferred shares will lapse. Vested but unexercised CDP/STIP deferred shares will remain exercisable for the remaining exercise period unless the Committee determines they will lapse. Vested but unexercised CDP/STIP awards remain subject to malus and clawback. 	<ul style="list-style-type: none"> The Committee has discretion to pay and/or award an amount in respect of the CEO's performance for that year. Unvested CDP/STIP deferred shares will vest in full and, where applicable become exercisable. Vested but unexercised CDP/STIP deferred shares will remain exercisable for the remaining exercise period. Unvested and vested but unexercised CDP/STIP awards remain subject to malus and clawback. 	<ul style="list-style-type: none"> The Committee has discretion to pay and/or award an amount in respect of the CEO's performance for that year. Unvested two-year CDP/STIP deferred shares and a pro-rata portion (based on the proportion of the vesting period served) of unvested five-year CDP deferred shares continue to be held on the existing terms for the deferral period before vesting (subject to Committee discretion to lapse some or all of the award). Vested but unexercised CDP/STIP deferred shares remain exercisable for the remaining exercise period, or a reduced period, or may lapse, as determined by the Committee. Unvested and vested but unexercised CDP/STIP awards remain subject to malus and clawback.
LTIP – unvested and vested but unexercised awards	<ul style="list-style-type: none"> Unvested awards will lapse. Vested but unexercised awards will remain exercisable for the remaining exercise period, or for a reduced period, or may lapse, as determined by the Committee. Vested but unexercised awards remain subject to malus and clawback. 	<ul style="list-style-type: none"> Unvested awards will lapse. Vested but unexercised awards will remain exercisable for the remaining exercise period, or for a reduced period, or may lapse, as determined by the Committee. Vested but unexercised awards remain subject to malus and clawback. 	<ul style="list-style-type: none"> Unvested awards will vest in full. Vested but unexercised awards will remain exercisable for remaining exercise period. Unvested and vested but unexercised awards remain subject to malus and clawback. 	<ul style="list-style-type: none"> A pro-rata portion of unvested awards (based on the proportion of the performance period served) will continue to be held subject to the LTIP rules and terms of grant. The balance will lapse. Vested but unexercised awards will remain exercisable for the remaining exercise period, or for a reduced period, or may lapse, as determined by the Committee. Unvested and vested but unexercised awards remain subject to malus and clawback.

(1) If the Committee deems it necessary, BHP may enter into agreements with a CEO, which may include the settlement of liabilities in return for payment(s), including reimbursement of legal fees subject to appropriate conditions; or to enter into new arrangements with the departing CEO (for example, entering into consultancy arrangements).

(2) In the event of a change in control event (for example, takeover, compromise or arrangement, winding up of the Group) as defined in the CDP, STIP and LTIP rules:

- base salary, pension contributions and benefits will be paid until the date of the change of control event;
- in relation to the CDP and STIP: the Committee may determine that a cash payment be made in respect of performance during the current financial year and all unvested two-year deferred shares would vest in full and, in relation to the CDP, all unvested five-year deferred shares would vest pro-rata (based on the proportion of the vesting period served up to the date of the change of control event);
- the Committee may determine that unvested LTIP awards will either (i) be pro-rated (based on the proportion of the performance period served up to the date of the change of control event) and vest to the extent the Committee determines appropriate (with reference to performance against the performance condition up to the date of the change of control event and expectations regarding future performance) or (ii) be lapsed if the Committee determines the holders will participate in an acceptable alternative employee equity plan as a term of the change of control event.

(3) Defined as occurring when a participant leaves BHP due to forced early retirement, retrenchment or redundancy, termination by mutual agreement or retirement with the agreement of the Group, or such other circumstances that do not constitute resignation or termination for cause.

Remuneration policy for Non-executive Directors

Our Non-executive Directors are paid in line with the UK Corporate Governance Code (2016 edition; the 2018 edition will apply from FY2020) and the Australian Securities Exchange Corporate Governance Council's Principles and Recommendations (3rd Edition).

3.2.6 Components of remuneration

The following table shows the components of total remuneration, the link to strategy, the applicable operation and performance frameworks, and the maximum opportunity for each component.

Remuneration component and link to strategy	Operation and performance framework	Maximum ⁽¹⁾
Fees Competitive base fees are paid in order to attract and retain high-quality individuals, and to provide appropriate remuneration for the role undertaken. Committee fees are provided to recognise the additional responsibilities, time and commitment required.	<ul style="list-style-type: none"> The Chairman is paid a single fee for all responsibilities. Non-executive Directors are paid a base fee and relevant committee membership fees. Committee Chairmen and the Senior Independent Director are paid an additional fee to reflect their extra responsibilities. All fee levels are reviewed annually and any changes are effective from 1 July. Fees are set at a competitive level based on benchmarks and advice provided by external advisers. Fee levels reflect the size and complexity of the Group, the multi-jurisdictional environment arising from the DLC structure, the multiple stock exchange listings and the geographies in which the Group operates. The economic environment and the financial performance of the Group are taken into account. Consideration is also given to salary reviews across the rest of the Group. Where the payment of pension contributions is required by law, these contributions are deducted from the Director's overall fee entitlements. 	8% increase per annum (annualised), or inflation if higher in the location in which duties are primarily performed, on a per fee basis.
Benefits Competitive benefits are paid in order to attract and retain high-quality individuals and adequately remunerate them for the role undertaken, including the considerable travel burden.	<ul style="list-style-type: none"> Travel allowances are paid on a per-trip basis reflecting the considerable travel burden imposed on members of the Board as a consequence of the global nature of the organisation and apply when a Director needs to travel internationally to attend a Board meeting or site visits at our multiple geographic locations. As a consequence of the DLC structure, Non-executive Directors are required to prepare personal tax returns in both Australia and the UK, regardless of whether they reside in one or neither of those countries. They are accordingly reimbursed for the costs of personal tax return preparation in whichever of the UK and/or Australia is not their place of residence (including payment of the tax cost associated with the provision of the benefit). 	8% increase per annum (annualised), or inflation if higher in the location in which duties are primarily performed, on a per-trip basis.
Variable pay (CDP and LTIP)	<ul style="list-style-type: none"> Non-executive Directors are not eligible to participate in any CDP or LTIP award arrangements. 	Up to a limit not exceeding 20% of fees.
Payments on early termination	<ul style="list-style-type: none"> There are no provisions in any of the Non-executive Directors' appointment arrangements for compensation payable on early termination of their directorship. 	

(1) UK regulations require the disclosure of the maximum that may be paid in respect of each remuneration component. Where that is expressed as a maximum annual percentage increase which is annualised it should not be interpreted that it is BHP's current intention to award an increase of that size in total in any one year, or in each year, and instead it is a maximum required to be disclosed under the regulations.

Approach to recruitment remuneration

The ongoing remuneration arrangements for a newly recruited Non-executive Director will reflect the remuneration policy in place for other Non-executive Directors, comprising fees and benefits as set out in the table above. No variable remuneration (CDP and LTIP award arrangements) will be provided to newly recruited Non-executive Directors.

Letters of appointment and policy on loss of office

The standard letter of appointment for Non-executive Directors is available on our website. The Board has adopted a policy consistent with the UK Corporate Governance Code, under which all Non-executive Directors must seek re-election by shareholders annually if they wish to remain on the Board. As such, no Non-executive Directors seeking re-election have an unexpired term in their letter of appointment. A Non-executive Director may resign on reasonable notice. No payments are made to Non-executive Directors on loss of office.

3.2.7 How remuneration policy is set

The Remuneration Committee sets the remuneration policy for the CEO and other Executive KMP. The Committee is briefed on and considers prevailing market conditions, the competitive environment and the positioning and relativities of pay and employment conditions across the wider BHP workforce. The Committee takes into account the annual base salary increases for our employee population when determining any change in the CEO's base salary. Salary increases in Australia, where the CEO is located, are particularly relevant, as they reflect the local economic conditions.

The principles that underpin the remuneration policy for the CEO are the same as those that apply to other employees, although the CEO's arrangements have a greater emphasis on, and a higher proportion of, remuneration in the form of performance-related variable pay. Similarly, the performance measures used to determine variable pay outcomes for the CEO and all other employees are linked to the delivery of our strategy and behaviours that are aligned to the values in Our Charter.

Although BHP does not consult directly with employees on CEO and other Executive KMP remuneration, the Group conducts regular employee engagement surveys that give employees an opportunity to provide feedback on a wide range of employee matters. Further, many employees are ordinary shareholders through our all-employee share purchase plan, Shareplus, and

therefore have the opportunity to vote on AGM resolutions. In addition, in line with changes to the UK Corporate Governance Code, the Remuneration Committee is considering additional means of engaging with the workforce to explain how executive remuneration aligns with wider Group pay policy.

As part of the Board's commitment to good governance, the Committee also considers shareholder views, together with those of the wider community, when setting the remuneration policy for the CEO and other Executive KMP. We are committed to engaging and communicating with shareholders regularly and, as our shareholders are spread across the globe, we are proactive with our engagement on remuneration and governance matters with institutional shareholders and investor representative organisations. Feedback from shareholders and investors is shared with, and used as input into decision-making by, the Board and Remuneration Committee in respect of our remuneration policy and its application. The Committee considers that this approach provides a robust mechanism to ensure Directors are aware of matters raised, have a good understanding of current shareholder views, and can formulate policy and make decisions as appropriate. We encourage shareholders to always make their views known to us by directly contacting our Investor Relations team (contact details available on our website at bhp.com).

3.3 Annual report on remuneration

This section of the Report shows the impact of the remuneration policy in FY2019 and how remuneration outcomes are linked to actual performance.

Remuneration for the Executive Director (the CEO)

3.3.1 Single total figure of remuneration

This section shows a single total figure of remuneration as prescribed under UK requirements. It is a measure of actual remuneration, rather than a figure calculated in accordance with IFRS (which is detailed in note 23 'Employee share ownership plan' section 5). The components of remuneration are detailed in the remuneration policy table in section 3.2.1.

US\$(‘000)		Base salary	Benefits ⁽¹⁾	STIP ⁽²⁾	LTIP	Pension	Total
Andrew Mackenzie	FY2019	1,700	100	1,306	0	425	3,531
	FY2018	1,700	84	2,448	0	425	4,657

(1) Includes private family health insurance, spouse business-related travel, car parking and personal tax return preparation in required countries.

(2) Provided half in cash and half in deferred equity (on the terms of the STIP) as shown in the table below.

For the CEO, the single total figure of remuneration is calculated on the same basis as at his appointment in 2013. There have been no changes to his base salary, benefit entitlements or pension since that date. Changes from prior year outcomes of STIP and LTIP are set out below.

	FY2019	FY2018
STIP	STIP awarded for FY2019 performance. Half was provided in cash in September 2019, and half deferred in an equity award that is due to vest in FY2022.	STIP awarded for FY2018 performance. Half was provided in cash in September 2018, and half deferred in an equity award that is due to vest in FY2021.
LTIP	Based on performance during the five-year period to 30 June 2019, all of Andrew Mackenzie's 224,859 awards from the 2014 LTIP did not vest and have lapsed. The value of the awards is zero and no DEP has been paid in respect of these awards.	Based on performance during the five-year period to 30 June 2018, all of Andrew Mackenzie's 213,701 awards from the 2013 LTIP did not vest and have lapsed. The value of the awards is zero and no DEP has been paid in respect of these awards.

3.3.2 FY2019 STIP performance outcomes

The Board and Remuneration Committee assessed the CEO's STIP outcome in light of the Group's performance in FY2019, taking into account the CEO's performance against the KPIs in his STIP scorecard. The Board and Committee determined that the STIP outcome for the CEO for FY2019 is 48 per cent against the target of 100 per cent (which represents an outcome of 32 per cent against maximum), and believe this outcome is appropriately aligned with the shareholder experience and the interests of the Group's other stakeholders.

The CEO's STIP scorecard outcomes for FY2019 are summarised in the following tables, including a narrative description of each performance measure and the CEO's level of achievement, as determined by the Remuneration Committee. The level of performance for each measure is determined based on a range of threshold (the minimum necessary to qualify for any reward outcome), target (where the performance requirements are met), and stretch (where the performance requirements are significantly exceeded).

Performance categories	Weighting for FY2019	Threshold	Target	Stretch	Percentage outcome	STI US\$(‘000)
HSEC	25%	●			15%	408
Financial	45%	●			0%	-
Individual	30%		●		33%	898
Total	100%	●			48%	1,306

HSEC

The HSEC targets for the CEO are aligned to the Group's suite of HSEC five-year public targets as set out in BHP's Sustainability Report. As it has done for several years, the Remuneration Committee seeks guidance each year from the Sustainability Committee when assessing HSEC performance against scorecard targets. The Remuneration Committee has taken a holistic view of Group performance in critical areas, including any matters outside the scorecard targets which the Sustainability Committee considers relevant.

The performance commentary below is provided against the scorecard targets, which were set on the basis of operated assets only.

HSEC measures	Scorecard targets	Performance against scorecard targets	Measure outcome
Fatalities, environmental and community incidents	Nil fatalities and nil actual significant environmental and community incidents at operated assets.	Tragically we lost our colleague Allan Houston in December 2018 at the Saraji mine at our coal operations in Queensland, Australia. After undertaking an extensive investigation, consistent with our usual processes, we were unable to determine the cause of the fatality. This has not occurred for a fatality investigation for more than 15 years. Our investigation did identify a small number of possible causes, and those possible causes included both work and non-work related circumstances, and both reasonably preventable and non-preventable elements. The weighting of fatalities is 10 percentage points of the 25 percentage points allocated to the HSEC category, and represents the greatest weighting of all HSEC items. Our imperative as a Company is to continue to build our focus on fatality prevention and safety through leadership, verification and effective risk management. No significant environment or community incidents occurred during FY2019.	Below threshold for fatalities. Target for environmental and community incidents.
HPIF, TRIF and Occupational illnesses	Improved performance compared with FY2018 results.	Our HPIF is a critical lead indicator which provides us with insight into our performance on preventing future fatalities, and declined significantly by 18% during FY2019. While our TRIF performance in FY2019 (including Onshore US) of 4.7 is higher than the 4.4 recorded in FY2018, this was due to an increase in low impact injuries. We also experienced an 8% increase in occupational illnesses during FY2019, again driven by an increase in low impact incidents.	Target.

HSEC measures	Scorecard targets	Performance against scorecard targets	Measure outcome
Risk management	For all material risks, operated assets to have all critical control execution and critical control verification tasks evaluated and recorded with controls in place as part of Field Leadership activities. Year-on-year improvement in trends for potential events associated with identified material risks.	All operated assets completed reviews of critical control execution and verification tasks for all material HSEC risks. The targets for Field Leadership activities were exceeded, as were targets for critical control execution and verification close out. Targets for critical control improvements were met; however, significant event close out and critical control improvement activities fell short of target.	Target.
Health, environmental and community initiatives	All assets to achieve 100% of planned targets in respect of occupational exposure reduction, water and greenhouse gas, social investment, quality of life, community perceptions and community complaints.	Targeted asset level improvement actions and projects were delivered in respect of water stewardship and greenhouse gas reduction; however, stretch performance, which required a reduction in both greenhouse gas intensity and total freshwater withdrawals, was not achieved. The assets met all occupational exposure reduction and community targets.	Target.

The outcome against the HSEC KPI for FY2019 was 15 per cent against the target of 25 per cent.

Financial

UAP is the profit after taxation attributable to members of the Group, excluding exceptional items (see section 1.12.4 for a more detailed explanation of UAP). UAP is the key financial KPI against which FY2019 STIP outcomes for our senior executives were measured and is, in our view, a relevant measure to assess the financial performance of the Group for this purpose. At the commencement of the financial year when the target is approved, attributable profit is usually equal to UAP as there are usually no exceptional items.

During the assessment of management's performance, adjustments to the UAP result are made to allow for changes in commodity prices, foreign exchange movements and other material items to ensure the assessment appropriately measures outcomes that are within the control and influence of the Group and its executives. Of these, changes in commodity prices has historically been the most material due to volatility in prices and the impact on Group revenue. The Remuneration Committee reviews each exceptional item to assess if it should be included in the result for the purposes of deriving the UAP STIP outcome.

Financial measure	Scorecard targets	Performance against scorecard targets	Measure outcome
UAP	<p>In respect of FY2019, the Board determined a Target for UAP of US\$10.3 billion, with a Threshold of US\$9.6 billion and a Stretch of US\$10.6 billion.</p> <p>The Target UAP is derived from the Group's approved annual budget. It is the Group's practice to build a material element of stretch performance into the budget. Achievement of this stretching UAP Target will result in a target STIP outcome. The Threshold and Stretch are a fair range of UAP outcomes which represent a lower limit of underperformance below which no STIP award should be made, and an upper limit of outperformance which would represent the maximum STIP award.</p> <p>For the reasons set out above, the performance range around Target is subject to a greater level of downside risk than there is upside opportunity, and accordingly, the range between Threshold and Target is greater than that between Target and Stretch. For Stretch, the Committee takes care not to create leveraged incentives that encourage executives to push for short-term performance that goes beyond our risk appetite and current operational capacity. Using the mid-point of the Threshold and Stretch range as Target would provide a symmetrical distribution; however, this would not provide sufficient stretch for management to achieve a target STIP outcome. The Committee retains, and has a track record of applying, downward discretion to ensure that the STIP outcome is appropriately aligned with the overall performance of the Group for the year, and is fair to management and shareholders.</p>	<p>UAP of US\$9.1 billion was reported by BHP for FY2019. Adjusted for the factors outlined below, UAP is US\$8.6 billion, which is below Threshold as determined by the Board. The following adjustments were made to ensure the outcomes appropriately reflect the performance of management for the year:</p> <ul style="list-style-type: none"> • Adjustments in relation to the impacts of movements in prices of commodities and exchange rates reduced UAP by US\$1.6 billion. • An adjustment to exclude the impact of Onshore US, which was not included in the Target as the economic outcomes from 1 July 2018 accrued to the buyer, increased UAP by US\$0.6 billion. • Adjustments for other material items ordinarily made to ensure the outcomes reflect the performance of management for the year increased UAP by US\$0.5 billion, mainly due to the exclusion of the impacts of unusually severe cyclone weather events in Australia and non-cash taxation provision adjustments which are unable to be determined at the time of budget preparation. <p>Having reviewed the FY2019 exceptional items (as described in note 3 'Exceptional items' in section 5), the Committee determined that they should not be considered for the purposes of determining the UAP STI outcome. The Committee concluded that no further action was appropriate.</p> <p>The key drivers of the UAP performance being below Threshold at US\$8.6 billion were lower volumes at Western Australian Iron Ore resulting from train derailment impacts, shutdown overruns, and equipment reliability issues at mines and port; at Olympic Dam caused by an acid plant outage; at Coal due to prime stripping shortfalls resulting in low raw coal production; at Escondida due to conveyor belt failures, lower mill performance, and unscheduled and extended maintenance; and at Spence due to an electrowinning plant fire; partly offset by higher Petroleum volumes from improved well performance across most fields.</p> <p>Notwithstanding this below Threshold outcome for the UAP KPI driven by operational matters, the financial shareholder experience during FY2019 was positive, with increases in share prices, dividends and share buy-backs.</p>	Below Threshold.

The outcome against the UAP KPI for FY2019 was zero against the target of 45 per cent.

Individual performance measures for the CEO

Individual measures for the CEO are determined at the commencement of the financial year. The application of personal measures remains an important element of effective performance management. These measures seek to provide a balance between the financial and non-financial performance requirements that maintain our position as a leader in our industry. The CEO's individual measures for FY2019 included contribution to BHP's overall performance and the management team, and also the delivery of projects and initiatives within the scope of the CEO role as specified by the Board, as set out in the table below.

Individual measures	Individual scorecard targets	Performance against scorecard targets	Measure outcome
Strategy	<ul style="list-style-type: none"> Improve the return profile of our major capital projects in development. Make commercial progress from exploration. Complete the Onshore US divestment. 	<ul style="list-style-type: none"> The expected returns of almost all major capital projects in development have been improved, within the application of the Capital Allocation Framework and adhering to the risk appetite. We continued to progress and work within BHP's rigorous Capital Allocation Framework. Positive outcomes from oil and gas exploration during the year, together with options generated through copper exploration and acquisition. The Onshore US divestment was completed ahead of schedule and in an efficient and transparent way, with due regard to the significant people impacts. The proceeds were distributed in a value accretive manner, contributing to the positive shareholder experience during the year. BHP's value increased consistent with the plans outlined previously, driven not only by commodity price appreciation, but also by management actions on strategic initiatives. 	Between Target and Stretch; closer to Stretch.
Productivity	<ul style="list-style-type: none"> Deliver productivity initiatives. Return on capital. Progress key projects driving latent capacity increases. Progress the BHP Operating System (BOS). Transformation of global functions. Technology five-year plan. 	<ul style="list-style-type: none"> Due mainly to the operational issues noted above, the expectations on productivity gains and improvements and the targeted return on capital were not met. Latent capacity projects on track to meet expected milestones and benefits. BOS continues to be rolled out in line with the expected plan, aimed at delivering a step change in safety, productivity and culture outcomes, through standardising work to increase safety and efficiency at operations across the Company. We achieved most efficiency and effectiveness targets through our World Class Functions program; however, we need further design work and leadership engagement in FY2020 to fully embed the changes and realise the full benefits. We completed and commenced the implementation of the strategic Technology five-year plan, which is integrated and embedded within the assets' plans. 	Between Threshold and Target.
Sustainability	<ul style="list-style-type: none"> Enhanced reputation and brand of BHP. Enhanced relationships with key stakeholders. 	<ul style="list-style-type: none"> Continued strong leadership and representation on key issues such as indigenous representation, climate change, tailings dams, government policy development, taxation and inclusion. The global brand strategy execution continues to enhance BHP's reputation in important markets. Close communication, regular updates and proactive relationship building continues to build strong engagement and relationships with shareholders and other stakeholders. 	Above Target.
People and culture	<ul style="list-style-type: none"> Achievement of inclusion and diversity aspirations. Achievement of culture initiatives, as measured through the Company-wide annual Engagement and Perception Survey (EPS). ELT member development and succession. 	<ul style="list-style-type: none"> Solid progress on the goal to increase female representation in the workforce globally – by 30 June 2019 gender diversity had increased 2.1 percentage points to 24.5%, up from 22.4% at 30 June 2018, for a cumulative increase of 6.9 percentage points from 17.6% at 30 June 2016. Our progress on flexible working arrangements across BHP has continued. Our 2019 EPS showed flat or slightly negative results across a range of categories, reflecting the extent of disruptive transformational change occurring within the Company. The development of a strong long-term talent pool of candidates for ELT, Asset President and key functional roles has been a strong and deliberate focus, resulting in a robust slate of potential successors. 	Marginally below Target.

It was considered that the performance of the CEO against the individual measures KPI warranted an outcome for FY2019 of 33 per cent against the target of 30 per cent.

3.3.3 LTIP performance outcomes

LTIP vesting based on performance to June 2019

The five-year performance period for the 2014 LTIP ended on 30 June 2019. The CEO's 2014 LTIP award comprised 224,859 awards (inclusive of an uplift of 15,980 awards due to the demerger of South32), subject to achievement of the relative TSR performance conditions and any discretion applied by the Remuneration Committee.

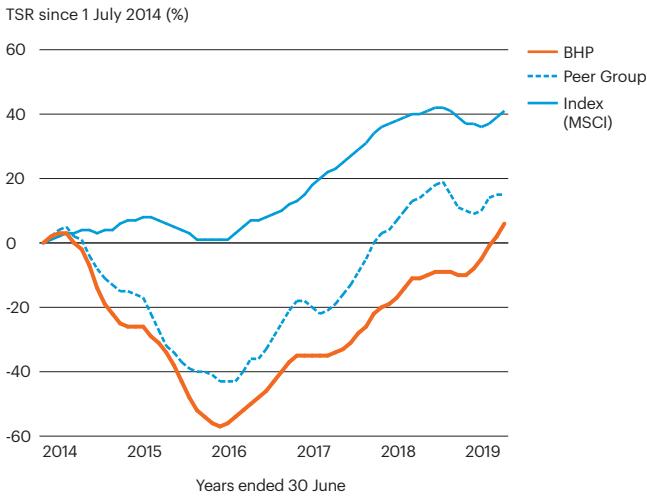
Testing the performance condition

For the award to vest in full, TSR must exceed the Peer Group TSR (for 67 per cent of the award) and the Index TSR (for 33 per cent of the award) by an average of 5.5 per cent per year for five years, being 30.7 per cent in total compounded over the performance period from 1 July 2014 to 30 June 2019. TSR includes returns to BHP shareholders in the form of share price movements along with dividends paid and reinvested in BHP (including cash and in-specie dividends).

BHP's TSR performance was positive 6.0 per cent over the five-year period from 1 July 2014 to 30 June 2019. This is below the weighted median Peer Group TSR of positive 15.3 per cent and below the Index TSR of positive 41.3 per cent over the same period. This level of performance results in zero vesting for the 2014 LTIP awards, and accordingly all of the CEO's awards have lapsed. No compensation or DEP was paid in relation to the lapsed awards.

The graph below shows BHP's performance relative to comparator groups.

BHP vs. Peer Group and Index TSR over the 2014 LTIP cycle



3.3.4 LTIP allocated during FY2019

Following shareholder approval at the 2018 AGMs, an LTIP award (in the form of performance rights) was granted to the CEO on 18 December 2018. The face value and fair value of the award are shown in the table below.

The face value of the award is 400 per cent of the CEO's base salary of US\$1.700 million. The fair value of the award is ordinarily calculated by multiplying the face value of the award by the fair value factor of 41 per cent (for the current plan design, as determined by the independent adviser to the Committee). Using the average share price and US\$/A\$ exchange rate over the 12 months up to and including 30 June 2018, the number of LTIP awards derived from a grant of 400 per cent of base salary with a face value of US\$6.800 million was 304,523 LTIP awards.

Number of LTIP awards	Face value US\$(‘000)	Face value % of salary	Fair value US\$(‘000)	Fair value % of salary	% of max ⁽¹⁾
304,523	6,800	400	2,788	164	100

(1) The allocation is 100 per cent of the maximum award that was able to be provided under the remuneration policy approved by shareholders at the 2017 AGMs.

Terms of the LTIP award

In addition to those LTIP terms set in the remuneration policy for the CEO approved by shareholders in 2017, the Remuneration Committee has determined:

Performance period	• 1 July 2018 to 30 June 2023
Performance conditions	<ul style="list-style-type: none"> An averaging period of six months will be used in the TSR calculations. BHP's TSR relative to the weighted median TSR of sector peer companies selected by the Committee (Peer Group TSR) and the MSCI World Index (Index TSR) will determine the vesting of 67% and 33% of the award, respectively. Each company in the peer group is weighted by market capitalisation. The maximum weighting for any one company is 25% and the minimum is set at 0.4% to reduce sensitivity to any single peer company. For the whole of either portion of the award to vest, BHP's TSR must be at or exceed the weighted 80th percentile of the Peer Group TSR or the Index TSR (as applicable). Threshold vesting (25% of each portion of the award) occurs where BHP's TSR equals the weighted 50th percentile of the Peer Group TSR or the Index TSR (as applicable). Vesting occurs on a sliding scale between the weighted 50th and 80th percentiles.
Sector Peer Group Companies⁽¹⁾⁽²⁾⁽³⁾	<ul style="list-style-type: none"> Resources (85%): Anglo American, Fortescue Metals, Freeport-McMoRan, Glencore, Rio Tinto, Southern Copper, Teck Resources, Vale. Oil and Gas (15%): Anadarko Petroleum, Apache, BP, Canadian Natural Res., Chevron, ConocoPhillips, Devon Energy, EOG Resources, ExxonMobil, Occidental Petroleum, Royal Dutch Shell, Woodside Petroleum.

- (1) From December 2015, Alcoa, Cameco and MMC Norilsk Nickel were removed from the sector peer group following the demerger of South32 as they are less relevant comparator companies.
- (2) From December 2016, BG Group and Peabody Energy were removed from the comparator group. BG Group was acquired by Royal Dutch Shell and Peabody Energy has become a significantly less comparable peer.
- (3) From November 2018, CONSOL Energy was removed from the comparator group, as due to its internal restructuring it became a less comparable peer.

3.3.5 Overarching discretion and vesting underpin

The rules of the CDP, LTIP and STIP and the terms and conditions of the awards give the Committee an overarching discretion to reduce the number of awards that will vest, notwithstanding the fact that the performance condition for partial or full vesting, as tested following the end of the performance period, or the relevant service conditions, have been met.

This holistic, qualitative judgement, which is applied as an underpin test before final vesting is confirmed, is an important risk management aspect to ensure that vesting is not simply driven by a formula or the passage of time that may give unexpected or unintended remuneration outcomes.

The Committee considers its discretion carefully each year. It considers performance holistically over the five-year period, including a five-year view on HSEC performance, profitability, cash flow, balance sheet health, returns to shareholders, corporate governance and conduct.

Having undertaken this review, the Committee considered its discretion in respect of equity awards due to vest in August 2019. In respect of the STIP two-year deferred shares (granted in November 2017 in respect of performance in FY2017), the Committee chose not to exercise its discretion and allowed the STIP awards to vest in full. As the formulaic outcome of the 2014 LTIP was a zero vesting, there is no discretion available to the Remuneration Committee, as the overarching discretion may only reduce the number of awards that may vest.

3.3.6 CEO remuneration and returns to shareholders

Ten-year CEO remuneration

The table below shows the total remuneration earned by Andrew Mackenzie and Marius Kloppers over the last 10-years along with the proportion of maximum opportunity earned for each type of incentive.

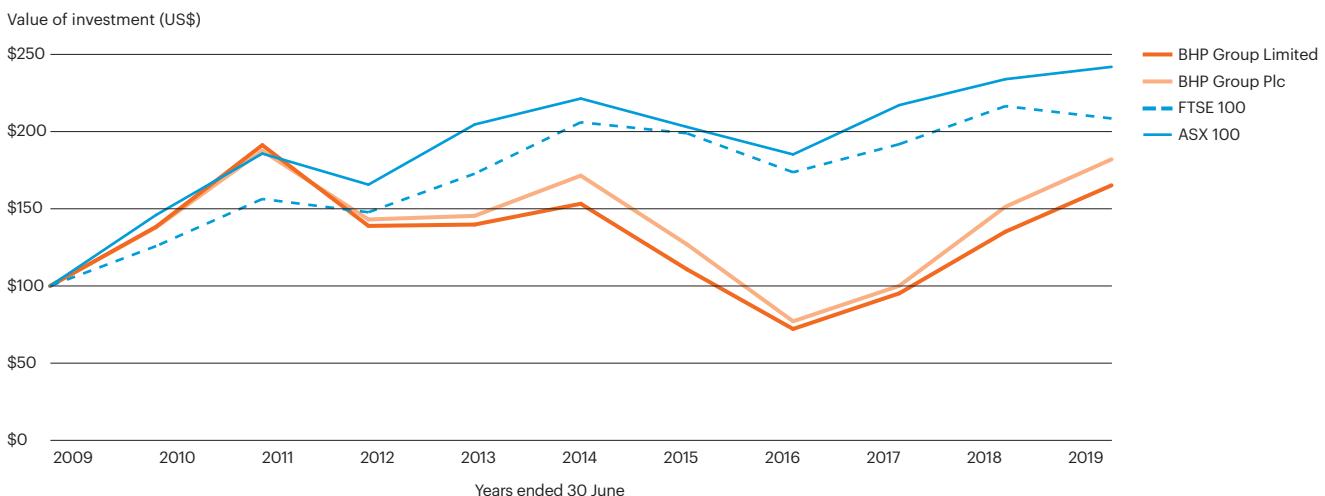
Financial year	FY2010	FY2011	FY2012	FY2013 ⁽¹⁾	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Andrew Mackenzie										
Total single figure remuneration, US\$'000)	-	-	-	2,468	7,988	4,582	2,241	4,554	4,657	3,531
STIP (% of maximum)	-	-	-	47	77	57	0	57	60	32
LTIP (% of maximum)	-	-	-	65	58	0	0	0	0	0
Marius Kloppers										
Total single figure remuneration, US\$'000)	14,789	15,755	16,092	15,991	-	-	-	-	-	-
STIP (% of maximum)	71	69	0	47	-	-	-	-	-	-
LTIP (% of maximum)	100	100	100	65	-	-	-	-	-	-

(1) As Mr Mackenzie assumed the role of CEO in May 2013, the FY2013 total remuneration shown relates only to the period 10 May to 30 June 2013. The FY2013 total remuneration for Mr Kloppers relates only to the period 1 July 2012 to 10 May 2013.

10-year TSR

The graph below shows BHP's TSR against the performance of relevant indices over the same 10-year period. The indices shown in the graph were chosen as being broad market indices, which include companies of a comparable size and complexity to BHP.

Value of US\$100 invested over the 10-year period to 30 June 2019 (with dividends reinvested)



3.3.7 Changes in the CEO's remuneration in FY2019

The table below sets out the CEO's base salary, benefits and STIP amounts earned in respect of FY2019, with the percentage change from FY2018. The table also shows the average change in each element for current employees in Australia (being approximately 18,000 employees) during FY2019. This has been chosen by the Committee as the most appropriate comparison, as the CEO is located in Australia.

	Base salary	Benefits	STIP
Andrew Mackenzie	US\$('000)	1,700	100
	% change	0.0	19.0
Australian employees	% change (average)	2.1	(46.7)

The ratio of the total remuneration of the CEO to the median total remuneration of all BHP employees for FY2019 was 31:1 (2018: 37:1).

3.3.8 Remuneration for the CEO in FY2020

The remuneration for the CEO in FY2020 will be in accordance with the remuneration policy to be approved by shareholders at the AGMs in 2019. In the event shareholders do not approve the remuneration policy at the AGMs in 2019, the remuneration for the CEO in FY2020 will be in accordance with the remuneration policy approved by shareholders at the AGMs in 2017.

Base salary review

Base salary is reviewed annually and increases are applicable from 1 September. The CEO will not receive a base salary increase in September 2019 and it will remain unchanged at US\$1.700 million per annum for FY2020.

FY2020 CDP performance measures

For FY2020, the Remuneration Committee has set the following CDP scorecard performance measures:

Performance categories	Weighting	Target measures
HSEC	25%	<p>The following HSEC performance measures are designed to incentivise achievement of the Group's public five-year HSEC targets.</p> <p>Fatalities, environmental and community incidents: Nil fatalities and nil actual significant environmental and community incidents.</p> <p>HPIF, TRIF and occupational illness: Improved performance compared with FY2019 results, with severity and trends to also be considered as a moderating influence on the overall HSEC assessment.</p> <p>Risk management: Operated assets to have controls for fatal risks verified as part of Field Leadership activities with fatal risk control improvement plans developed and executed and increased levels of in-field coaching. Achieve 90% compliance for critical control verification and execution tasks.</p> <p>Health, environmental and community/social value initiatives: All operated assets to achieve 100% of planned targets in respect of occupational exposure reduction, mental health, water and greenhouse gas, social value plans, quality of life, community perceptions and community complaints.</p>
Financial	50%	<p>ROC is underlying profit after taxation (excluding after-taxation finance costs and exceptional items) divided by average capital employed. When we are assessing management's performance, we make adjustments to the ROC result to allow for changes in commodity prices, foreign exchange movements and other material items to ensure the assessment appropriately measures outcomes that are within the control and influence of the Group and its executives.</p> <p>For reasons of commercial sensitivity, the target for ROC will not be disclosed in advance; however, we plan to disclose targets and outcomes retrospectively in our next Remuneration Report, following the end of each performance year. In the rare instances where this may not be prudent on grounds of commercial sensitivity, we will explain why and give an indication of when they will be disclosed.</p>
Individual	25%	<p>The CEO's individual measures for FY2020 comprise contribution to BHP's overall performance and the management team and the delivery of projects and initiatives within the scope of the CEO role as set out by the Board. These include strategy, productivity initiatives, transformation programs, latent capacity enhancement projects, focus on the returns of future major capital projects, tailings dam activities, exploration, continued enhancement of BHP's global brand, culture initiatives (including improvement in Group-wide leadership capabilities, employee engagement, diversity and inclusion, conduct and risk management) and ELT member development and succession.</p> <p>These performance measures are aligned with medium and long-term strategy aspirations that are intended to drive long-term value for shareholders and other stakeholders.</p>

The strong link between BHP's HSEC performance and executive remuneration (with HSEC performance representing 25 per cent of the total scorecard) is well regarded by shareholders. The Board and Committee recognise that climate change is a material governance and strategic issue. Increasingly, shareholders expect action to address climate change to be linked to executive remuneration. We have been setting operational greenhouse gas emissions targets and linking performance against them to executive remuneration through our HSEC scorecard for many years. However, recognising the increasing importance of this issue, we plan to clarify and strengthen this link. In FY2020, we will enhance our approach, including weighting and disclosure mechanisms for our performance, which will take effect from FY2021.

FY2020 LTIP award

The maximum face value of the CEO's LTIP award under the remuneration policy approved by shareholders at the 2017 AGMs is US\$6.800 million, being 400 per cent of the CEO's base salary. The number of LTIP awards in FY2020 has been determined using the share price and US\$/A\$ exchange rate over the 12 months up to and including 30 June 2019. Based on this, a FY2020 grant of 271,348 LTIP awards is proposed and approval for this LTIP grant will be sought from shareholders at the 2019 AGMs. If approved, the award will be granted following the AGMs (i.e. in or around November/December 2019). The FY2020 LTIP award will use the same performance, service conditions and peer groups as the FY2019 LTIP award.

Subject to the approval of the revised remuneration policy by shareholders at the 2019 AGMs, and in order to ensure there is a fair transitional outcome for participants, the LTIP grant to be made in late CY2019 will be made on the current 400 per cent of base salary (face value), with potential vesting five years later in mid-CY2024. The first five-year deferred shares that result from performance under the CDP for FY2020 will be granted in late CY2020 with potential vesting five years later in mid-CY2025, and the LTIP grant to be made in late CY2020 will then be made on the reduced 200 per cent of base salary (face value), with potential vesting five years later also in mid-CY2025.

Remuneration for other Executive KMP (excluding the CEO)

The information in this section contains details of the remuneration policy that guided the Remuneration Committee's decisions and resulted in the remuneration outcomes for other Executive KMP (excluding the CEO).

The remuneration policy and structures for other Executive KMP are essentially the same as those already described for the CEO in previous sections of the Remuneration Report, including the treatment of remuneration on loss of office as detailed in section 3.2.5.

3.3.9 Components of remuneration

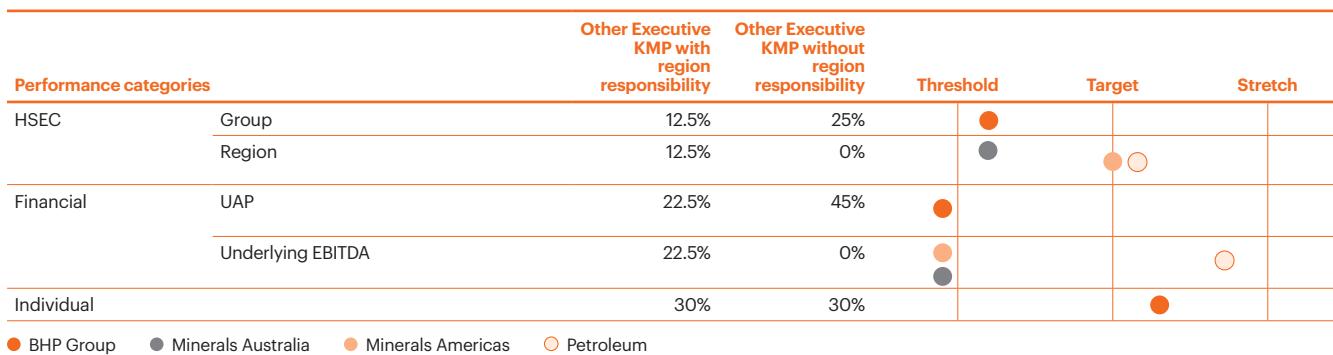
The components of remuneration for other Executive KMP are the same as for the CEO, with any differences described below.

STIP

The STIP performance measures for other Executive KMP for FY2019 are similar to those of the CEO which are outlined at section 3.3.2; however, the weighting of each performance measure will vary to reflect the focus required from each Executive KMP role.

Individual performance measures are determined at the start of the financial year. These include the other Executive KMP's contribution to the delivery of projects and initiatives within the scope of their role and the overall performance of the Group. Individual performance of other Executive KMP was reviewed against these measures by the Committee and, on average, was considered above target.

The diagram below represents the FY2019 STIP outcomes against the original scorecard.



LTIP

LTIP awards granted to other Executive KMP for FY2020 will have a maximum face value of 350 per cent of base salary, which is a fair value of 143.5 per cent of base salary under the current plan design (with a fair value of 41 per cent, taking into account the performance condition: 350 per cent x 41 per cent = 143.5 per cent).

Subject to the approval of the new remuneration policy by shareholders at the 2019 AGMs, consistent with the CEO, the proposed reduction to the LTIP grant size of other Executive KMP awards to 200 per cent of base salary (face value) will apply to LTIP grants made from FY2021 onwards.

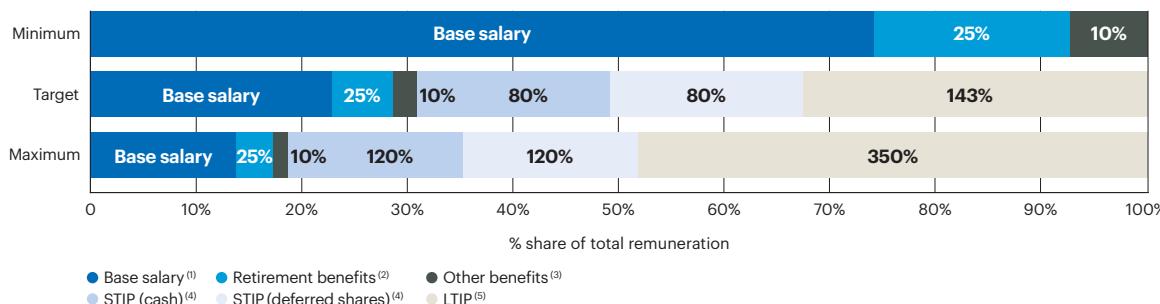
3.3.10 Remuneration mix

A significant portion of other Executive KMP remuneration is at-risk, in order to provide strong alignment between remuneration outcomes and the interests of BHP shareholders.

The diagram below sets out the relative mix of each remuneration component for the other Executive KMP for FY2019. Each component is determined as a percentage of base salary (at the minimum, target and maximum levels of performance-based remuneration).

Remuneration mix for other Executive KMP

The percentage numbers in the bars represent the percentage of base salary



(1) Base salary earned by each Executive KMP is set out in section 3.3.17.

(2) Retirement benefits are 25 per cent of base salary.

(3) Other benefits is based on a notional 10 per cent of base salary.

(4) As for the CEO, the minimum STIP award is zero, with an award of 80 per cent of base salary in cash and 80 per cent of salary in deferred equity for target performance, and a maximum award of 120 per cent cash and 120 per cent deferred equity for exceptional performance against KPIs.

(5) Other Executive KMP have a maximum LTIP award with a face value of 350 per cent of base salary as shown in the diagram.

3.3.11 Employment contracts

The terms of employment for other Executive KMP are formalised in employment contracts, which have no fixed term. They typically outline the components of remuneration paid to the individual, but do not prescribe how remuneration levels are to be modified from year-to-year. An Executive KMP employment contract may be terminated by BHP on up to 12 months' notice or can be terminated immediately by BHP making a payment of up to 12 months' base salary plus pension contributions for the relevant period. An Executive KMP must give six months' notice for voluntary resignation.

3.3.12 Arrangements for Executive KMP leaving the Group

The arrangements for Executive KMP leaving the Group are within the approval provided by shareholders at the 2017 AGMs in regard to Australian termination benefits legislation, including the provision of performance-based remuneration in accordance with the rules of the relevant incentive plans.

Steve Pastor stepped down from his role as President, Petroleum on 17 March 2019 and exited BHP on 31 March 2019. Mr Pastor received base salary, pension contributions, pro-rated STIP, statutory leave entitlements, and applicable benefits up to the date of his exit from BHP. Mr Pastor received a payment in lieu of notice upon exit and has been paid or will receive in the future the value of pension funds that he has accumulated during his service with the Group. When determining the Executive KMP STIP awards for FY2019, the Remuneration Committee resolved that Mr Pastor would receive a pro-rated FY2019 STIP award in the form of cash based on his performance. No deferral period will apply in respect of this cash STIP award.

All unvested FY2017 and FY2018 STIP awards allocated to Mr Pastor remained on foot on termination. FY2017 STIP vested in August 2019, and FY2018 STIP will not vest until August 2020. MAP awards allocated to Mr Pastor prior to Executive KMP service vested upon termination, pro-rated to reflect the percentage of the service period to 31 March 2019. Mr Pastor's unvested LTIP awards were pro-rated to reflect the percentage of the performance period to 31 March 2019. The vesting of the retained pro-rated LTIP awards will be determined by the Committee at the relevant time in future years, and will only vest if the performance conditions are met at the end of each five-year performance period, subject to the Committee's ability to reduce vesting through its discretion under the plan rules.

Remuneration for Non-executive Directors

The remuneration outcomes described below have been provided in accordance with the remuneration policy approved by shareholders at the 2017 AGMs. The maximum aggregate fees payable to Non-executive Directors (including the Chairman) were approved by shareholders at the 2008 AGMs at US\$3.800 million per annum. This sum includes base fees, Committee fees and pension contributions. Travel allowances and non-monetary benefits are not included in this limit.

3.3.13 Single total figure of remuneration

This section shows a single total figure of remuneration as prescribed under UK requirements. It is a measure of actual remuneration. Fees include the annual base fee, plus additional fees as applicable for the Senior Independent Director, Committee Chairmen and Committee memberships. Non-executive Directors do not have any at-risk remuneration or receive any equity awards as part of their remuneration. This table also meets the requirements of the Australian Corporations Act 2001 and relevant accounting standards.

US\$(‘000)	Financial year	Fees	Benefits ⁽¹⁾	Pensions ⁽²⁾	Total
Terry Bowen ⁽³⁾	FY2019	183	30	10	223
	FY2018	135	37	7	179
Malcolm Broomhead	FY2019	212	40	11	263
	FY2018	200	33	11	244
Ian Cockerill ⁽⁴⁾	FY2019	55	30	–	85
Anita Frew	FY2019	220	48	–	268
	FY2018	202	62	–	264
Carolyn Hewson	FY2019	212	32	11	255
	FY2018	195	32	10	237
Susan Kilsby ⁽⁴⁾	FY2019	47	22	–	69
Ken MacKenzie	FY2019	865	32	15	912
	FY2018	749	61	16	826
Lindsay Maxsted	FY2019	209	32	11	252
	FY2018	209	47	11	267
John Mogford ⁽³⁾	FY2019	187	61	–	248
	FY2018	138	60	–	198
Wayne Murdy ⁽⁵⁾	FY2019	75	35	–	110
	FY2018	220	80	–	300
Shriti Vadra	FY2019	253	48	–	301
	FY2018	235	63	–	298

(1) The majority of the amounts disclosed for benefits are travel allowances for each Non-executive Director: amounts of between US\$22,000 and US\$60,000. In addition, amounts of between US\$ nil and US\$3,000 are included in respect of tax return preparation; and amounts of between US\$ nil and US\$2,000 are included in respect of reimbursement of the tax cost associated with the provision of taxable benefits.

(2) BHP Group Limited made minimum superannuation contributions of up to 9.5 per cent of fees for FY2019 in accordance with Australian superannuation legislation.

(3) The FY2018 remuneration for Terry Bowen and John Mogford relates to part of the year only, as they both joined the Board on 1 October 2017.

(4) The FY2019 remuneration for Ian Cockerill and Susan Kilsby relates to part of the year only, as they both joined the Board on 1 April 2019.

(5) The FY2019 remuneration for Wayne Murdy relates to part of the year only as he retired from the Board on 2 November 2018.

3.3.14 Non-executive Directors' remuneration in FY2020

In FY2020, the remuneration for the Non-executive Directors will be paid in accordance with the remuneration policy to be approved by shareholders at the 2019 AGMs (which is unchanged from the remuneration policy for Non-executive Directors approved by shareholders at the 2017 AGMs). Fee levels for the Non-executive Directors and the Chairman are reviewed annually. The review includes benchmarking, with the assistance of external advisers, against peer companies.

From 1 July 2017, the Chairman's annual fee was reduced by approximately 8 per cent from US\$0.960 million to US\$0.880 million, and will remain at that level for FY2020. This fee reduction was in addition to the reduction of approximately 13 per cent from US\$1.100 million to US\$0.960 million effective 1 July 2015. Base fee levels for Non-executive Directors will remain at the reduced levels that took effect from 1 July 2015, at which time they were reduced by approximately 6 per cent from US\$0.170 million to US\$0.160 million per annum.

The below table sets out the annualised fee levels for FY2020.

Levels of fees and travel allowances for Non-executive Directors (in US\$)	From 1 July 2019
Base annual fee	160,000
Plus additional fees for:	
Senior Independent Director of BHP Group Plc	48,000
Committee Chair:	
Risk and Audit	60,000
Remuneration	45,000
Sustainability	45,000
Nomination and Governance	No additional fee
Committee membership:	
Risk and Audit	32,500
Remuneration	27,500
Sustainability	27,500
Nomination and Governance	18,000
Travel allowance:⁽¹⁾	
Greater than 3 but less than 10 hours	7,000
10 hours or more	15,000
Chairman's fee	880,000

(1) In relation to travel for Board business, the time thresholds relate to the flight time to travel to the meeting location (i.e. one way flight time). Only one travel allowance is paid per round trip.

Remuneration governance

3.3.15 Board oversight and the Remuneration Committee

Board

The Board is responsible for ensuring the Group's remuneration arrangements are equitable and aligned with the long-term interests of BHP and its shareholders. In performing this function, it is critical that the Board is independent of management when making decisions affecting remuneration of the CEO, other Executive KMP and the Group's employees.

The Board has therefore established a Remuneration Committee to assist it in making such decisions. The Committee is comprised solely of Non-executive Directors, all of whom are independent. To ensure that it is fully informed, the Committee regularly invites members of management to attend meetings to provide reports and updates. The Committee can draw on services from a range of external sources, including remuneration advisers.

Remuneration Committee

The activities of the Remuneration Committee are governed by Terms of Reference (updated version approved by the Board in August 2019), which are available on our website. The current members of the Remuneration Committee are Carolyn Hewson (Chairman), Anita Frew, Susan Kilsby and Shriti Vadera. The role and focus of the Committee and details of meeting attendances can be found in section 2.13.2. Other Directors and employees who regularly attended meetings were: Ken MacKenzie (Chairman); Wayne Murdy (Remuneration Committee member to 2 November 2018); Andrew Mackenzie (CEO); Athalie Williams (Chief People Officer); Andrew Fitzgerald (Vice President Reward); Margaret Taylor (Group Company Secretary to 28 February 2019); Caroline Cox (Group Company Secretary from 1 March 2019) and Geof Stapledon (Vice President Governance). These individuals were not present when matters associated with their own remuneration were considered.

3.3.16 Statement of voting at the 2018 AGMs

BHP's remuneration resolutions have attracted a high level of support by shareholders. Voting in regard to those resolutions put to shareholders at the 2018 AGMs is shown below.

AGM resolution	Requirement	% vote 'for'	% vote 'against'	Votes withheld ⁽¹⁾
Remuneration Report (excluding remuneration policy ⁽²⁾)	UK	96.6	3.4	53,711,796
Remuneration Report (whole report)	Australia	95.2	4.8	44,236,128
Approval of grants to Executive Director	Australia	97.0	3.0	7,029,924

(1) The sum of votes marked 'Vote Withheld' at BHP Group Plc's 2018 AGM and votes marked 'Abstain' at BHP Group Limited's 2018 AGM.

(2) The UK requirement for approval of the remuneration policy was met at the 2017 AGMs, where the following outcomes were recorded: a 97.1 per cent vote 'for', a 2.9 per cent vote 'against' with 9,658,674 votes withheld. This resolution was not required in 2018.

Other statutory disclosures

This section provides details of any additional statutory disclosures required by Australian or UK regulations that have not been included in the previous sections of the Remuneration Report.

3.3.17 Executive KMP remuneration table

The table below has been prepared in accordance with relevant accounting standards and remuneration data for Executive KMP are for the periods of FY2018 and FY2019 that they were KMP. More information on the policy and operation of each element of remuneration is provided in prior sections of this Report.

Share-based payments

The figures included in the shaded columns of the statutory table below for share-based payments were not actually provided to the KMP during FY2018 or FY2019. These amounts are calculated in accordance with accounting standards and are the amortised IFRS fair values of equity and equity-related instruments that have been granted to the executives. For information on awards that were allocated and vested during FY2018 and FY2019, refer to section 3.3.18.

US\$('000)	Financial year	Base salary ⁽¹⁾	Short-term benefits			Post-employment benefits	Share-based payments		
			Annual cash incentive ⁽²⁾	Non-monetary benefits ⁽³⁾	Other benefits ⁽⁴⁾		Value of STIP awards ⁽²⁾⁽⁶⁾	Value of LTIP awards ⁽⁶⁾	Total
Executive Director									
Andrew Mackenzie	FY2019	1,700	653	100	-	425	990	4,037	7,905
	FY2018	1,700	1,224	84	-	425	779	3,894	8,106
Other Executive KMP									
Peter Beaven	FY2019	1,000	480	5	-	250	637	2,078	4,450
	FY2018	1,000	728	8	-	250	549	1,792	4,327
Mike Henry	FY2019	1,100	440	10	-	275	623	2,286	4,734
	FY2018	1,100	722	13	-	275	546	1,971	4,627
Daniel Malchuk	FY2019	1,000	424	30	14	250	585	2,078	4,381
	FY2018	1,000	792	13	19	250	507	1,751	4,332
Steve Pastor ⁽⁷⁾	FY2019	712	524	-	49	178	1,166	1,087	3,716
	FY2018	1,000	720	-	21	250	493	1,076	3,560
Geraldine Slattery ⁽⁷⁾	FY2019	219	167	-	-	55	43	213	697

(1) Base salaries shown in this table reflect the amounts paid over the 12-month period from 1 July 2018 to 30 June 2019 for each Executive KMP. There were no changes to Executive KMP base salaries during the year except for Geraldine Slattery who was appointed Executive KMP during the year on an annual base salary of US\$0.750 million.

(2) Annual cash incentive is the cash portion of STIP awards earned in respect of performance during each financial year for each executive. STIP is provided half in cash and half in deferred equity (which are included in the share-based payments columns of the table). The cash portion of STIP awards is paid to Executive KMP in September of the year following the relevant financial year. The minimum possible value awarded to each individual is nil and the maximum is 240 per cent of base salary (120 per cent in cash and 120 per cent in deferred equity). For FY2019, Executive KMP earned the following STIP awards as a percentage of the maximum (the remaining portion has been forfeited): Andrew Mackenzie 32 per cent, Peter Beaven 40 per cent, Mike Henry 33 per cent, Daniel Malchuk 35 per cent, Steve Pastor 61 per cent, and Geraldine Slattery 65 per cent. Steve Pastor's FY2019 STIP was paid in cash, pro-rated to reflect the period served until he ceased to be KMP on 17 March 2019, as noted in 3.3.12.

(3) Non-monetary benefits are non-pensionable and include such items as health and other insurances, fees for tax return preparation (if required in multiple jurisdictions), car parking and travel costs.

(4) Other benefits are non-pensionable and for FY2019 include an international relocation benefit for Daniel Malchuk and an encashment of annual leave entitlements under the US Annual Leave policy and the cost of tax services for Steve Pastor.

(5) Retirement benefits are 25 per cent of base salary for each Executive KMP.

(6) The IFRS fair value of both STIP and LTIP awards is estimated at grant date. Refer to note 23 'Employee share ownership plans' in section 5 for further details.

(7) The remuneration reported for Steve Pastor and Geraldine Slattery reflects service as Executive KMP during the year.

3.3.18 Equity awards

The interests held by Executive KMP under the Group's employee equity plans are set out below. Each equity award is a right to acquire one ordinary share in BHP Group Limited or in BHP Group Plc upon satisfaction of the vesting conditions. BHP Group Limited share awards are shown in Australian dollars. BHP Group Plc awards are shown in Pounds Sterling. The Our Requirements for Securities Dealing standard governs and restricts dealing arrangements and the provision of shares on vesting or exercise of awards. No interests under the Group's employee equity plans are held by related parties of Executive KMP.

Dividend Equivalent Payments

DEP applies to awards provided to Executive KMP under the CDP, STIP and LTIP as detailed in section 3.2.1. No DEP is payable on GSTIP awards or MAP awards.

Equity awards provided for Executive KMP service

Awards under the STIP, CDP and LTIP

Executive KMP receive or will receive awards under the STIP, CDP and LTIP. The terms and conditions of STIP, CDP and LTIP awards, including the performance conditions, are described in sections 3.2.1 and 3.2.5 of this Annual Report. The LTIP rules are available on our website.

Equity awards provided prior to Executive KMP service

Awards under the GSTIP and MAP

BHP senior management who are not KMP received awards under the GSTIP and receive awards under the MAP. While no GSTIP or MAP awards were granted to Executive KMP during FY2019, Steve Pastor and Geraldine Slattery held GSTIP awards and still hold MAP awards that were allocated to them prior to their Executive KMP service.

Award type	Date of grant	At 1 July 2018			At 30 June 2019		Award vesting date ⁽¹⁾	Market price on date of:		Gain on awards ('000) ⁽⁴⁾	DEP on awards ('000)
		Granted	Vested	Lapsed	Grant ⁽²⁾	Vesting ⁽³⁾		Grant ⁽²⁾	Vesting ⁽³⁾		
Andrew Mackenzie											
STIP	18 Dec 2018	-	52,061	-	-	52,061	Aug 20	A\$33.50	-	-	-
STIP	24 Nov 2017	56,217	-	-	-	56,217	Aug 19	A\$27.97	-	-	-
LTIP	18 Dec 2018	-	304,523	-	-	304,523	Aug 23	A\$33.50	-	-	-
LTIP	24 Nov 2017	385,075	-	-	-	385,075	Aug 22	A\$27.97	-	-	-
LTIP	9 Dec 2016	339,753	-	-	-	339,753	Aug 21	A\$25.98	-	-	-
LTIP	4 Dec 2015	339,753	-	-	-	339,753	Aug 20	A\$17.93	-	-	-
LTIP	19 Dec 2014	224,859	-	-	-	224,859	Aug 19	A\$28.98	-	-	-
LTIP	18 Dec 2013	213,701	-	-	213,701	-	22 Aug 18	A\$35.79	-	-	-
Peter Beaven											
STIP	18 Dec 2018	-	30,964	-	-	30,964	Aug 20	A\$33.50	-	-	-
STIP	24 Nov 2017	36,145	-	-	-	36,145	Aug 19	A\$27.97	-	-	-
STIP	9 Dec 2016	10,958	-	10,958	-	-	22 Aug 18	A\$25.98	A\$32.08	A\$352	A\$22
LTIP	18 Dec 2018	-	156,739	-	-	156,739	Aug 23	A\$33.50	-	-	-
LTIP	24 Nov 2017	198,200	-	-	-	198,200	Aug 22	A\$27.97	-	-	-
LTIP	9 Dec 2016	174,873	-	-	-	174,873	Aug 21	A\$25.98	-	-	-
LTIP	4 Dec 2015	174,873	-	-	-	174,873	Aug 20	A\$17.93	-	-	-
LTIP	19 Dec 2014	115,736	-	-	-	115,736	Aug 19	A\$28.98	-	-	-
LTIP	18 Dec 2013	109,993	-	-	109,993	-	22 Aug 18	A\$35.79	-	-	-
Mike Henry											
STIP	18 Dec 2018	-	30,692	-	-	30,692	Aug 20	A\$33.50	-	-	-
STIP	24 Nov 2017	36,376	-	-	-	36,376	Aug 19	A\$27.97	-	-	-
STIP	9 Dec 2016	10,663	-	10,663	-	-	22 Aug 18	A\$25.98	A\$32.08	A\$342	A\$21
LTIP	18 Dec 2018	-	172,413	-	-	172,413	Aug 23	A\$33.50	-	-	-
LTIP	24 Nov 2017	218,020	-	-	-	218,020	Aug 22	A\$27.97	-	-	-
LTIP	9 Dec 2016	192,360	-	-	-	192,360	Aug 21	A\$25.98	-	-	-
LTIP	4 Dec 2015	192,360	-	-	-	192,360	Aug 20	A\$17.93	-	-	-
LTIP	19 Dec 2014	127,310	-	-	-	127,310	Aug 19	A\$28.98	-	-	-
LTIP	18 Dec 2013	120,993	-	-	120,993	-	22 Aug 18	A\$35.79	-	-	-
Daniel Malchuk											
STIP	18 Dec 2018	-	33,686	-	-	33,686	Aug 20	A\$33.50	-	-	-
STIP	24 Nov 2017	28,070	-	-	-	28,070	Aug 19	A\$27.97	-	-	-
STIP	9 Dec 2016	9,694	-	9,694	-	-	22 Aug 18	A\$25.98	A\$32.08	A\$311	A\$19
LTIP	18 Dec 2018	-	156,739	-	-	156,739	Aug 23	A\$33.50	-	-	-
LTIP	24 Nov 2017	198,200	-	-	-	198,200	Aug 22	A\$27.97	-	-	-
LTIP	9 Dec 2016	174,873	-	-	-	174,873	Aug 21	A\$25.98	-	-	-
LTIP	4 Dec 2015	174,873	-	-	-	174,873	Aug 20	A\$17.93	-	-	-
LTIP	19 Dec 2014	115,736	-	-	-	115,736	Aug 19	A\$28.98	-	-	-
LTIP	18 Dec 2013	93,495	-	-	93,495	-	22 Aug 18	A\$35.79	-	-	-
Steve Pastor⁽⁵⁾											
STIP	18 Dec 2018	-	30,624	-	-	30,624	Aug 20	A\$33.50	-	-	-
STIP	24 Nov 2017	30,659	-	-	-	30,659	Aug 19	A\$27.97	-	-	-
STIP	9 Dec 2016	2,697	-	2,697	-	-	22 Aug 18	A\$25.98	A\$32.08	A\$87	A\$5
LTIP	18 Dec 2018	-	156,739	-	-	156,739	Aug 23	A\$33.50	-	-	-
LTIP	24 Nov 2017	198,200	-	-	-	198,200	Aug 22	A\$27.97	-	-	-
LTIP	9 Dec 2016	139,898	-	-	-	139,898	Aug 21	A\$25.98	-	-	-
MAP	24 Feb 2016	21,775	-	-	-	21,775	Aug 20	A\$16.18	-	-	-
MAP	24 Feb 2016	21,775	-	-	-	21,775	Aug 19	A\$16.18	-	-	-
MAP	30 Oct 2015	21,775	-	21,775	-	-	22 Aug 18	A\$23.02	A\$32.08	A\$699	-
GSTIP	9 Dec 2016	5,435	-	5,435	-	-	22 Aug 18	A\$25.98	A\$32.08	A\$174	-
Geraldine Slattery⁽⁶⁾											
MAP	21 Feb 2019	-	28,527	-	-	28,527	Aug 23	A\$34.83	-	-	-
MAP	21 Feb 2019	-	28,527	-	-	28,527	Aug 22	A\$34.83	-	-	-
MAP	24 Sep 2018	-	28,527	-	-	28,527	Aug 21	A\$33.83	-	-	-
MAP	25 Sep 2017	34,349	-	-	-	34,349	Aug 20	A\$25.98	-	-	-
MAP	31 Oct 2016	21,775	-	-	-	21,775	Aug 19	A\$23.07	-	-	-
GSTIP	25 Sep 2017	14,951	-	-	-	14,951	Aug 19	A\$25.98	-	-	-

(1) Where the vesting date is not yet known, the estimated vesting month is shown. Where awards lapse, the lapse date is shown. If the vesting conditions are met, awards will vest on, or as soon as practicable after, the first non-prohibited period date occurring after 30 June of the preceding year of vest. The year of vest is the second (STIP and GSTIP), third (MAP), fourth (MAP) or fifth (MAP and LTIP) financial year after grant. All awards are conditional awards and have no exercise period, exercise price or expiry date; instead ordinary fully paid shares are automatically delivered upon the vesting conditions being met. Where vesting conditions are not met, the conditional awards will immediately lapse.

(2) The market price shown is the closing price of BHP shares on the relevant date of grant. No price is payable by the individual to receive a grant of awards. The IFRS fair value of the STIP and LTIP awards granted in FY2019 is at the grant date of 18 December 2018, and are as follows: STIP – A\$33.50 and LTIP – A\$24.13.

(3) The market price shown is the closing price of BHP shares on the relevant date of vest.

(4) The gain on awards is calculated using the market price on date of vesting or exercise (as applicable) less any exercise price payable. The amounts that vested and were lapsed for the awards during FY2019 are as follows: STIP – 100 per cent vested; LTIP – 100 per cent lapsed; GSTIP – 100 per cent vested; MAP – 100 per cent vested.

(5) Awards shown as held by Steve Pastor at 30 June 2019 are his balances at the date he ceased being KMP (17 March 2019). The subsequent treatment of his awards is set out in section 3.3.12.

(6) The opening balances of awards for Geraldine Slattery reflects her holdings on the date she commenced being KMP (18 March 2019).

3.3.19 Estimated value range of equity awards

The current face value (and estimate of the maximum possible total value) of equity awards allocated during FY2019 and yet to vest are the awards as set out in the previous table multiplied by the current share price of BHP Group Limited or BHP Group Plc as applicable. The minimum possible total value of the awards is nil.

The actual value that may be received by participants in the future cannot be determined as it is dependent on and therefore fluctuates with the share prices of BHP Group Limited and BHP Group Plc at the date that any particular award vests or is exercised. The table below provides five-year share price history for BHP Group Limited and BHP Group Plc, history of dividends paid and the Group's earnings.

Five-year share price, dividend and earnings history

		FY2019	FY2018	FY2017	FY2016	FY2015
BHP Group Limited	Share price at beginning of year	A\$33.60	A\$23.23	A\$19.09	A\$26.58	A\$36.00
	Share price at end of year	A\$41.16	A\$33.91	A\$23.28	A\$18.65	A\$27.05
	Dividends paid	A\$3.08 ⁽¹⁾	A\$1.24	A\$0.72	A\$1.09	A\$3.72 ⁽²⁾
BHP Group Plc	Share price at beginning of year	£16.53	£12.15	£9.40	£12.58	£19.45
	Share price at end of year	£20.15	£17.06	£11.76	£9.43	£12.49
	Dividends paid	£1.70 ⁽¹⁾	£0.72	£0.44	£0.51	£1.95 ⁽²⁾
BHP	Attributable profit /(loss) (US\$M, as reported)	8,306	3,705	5,890	(6,385)	1,910

(1) The FY2019 dividends paid includes A\$1.41 or £0.80 in respect of the special dividend associated with the divestment of Onshore US.

(2) The FY2015 dividends paid includes A\$2.25 or £1.15 in respect of the in-specie dividend associated with the demerger of South32.

The highest share prices during FY2019 were A\$41.95 for BHP Group Limited shares and £20.15 for BHP Group Plc shares. The lowest share prices during FY2019 were A\$30.43 and £14.91, respectively.

3.3.20 Ordinary share holdings and transactions

The number of ordinary shares in BHP Group Limited or in BHP Group Plc held directly, indirectly or beneficially, by each individual (including shares held in the name of all close members of the Director's or Executive KMP's family and entities over which either the Director or Executive KMP or the family member has, directly or indirectly, control, joint control or significant influence) are shown below. There have been no changes in the interests of any Directors in the period to 5 September 2019 (being not less than one month prior to the date of the notice of the 2019 AGMs), except as noted below. These are ordinary shares held without performance conditions or restrictions and are included in MSR calculations for each individual.

The interests of Directors and Executive KMP in the ordinary shares of each of BHP Group Limited and BHP Group Plc as at 30 June 2019 did not exceed on an individual basis or in the aggregate 1 per cent of BHP Group Limited's or BHP Group Plc's issued ordinary shares.

	BHP Group Limited Shares					BHP Group Plc Shares				
	Held at 1 July 2018	Purchased	Received as remuneration ⁽¹⁾	Sold	Held at 30 June 2019	Held at 1 July 2018	Purchased	Received as remuneration ⁽¹⁾	Sold	Held at 30 June 2019
Executive Director										
Andrew Mackenzie	93,051	-	-	-	93,051	266,205	-	-	-	266,205
Other Executive KMP										
Peter Beaven	296,690	-	11,644	68,072	240,262	-	-	-	-	-
Mike Henry	91,993	-	11,331	5,262	98,062	196,262	-	-	-	196,262
Daniel Malchuk	164,054	-	10,301	-	174,355	-	-	-	-	-
Steve Pastor ⁽²⁾⁽³⁾	52,953	-	30,076	12,234	70,795	-	-	-	-	-
Geraldine Slattery ⁽²⁾⁽⁴⁾	49,701	-	-	-	49,701	-	-	-	-	-
Non-executive Directors										
Terry Bowen	11,000	-	-	-	11,000	-	-	-	-	-
Malcolm Broomhead	19,000	-	-	-	19,000	-	-	-	-	-
Ian Cockerill ⁽⁴⁾⁽⁵⁾	5,259	-	-	-	5,259	-	3,500	-	-	3,500
Anita Frew	-	-	-	-	-	15,000	-	-	-	15,000
Carolyn Hewson	19,000	-	-	-	19,000	-	-	-	-	-
Susan Kilsby ⁽⁴⁾⁽⁵⁾	-	-	-	-	-	-	-	-	-	-
Ken MacKenzie ⁽⁶⁾	52,351	-	-	-	52,351	-	-	-	-	-
Lindsay Maxsted	18,000	-	-	-	18,000	-	-	-	-	-
John Mogford	-	-	-	-	-	12,000	-	-	-	12,000
Wayne Murdy ⁽²⁾⁽³⁾	8,000	-	-	-	8,000	24,000	-	-	-	24,000
Shriti Vadera	-	-	-	-	-	25,000	-	-	-	25,000

(1) Includes DEP in the form of shares on equity awards vesting as disclosed in section 3.3.18.

(2) The following BHP Group Limited shares and BHP Group Plc shares were held in the form of American Depository Shares: Wayne Murdy (4,000 BHP Group Limited; 12,000 BHP Group Plc), Steve Pastor (1,574 BHP Group Limited), and Geraldine Slattery (868 BHP Group Limited).

(3) The closing balances for Steve Pastor and Wayne Murdy reflect their shareholdings on the date that each ceased being KMP, being 17 March 2019 and 2 November 2018, respectively.

(4) The opening balances for Geraldine Slattery, Ian Cockerill and Susan Kilsby reflect their shareholdings on the date that each became KMP being 18 March 2019, 1 April 2019 and 1 April 2019 respectively.

(5) Ian Cockerill acquired 3,500 shares in BHP Group Limited on 29 August 2019 and Susan Kilsby acquired 2,900 shares in BHP Group Plc on 23 August 2019.

(6) The opening balance for Ken MacKenzie has been updated to include 4,495 BHP Group Limited shares that were purchased on 25 August 2017, which were inadvertently not included in the 2018 report.

3.3.21 Prohibition on hedging of BHP shares and equity instruments

The CEO and other Executive KMP may not use unvested BHP equity awards as collateral, or protect the value of any unvested BHP equity awards or the value of shares and securities held as part of meeting the MSR.

Any securities that have vested and are no longer subject to restrictions may be subject to hedging arrangements or used as collateral, provided that prior consent is obtained.

3.3.22 Share ownership guidelines and the MSR

The share ownership guidelines and the MSR help to ensure the interests of Directors, executives and shareholders remain aligned.

The CEO and other Executive KMP are expected to grow their holdings to the MSR from the scheduled vesting of their employee awards over time. The MSR is tested at the time that shares are to be sold. Shares may be sold to satisfy tax obligations arising from the granting, holding, vesting, exercise or sale of the employee awards or the underlying shares whether the MSR is satisfied at that time or not.

For FY2019:

- the MSR for the CEO was five times annual pre-tax base salary and while he has met this requirement in the past, subsequent movements in foreign exchange rates and share prices have resulted in Andrew Mackenzie's shareholding being 4.8 times his annual pre-tax base salary at the end of FY2019. As at the date of this Report, Mr Mackenzie met the MSR;
- the MSR for other Executive KMP was three times annual pre-tax base salary. At the end of FY2019, Peter Beaven, Mike Henry and Daniel Malchuk met the MSR, while Geraldine Slattery did not as she was only recently appointed as Executive KMP on 18 March 2019. While Mr Beaven sold shares during FY2019, he met the MSR both before and after the sale. Other than Mr Beaven, no other Executive KMP sold shares during FY2019, other than to satisfy taxation obligations.

Effective 1 July 2020, a two-year post-retirement shareholding requirement for the CEO will apply from the date of retirement, which will be the lower of the CEO's MSR or the CEO's actual shareholding at the date of retirement.

Subject to securities dealing constraints, Non-executive Directors have agreed to apply at least 25 per cent of their remuneration (base fees plus Committee fees) to the purchase of BHP shares until they achieve an MSR equivalent in value to one year's remuneration (base fees plus Committee fees). Thereafter, they must maintain at least that level of shareholding throughout their tenure. At the end of FY2019, each Non-executive Director met the MSR with the exception of Ian Cockerill and Susan Kilsby as they only recently joined the Board on 1 April 2019. As at the date of this Report, Mr Cockerill met the MSR and Ms Kilsby met the agreed application of fees to purchase of BHP shares in respect of her tenure since 1 April 2019.

3.3.23 Payments to past Directors and for loss of office

UK regulations require the inclusion in the Remuneration Report of certain payments to past Directors and payments made for loss of office. There is nothing to disclose for these payments for FY2019. The Remuneration Committee has adopted a de minimis threshold of US\$7,500 for disclosure of payments to past Directors under UK requirements.

3.3.24 Relative importance of spend on pay

The table below sets out the total spend for continuing operations on employee remuneration during FY2019 (and the prior year) compared with other significant expenditure items, and includes items as prescribed in the UK requirements. BHP has included tax payments and purchases of property, plant and equipment being the most significant other outgoings in monetary terms.

US\$ million	FY2019	FY2018
Aggregate employee benefits expense	4,117	4,072
Dividends paid to BHP shareholders	11,395	5,220
Share buy-backs	5,220	-
Income tax paid and royalty-related taxation paid (net of refunds)	5,940	4,918
Purchases of property, plant and equipment	6,250	4,979

3.3.25 Transactions with KMP

During the financial year, there were no transactions between the Group and its subsidiaries and KMP (including their related parties) (2018: US\$ nil; 2017: US\$ nil). There were no amounts payable at 30 June 2019 (2018: US\$ nil). There were US\$ nil loans (2018: US\$ nil) with KMP (including their related parties).

A number of KMP hold or have held positions in other companies (i.e. personally related entities), where it is considered they control or significantly influence the financial or operating policies of those entities. There have been no transactions with those entities and no amounts were owed by the Group to personally related entities or any other related parties (2018: US\$ nil).

This Remuneration Report was approved by the Board on 5 September 2019 and signed on its behalf by:



Carolyn Hewson

Chairman, Remuneration Committee
5 September 2019

Section 4

Directors' Report



In this section

- 4.1 Review of operations, principal activities and state of affairs
- 4.2 Share capital and buy-back programs
- 4.3 Results, financial instruments and going concern
- 4.4 Directors
- 4.5 Remuneration and share interests
- 4.6 Secretaries
- 4.7 Indemnities and insurance
- 4.8 Employee policies
- 4.9 Corporate governance
- 4.10 Dividends
- 4.11 Auditors
- 4.12 Non-audit services
- 4.13 Political donations
- 4.14 Exploration, research and development
- 4.15 ASIC Instrument 2016/191
- 4.16 Proceedings on behalf of BHP Group Limited
- 4.17 Performance in relation to environmental regulation
- 4.18 Share capital, restrictions on transfer of shares and other additional information

The information presented by the Directors in this Directors' Report relates to BHP Group Limited, BHP Group Plc and their respective subsidiaries. Section 1 'Strategic Report' (which includes the Chairman's Review in section 1.1 and the Chief Executive Officer's Report in section 1.2, and incorporates the operating and financial review), section 2 'Governance at BHP', section 3 'Remuneration Report', section 5.5 'Lead Auditor's Independence Declaration' and section 7 'Shareholder information' are each incorporated by reference into, and form part of, this Directors' Report. In addition, for the purposes of UK law, the Strategic Report in section 1 and the Remuneration Report in section 3 form separate reports and have been separately approved by the Board for that purpose.

For the purpose of the Financial Conduct Authority's (FCA) Listing Rule 9.8.4C R, the applicable information required to be disclosed in accordance with FCA Listing Rule 9.8.4 R is set out in the sections below.

Applicable information required by FCA Listing Rule 9.8.4 R	Section in this Annual Report
(1) Interest capitalised by the Group	Section 5, note 20
(6) Waiver of future emoluments	Section 3.3.1
(12) Shareholder waivers of dividends	Section 5, note 23
(13) Shareholder waivers of future dividends	Section 5, note 23

Paragraphs (2), (4), (5), (7), (8), (9), (10), (11) and (14) of Listing Rule 9.8.4 R are not applicable.

The Directors confirm, on the advice of the Risk and Audit Committee, that they consider the Annual Report (including the Financial Statements), taken as a whole, is fair, balanced and understandable, and provides the information necessary for shareholders to assess BHP's position, performance, business model and strategy.

4.1 Review of operations, principal activities and state of affairs

A review of the operations of BHP during FY2019, the results of those operations during FY2019 and the expected results of those operations in future financial years are set out in section 1, in particular in 1.1 to 1.10, 1.12 and 1.13 and in other material in this Annual Report. Information on the development of BHP and likely developments in future years also appears in those sections. We have excluded certain information from the Strategic Report in section 1 (which forms part of this Directors' Report), to the extent permitted by UK and Australian law, on the basis that such information relates to impending developments or matters in the course of negotiation and disclosure would be seriously prejudicial to the interests of BHP. This is because such disclosure could be misleading due to the fact it is premature or preliminary in nature, relates to commercially sensitive contracts, would undermine confidentiality between BHP and our suppliers and clients, or would otherwise unreasonably damage BHP. The categories of information omitted include forward looking estimates and projections prepared for internal management purposes, information regarding BHP's assets and projects, which is developing and susceptible to change, and information relating to commercial contracts and pricing modules.

Our principal activities during FY2019 are disclosed in section 1. We are among the world's top producers of major commodities, including iron ore, metallurgical coal and copper. We also have substantial interests in oil, gas and energy coal. No significant changes in the nature of BHP's principal activities occurred during FY2019 other than as disclosed in section 1.

There were no significant changes in BHP's state of affairs that occurred during FY2019 and no significant post balance date events other than as disclosed in section 1.

No other matter or circumstance has arisen since the end of FY2019 that has significantly affected or is expected to significantly affect the operations, the results of operations or state of affairs of BHP in future years.

4.2 Share capital and buy-back programs

At the Annual General Meetings held in 2017 and 2018, shareholders authorised BHP Group Plc to make on-market purchases of up to 211,207,180 of its ordinary shares, representing 10 per cent of BHP Group Plc's issued share capital at that time. On 17 December 2018, we announced the completion of a US\$5.2 billion off-market tender buy-back of BHP Group Limited shares. Approximately 265.8 million shares (8.3 per cent of BHP Group Limited's issued share capital and 5 per cent of the total issued share capital of BHP Group Limited and BHP Group Plc) were bought back at a price of A\$27.64 per share. As at the date of this Directors' Report, there were no current on-market buy-backs.

Shareholders will be asked at the 2019 Annual General Meetings to renew this authority. As at the date of this Directors' Report, there is no intention to exercise this authority.

Some of our executives receive rights over BHP shares as part of their remuneration arrangements. Entitlements may be satisfied by the transfer of existing shares, which are acquired on-market by the Employee Share Ownership Plan (ESOP) Trusts or, in respect of some entitlements, by the issue of shares.

The number of shares referred to in column A below were purchased to satisfy awards made under the various BHP Group Limited and BHP Group Plc employee share schemes during FY2019.

Period	A	B	C	D
	Total number of shares purchased	Average price paid per share ⁽¹⁾	Total number of shares purchased as part of publicly announced plans or programs	Maximum number of shares that may yet be purchased under the plans or programs
		US\$		
1 Jul 2018 to 31 Jul 2018	86,722	22.99	–	211,207,180 ⁽³⁾
1 Aug 2018 to 31 Aug 2018	2,706,718	25.86	–	211,207,180 ⁽³⁾
1 Sep 2018 to 30 Sep 2018	20	34.69	–	211,207,180 ⁽³⁾
1 Oct 2018 to 31 Oct 2018	424,230	23.73	–	211,207,180 ⁽³⁾
1 Nov 2018 to 30 Nov 2018	–	–	–	211,207,180 ⁽³⁾
1 Dec 2018 to 31 Dec 2018	–	19.84	265,839,711	–
1 Jan 2019 to 31 Jan 2019	–	–	–	211,207,180 ⁽³⁾
1 Feb 2019 to 28 Feb 2019	3,852,173	27.35	–	211,207,180 ⁽³⁾
1 Mar 2019 to 31 Mar 2019	24,306	26.82	–	211,207,180 ⁽³⁾
1 Apr 2019 to 30 Apr 2019	–	–	–	211,207,180 ⁽³⁾
1 May 2019 to 31 May 2019	–	–	–	211,207,180 ⁽³⁾
1 Jun 2019 to 30 Jun 2019	–	–	–	211,207,180 ⁽³⁾
Total	7,094,169	20.02	265,839,711	–
				211,207,180 ⁽³⁾

(1) The shares were purchased in the currency of the stock exchange on which the purchase took place and the sale price has been converted into US dollars at the exchange rate on the day of purchase.

(2) BHP Group Limited is able to buy-back and cancel BHP Group Limited shares within the '10/12 limit' without shareholder approval in accordance with section 257B of the Australian Corporations Act 2001. Any future on-market share buy-back program would be conducted in accordance with the Australian Corporations Act 2001 and with the ASX Listing Rules.

(3) At the Annual General Meetings held during 2017 and 2018, shareholders authorised BHP Group Plc to make on-market purchases of up to 211,207,180 of its ordinary shares, representing 10 per cent of BHP Group Plc's issued capital at the time.

4.3 Results, financial instruments and going concern

Information about the Group's financial position and financial results is included in the Financial Statements in this Annual Report. The Consolidated Income Statement shows profit attributable to BHP members of US\$8.3 billion in FY2019, compared with a profit of US\$3.7 billion in FY2018.

BHP's business activities, together with the factors likely to affect its future development, performance and position, are discussed in section 1. In addition, sections 1.3 to 1.6 and 2.14, and note 21 'Financial risk management' in section 5 outline BHP's capital management objectives, its approach to financial risk management and exposure to financial risks, liquidity and borrowing facilities.

The Directors, having made appropriate enquiries, have a reasonable expectation that BHP has adequate resources to continue in operational existence for the foreseeable future. Therefore, they continue to adopt the going concern basis of accounting in preparing the annual Financial Statements.

4.4 Directors

The Directors who served at any time during FY2019 or up until the date of this Directors' Report were Ken Mackenzie, Andrew Mackenzie, Terry Bowen, Malcolm Broomhead, Ian Cockerill, Anita Frew, Carolyn Hewson, Susan Kilsby, Lindsay Maxsted, John Mogford, Wayne Murdy and Shriti Vadera. Further details

of the current Directors of BHP Group Limited and BHP Group Plc are set out in section 2.2. These details include the period for which each Director held office up to the date of this Directors' Report, their qualifications, experience and particular responsibilities, the directorships held in other listed companies since 1 July 2016 and the period for which each directorship has been held.

Wayne Murdy served as a Non-executive Director of BHP Group Limited and BHP Group Plc from June 2009 until his retirement on 2 November 2018.

Ian Cockerill was appointed as a Non-executive Director of BHP Group Limited and BHP Group Plc with effect from 1 April 2019. In accordance with the BHP Group Limited Constitution and BHP Group Plc Articles of Association, he will seek election at the 2019 Annual General Meetings.

Susan Kilsby was appointed as a Non-executive Director of BHP Group Limited and BHP Group Plc with effect from 1 April 2019. In accordance with the BHP Group Limited Constitution and BHP Group Plc Articles of Association, she will seek election at the 2019 Annual General Meetings.

Carolyn Hewson has announced that she will retire as a Non-executive Director of BHP Group Limited and BHP Group Plc at the conclusion of the BHP Group Limited Annual General Meeting in November 2019.

The number of meetings of the Board and its Committees held during the year and each Director's attendance at those meetings are set out in section 2.12.

4.5 Remuneration and share interests

4.5.1 Remuneration

The policy for determining the nature and amount of emoluments of the Executive Key Management Personnel (KMP) (including the Executive Director) and the Non-executive Directors, and information about the relationship between that policy and BHP's performance are set out in sections 3.2 and 3.3.

The remuneration tables contained in section 3.3 set out the remuneration of members of the Executive KMP (including the Executive Director) and the Non-executive Directors.

4.5.2 Directors

Section 3.3.20 sets out the relevant interests in shares in BHP Group Limited and BHP Group Plc of the Directors who held office during FY2019, at the beginning and end of FY2019. No rights or options over shares in BHP Group Limited and BHP Group Plc are held by any of the Non-executive Directors. Interests held by the Executive Director under employee equity plans as at 30 June 2019 are set out in the tables showing interests in incentive plans contained in section 3.3.18. Except for Andrew Mackenzie, Susan Kilsby and Ian Cockerill, as at the date of this Directors' Report, the information pertaining to shares in BHP Group Limited and BHP Group Plc held directly, indirectly or beneficially by Directors is the same as set out in the table in section 3.3.20. Where applicable, the information includes shares held in the name of a spouse, superannuation fund, nominee and/or other controlled entities.

As at the date of this Directors' Report, Andrew Mackenzie held:

- (either directly, indirectly or beneficially) 266,205 shares in BHP Group Plc and 125,228 shares in BHP Group Limited;
- rights and options over nil shares in BHP Group Plc and 1,421,165 shares in BHP Group Limited.

As at the date of this Directors' Report, Susan Kilsby holds 2,900 shares in BHP Group Limited and Ian Cockerill indirectly holds 8,759 shares in BHP Group Limited and 3,500 shares in BHP Group Plc.

We have not made available to any Director any interest in a registered scheme.

4.5.3 Key Management Personnel

Section 3.3.20 sets out the relevant interests in shares in BHP Group Limited and BHP Group Plc held directly, indirectly or beneficially at the beginning and end of FY2019 by those senior executives who were Executive KMP (other than the Executive Director) during FY2019. Where applicable, the information includes shares held in the name of a spouse, superannuation fund, nominee and/or other controlled entities. Interests held by members of the Executive KMP under employee equity plans as at 30 June 2019 are set out in the tables contained in section 3.3.18.

The table below sets out the relevant interests in shares in BHP Group Limited and BHP Group Plc held directly, indirectly or beneficially, as at the date of this Directors' Report by those senior executives who were Executive KMP (other than the Executive Director) on that date. Where applicable, the information also includes shares held in the name of a spouse, superannuation fund, nominee and/or other controlled entities.

Executive KMP member	BHP Group entity	As at date of Directors' Report
Peter Beaven	BHP Group Limited BHP Group Plc	261,287 -
Mike Henry	BHP Group Limited BHP Group Plc	120,069 196,262
Daniel Malchuk	BHP Group Limited BHP Group Plc	194,608 -
Geraldine Slattery	BHP Group Limited BHP Group Plc	71,520 -

4.6 Secretaries

Caroline Cox is the Group General Counsel and Company Secretary. Details of her qualifications and experience are set out in section 2.2. The following people also act, or have acted during FY2019, as Company Secretaries of BHP Group Limited, BHP Group Plc or both (as indicated): Margaret Taylor, BA, LLB, GAICD FCIS (BHP Group Limited and BHP Group Plc), Rachel Agnew, BComm (Economics), LLB (Hons), GAICD (BHP Group Limited and BHP Group Plc), Kathryn Griffiths, BA, LLB (Hons), GDipACG, FCIS, FGIA, GAICD (BHP Group Limited), Megan Pepper, BA (Hons), LLB (Hons), GDipACG, FCIS, FGIA, GAICD (BHP Group Limited) and Geof Stapledon, BEc, LLB (Hons), DPhil, FCIS (BHP Group Limited and BHP Group Plc). Each individual has experience in a company secretariat role or other relevant fields arising from time spent in roles within BHP, other large listed companies or other relevant entities.

4.7 Indemnities and insurance

Rule 146 of the BHP Group Limited Constitution and Article 146 of the BHP Group Plc Articles of Association require each Company to indemnify, to the extent permitted by law, each Officer of BHP Group Limited and BHP Group Plc, respectively, against liability incurred in, or arising out of, the conduct of the business of BHP or the discharge of the duties of the Officer. The Directors named in section 2.2, the Company Secretaries and other Officers of BHP Group Limited and BHP Group Plc have the benefit of this requirement, as do individuals who formerly held one of those positions.

In accordance with this requirement, BHP Group Limited and BHP Group Plc have entered into Deeds of Indemnity, Access and Insurance (Deeds of Indemnity) with each of their respective Directors. The Deeds of Indemnity are qualifying third party indemnity provisions for the purposes of the UK Companies Act 2006 and each of these qualifying third party indemnities was in force as at the date of this Directors' Report.

We have a policy that BHP will, as a general rule, support and hold harmless an employee, including an employee appointed as a Director of a subsidiary who, while acting in good faith, incurs personal liability to others as a result of working for BHP.

In addition, as part of the arrangements to effect the demerger of South32, we agreed to indemnify certain former Officers of BHP who transitioned to South32 from certain claims and liabilities incurred in their capacity as Directors or Officers of South32.

From time to time, we engage our External Auditor, KPMG, to conduct non-statutory audit work and provide other services in accordance with our policy on the provision of other services by the External Auditor. The terms of engagement in the United Kingdom include that we must compensate and reimburse KPMG LLP for, and protect KPMG LLP against, any loss, damage, expense, or liability incurred by KPMG LLP in respect of third party claims arising from a breach by BHP of any obligation under the engagement terms.

We have insured against amounts that we may be liable to pay to Directors, Company Secretaries or certain employees (including former Officers) pursuant to Rule 146 of the Constitution of BHP Group Limited and Article 146 of the Articles of Association of BHP Group Plc or that we otherwise agree to pay by way of indemnity. The insurance policy also insures Directors, Company Secretaries and some employees (including former Officers) against certain liabilities (including legal costs) they may incur in carrying out their duties. For this Directors' and Officers' insurance, we paid premiums of US\$5,449,910 net during FY2019.

During FY2019, BHP paid defence costs for:

- certain employees and former employees of BHP Billiton Brasil (Affected Individuals) in relation to the charges filed by the Federal Prosecutors' Office against BHP Billiton Brasil and the Affected Individuals;
- certain employees and former employees of BHP in relation to the putative class action complaint that was filed in the US District Court for the Southern District of New York on behalf of purchasers of American Depository Receipts of BHP Group Limited and BHP Group Plc between 25 September 2014 and 30 November 2015;
- certain employees and former employees of BHP in relation to a putative class action complaint filed in the US District Court for the Southern District of New York on behalf of all purchasers of Samarco's 10-year bond notes due 2022–2024 between 31 October 2012 and 30 November 2015.

Other than as set out above, no indemnity in favour of a current or former officer of BHP Group Limited or BHP Group Plc, or in favour of the External Auditor, was called on during FY2019.

4.8 Employee policies

Our people are fundamental to our success. We are committed to shaping a culture where our employees are provided with opportunities to develop, are valued and encouraged to contribute towards making work safer, simpler and more productive. We strongly believe that having employees who are engaged and connected to BHP reinforces our shared purpose aligned to Our Charter and will result in a more productive workplace.

For more information on employee engagement and employee policies, including communications and regarding disabilities, refer to section 1.9.

4.9 Corporate governance

The Financial Conduct Authority's Disclosure and Transparency Rules (DTR 7.2) require that certain information be included in a corporate governance statement. BHP has an existing practice of issuing a corporate governance statement as part of our Annual Report that is incorporated into the Directors' Report by reference. The information required by the Disclosure and Transparency Rules and the Financial Conduct Authority's Listing Rules (LR 9.8.6) is located in section 2, with the exception of the information referred to in LR 9.8.6 (1), (3) and (4) and DTR 7.2.6, which is located in sections 4.2, 4.3, 4.5.2 and 4.18.

4.10 Dividends

A final dividend of 78 US cents per share will be paid on 25 September 2019, resulting in total dividends determined in respect of FY2019 of 235 US cents per share. Details of the dividends paid are set out in notes 15 'Share capital' and 17 'Dividends' in section 5, and details of the Group's dividend policy are set out in sections 1.4.3, 1.5.1 and 7.7.

4.11 Auditors

A copy of the declaration given by our External Auditor to the Directors in relation to the auditors' compliance with the independence requirements of the Australian Corporations Act 2001 and the Professional Code of Conduct for External Auditors is set out in section 5.5.

During FY2019, Lindsay Maxsted was the only officer of BHP who previously held the role of director or partner of the Group's External Auditor at a time when the Group's External Auditor conducted an audit of BHP. His prior relationship with KPMG is outlined in section 2.10. Lindsay Maxsted was not part of the KPMG audit practice after 1980 and, while at KPMG, was not in any way involved in, or able to influence, any audit activity associated with BHP.

Each person who held the office of Director at the date the Board approved this Directors' Report made the following statements:

- so far as the Director is aware, there is no relevant audit information of which BHP's External Auditor is unaware;
- the Director has taken all steps that he or she ought to have taken as a Director to make him or herself aware of any relevant audit information and to establish that BHP's External Auditor is aware of that information.

This confirmation is given pursuant to section 418 of the UK Companies Act 2006 and should be interpreted in accordance with, and subject to, those provisions.

Consistent with the UK and EU requirements in regard to audit firm tender and rotation, BHP conducted an audit tender during FY2017.

KPMG, BHP's current External Auditor, did not participate in the tender due to UK and EU requirements, which require a new External Auditor to be in place by 1 July 2023. After a comprehensive tender process, at a meeting held on 16 August 2017, the Board selected Ernst & Young as its independent registered public accounting firm from the financial year beginning 1 July 2019, subject to approval of shareholders at the Annual General Meetings in 2019.

The law in each of Australia and the United Kingdom requires shareholders to approve the appointment of a new auditor. A resolution to appoint Ernst & Young as the auditor of BHP Group Limited and Ernst & Young LLP as the auditor of BHP Group Plc will be proposed at the 2019 Annual General Meetings.

4.12 Non-audit services

Details of the non-audit services undertaken by BHP's External Auditor, including the amounts paid for non-audit services, are set out in note 35 'Auditor's remuneration' in section 5. All non-audit services were approved in accordance with the process set out in the Policy on Provision of Audit and Other Services by the External Auditor. No non-audit services were carried out that were specifically excluded by the Policy on Provision of Audit and Other Services by the External Auditor. Based on advice provided by the Risk and Audit Committee, the Directors have formed the view that the provision of non-audit services is compatible with the general standard of independence for auditors, and that the nature of non-audit services means that auditor independence was not compromised. For more information about our policy in relation to the provision of non-audit services by the auditor, refer to section 2.13.1.

4.13 Political donations

No political contributions/donations for political purposes were made by BHP to any political party, politician, elected official or candidate for public office during FY2019.⁽¹⁾

4.14 Exploration, research and development

Companies within the Group carry out exploration and research and development necessary to support their activities. Details are provided in sections 1.6.3, 1.11 to 1.12 and 6.3.

4.15 ASIC Instrument 2016/191

BHP Group Limited is an entity to which Australian Securities and Investments Commission (ASIC) Corporations (Rounding in Financial/Directors' Reports) Instrument 2016/191 dated 24 March 2016 applies. Amounts in this Directors' Report and the Financial Statements, except estimates of future expenditure or where otherwise indicated, have been rounded to the nearest million dollars in accordance with ASIC Instrument 2016/191.

4.16 Proceedings on behalf of BHP Group Limited

No proceedings have been brought on behalf of BHP Group Limited, nor has any application been made, under section 237 of the Australian Corporations Act 2001.

4.17 Performance in relation to environmental regulation

BHP seeks to be compliant with all applicable environmental laws and regulations relevant to its operations. We monitor compliance on a regular basis, including through external and internal means, to minimise the risk of non-compliance. For more information on BHP's performance in relation to health, safety and the environment, refer to section 1.10.

Fines and prosecutions

For the purposes of section 299 (1)(f) of the Australian Corporations Act 2001, in FY2019 BHP received five fines in relation to Australian environmental laws and regulations at our operated assets, the total amount payable being US\$45,529. One fine was received at Peak Downs: mine affected water (US\$9,143). Two fines were received at Blackwater: contaminated water and maintenance of other measures (US\$17,922). One fine was received at Caval Ridge: mine affected water (US\$9,157) and one fine at Saraji: contaminated water (US\$9,307).

Greenhouse gas emissions

The UK Companies Act 2006 requires BHP, to the extent practicable, to obtain relevant information on the Group's annual quantity of greenhouse gas emissions, which is reported in tonnes of carbon dioxide equivalent. In accordance with those UK requirements, information on BHP's total FY2019 greenhouse gas emissions and intensity has been included in sections 1.5.2 and 1.10.8.

For more information on environmental performance, including environmental regulation, refer to section 1.10 and the Sustainability Report 2019, which is available online at bhp.com.

4.18 Share capital, restrictions on transfer of shares and other additional information

Information relating to BHP Group Plc's share capital structure, restrictions on the holding or transfer of its securities or on the exercise of voting rights attaching to such securities, certain agreements triggered on a change of control and the existence of branches of BHP outside of the United Kingdom, is set out in the following sections:

- Section 1.4.6 (Our locations)
- Section 4.2 (Share capital and buy-back programs)
- Section 7.3 (Organisational structure)
- Section 7.4 (Material contracts)
- Section 7.5 (Constitution)
- Section 7.6 (Share ownership)
- Section 7.9 (Government regulations)
- Note 15 'Share capital' and note 23 'Employee share ownership plans' in section 5.

As at the date of this Directors' Report, there were 17,234,372 unvested equity awards outstanding in relation to BHP Group Limited ordinary shares and 417,515 unvested equity awards outstanding in relation to BHP Group Plc ordinary shares. The expiry dates of these unvested equity awards range between August 2020 and August 2023 and there is no exercise price. No options over unissued shares or unissued interests in BHP have been granted since the end of FY2019 and no shares or interests were issued as a result of the exercise of an option over unissued shares or interests since the end of FY2019. Further details are set out in note 23 'Employee share ownership plans' in section 5. Details of movements in share capital during and since the end of FY2019 are set out in note 15 'Share capital' in section 5.

The Directors' Report is approved in accordance with a resolution of the Board.



Ken MacKenzie
Chairman
Dated: 5 September 2019



Andrew MacKenzie
Chief Executive Officer

(1) Note that Australian Electoral Commission (AEC) disclosure requirements are broad, such that amounts that are not political donations can be reportable for AEC purposes. For example, where a political party or organisation owns shares in BHP, the AEC filing requires the political party or organisation to disclose the dividend payments received in respect of their shareholding.

Section 5

Financial Statements

About these Financial Statements

Reporting entity

In 2001, BHP Billiton Limited (previously known as BHP Limited), an Australian-listed company, and BHP Billiton Plc (previously known as Billiton Plc), a UK listed company, entered into a Dual Listed Company (DLC) merger. In November 2018, BHP Billiton Limited and BHP Billiton Plc changed their names to BHP Group Limited and BHP Group Plc, respectively. These entities and their subsidiaries operate together as a single for-profit economic entity (referred to as 'BHP' or 'the Group') with a common Board of Directors, unified management structure and joint objectives. In effect, the DLC structure provides the same voting rights and dividend entitlements from BHP Group Limited and BHP Group Plc irrespective of whether investors hold shares in BHP Group Limited or BHP Group Plc.

Group and related party information is presented in note 31 'Related party transactions' in section 5.1. This details transactions between the Group's subsidiaries, associates, joint arrangements and other related parties. The nature of the operations and principal activities of the Group are described in the segment information (refer to note 1 'Segment reporting' in section 5.1).

Presentation of the Consolidated Financial Statements

BHP Group Limited and BHP Group Plc Directors have included information in this report they deem to be material and relevant to the understanding of the Consolidated Financial Statements (the Financial Statements). Disclosure may be considered material and relevant if the dollar amount is significant due to its size or nature, or the information is important to understand the:

- Group's current year results;
- impact of significant changes in the Group's business; or
- aspects of the Group's operations that are important to future performance.

These Financial Statements were approved by the Board of Directors on 5 September 2019. The Directors have the authority to amend the Financial Statements after issuance.



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5.1 Consolidated Financial Statements

5.1.1 Consolidated Income Statement for the year ended 30 June 2019

	Notes	2019 US\$M	2018 US\$M Restated	2017 US\$M Restated
Continuing operations				
Revenue	2	44,288	43,129	35,740
Other income	5	393	247	662
Expenses excluding net finance costs	5	(28,022)	(27,527)	(24,120)
(Loss)/profit from equity accounted investments, related impairments and expenses	29	(546)	147	272
Profit from operations		16,113	15,996	12,554
Financial expenses		(1,510)	(1,567)	(1,560)
Financial income		446	322	143
Net finance costs	20	(1,064)	(1,245)	(1,417)
Profit before taxation		15,049	14,751	11,137
Income tax expense		(5,335)	(6,879)	(4,276)
Royalty-related taxation (net of income tax benefit)		(194)	(128)	(167)
Total taxation expense	6	(5,529)	(7,007)	(4,443)
Profit after taxation from Continuing operations		9,520	7,744	6,694
Discontinued operations				
Loss after taxation from Discontinued operations	27	(335)	(2,921)	(472)
Profit after taxation from Continuing and Discontinued operations		9,185	4,823	6,222
Attributable to non-controlling interests		879	1,118	332
Attributable to BHP shareholders		8,306	3,705	5,890
Basic earnings per ordinary share (cents)	7	160.3	69.6	110.7
Diluted earnings per ordinary share (cents)	7	159.9	69.4	110.4
Basic earnings from Continuing operations per ordinary share (cents)	7	166.9	125.0	119.8
Diluted earnings from Continuing operations per ordinary share (cents)	7	166.5	124.6	119.5

The accompanying notes form part of these Financial Statements.

5.1.2 Consolidated Statement of Comprehensive Income for the year ended 30 June 2019

	Notes	2019 US\$M	2018 US\$M	2017 US\$M
Profit after taxation from Continuing and Discontinued operations		9,185	4,823	6,222
Other comprehensive income				
<u>Items that may be reclassified subsequently to the income statement:</u>				
Net valuation gains/(losses) on investments taken to equity		–	11	(1)
Hedges:				
(Losses)/gains taken to equity		(327)	82	351
Losses/(gains) transferred to the income statement		299	(215)	(432)
Exchange fluctuations on translation of foreign operations taken to equity		1	2	(1)
Exchange fluctuations on translation of foreign operations transferred to income statement		(6)	–	–
Tax recognised within other comprehensive income	6	8	36	24
Total items that may be reclassified subsequently to the income statement		(25)	(84)	(59)
<u>Items that will not be reclassified to the income statement:</u>				
Re-measurement (losses)/gains on pension and medical schemes		(20)	1	36
Equity investments held at fair value		1	–	–
Tax recognised within other comprehensive income	6	19	(14)	(26)
Total items that will not be reclassified to the income statement		–	(13)	10
Total other comprehensive loss		(25)	(97)	(49)
Total comprehensive income		9,160	4,726	6,173
Attributable to non-controlling interests		878	1,118	332
Attributable to BHP shareholders		8,282	3,608	5,841

The accompanying notes form part of these Financial Statements.

5.1.3 Consolidated Balance Sheet as at 30 June 2019

	Notes	2019 US\$M	2018 US\$M
ASSETS			
Current assets			
Cash and cash equivalents	19	15,613	15,871
Trade and other receivables	8	3,462	3,096
Other financial assets	21	87	200
Inventories	10	3,840	3,764
Assets held for sale		—	11,939
Current tax assets		124	106
Other		247	154
Total current assets		23,373	35,130
Non-current assets			
Trade and other receivables	8	313	180
Other financial assets	21	1,303	999
Inventories	10	768	1,141
Property, plant and equipment	11	68,041	67,182
Intangible assets	12	675	778
Investments accounted for using the equity method	29	2,569	2,473
Deferred tax assets	13	3,764	4,041
Other		55	69
Total non-current assets		77,488	76,863
Total assets		100,861	111,993
LIABILITIES			
Current liabilities			
Trade and other payables	9	6,717	5,977
Interest bearing liabilities	19	1,661	2,736
Liabilities held for sale		—	1,222
Other financial liabilities	21	127	138
Current tax payable		1,546	1,773
Provisions	4, 14, 18, 24	2,175	2,025
Deferred income		113	118
Total current liabilities		12,339	13,989
Non-current liabilities			
Trade and other payables	9	5	3
Interest bearing liabilities	19	23,167	24,069
Other financial liabilities	21	896	1,093
Non-current tax payable		187	137
Deferred tax liabilities	13	3,234	3,472
Provisions	4, 14, 18, 24	8,928	8,223
Deferred income		281	337
Total non-current liabilities		36,698	37,334
Total liabilities		49,037	51,323
Net assets		51,824	60,670
EQUITY			
Share capital – BHP Group Limited		1,111	1,186
Share capital – BHP Group Plc		1,057	1,057
Treasury shares		(32)	(5)
Reserves	16	2,285	2,290
Retained earnings		42,819	51,064
Total equity attributable to BHP shareholders		47,240	55,592
Non-controlling interests	16	4,584	5,078
Total equity		51,824	60,670

The accompanying notes form part of these Financial Statements.

The Financial Statements were approved by the Board of Directors on 5 September 2019 and signed on its behalf by:

Ken Mackenzie
Chairman

Andrew Mackenzie
Chief Executive Officer

5.1.4 Consolidated Cash Flow Statement for the year ended 30 June 2019

	Notes	2019 US\$M	2018 US\$M	2017 US\$M
Operating activities				
Profit before taxation		15,049	14,751	11,137
Adjustments for:				
Depreciation and amortisation expense		5,829	6,288	6,184
Impairments of property, plant and equipment, financial assets and intangibles		264	333	193
Net finance costs		1,064	1,245	1,417
Loss/(profit) from equity accounted investments, related impairments and expenses		546	(147)	(272)
Other		308	597	194
Changes in assets and liabilities:				
Trade and other receivables		(211)	(662)	267
Inventories		298	(182)	(687)
Trade and other payables		406	719	512
Provisions and other assets and liabilities		(125)	7	(333)
Cash generated from operations		23,428	22,949	18,612
Dividends received		516	709	636
Interest received		443	290	164
Interest paid		(1,346)	(1,177)	(1,148)
Proceeds/(settlements) of cash management related instruments		296	(292)	(140)
Net income tax and royalty-related taxation refunded		59	17	337
Net income tax and royalty-related taxation paid		(5,999)	(4,935)	(2,585)
Net operating cash flows from Continuing operations		17,397	17,561	15,876
Net operating cash flows from Discontinued operations	27	474	900	928
Net operating cash flows		17,871	18,461	16,804
Investing activities				
Purchases of property, plant and equipment		(6,250)	(4,979)	(3,697)
Exploration expenditure		(873)	(874)	(966)
Exploration expenditure expensed and included in operating cash flows		516	641	610
Net investment and funding of equity accounted investments		(630)	204	(234)
Proceeds from sale of assets		145	89	529
Proceeds from divestment of subsidiaries, operations and joint operations, net of their cash		4	–	187
Other investing		(289)	(141)	(153)
Net investing cash flows from Continuing operations		(7,377)	(5,060)	(3,724)
Net investing cash flows from Discontinued operations	27	(443)	(861)	(437)
Proceeds from divestment of Onshore US, net of its cash	27	10,427	–	–
Net investing cash flows		2,607	(5,921)	(4,161)
Financing activities				
Proceeds from interest bearing liabilities		250	528	1,577
(Settlements)/proceeds of debt related instruments		(160)	(218)	36
Repayment of interest bearing liabilities		(2,604)	(4,188)	(7,114)
Purchase of shares by Employee Share Ownership Plan (ESOP) Trusts		(188)	(171)	(108)
Share buy-back – BHP Group Limited		(5,220)	–	–
Dividends paid		(11,395)	(5,220)	(2,921)
Dividends paid to non-controlling interests		(1,198)	(1,582)	(575)
Net financing cash flows from Continuing operations		(20,515)	(10,851)	(9,105)
Net financing cash flows from Discontinued operations	27	(13)	(40)	(28)
Net financing cash flows		(20,528)	(10,891)	(9,133)
Net (decrease)/increase in cash and cash equivalents from Continuing operations		(10,495)	1,650	3,047
Net increase/(decrease) in cash and cash equivalents from Discontinued operations		18	(1)	463
Proceeds from divestment of Onshore US, net of its cash		10,427	–	–
Cash and cash equivalents, net of overdrafts, at the beginning of the financial year		15,813	14,108	10,276
Foreign currency exchange rate changes on cash and cash equivalents		(170)	56	322
Cash and cash equivalents, net of overdrafts, at the end of the financial year	19	15,593	15,813	14,108

The accompanying notes form part of these Financial Statements.

5.1.5 Consolidated Statement of Changes in Equity for the year ended 30 June 2019

US\$M	Attributable to BHP shareholders								
	Share capital		Treasury shares			Reserves	Retained earnings	Total equity attributable to BHP shareholders	Non-controlling interests
	BHP Group Limited	BHP Group Plc	BHP Group Limited	BHP Group Plc					
Balance as at 1 July 2018	1,186	1,057	(5)	-	2,290	51,064	55,592	5,078	60,670
Impact of adopting IFRS 9	-	-	-	-	-	(7)	(7)	-	(7)
Balance as at 1 July 2018	1,186	1,057	(5)	-	2,290	51,057	55,585	5,078	60,663
Total comprehensive income	-	-	-	-	(24)	8,306	8,282	878	9,160
Transactions with owners:									
Purchase of shares by ESOP Trusts	-	-	(182)	(6)	-	-	(188)	-	(188)
Employee share awards exercised net of employee contributions	-	-	155	6	(100)	(61)	-	-	-
Employee share awards forfeited	-	-	-	-	(18)	18	-	-	-
Accrued employee entitlement for unexercised awards	-	-	-	-	138	-	138	-	138
Dividends	-	-	-	-	-	(11,302)	(11,302)	(1,205)	(12,507)
BHP Group Limited shares bought back and cancelled	(75)	-	-	-	-	(5,199)	(5,274)	-	(5,274)
Divestment of subsidiaries, operations and joint operations	-	-	-	-	-	-	-	(168)	(168)
Transfer to non-controlling interests	-	-	-	-	(1)	-	(1)	1	-
Balance as at 30 June 2019	1,111	1,057	(32)	-	2,285	42,819	47,240	4,584	51,824
Balance as at 1 July 2017	1,186	1,057	(2)	(1)	2,400	52,618	57,258	5,468	62,726
Total comprehensive income	-	-	-	-	(87)	3,695	3,608	1,118	4,726
Transactions with owners:									
Purchase of shares by ESOP Trusts	-	-	(159)	(12)	-	-	(171)	-	(171)
Employee share awards exercised net of employee contributions	-	-	156	13	(139)	(30)	-	-	-
Employee share awards forfeited	-	-	-	-	(2)	2	-	-	-
Accrued employee entitlement for unexercised awards	-	-	-	-	123	-	123	-	123
Distribution to non-controlling interests	-	-	-	-	-	-	-	(14)	(14)
Dividends	-	-	-	-	-	(5,221)	(5,221)	(1,499)	(6,720)
Transfer to non-controlling interests	-	-	-	-	(5)	-	(5)	5	-
Balance as at 30 June 2018	1,186	1,057	(5)	-	2,290	51,064	55,592	5,078	60,670
Balance as at 1 July 2016	1,186	1,057	(7)	(26)	2,538	49,542	54,290	5,781	60,071
Total comprehensive income	-	-	-	-	(59)	5,900	5,841	332	6,173
Transactions with owners:									
Purchase of shares by ESOP Trusts	-	-	(105)	(3)	-	-	(108)	-	(108)
Employee share awards exercised net of employee contributions	-	-	110	28	(167)	29	-	-	-
Employee share awards forfeited	-	-	-	-	(18)	18	-	-	-
Accrued employee entitlement for unexercised awards	-	-	-	-	106	-	106	-	106
Distribution to non-controlling interests	-	-	-	-	-	-	-	(16)	(16)
Dividends	-	-	-	-	-	(2,871)	(2,871)	(601)	(3,472)
Divestment of subsidiaries, operations and joint operations	-	-	-	-	-	-	-	(28)	(28)
Balance as at 30 June 2017	1,186	1,057	(2)	(1)	2,400	52,618	57,258	5,468	62,726

The accompanying notes form part of these Financial Statements.

Basis of preparation

The Group's Financial Statements as at and for the year ended 30 June 2019:

- is a consolidated general purpose financial report;
- has been prepared in accordance with the requirements of the:
 - Australian Corporations Act 2001;
 - UK Companies Act 2006;
- has been prepared in accordance with accounting standards and interpretations collectively referred to as 'IFRS' in this report, which encompass the:
 - International Financial Reporting Standards and interpretations as issued by the International Accounting Standards Board;
 - Australian Accounting Standards, being Australian equivalents to International Financial Reporting Standards and interpretations as issued by the Australian Accounting Standards Board (AASB);
 - International Financial Reporting Standards and interpretations adopted by the European Union (EU);
- is prepared on a going concern basis;
- measures items on the basis of historical cost principles, except for the following items:
 - derivative financial instruments and certain other financial assets and liabilities, which are carried at fair value;
 - non-current assets or disposal groups that are classified as held-for-sale or held-for-distribution, which are measured at the lower of carrying amount and fair value less costs to sell;
- includes significant accounting policies in the notes to the Financial Statements that summarise the recognition and measurement basis used and are relevant to an understanding of the Financial Statements;
- includes selected financial information of the BHP Group Limited parent entity in note 36 'BHP Group Limited'. Financial Statements of the BHP Group Plc parent entity are presented in section 5.2 'BHP Group Plc';
- applies a presentation currency of US dollars, consistent with the predominant functional currency of the Group's operations. Amounts are rounded to the nearest million dollars, unless otherwise stated, in accordance with ASIC (Rounding in Financial/Directors' Reports) Instrument 2016/191;
- presents reclassified comparative information where required for consistency with the current year's presentation;
- adopts all new and amended standards and interpretations under IFRS issued by the relevant bodies (listed above), that are mandatory for application beginning on or after 1 July 2018. The accounting policies have been consistently applied in all prior years presented with the exception of the new standards adopted from 1 July 2018. Refer to note 38 'New and amended accounting standards and interpretations' for the impact on the Financial Statements;
- has not early adopted any standards and interpretations that have been issued or amended but are not yet effective.

The accounting policies are consistently applied by all entities included in the Financial Statements.

Principles of consolidation

In preparing the Financial Statements the effects of all intragroup balances and transactions have been eliminated.

A list of significant entities in the Group, including subsidiaries, joint arrangements and associates at year-end is contained in note 28 'Subsidiaries', note 29 'Investments accounted for using the equity method' and note 30 'Interests in joint operations'.

Subsidiaries: The Financial Statements of the Group include the consolidation of BHP Group Limited, BHP Group Plc and their respective subsidiaries, being the entities controlled by the parent entities during the year. Control exists where the Group:

- is exposed to, or has rights to, variable returns from its involvement with the entity;
- has the ability to affect those returns through its power to direct the activities of the entity.

The ability to approve the operating and capital budget of a subsidiary and the ability to appoint key management personnel are decisions that demonstrate that the Group has the existing rights to direct the relevant activities of a subsidiary. Where the Group's interest is less than 100 per cent, the interest attributable to outside shareholders is reflected in non-controlling interests. The financial statements of subsidiaries are prepared for the same reporting period as the Group. The acquisition method of accounting is used to account for the Group's business combinations.

Joint arrangements: The Group undertakes a number of business activities through joint arrangements, which exist when two or more parties have joint control. Joint arrangements are classified as either joint operations or joint ventures, based on the contractual rights and obligations between the parties to the arrangement:

- **Joint operations:** A joint operation is an arrangement in which the Group shares joint control, primarily via contractual arrangements with other parties. In a joint operation, the Group has rights to the assets and obligations for the liabilities relating to the arrangement. This includes situations where the parties benefit from the joint activity through a share of the output, rather than by receiving a share of the results of trading. In relation to the Group's interest in a joint operation, the Group recognises: its assets and liabilities, including its share of any assets and liabilities held or incurred jointly; revenue from the sale of its share of the output and its share of any revenue generated from the sale of the output by the joint operation; and its expenses including its share of expenses. All such amounts are measured in accordance with the terms of the arrangement, which is usually in proportion to the Group's interest in the joint operation.

- **Joint ventures:** A joint venture is a joint arrangement in which the parties that share joint control have rights to the net assets of the arrangement. A separate vehicle, not the parties, will have the rights to the assets and obligations to the liabilities relating to the arrangement. More than an insignificant share of output from a joint venture is sold to third parties, which indicates the joint venture is not dependent on the parties to the arrangement for funding, nor do the parties have an obligation for the liabilities of the arrangement. Joint ventures are accounted for using the equity accounting method.

Associates: The Group accounts for investments in associates using the equity accounting method. An entity is considered an associate where the Group is deemed to have significant influence but not control or joint control. Significant influence is presumed to exist where the Group:

- has over 20 per cent but less than 50 per cent of the voting rights of an entity, unless it can be clearly demonstrated that this is not the case; or
- holds less than 20 per cent of the voting rights of an entity; however, has the power to participate in the financial and operating policy decisions affecting the entity.

The Group uses the term 'equity accounted investments' to refer to joint ventures and associates collectively.

Foreign currencies

Transactions related to the Group's worldwide operations are conducted in a number of foreign currencies. The majority of the subsidiaries, joint arrangements and associates within each of the operations have assessed US dollars as the functional currency, however, some subsidiaries, joint arrangements and associates have functional currencies other than US dollars.

Transactions and monetary items denominated in foreign currencies are translated into US dollars as follows:

Foreign currency item	Applicable exchange rate
Transactions	Date of underlying transaction
Monetary assets and liabilities	Period-end rate

Foreign exchange gains and losses resulting from translation are recognised in the income statement, except for qualifying cash flow hedges (which are deferred to equity) and foreign exchange gains or losses on foreign currency provisions for site closure and rehabilitation costs (which are capitalised in property, plant and equipment for operating sites).

On consolidation, the assets, liabilities, income and expenses of non-US dollar denominated functional currency entities are translated into US dollars using the following applicable exchange rates:

Foreign currency amount	Applicable exchange rate
Income and expenses	Date of underlying transaction
Assets and liabilities	Period-end rate
Equity	Historical rate
Reserves	Historical rate

Foreign exchange differences resulting from translation are initially recognised in the foreign currency translation reserve and subsequently transferred to the income statement on disposal of a foreign operation.

Critical accounting policies, judgements and estimates

The Group has identified a number of critical accounting policies under which significant judgements, estimates and assumptions are made. All judgements, estimates and assumptions are based on most current facts and circumstances and are reassessed on an ongoing basis. Actual results may differ for these estimates under different assumptions and conditions. This may materially affect financial results and the carrying amount of assets and liabilities to be reported in the next and future periods.

Significant judgements and key estimates and assumptions made in applying these critical accounting policies are embedded within the following notes:

Note	
4	Significant events – Samarco dam failure
6	Taxation
10	Inventories
11 and 12	Exploration and evaluation
11	Development expenditure
11	Overburden removal costs
11	Depreciation of property, plant and equipment
11 and 12	Impairments of non-current assets – recoverable amount
14	Closure and rehabilitation provisions

Reserve estimates

Reserves are estimates of the amount of product that can be economically and legally extracted from the Group's properties. In order to estimate reserves, estimates are required for a range of geological, technical and economic factors, including quantities, grades, production techniques, recovery rates, production costs, transport costs, commodity demand, commodity prices and exchange rates.

Estimating the quantity and/or grade of reserves requires the size, shape and depth of ore bodies or fields to be determined by analysing geological data such as drilling samples. This process may require complex and difficult geological judgements to interpret the data.

Additional information on the Group's mineral and oil and gas reserves and resources can be viewed within section 6.3.

Section 6.3 is unaudited and does not form part of these Financial Statements.

Reserve impact on financial reporting

Estimates of reserves may change from period-to-period as the economic assumptions used to estimate reserves change and additional geological data is generated during the course of operations. Changes in reserves may affect the Group's financial results and financial position in a number of ways, including:

- asset carrying values may be affected due to changes in estimated future production levels;
- depreciation, depletion and amortisation charged in the income statement may change where such charges are determined on the units of production basis, or where the useful economic lives of assets change;
- overburden removal costs recorded on the balance sheet or charged to the income statement may change due to changes in stripping ratios or the units of production basis of depreciation;
- decommissioning, site restoration and environmental provisions may change where changes in estimated reserves affect expectations about the timing or cost of these activities;
- the carrying amount of deferred tax assets may change due to changes in estimates of the likely recovery of the tax benefits.

5.1.6 Notes to the Financial Statements

Performance

1 Segment reporting

Reportable segments

The Group operated four reportable segments during FY2019, which are aligned with the commodities that are extracted and marketed and reflect the structure used by the Group's management to assess the performance of the Group.

Reportable segment	Principal activities
Petroleum	Exploration, development and production of oil and gas
Copper	Mining of copper, silver, zinc, molybdenum, uranium and gold
Iron Ore	Mining of iron ore
Coal	Mining of metallurgical coal and energy coal

Unless otherwise noted, the segment reporting information excludes Discontinued operations, being the Petroleum Onshore US operations comprising the Eagle Ford, Haynesville, Permian and Fayetteville oil and gas assets.

Group and unallocated items includes functions and other unallocated operations, including Potash, Nickel West and consolidation adjustments. Revenue not attributable to reportable segments comprises the sale of freight and fuel to third parties, as well as revenues from unallocated operations. Exploration and technology activities are recognised within relevant segments.

Year ended 30 June 2019 US\$M	Petroleum	Copper	Iron Ore	Coal	Group and unallocated items/ eliminations	Group total
Revenue	5,853	10,838	17,251	9,121	1,225	44,288
Inter-segment revenue	77	–	4	–	(81)	–
Total revenue	5,930	10,838	17,255	9,121	1,144	44,288
Underlying EBITDA	3,801	4,550	11,129	4,067	(389)	23,158
Depreciation and amortisation ⁽¹⁾	(1,560)	(1,835)	(1,653)	(632)	(149)	(5,829)
Impairment losses ⁽²⁾	(21)	(128)	(79)	(35)	(1)	(264)
Underlying EBIT	2,220	2,587	9,397	3,400	(539)	17,065
Exceptional items ⁽³⁾	–	–	(971)	–	19	(952)
Net finance costs						(1,064)
Profit before taxation						15,049
Capital expenditure (cash basis)	645	2,735	1,611	655	604	6,250
(Loss)/profit from equity accounted investments, related impairments and expenses	(2)	303	(945)	103	(5)	(546)
Investments accounted for using the equity method	239	1,472	–	853	5	2,569
Total assets	12,465	27,428	22,592	12,124	26,252	100,861
Total liabilities	5,237	3,340	5,106	2,450	32,904	49,037

1 Segment reporting continued

Year ended 30 June 2018 US\$M	Petroleum	Copper	Iron Ore	Coal	Group and unallocated items/eliminations ⁽⁴⁾	Group total
Revenue	5,333	12,781	14,797	8,889	1,329	43,129
Inter-segment revenue	75	–	13	–	(88)	–
Total revenue	5,408	12,781	14,810	8,889	1,241	43,129
Underlying EBITDA	3,341	6,522	8,930	4,397	(7)	23,183
Depreciation and amortisation ⁽¹⁾	(1,719)	(1,920)	(1,721)	(686)	(242)	(6,288)
Impairment losses ⁽²⁾	(76)	(213)	(14)	(29)	(1)	(333)
Underlying EBIT	1,546	4,389	7,195	3,682	(250)	16,562
Exceptional items ⁽³⁾	–	–	(539)	–	(27)	(566)
Net finance costs						(1,245)
Profit before taxation						14,751
Capital expenditure (cash basis)	656	2,428	1,074	409	412	4,979
(Loss)/profit from equity accounted investments, related impairments and expenses	(4)	467	(509)	192	1	147
Investments accounted for using the equity method	249	1,335	–	883	6	2,473
Total assets	12,938	26,824	22,208	12,257	37,766	111,993
Total liabilities	4,886	3,145	3,888	2,404	37,000	51,323
Year ended 30 June 2017 US\$M	Petroleum	Copper	Iron Ore	Coal	Group and unallocated items/eliminations ⁽⁴⁾	Group total
Revenue	4,639	7,942	14,606	7,578	975	35,740
Inter-segment revenue	83	–	18	–	(101)	–
Total revenue	4,722	7,942	14,624	7,578	874	35,740
Underlying EBITDA	3,117	3,545	9,077	3,784	(173)	19,350
Depreciation and amortisation ⁽¹⁾	(1,648)	(1,525)	(1,828)	(719)	(252)	(5,972)
Impairment losses ⁽²⁾	(102)	(14)	(52)	(15)	(5)	(188)
Underlying EBIT	1,367	2,006	7,197	3,050	(430)	13,190
Exceptional items ⁽³⁾	–	(546)	(203)	164	(51)	(636)
Net finance costs						(1,417)
Profit before taxation						11,137
Capital expenditure (cash basis)	917	1,484	805	246	245	3,697
(Loss)/profit from equity accounted investments, related impairments and expenses	(3)	295	(172)	152	–	272
Investments accounted for using the equity method	264	1,306	–	873	5	2,448
Total assets	13,726	26,743	22,781	11,996	41,760	117,006
Total liabilities	4,715	2,643	3,606	1,860	41,456	54,280

(1) Depreciation and amortisation excludes exceptional items of US\$ nil (FY2018: US\$ nil; FY2017: US\$212 million).

(2) Impairment losses excludes exceptional items of US\$ nil (FY2018: US\$ nil; FY2017: US\$5 million).

(3) Exceptional items reported in Group and unallocated include Samarco dam failure costs of US\$(31) million (FY2018: US\$(27) million; FY2017: US\$(51) million) and Samarco related other income of US\$50 million (FY2018: US\$ nil; FY2017: US\$ nil). Refer to note 3 'Exceptional items' for further information.

(4) Total assets and total liabilities include balances for the years ended 30 June 2018 and 2017 relating to Onshore US assets.

1 Segment reporting continued

Geographical information

	Revenue by location of customer		
	2019 US\$M	2018 US\$M	2017 US\$M
Australia	2,568	2,304	2,037
Europe	1,875	1,886	1,641
China	24,274	22,660	18,644
Japan	4,193	4,628	3,036
India	2,479	2,439	1,891
South Korea	2,550	2,588	2,271
Rest of Asia	2,940	2,620	3,152
North America	2,442	2,715	2,233
South America	662	1,054	649
Rest of world	305	235	186
	44,288	43,129	35,740
<hr/>			
Non-current assets by location of assets			
	2019 US\$M	2018 US\$M	2017 US\$M
Australia	45,013	45,157	46,949
North America ⁽¹⁾	8,633	8,246	22,860
South America	18,404	18,267	18,899
Rest of world	371	154	173
Unallocated assets ⁽²⁾	5,067	5,039	7,069
	77,488	76,863	95,950

(1) Balance for the year ended 30 June 2017 includes non-current assets relating to Onshore US assets.

(2) Unallocated assets comprise deferred tax assets and other financial assets.

Underlying EBITDA

Underlying EBITDA is earnings before net finance costs, depreciation, amortisation and impairments, taxation expense, Discontinued operations and any exceptional items. Underlying EBITDA includes BHP's share of profit/(loss) from investments accounted for using the equity method including net finance costs, depreciation, amortisation and impairments and taxation expense.

Exceptional items are excluded from Underlying EBITDA in order to enhance the comparability of such measures from period-to-period and provide investors with further clarity in order to assess the underlying performance of the Group's operations. Management monitors exceptional items separately. Refer to note 3 'Exceptional items' for additional detail.

Segment assets and liabilities

Total segment assets and liabilities of reportable segments represents operating assets and operating liabilities, including the carrying amount of equity accounted investments and predominantly excludes cash balances, loans to associates, interest bearing liabilities and deferred tax balances. The carrying value of investments accounted for using the equity method represents the balance of the Group's investment in equity accounted investments, with no adjustment for any cash balances, interest bearing liabilities or deferred tax balances of the equity accounted investment.

2 Revenue

Revenue by segment and asset

	2019 US\$M	2018 US\$M	2017 US\$M
Australia Production Unit	507	568	601
Bass Strait	1,237	1,285	1,096
North West Shelf	1,657	1,400	1,190
Atlantis	979	833	677
Shenzi	540	576	509
Mad Dog	319	229	202
Trinidad/Tobago	287	161	110
Algeria	258	234	212
Third party products	10	12	9
Other	136	110	116
Total Petroleum⁽¹⁾	5,930	5,408	4,722
Escondida	6,876	8,346	4,242
Pampa Norte	1,502	1,831	1,401
Olympic Dam	1,351	1,255	1,287
Third party products	1,109	1,349	1,012
Total Copper⁽²⁾	10,838	12,781	7,942
Western Australia Iron Ore	17,066	14,596	14,395
Third party products	32	54	81
Other	157	160	148
Total Iron Ore	17,255	14,810	14,624
Queensland Coal	7,679	7,388	6,316
New South Wales Energy Coal	1,421	1,499	1,251
Third party products	19	2	-
Other	2	-	11
Total Coal⁽³⁾	9,121	8,889	7,578
Group and unallocated items ⁽⁴⁾	1,225	1,329	975
Inter-segment adjustment	(81)	(88)	(101)
Total revenue	44,288	43,129	35,740

(1) Total Petroleum revenue includes: crude oil US\$3,171 million (2018: US\$2,933 million; 2017: US\$2,528 million), natural gas US\$1,259 million (2018: US\$1,124 million; 2017: US\$1,029 million), LNG US\$1,179 million (2018: US\$920 million; 2017: US\$858 million), NGL US\$263 million (2018: US\$294 million; 2017: US\$265 million) and other US\$58 million (2018: US\$137 million; 2017: US\$42 million).

(2) Total Copper revenue includes: copper US\$10,215 million (2018: US\$12,059 million; 2017: US\$7,323 million) and other US\$623 million (2018: US\$722 million; 2017: US\$619 million). Other consists of silver, zinc, molybdenum, uranium and gold.

(3) Total Coal revenue includes: metallurgical coal US\$7,568 million (2018: US\$7,331 million; 2017: US\$6,266 million) and thermal coal US\$1,553 million (2018: US\$1,558 million; 2017: US\$1,312 million).

(4) Group and unallocated items revenue includes: Nickel West US\$1,193 million (2018: US\$1,297 million; 2017: US\$950 million) and other revenue US\$32 million (2018: US\$32 million; 2017: US\$25 million).

Revenue consists of revenue from contracts with customers of US\$44,361 million (2018: US\$42,748 million; 2017: US\$35,036 million) and other revenue of US\$(73) million (2018: US\$381 million; 2017: US\$704 million).

Recognition and measurement

The Group generates revenue from the production and sale of commodities. Revenue is recognised when or as control of the promised goods or services passes to the customer. In most instances, control passes when the goods are delivered to a destination specified by the customer, typically on board the customer's appointed vessel. Revenue from the provision of services is recognised over time, but does not represent a significant proportion of total revenue and is aggregated with the respective asset and product revenue for disclosure purposes. The amount of revenue recognised reflects the consideration to which the Group expects to be entitled in exchange for the goods or services.

Where the Group's sales are provisionally priced, the final price depends on future index prices. The amount of revenue initially recognised is based on the relevant forward market price. Adjustments between the provisional and final price are accounted for under IFRS 9/AASB 9 'Financial Instruments' (IFRS 9) and separately recorded as other revenue. The period between provisional pricing and final invoicing is typically between 60 and 120 days.

Revenue from concentrate is net of treatment costs and refining charges.

Revenue from the sale of significant by-products is included within revenue. Where a by-product is not significant, revenue is credited against costs.

The Group applies the practical expedient to not adjust the expected consideration for the effects of the time value of money if the period between the delivery and when the customer pays for the promised good or service is one year or less.

For commodity sales contracts, each individual metric unit is a separate performance obligation. Where the Group has contracts with unfulfilled performance obligations at period end, it is required to disclose the transaction price allocated to these performance obligations. The Group applies the practical expedient to not disclose this information for contracts with an expected duration of one year or less. The Group has a number of long-term contracts which are primarily priced on variable terms, based on quoted index prices near the time of delivery, and at times include fixed pricing components. Fixed pricing components, such as premiums and other charges, do not represent a significant proportion of the total price. Any estimate of the future transaction price would exclude estimated amounts of variable consideration. The amount of future consideration from fixed pricing components has not been disclosed, as the Group does not consider this relevant or useful information.

3 Exceptional items

Exceptional items are those gains or losses where their nature, including the expected frequency of the events giving rise to them, and amount is considered material to the Financial Statements. Such items included within the Group's profit from Continuing operations for the year are detailed below. Exceptional items attributable to Discontinued operations are detailed in note 27 'Discontinued operations':

Year ended 30 June 2019	Gross US\$M	Tax US\$M	Net US\$M
Exceptional items by category			
Samarco dam failure	(1,060)	-	(1,060)
Global taxation matters	-	242	242
Total	(1,060)	242	(818)
Attributable to non-controlling interests	-	-	-
Attributable to BHP shareholders	(1,060)	242	(818)

Samarco Mineração S.A. (Samarco) dam failure

The FY2019 exceptional loss of US\$1,060 million related to the Samarco dam failure in November 2015 and comprises the following:

Year ended 30 June 2019	US\$M
Other income	50
Expenses excluding net finance costs:	
Costs incurred directly by BHP Billiton Brasil Ltda and other BHP entities in relation to the Samarco dam failure	(57)
Loss from equity accounted investments, related impairments and expenses:	
Share of loss relating to the Samarco dam failure	(96)
Samarco Germano dam decommissioning	(263)
Samarco dam failure provision	(586)
Net finance costs	(108)
Total ⁽¹⁾	(1,060)

(1) Refer to note 4 'Significant events – Samarco dam failure' for further information.

Global taxation matters

Global taxation matters includes amounts released from provisions for tax matters and other claims resolved during the period.

Year ended 30 June 2018	Gross US\$M	Tax US\$M	Net US\$M
Exceptional items by category			
Samarco dam failure	(650)	-	(650)
US tax reform	-	(2,320)	(2,320)
Total	(650)	(2,320)	(2,970)
Attributable to non-controlling interests	-	-	-
Attributable to BHP shareholders	(650)	(2,320)	(2,970)

Samarco Mineração S.A. (Samarco) dam failure

The FY2018 exceptional loss of US\$650 million related to the Samarco dam failure in November 2015 and comprises the following:

Year ended 30 June 2018	US\$M
Expenses excluding net finance costs:	
Costs incurred directly by BHP Billiton Brasil Ltda and other BHP entities in relation to the Samarco dam failure	(57)
Loss from equity accounted investments, related impairments and expenses:	
Share of loss relating to the Samarco dam failure	(80)
Samarco dam failure provision	(429)
Net finance costs	(84)
Total ⁽¹⁾	(650)

(1) Refer to note 4 'Significant events – Samarco dam failure' for further information.

3 Exceptional items continued

US tax reform

On 22 December 2017, the US President signed the Tax Cuts and Jobs Act (the TCJA) into law. The TCJA (effective 1 January 2018) includes a broad range of tax reforms affecting the Group, including, but not limited to, a reduction in the US corporate tax rate from 35 per cent to 21 per cent and changes to international tax provisions.

Following enactment of the TCJA, the Group has recognised an exceptional income tax charge of US\$2,320 million, primarily relating to the reduced US corporate income tax rate, which resulted in re-measurement of the Group's deferred tax position and impairment of foreign tax credits due to reduced forecast utilisation, together with tax charges on the deemed repatriation of accumulated earnings of non-US subsidiaries.

Year ended 30 June 2018	US\$M
Re-measurement of deferred taxes as a result of reduced US corporate income tax rate	(1,390)
Impairment of foreign tax credits	(834)
Net impact of tax charges on deemed repatriation of accumulated earnings of non-US subsidiaries	(194)
Recognition of Alternative Minimum Tax Credits	95
Other impacts	3
Total ⁽¹⁾	(2,320)

(1) Refer to note 6 'Income tax expense' for further information.

Year ended 30 June 2017	Gross US\$M	Tax US\$M	Net US\$M
Exceptional items by category			
Samarco dam failure	(381)	-	(381)
Escondida industrial action	(546)	179	(367)
Cancellation of the Caroona exploration licence	164	(49)	115
Withholding tax on Chilean dividends	-	(373)	(373)
Total	(763)	(243)	(1,006)
Attributable to non-controlling interests – Escondida industrial action	(232)	68	(164)
Attributable to BHP shareholders	(531)	(311)	(842)

Samarco Mineração S.A. (Samarco) dam failure

The FY2017 exceptional loss of US\$381 million related to the Samarco dam failure in November 2015 and comprises the following:

Year ended 30 June 2017	US\$M
Expenses excluding net finance costs:	
Costs incurred directly by BHP Billiton Brasil Ltda and other BHP entities in relation to the Samarco dam failure	(82)
Loss from equity accounted investments, related impairments and expenses:	
Share of loss relating to the Samarco dam failure	(134)
Samarco dam failure provision	(38)
Net finance costs	(127)
Total ⁽¹⁾	(381)

(1) Refer to note 4 'Significant events – Samarco dam failure' for further information.

Escondida industrial action

Our Escondida asset in Chile began negotiations with Union N°1 on a new collective agreement in December 2016, as the existing agreement was expiring on 31 January 2017. Negotiations, including government-led mediation, failed and the union commenced strike action on 9 February 2017 resulting in a total shutdown of operations, including work on the expansion of key projects. On 24 March 2017, following a 44-day strike and a revised offer being presented to union members, Union N°1 exercised its rights under Article 369 of the Chilean Labour Code to extend the existing collective agreement for 18 months.

Industrial action through this period resulted in a reduction to FY2017 copper production of 214 kt and gave rise to idle capacity charges of US\$546 million, including depreciation of US\$212 million.

Cancellation of the Caroona exploration licence

Following the Group's agreement with the New South Wales Government in August 2016 to cancel the exploration licence of the Caroona Coal project, a net gain of US\$115 million (after tax expense) has been recognised.

Withholding tax on Chilean dividends

BHP Billiton Chile Inversiones Limitada paid a one-off US\$2.3 billion dividend to its parent in April 2017 while a concessional tax rate was available, resulting in withholding tax of US\$373 million.

4 Significant events – Samarco dam failure

On 5 November 2015, the Samarco Mineração S.A. (Samarco) iron ore operation in Minas Gerais, Brazil, experienced a tailings dam failure that resulted in a release of mine tailings, flooding the communities of Bento Rodrigues, Gesteira and Paracatu and impacting other communities downstream (the Samarco dam failure). Refer to section 1.7 'Samarco'.

Samarco is jointly owned by BHP Billiton Brasil Ltda (BHP Billiton Brasil) and Vale S.A. (Vale). BHP Billiton Brasil's 50 per cent interest is accounted for as an equity accounted joint venture investment. BHP Billiton Brasil does not separately recognise its share of the underlying assets and liabilities of Samarco, but instead records the investment as one line on the balance sheet. Each period, BHP Billiton Brasil recognises its 50 per cent share of Samarco's profit or loss and adjusts the carrying value of the investment in Samarco accordingly. Such adjustment continues until the investment carrying value is reduced to US\$ nil, with any additional share of Samarco losses only recognised to the extent that BHP Billiton Brasil has an obligation to fund the losses, or when future investment funding is provided. After applying equity accounting, any remaining carrying value of the investment is tested for impairment.

Any charges relating to the Samarco dam failure incurred directly by BHP Billiton Brasil or other BHP entities are recognised 100 per cent in the Group's results.

The financial impacts of the Samarco dam failure on the Group's income statement, balance sheet and cash flow statement for the year ended 30 June 2019 are shown in the table below and have been treated as an exceptional item.

Financial impacts of Samarco dam failure	2019 US\$M	2018 US\$M	2017 US\$M
Income statement			
Other income ⁽¹⁾	50	–	–
Expenses excluding net finance costs:			
Costs incurred directly by BHP Billiton Brasil and other BHP entities in relation to the Samarco dam failure ⁽²⁾	(57)	(57)	(82)
Loss from equity accounted investments, related impairments and expenses:			
Share of loss relating to the Samarco dam failure ⁽³⁾	(96)	(80)	(134)
Samarco Germano dam decommissioning	(263)	–	–
Samarco dam failure provision ⁽⁴⁾	(586)	(429)	(38)
Loss from operations	(952)	(566)	(254)
Net finance costs ⁽⁵⁾	(108)	(84)	(127)
Loss before taxation	(1,060)	(650)	(381)
Income tax benefit	–	–	–
Loss after taxation	(1,060)	(650)	(381)
Balance sheet movement			
Trade and other payables	4	4	(3)
Provisions	(629)	(228)	143
Net (liabilities)/assets	(625)	(224)	140
	2019 US\$M	2018 US\$M	2017 US\$M
Cash flow statement			
Loss before taxation	(1,060)	(650)	(381)
Adjustments for:			
Share of loss relating to the Samarco dam failure ⁽³⁾	96	80	134
Samarco Germano dam decommissioning	263	–	–
Samarco dam failure provision ⁽⁴⁾	586	429	38
Net finance costs ⁽⁵⁾	108	84	127
Changes in assets and liabilities:			
Trade and other payables	(4)	(4)	3
Net operating cash flows	(11)	(61)	(79)
Net investment and funding of equity accounted investments ⁽⁶⁾	(424)	(365)	(442)
Net investing cash flows	(424)	(365)	(442)
Net decrease in cash and cash equivalents	(435)	(426)	(521)

(1) Proceeds from insurance settlements.

(2) Includes legal and advisor costs incurred.

(3) Loss from working capital funding provided during the period.

(4) US\$(579) million change in estimate and US\$(7) million exchange translation.

(5) Amortisation of discounting of provision.

(6) Includes US\$(96) million funding provided during the period and US\$(328) million utilisation of the Samarco dam failure provision, of which US\$(313) million allowed for the continuation of reparatory and compensatory programs in relation to the Framework Agreement and a further US\$(15) million for dam stabilisation and expert costs.

4 Significant events – Samarco dam failure continued

Equity accounted investment in Samarco

BHP Billiton Brasil's investment in Samarco remains at US\$ nil. BHP Billiton Brasil provided US\$96 million funding under a working capital facility during the period and recognised additional share of losses of US\$96 million. No dividends have been received by BHP Billiton Brasil from Samarco during the period. Samarco currently does not have profits available for distribution and is legally prevented from paying previously declared and unpaid dividends.

Provisions related to the Samarco dam failure

	2019 US\$M	2018 US\$M
At the beginning of the financial year	1,285	1,057
Movement in provisions	629	228
Comprising:		
Utilised	(328)	(285)
Adjustments charged to the income statement:		
Change in estimate	579	560
Samarco Germano dam decommissioning	263	–
Amortisation of discounting impacting net finance costs	108	84
Exchange translation	7	(131)
At the end of the financial year	1,914	1,285
Comprising:		
Current	440	313
Non-current	1,474	972
At the end of the financial year	1,914	1,285

Samarco dam failure provisions and contingencies

As at 30 June 2019, BHP Billiton Brasil has identified provisions and contingent liabilities arising as a consequence of the Samarco dam failure as follows:

Provisions

Provision for Samarco dam failure

On 2 March 2016, BHP Billiton Brasil, Samarco and Vale, entered into a Framework Agreement with the Federal Government of Brazil, the states of Espírito Santo and Minas Gerais and certain other public authorities to establish a foundation (Fundação Renova) that will develop and execute environmental and socio-economic programs (Programs) to remediate and provide compensation for damage caused by the Samarco dam failure. Key Programs include those for financial assistance and compensation of impacted persons, including fisherfolk impacted by the dam failure, and those for remediation of impacted areas and resettlement of impacted communities. A committee (Interfederative Committee) comprising representatives from the Brazilian Federal and State Governments, local municipalities, environmental agencies, impacted communities and Public Defence Office oversees the activities of the Fundação Renova in order to monitor, guide and assess the progress of actions agreed in the Framework Agreement.

The term of the Framework Agreement is 15 years, renewable for periods of one year successively until all obligations under the Framework Agreement have been performed. Under the Framework Agreement, Samarco is responsible for funding Fundação Renova's annual calendar year budget for the duration of the Framework Agreement. The funding amounts for each calendar year will be dependent on the remediation and compensation projects to be undertaken in a particular year. Annual contributions may be reviewed under the Framework Agreement. To the extent that Samarco does not meet its funding obligations, each of BHP Billiton Brasil and Vale has funding obligations under the Framework Agreement in proportion to its 50 per cent shareholding in Samarco.

Mining and processing operations remain suspended and Samarco is currently progressing plans to resume operations, however significant uncertainties surrounding the nature and timing of ongoing future operations remain. In light of these uncertainties and based on currently available information, BHP Billiton Brasil's provision for its obligations under the Framework Agreement Programs is US\$1.7 billion before tax and after discounting at 30 June 2019 (30 June 2018: US\$1.3 billion).

Under a Governance Agreement ratified on 8 August 2018, BHP Billiton Brasil, Samarco and Vale will establish a process to renegotiate the Programs over two years to progress settlement of the R\$155 billion (approximately US\$40 billion) Federal Public Prosecution Office claim (described below).

BHP Billiton Brasil, Samarco and Vale maintain security comprising R\$1.3 billion (approximately US\$340 million) in insurance bonds, R\$100 million (approximately US\$25 million) in liquid assets and a charge of R\$800 million (approximately US\$210 million) over Samarco's assets. The security is maintained for a period of 30 months from ratification of the Governance Agreement, after which BHP Billiton Brasil, Vale and Samarco will be required to provide security of an amount equal to the Fundação Renova's annual budget up to a limit of R\$2.2 billion (approximately US\$575 million).

Samarco Germano dam decommissioning

Due to legislative changes in Brazil in the current year, Samarco is currently progressing plans for the accelerated decommissioning of its upstream tailings dams (the Germano dam complex).

Given the significant uncertainties surrounding the nature and timing of Samarco's future operations, BHP Billiton Brasil has recognised a provision of US\$263 million for a 50 per cent share of the expected Germano decommissioning cost. Plans for the decommissioning are at an early stage and as a result, further engineering work and required validation by Brazilian authorities could lead to material changes to estimates in future reporting periods.

If Samarco successfully restarts and generates sufficient cash flows during the period in which the Germano decommissioning activity occurs, BHP Billiton Brasil may not be required to provide funding for the decommissioning, resulting in a reversal of the provision in future reporting periods.

4 Significant events – Samarco dam failure continued

Key judgements and estimates

Judgements

The outcomes of litigation are inherently difficult to predict and significant judgement has been applied in assessing the likely outcome of legal claims and determining which legal claims require recognition of a provision or disclosure of a contingent liability. The facts and circumstances relating to these cases are regularly evaluated in determining whether a provision for any specific claim is required.

Management have determined that a provision can only be recognised for obligations under the Framework Agreement and Samarco Germano dam decommissioning as at 30 June 2019. It is not yet possible to provide a range of possible outcomes or a reliable estimate of potential future exposures to BHP in connection to the contingent liabilities noted below, given their status.

Estimates

The provisions for Samarco dam failure and Samarco Germano dam decommissioning currently reflect the estimated remaining costs to complete Programs under the Framework Agreement and estimated costs to complete the Germano dam decommissioning and require the use of significant judgements, estimates and assumptions. Based on current estimates, it is expected that approximately 45 per cent of remaining costs for Programs under the Framework Agreement will be incurred by December 2020.

While the provisions have been measured based on information available as at 30 June 2019, likely changes in facts and circumstances in future reporting periods may lead to revisions to these estimates. However, it is currently not possible to determine what facts and circumstances may change, therefore the possible revisions in future reporting periods cannot be reliably measured.

The key estimates that may have a material impact upon the provisions in the next and future reporting periods include:

- timing of repealing the fishing ban along the Rio Doce, which is subject to certain regulatory approvals and could impact upon the length of financial assistance and compensation payments;
- number of people eligible for financial assistance and compensation, as duration of registration periods and changes to geographical boundaries or eligibility criteria could impact estimated future costs;
- costs to complete resettlement of the Bento Rodrigues, Gesteira and Paracatu communities;
- costs to complete the Germano dam decommissioning.

The provision may also be affected by factors including but not limited to:

- potential changes in scope of work and funding amounts required under the Framework Agreement including the impact of the decisions of the Interfederative Committee along with further technical analysis and community participation required under the Governance Agreement;
- the outcome of ongoing negotiations with State and Federal Prosecutors, including review of Fundação Renova's Programs as provided in the Governance Agreement;
- actual costs incurred;
- resolution of uncertainty in respect of operational restart;
- updates to discount and foreign exchange rates;
- resolution of existing and potential legal claims.

Given these factors, future actual expenditures may differ from the amounts currently provided and changes to key assumptions and estimates could result in a material impact to the provision in the next and future reporting periods.

Contingent liabilities

The following matters are disclosed as contingent liabilities and given the status of proceedings it is not possible to provide a range of possible outcomes or a reliable estimate of potential future exposures for BHP, unless otherwise stated. Ultimately, all the legal matters disclosed as contingent liabilities could have a material adverse impact on BHP's business, competitive position, cash flows, prospects, liquidity and shareholder returns.

Federal Public Prosecution Office claim

BHP Billiton Brasil is among the defendants named in a claim brought by the Federal Public Prosecution Office on 3 May 2016, seeking R\$155 billion (approximately US\$40 billion) for reparation, compensation and moral damages in relation to the Samarco dam failure.

The 12th Federal Court previously suspended the Federal Public Prosecution Office claim, including a R\$7.7 billion (approximately US\$2 billion) injunction request. Suspension of the claim continues for a period of two years from the date of ratification of the Governance Agreement on 8 August 2018.

United States class action complaint – Samarco bond holders

On 14 November 2016, a putative class action complaint (Bondholder Complaint) was filed in the U.S. District Court for the Southern District of New York on behalf of purchasers of Samarco's ten-year bond notes (Plaintiff) due 2022-2024 between 31 October 2012 and 30 November 2015. The Bondholder Complaint was initially filed against Samarco and the former chief executive officer of Samarco.

The Bondholder Complaint was subsequently amended to include BHP Group Limited, BHP Group Plc, BHP Billiton Brasil Ltda, Vale S.A. and officers of Samarco, including four of Vale S.A. and BHP Billiton Brasil Ltda's nominees to the Samarco Board. On 5 April 2017, the Plaintiff discontinued its claims against the individual defendants.

On 7 March 2018, the District Court granted a joint motion from the remaining corporate defendants to dismiss the Bondholder Complaint. A second amended Bondholder Complaint was also dismissed by the Court on 18 July 2019. The Plaintiff has filed a motion, which remains pending before the Court, for reconsideration of that decision or leave to file a third amended complaint.

The amount of damages sought by the putative class is unspecified.

Australian class action complaints

Three separate shareholder class actions were filed in the Federal Court of Australia on behalf of persons who acquired shares in BHP Group Ltd on the Australian Securities Exchange or shares in BHP Group Plc on the London Stock Exchange and Johannesburg Stock Exchange in periods prior to the Samarco dam failure.

Following an appeal to the Full Court of the Federal Court, two of the actions have been consolidated into one action and the third action is expected to be dismissed. The amount of damages sought in the consolidated action is unspecified.

United Kingdom group action complaint

BHP Group Plc and BHP Group Ltd are named as defendants in group action claims for damages that have been filed in the courts of England. These claims have been filed on behalf of certain individuals, governments, businesses and communities in Brazil allegedly impacted by the Samarco dam failure.

On 7 August 2019, the BHP parties filed a preliminary application to strike out or stay this action on jurisdictional and other procedural grounds.

The amount of damages sought in these claims is unspecified.

4 Significant events – Samarco dam failure continued

Criminal charges

The Federal Prosecutors' Office has filed criminal charges against BHP Billiton Brasil, Samarco and Vale and certain employees and former employees of BHP Billiton Brasil (Affected Individuals) in the Federal Court of Ponte Nova, Minas Gerais. On 3 March 2017, BHP Billiton Brasil filed its preliminary defences. The Federal Court granted Habeas Corpus petitions in favour of three of the Affected Individuals terminating the charges against those individuals. The Federal Prosecutors' Office appealed two of those decisions. BHP Billiton Brasil rejects outright the charges against the company and the Affected Individuals and will defend the charges and fully support each of the Affected Individuals in their defence of the charges.

Other claims

The civil public actions filed by State Prosecutors in Minas Gerais (claiming damages of approximately R\$7.5 billion, US\$2 billion), State Prosecutors in Espírito Santo (claiming damages of approximately R\$2 billion, US\$520 million), and public defenders in Minas Gerais (claiming damages of approximately R\$10 billion, US\$2.6 billion), have been consolidated before the 12th Federal Court and suspended. The Governance Agreement provides for a process to review whether these civil public claims should be terminated or suspended.

BHP Billiton Brasil is among the companies named as defendants in a number of legal proceedings initiated by individuals, non-governmental organisations, corporations and governmental entities in Brazilian Federal and State courts following the Samarco dam failure. The other defendants include Vale, Samarco and Fundação Renova. The lawsuits include claims for compensation, environmental rehabilitation and violations of Brazilian environmental and other laws, among other matters. The lawsuits seek various remedies including rehabilitation costs, compensation to injured individuals and families of the deceased, recovery of personal and property losses, moral damages and injunctive relief. In addition, government inquiries and investigations relating to the Samarco dam failure have been commenced by numerous agencies of the Brazilian government and are ongoing.

Additional lawsuits and government investigations relating to the Samarco dam failure could be brought against BHP Billiton Brasil and possibly other BHP entities in Brazil or other jurisdictions.

BHP insurance

BHP has various third party liability insurances for claims related to the Samarco dam failure made directly against BHP Billiton Brasil or other BHP entities, their directors and officers, including class actions. External insurers have been notified of the Samarco dam failure, the third party claims and the class actions referred to above.

In the year ended 30 June 2019, BHP recognised income of US\$50 million relating to proceeds from insurance settlements. As at 30 June 2019, an insurance receivable has not been recognised for any potential recoveries in respect of ongoing matters.

Commitments

Under the terms of the Samarco joint venture agreement, BHP Billiton Brasil does not have an existing obligation to fund Samarco. For the year ended 30 June 2019, BHP Billiton Brasil has provided US\$96 million funding to support Samarco's operations and a further US\$15 million for dam stabilisation and prosecutor experts costs, with undrawn amounts of US\$17 million expiring as at 30 June 2019. In June 2019, BHP Billiton Brasil made available a new short-term facility of up to US\$79 million to carry out remediation and stabilisation work and support Samarco's operations. Funds will be released to Samarco only as required and subject to the achievement of key milestones with amounts undrawn expiring at 31 December 2019.

Any additional requests for funding or future investment provided would be subject to a future decision accounted for at that time.

The following section includes disclosure required by IFRS of Samarco Mineração S.A.'s provisions, contingencies and other matters arising from the dam failure for matters in addition to the above-mentioned claims to which Samarco is a party.

Samarco

Dam failure related provisions and contingencies

In addition to its obligations under the Framework Agreement as at 30 June 2019, Samarco has recognised provisions of US\$0.2 billion (30 June 2018: US\$0.2 billion), based on currently available information. The magnitude, scope and timing of these additional costs are subject to a high degree of uncertainty and Samarco has indicated that it anticipates that it will incur future costs beyond those provided. These uncertainties are likely to continue for a significant period and changes to key assumptions could result in a material change to the amount of the provision in future reporting periods. Any such unrecognised obligations are therefore contingent liabilities and, at present, it is not practicable to estimate their magnitude or possible timing of payment. Accordingly, it is also not possible to provide a range of possible outcomes or a reliable estimate of total potential future exposures at this time.

Samarco is also named as a defendant in a number of other legal proceedings initiated by individuals, non-governmental organisations, corporations and governmental entities in Brazilian Federal and State courts following the Samarco dam failure. The lawsuits include claims for compensation, environmental rehabilitation and violations of Brazilian environmental and other laws, among other matters. The lawsuits seek various remedies including rehabilitation costs, compensation to injured individuals and families of the deceased, recovery of personal and property losses, moral damages and injunctive relief. In addition, government inquiries and investigations relating to the Samarco dam failure have been commenced by numerous agencies of the Brazilian government and are ongoing. Given the status of proceedings it is not possible to provide a range of possible outcomes or a reliable estimate of total potential future exposures to Samarco.

Additional lawsuits and government investigations relating to the Samarco dam failure could be brought against Samarco.

Samarco insurance

Samarco has standalone insurance policies in place with Brazilian and global insurers. In the year ended 30 June 2019, Samarco recognised income relating to proceeds from certain of its insurance policies. Insurers' loss adjusters or claims representatives continue to investigate and assist with the claims process for matters not yet settled. As at 30 June 2019, an insurance receivable has not been recognised by Samarco in respect of ongoing matters.

Samarco commitments

At 30 June 2019, Samarco has commitments of US\$0.5 billion (30 June 2018: US\$1.1 billion). Following the dam failure Samarco invoked force majeure clauses in a number of long-term contracts with suppliers and service providers to suspend contractual obligations.

Samarco non-dam failure related contingent liabilities

The following non-dam failure related contingent liabilities pre-date and are unrelated to the Samarco dam failure. Samarco is currently contesting both of these matters in the Brazilian courts. Given the status of these tax matters, the timing of resolution and potential economic outflow for Samarco is uncertain.

Brazilian Social Contribution Levy

Samarco has received tax assessments for the alleged non-payment of Brazilian Social Contribution Levy for the calendar years 2007-2014 totalling approximately R\$5.5 billion (approximately US\$1.4 billion).

Brazilian corporate income tax rate

Samarco has received tax assessments for alleged incorrect calculation of Corporate Income Tax (IRPJ) in respect of the 2000-2003 and 2007-2014 income years totalling approximately R\$4.3 billion (approximately US\$1.1 billion).

5 Expenses and other income

	2019 US\$M	2018 US\$M	2017 US\$M
Employee benefits expense:			
Wages, salaries and redundancies	3,683	3,653	3,392
Employee share awards	138	123	105
Social security costs	4	4	3
Pension and other post-retirement obligations	292	292	273
Less employee benefits expense classified as exploration and evaluation expenditure	(85)	(82)	(79)
Changes in inventories of finished goods and work in progress	496	(142)	(743)
Raw materials and consumables used	4,591	4,389	3,830
Freight and transportation	2,378	2,294	1,786
External services	4,745	4,786	4,037
Third party commodity purchases	1,069	1,374	1,060
Net foreign exchange (gains)/losses	(147)	(93)	103
Government royalties paid and payable	2,538	2,168	1,986
Exploration and evaluation expenditure incurred and expensed in the current period	516	641	610
Depreciation and amortisation expense	5,829	6,288	6,184
Net impairments:			
Property, plant and equipment	250	318	160
Goodwill and other intangible assets	14	14	33
Available for sale financial assets	–	1	–
Operating lease rentals	405	421	391
All other operating expenses	1,306	1,078	989
Total expenses	28,022	27,527	24,120
(Gains)/losses on disposal of property, plant and equipment	(22)	10	(286)
Other income	(371)	(257)	(376)
Total other income	(393)	(247)	(662)

Other income is generally income earned from transactions outside the course of the Group's ordinary activities and may include certain management fees from non-controlling interests and joint arrangements, dividend income, royalties, commission income and gains or losses on divestment of subsidiaries or operations.

Recognition and measurement

Income is recognised when it is probable that the economic benefits associated with a transaction will flow to the Group and they can be reliably measured. Dividends are recognised upon declaration.

6 Income tax expense

	2019 US\$M	2018 US\$M	2017 US\$M
Total taxation expense comprises:			
Current tax expense	5,408	5,052	4,412
Deferred tax expense	121	1,955	31
	5,529	7,007	4,443
 Factors affecting income tax expense for the year			
Income tax expense differs to the standard rate of corporation tax as follows:			
Profit before taxation	15,049	14,751	11,137
Tax on profit at Australian <i>prima facie</i> tax rate of 30 per cent	4,515	4,425	3,341
<i>Impact of US tax reform</i>			
Tax rate changes	-	1,390	-
Non-tax effected operating losses and capital gains	-	834	-
Tax on remitted and unremitting foreign earnings ⁽¹⁾	-	194	-
Recognition of previously unrecognised tax assets	-	(95)	-
Other	-	(3)	-
Subtotal	-	2,320	-
<i>Other items not related to US tax reform</i>			
Non-tax effected operating losses and capital gains	742	721	242
Tax on remitted and unremitting foreign earnings	283	401	478
Tax effect of (loss)/profit from equity accounted investments, related impairments and expenses ⁽²⁾	164	(44)	(82)
Tax rate changes	6	(79)	25
Recognition of previously unrecognised tax assets	(10)	(170)	(21)
Amounts over provided in prior years	(21)	(51)	175
Foreign exchange adjustments	(25)	(152)	88
Investment and development allowance	(94)	(180)	(53)
Impact of tax rates applicable outside of Australia	(312)	(484)	(136)
Other	87	172	219
Income tax expense	5,335	6,879	4,276
Royalty-related taxation (net of income tax benefit)	194	128	167
Total taxation expense	5,529	7,007	4,443

(1) Comprising US\$797 million repatriation tax and US\$603 million of previously unrecognised tax credits.

(2) The (loss)/profit from equity accounted investments, related impairments and expenses is net of income tax. This item removes the *prima facie* tax effect on such (loss)/profit, related impairments and expenses.

Income tax recognised in other comprehensive income is as follows:

	2019 US\$M	2018 US\$M	2017 US\$M
Income tax effect of:			
<u>Items that may be reclassified subsequently to the income statement:</u>			
Available for sale investments:			
Net valuation losses taken to equity	-	(3)	-
Hedges:			
Gains/(losses) taken to equity	98	(25)	(105)
(Gains)/losses transferred to the income statement	(90)	64	129
Income tax credit relating to items that may be reclassified subsequently to the income statement	8	36	24
<u>Items that will not be reclassified to the income statement:</u>			
Remeasurement gains/(losses) on pension and medical schemes	7	(22)	(12)
Employee share awards transferred to retained earnings on exercise	12	8	(14)
Income tax credit/(charge) relating to items that will not be reclassified to the income statement	19	(14)	(26)
Total income tax credit/(charge) relating to components of other comprehensive income⁽¹⁾	27	22	(2)

(1) Included within total income tax relating to components of other comprehensive income is US\$15 million relating to deferred taxes and US\$12 million relating to current taxes (2018: US\$17 million and US\$5 million; 2017: US\$12 million and US\$(14) million).

6 Income tax expense continued

Recognition and measurement

Taxation on the profit/(loss) for the year comprises current and deferred tax. Taxation is recognised in the income statement except to the extent that it relates to items recognised directly in equity, in which case the tax effect is also recognised in equity.

Current tax	Deferred tax	Royalty-related taxation
Current tax is the expected tax on the taxable income for the year, using tax rates and laws enacted or substantively enacted at the reporting date, and any adjustments to tax payable in respect of previous years.	<p>Deferred tax is provided in full, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the Financial Statements. Deferred tax assets are recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised.</p> <p>Deferred tax is not recognised for temporary differences relating to:</p> <ul style="list-style-type: none"> • initial recognition of goodwill; • initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit; • investment in subsidiaries, associates and jointly controlled entities where the Group is able to control the timing of the reversal of the temporary difference and it is probable that they will not reverse in the foreseeable future. <p>Deferred tax is measured at the tax rates that are expected to be applied when the asset is realised or the liability is settled, based on the laws that have been enacted or substantively enacted at the reporting date.</p> <p>Current and deferred tax assets and liabilities are offset when the Group has a legally enforceable right to offset and when the tax balances are related to taxes levied by the same tax authority and the Group intends to settle on a net basis, or realise the asset and settle the liability simultaneously.</p>	Royalties and resource rent taxes are treated as taxation arrangements (impacting income tax expense/(benefit)) when they are imposed under government authority and the amount payable is calculated by reference to revenue derived (net of any allowable deductions) after adjustment for temporary differences. Obligations arising from royalty arrangements that do not satisfy these criteria are recognised as current provisions and included in expenses.

Uncertain tax and royalty matters

The Group operates across many tax jurisdictions. Application of tax law can be complex and requires judgement to assess risk and estimate outcomes, particularly in relation to the Group's cross-border operations and transactions. The evaluation of tax risks considers both amended assessments received and potential sources of challenge from tax authorities. The status of proceedings for these matters will impact the ability to determine the potential exposure and in some cases, it may not be possible to determine a range of possible outcomes or a reliable estimate of the potential exposure.

The Group has unresolved tax and royalty matters for which the timing of resolution and potential economic outflow are uncertain. Tax and royalty matters with uncertain outcomes arise in the normal course of business and occur due to changes in tax law, changes in interpretation of tax law, periodic challenges and disagreements with tax authorities and legal proceedings.

Tax and royalty obligations assessed as having probable future economic outflows capable of reliable measurement are provided for at 30 June 2019. Matters with a possible economic outflow and/or presently incapable of being measured reliably are contingent liabilities and disclosed in note 33 'Contingent liabilities'. Irrespective of whether the potential economic outflow of the matter has been assessed as probable or possible, individually significant matters are included below, to the extent that disclosure does not prejudice the Group.

Transfer pricing – Sales of commodities to BHP Billiton Marketing AG in Singapore	On 19 November 2018, BHP settled a long-standing transfer pricing dispute relating to its Sales and Marketing operations in Singapore with the Australian Taxation Office (ATO). The settlement fully resolved all prior years and provides certainty in relation to the future Australian taxation treatment of BHP's Sales and Marketing operations. The settlement did not involve any admission of tax avoidance by BHP. As part of the settlement, BHP paid a total of approximately A\$529 million (US\$388 million) in additional taxes for the prior years, being 2003 to 2018 (BHP paid A\$328 million (US\$243 million) of this amount when the amended assessments were received in prior years, with the balance of A\$201 million (US\$145 million) paid in the December 2018 quarter). From the 2020 financial year, all profits made in Singapore in relation to the Australian assets owned by BHP Group Limited will be fully subject to Australian tax under the Controlled Foreign Company tax rules, due to a change in ownership of the main Sales and Marketing entity.
Controlled Foreign Companies dispute	The Group is currently in dispute with the ATO regarding whether profits earned globally by the Group's Sales and Marketing organisation from the sale of commodities acquired from Australian subsidiaries of BHP Group Plc are subject to 'top-up tax' in Australia under the Controlled Foreign Companies rules. In June 2011 and December 2014, the Group received amended assessments relating to the 2006-2010 income years. Between May 2016 and August 2019, the Group received amended assessments relating to the 2012-2018 income years. The Group has formally objected or intends to formally object to all the amended assessments received. The earlier years (2006-2010) are the subject of litigation and the case will be heard by the High Court of Australia. It is estimated that the total primary tax subject to dispute for the 2006-2018 income years is US\$87 million (A\$125 million), of which US\$30 million (A\$43 million) relates to the 2006-2010 income years, which are being litigated. The ATO has not determined that the Group is liable for any penalties.
Samarco tax assessments	Details of uncertain tax and royalty matters relating to Samarco are disclosed in note 4 'Significant events – Samarco dam failure'.

6 Income tax expense continued



Key judgements and estimates

Income tax classification

Judgements: The Group's accounting policy for taxation, including royalty-related taxation, requires management's judgement as to the types of arrangements considered to be a tax on income in contrast to an operating cost.

Deferred tax

Judgements: Judgement is required to determine the amount of deferred tax assets that are recognised based on the likely timing and the level of future taxable profits. Judgement is applied in recognising deferred tax liabilities arising from temporary differences in investments. These deferred tax liabilities caused principally by retained earnings held in foreign tax jurisdictions are recognised unless repatriation of retained earnings can be controlled and is not expected to occur in the foreseeable future.

Estimates: The Group assesses the recoverability of recognised and unrecognised deferred taxes, including losses in Australia, the United States and Canada on a consistent basis, using estimates and assumptions relating to projected earnings and cash flows as applied in the Group impairment process for associated operations.

Uncertain tax matters

Judgements: Management applies judgements about the application of income tax legislation and its interaction with income tax accounting principles. 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 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 (refer to note 33 'Contingent liabilities').

7 Earnings per share

	2019	2018	2017
Earnings attributable to BHP shareholders (US\$M)			
– Continuing operations	8,648	6,652	6,375
– Total	8,306	3,705	5,890
Weighted average number of shares (Million)			
– Basic	5,180	5,323	5,323
– Diluted	5,193	5,337	5,336
Basic earnings per ordinary share (US cents)			
– Continuing operations	166.9	125.0	119.8
– Total	160.3	69.6	110.7
Diluted earnings per ordinary share (US cents)			
– Continuing operations	166.5	124.6	119.5
– Total	159.9	69.4	110.4

Refer to note 27 'Discontinued operations' for basic earnings per share and diluted earnings per share for Discontinued operations.

Earnings on American Depository Shares represent twice the earnings for BHP Group Limited or BHP Group Plc ordinary shares.

Recognition and measurement

Diluted earnings attributable to BHP shareholders are equal to the earnings attributable to BHP shareholders.

The calculation of the number of ordinary shares used in the computation of basic earnings per share is the aggregate of the weighted average number of ordinary shares of BHP Group Limited and BHP Group Plc outstanding during the period after deduction of the number of shares held by the Billiton Employee Share Ownership Trust and the BHP Billiton Limited Employee Equity Trust.

For the purposes of calculating diluted earnings per share, the effect of 13 million dilutive shares has been taken into account for the year ended 30 June 2019 (2018: 14 million shares; 2017: 13 million shares). The Group's only potential dilutive ordinary shares are share awards granted under the employee share ownership plans for which terms and conditions are described in note 23 'Employee share ownership plans'. Diluted earnings per share calculation excludes instruments which are considered antidilutive.

At 30 June 2019, there are no instruments which are considered antidilutive (2018: nil; 2017: nil).

Working capital

8 Trade and other receivables

	2019 US\$M	2018 US\$M
Trade receivables	2,403	1,857
Loans to equity accounted investments	33	13
Other receivables	1,339	1,406
Total	3,775	3,276
Comprising:		
Current	3,462	3,096
Non-current	313	180

Recognition and measurement

Trade receivables are recognised initially at fair value and subsequently at amortised cost using the effective interest method, less an allowance for impairment, except for provisionally priced receivables which are subsequently measured at fair value through the income statement under IFRS 9.

The collectability of trade receivables is assessed continuously. At the reporting date, specific allowances are made for any expected credit losses based on a review of all outstanding amounts at reporting period-end. Individual receivables are written off when management deems them unrecoverable. The net carrying amount of trade and other receivables approximates their fair values. For further information on the changes under IFRS 9 refer to note 38 'New and amended accounting standards and interpretations'.

Credit risk

Trade receivables generally have terms of less than 30 days. The Group has no material concentration of credit risk with any single counterparty and is not dominantly exposed to any individual industry.

Credit risk can arise from the non-performance by counterparties of their contractual financial obligations towards the Group. To manage credit risk, the Group maintains Group-wide procedures covering the application for credit approvals, granting and renewal of counterparty limits, proactive monitoring of exposures against these limits and requirements triggering secured payment terms. As part of these processes, the credit exposures with all counterparties are regularly monitored and assessed on a timely basis. The credit quality of the Group's customers is reviewed and the solvency of each debtor and their ability to pay on the receivable is considered in assessing receivables for impairment.

The 10 largest customers represented 34% (2018: 33%) of total credit risk exposures managed by the Group.

Receivables are deemed to be past due or impaired in accordance with the Group's terms and conditions. These terms and conditions are determined on a case-by-case basis with reference to the customer's credit quality, payment performance and prevailing market conditions. As at 30 June 2019, trade receivables of US\$14 million (2018: US\$32 million) were past due but not impaired. The majority of these receivables were less than 30 days overdue.

At 30 June 2019, trade receivables are stated net of provisions for expected credit losses of US\$3 million (2018: US\$1 million). As at the reporting date, there are no indications that the debtors will not meet their payment obligations.

9 Trade and other payables

	2019 US\$M	2018 US\$M
Trade creditors	5,162	4,574
Other creditors	1,560	1,406
Total	6,722	5,980
Comprising:		
Current	6,717	5,977
Non-current	5	3

10 Inventories

	2019 US\$M	2018 US\$M	Definitions
Raw materials and consumables	1,406	1,266	Spares, consumables and other supplies yet to be utilised in the production process or in the rendering of services.
Work in progress	2,515	2,965	Commodities currently in the production process that require further processing by the Group to a saleable form.
Finished goods	687	674	Commodities held-for-sale and not requiring further processing by the Group.
Total⁽¹⁾	4,608	4,905	
Comprising:			
Current	3,840	3,764	
Non-current	768	1,141	Inventories classified as non-current are not expected to be utilised or sold within 12 months after the reporting date.

(1) Inventory write-downs of US\$16 million were recognised during the year (2018: US\$18 million; 2017: US\$112 million). Inventory write-downs of US\$21 million made in previous periods were reversed during the year (2018: US\$2 million; 2017: US\$19 million).

Recognition and measurement

Regardless of the type of inventory and its stage in the production process, 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 costs of purchasing raw materials and costs of production, including attributable mining and manufacturing overheads taking into consideration normal operating capacity.

Minerals inventory quantities are assessed primarily through surveys and assays, while petroleum inventory quantities are derived through flow rate or tank volume measurement and the composition is derived via sample analysis.



Key estimates

Accounting for inventory involves the use of estimates, particularly related to the measurement and valuation of inventory on hand within the production process. Critical estimates, including expected metal recoveries and work in progress volumes, are calculated by engineers using available industry, engineering and scientific data. Estimates used are periodically reassessed by the Group taking into account technical analysis and historical performance. Changes in estimates are adjusted for on a prospective basis.

Resource assets

11 Property, plant and equipment

	Land and buildings US\$M	Plant and equipment US\$M	Other mineral assets US\$M	Assets under construction US\$M	Exploration and evaluation US\$M	Total US\$M
Net book value – 30 June 2019						
At the beginning of the financial year	8,152	40,885	8,974	7,554	1,617	67,182
Additions ⁽¹⁾⁽²⁾	5	515	1,023	5,799	418	7,760
Depreciation for the year	(585)	(4,885)	(277)	–	–	(5,747)
Impairments, net of reversals ⁽³⁾	(9)	(234)	–	–	(7)	(250)
Disposals	(2)	(40)	(5)	–	–	(47)
Transferred to assets held for sale	–	–	–	(331)	–	(331)
Exchange variations taken to reserve	–	(1)	–	–	–	(1)
Transfers and other movements	324	1,934	(504)	(1,873)	(406)	(525)
At the end of the financial year	7,885	38,174	9,211	11,149	1,622	68,041
– Cost	12,825	92,090	13,681	11,149	2,404	132,149
– Accumulated depreciation and impairments	(4,940)	(53,916)	(4,470)	–	(782)	(64,108)
Net book value – 30 June 2018	8,547	49,427	15,557	5,536	1,430	80,497
Additions ⁽¹⁾⁽²⁾	(20)	110	873	5,423	258	6,644
Depreciation for the year	(548)	(6,467)	(730)	–	–	(7,745)
Impairments, net of reversals ⁽³⁾	(9)	(507)	(260)	–	(62)	(838)
Disposals	(7)	(26)	(36)	(1)	(9)	(79)
Transferred to assets held for sale	(21)	(4,426)	(5,563)	(662)	–	(10,672)
Exchange variations taken to reserve	–	1	–	–	–	1
Transfers and other movements	210	2,773	(867)	(2,742)	–	(626)
At the end of the financial year	8,152	40,885	8,974	7,554	1,617	67,182
– Cost	12,525	91,037	13,212	7,554	2,400	126,728
– Accumulated depreciation and impairments	(4,373)	(50,152)	(4,238)	–	(783)	(59,546)

(1) Includes net foreign exchange gains/(losses) related to the closure and rehabilitation provisions. Refer to note 14 'Closure and rehabilitation provisions'.

(2) Property, plant and equipment of US\$ nil (2018: US\$3 million; 2017: US\$593 million) was acquired under finance lease. This is a non-cash investing transaction that has been excluded from the Consolidated Cash Flow Statement.

(3) Includes impairment charges related to Onshore US assets of US\$ nil (2018: US\$520 million). Refer to note 27 'Discontinued operations'.

Recognition and measurement

Property, plant and equipment

Property, plant and equipment is recorded 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 costs of bringing the asset to the location and the condition necessary for operation and the estimated future costs of closure and rehabilitation of the facility.

Equipment leases

Assets held under lease, which result in the Group receiving substantially all of the risk and rewards of ownership are capitalised as property, plant and equipment at the lower of the fair value of the leased assets or the estimated present value of the minimum lease payments. Leased assets are depreciated on the same basis as owned assets or, where shorter, the lease term. The corresponding finance lease obligation is included within interest bearing liabilities. The interest component is charged to the income statement over the lease term to reflect a constant rate of interest over the remaining balance of the obligation.

Operating leases are not capitalised and rental payments are included in the income statement on a straight-line basis over the lease term. Ongoing contracted commitments under finance and operating leases are disclosed within note 32 'Commitments'.

From 1 July 2019, IFRS 16/AASB 16 'Leases' became effective for the Group. Refer to note 38 'New and amended accounting standards and interpretations'.

Exploration and evaluation

Exploration costs are incurred to discover mineral and petroleum resources. Evaluation costs are incurred to assess the technical feasibility and commercial viability of resources found.

Exploration and evaluation expenditure is charged to the income statement as incurred, except in the following circumstances in which case the expenditure may be capitalised:

In respect of minerals activities:

- the exploration and evaluation activity is within an area of interest that was previously acquired as an asset acquisition or in a business combination and measured at fair value on acquisition; or
- the existence of a commercially viable mineral deposit has been established.

In respect of petroleum activities:

- the exploration and evaluation activity is within an area of interest for which it is expected that the expenditure will be recouped by future exploitation or sale; or
- exploration and evaluation activity has not reached a stage that permits a reasonable assessment of the existence of commercially recoverable reserves.

A regular review of each area of interest is undertaken to determine the appropriateness of continuing to carry forward costs in relation to that area. Capitalised costs are only carried forward to the extent that they are expected to be recovered through the successful exploitation of the area of interest or alternatively by its sale. To the extent that capitalised expenditure is no longer expected to be recovered, it is charged to the income statement.

Key judgements and estimates

Judgements: Exploration and evaluation expenditure results in certain items of expenditure being capitalised for an area of interest where a judgement is made that it is likely to be recoverable by future exploitation or sale, or where the activities are judged not to have reached a stage that permits a reasonable assessment of the existence of reserves.

Estimates: Management makes certain estimates and assumptions as to future events and circumstances, in particular when making quantitative assessment of whether an economically viable extraction operation can be established. These estimates and assumptions may change as new information becomes available. If, after having capitalised the expenditure under the policy, new information suggests that recovery of the expenditure is unlikely, the relevant capitalised amount is charged to the income statement.

11 Property, plant and equipment continued

Development expenditure

When proven mineral reserves are determined and development is sanctioned, capitalised exploration and evaluation expenditure is reclassified as assets under construction within property, plant and equipment. All subsequent development expenditure is capitalised and classified as assets under construction, provided commercial viability conditions continue to be satisfied.

The Group may use funds sourced from external parties to finance the acquisition and development of assets and operations. Finance costs are expensed as incurred, except where they relate to the financing of construction or development of qualifying assets. Borrowing costs directly attributable to acquiring or constructing a qualifying asset are capitalised during the development phase. Development expenditure is net of proceeds from the saleable material extracted during the development phase. On completion of development, all assets included in assets under construction are reclassified as either plant and equipment or other mineral assets and depreciation commences.

Key judgements and estimates

Judgements: Development activities commence after project sanctioning by the appropriate level of management. Judgement is applied by management in determining when a project is economically viable.

Estimates: In determining whether a project is economically viable, management is required to make certain estimates and assumptions as to future events and circumstances, including reserve estimates, existence of an accessible market and forecast prices and cash flows. Estimates and assumptions may change as new information becomes available. If, after having commenced the development activity, new information suggests that a development asset is impaired, the appropriate amount is charged to the income statement.

Other mineral assets

Other mineral assets comprise:

- capitalised exploration, evaluation and development expenditure for assets in production;
- mineral rights and petroleum interests acquired;
- capitalised development and production stripping costs.

Overburden removal costs

The process of removing overburden and other waste materials to access mineral deposits is referred to as stripping. Stripping is necessary to obtain access to mineral deposits and occurs throughout the life of an open-pit mine. Development and production stripping costs are classified as other mineral assets in property, plant and equipment.

Stripping costs are accounted for separately for individual components of an ore body. The determination of components is dependent on the mine plan and other factors, including the size, shape and geotechnical aspects of an ore body. The Group accounts for stripping activities as follows:

Development stripping costs

These are initial overburden removal costs incurred to obtain access to mineral deposits that will be commercially produced. These costs are capitalised when it is probable that future economic benefits (access to mineral ores) will flow to the Group and costs can be measured reliably.

Once the production phase begins, capitalised development stripping costs are depreciated using the units of production method based on the proven and probable reserves of the relevant identified component of the ore body to which the initial stripping activity benefits.

Production stripping costs

These are post initial overburden removal costs incurred during the normal course of production activity, which commences after the first saleable minerals have been extracted from the component. Production stripping costs can give rise to two benefits, the accounting for which is outlined below:

Production stripping activity

Benefits of stripping activity	Extraction of ore (inventory) in current period.	Improved access to future ore extraction.
Period benefited	Current period	Future period(s)
Recognition and measurement criteria	When the benefits of stripping activities are realised in the form of inventory produced; the associated costs are recorded in accordance with the Group's inventory accounting policy.	When the benefits of stripping activities are improved access to future ore; production costs are capitalised when all the following criteria are met: <ul style="list-style-type: none"> • the production stripping activity improves access to a specific component of the ore body and it is probable that economic benefits arising from the improved access to future ore production will be realised; • the component of the ore body for which access has been improved can be identified; • costs associated with that component can be measured reliably.
Allocation of costs	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 estimated life-of-component ratio a portion of the stripping costs is capitalised to the production stripping asset.	
Asset recognised from stripping activity	Inventory	Other mineral assets within property, plant and equipment.
Depreciation basis	Not applicable	On a component-by-component basis using the units of production method based on proven and probable reserves.

Key judgements and estimates

Judgements: Judgement is applied by management in determining the components of an ore body.

Estimates: Estimates are used in the determination of stripping ratios and mineral reserves by component. Changes to estimates related to life-of-component waste-to-ore (or mineral contained) strip ratios and the expected ore production from identified components are accounted for prospectively and may affect depreciation rates and asset carrying values.

11 Property, plant and equipment continued

Depreciation

Depreciation of assets, other than land, assets under construction and capitalised exploration and evaluation that are not depreciated, is calculated using either the straight-line (SL) method or units of production (UoP) method, net of residual values, over the estimated useful lives of specific assets. The depreciation method and rates applied to specific assets reflect the pattern in which the asset's benefits are expected to be used by the Group. The Group's reported reserves are used to determine UoP depreciation unless doing so results in depreciation charges that do not reflect the asset's useful life. Where this occurs, alternative approaches to determining reserves are applied, such as using management's expectations of future oil and gas prices rather than yearly average prices, to provide a phasing of periodic depreciation charges that better reflects the asset's expected useful life.

Where assets are dedicated to a mine or petroleum lease, the below useful lives are subject to the lesser of the asset category's useful life and the life of the mine or petroleum lease, unless those assets are readily transferable to another productive mine or lease.

Key estimates

The determination of useful lives, residual values and depreciation methods involves estimates and assumptions and is reviewed annually. Any changes to useful lives or any other estimates or assumptions may affect prospective depreciation rates and asset carrying values. The table below summarises the principal depreciation methods and rates applied to major asset categories by the Group.

Category	Buildings	Plant and equipment	Mineral rights and petroleum interests	Capitalised exploration, evaluation and development expenditure
Typical depreciation methodology	SL	SL	UoP	UoP
Depreciation rate	25–50 years	3–30 years	Based on the rate of depletion of reserves	Based on the rate of depletion of reserves

Impairment of non-current assets

Recognition and measurement

Impairment tests for all assets are performed when there is an indication of impairment, although goodwill is tested at least annually. If the carrying amount of the asset exceeds its recoverable amount, the asset is impaired and an impairment loss is charged to the income statement so as to reduce the carrying amount in the balance sheet to its recoverable amount.

Previously impaired assets (excluding goodwill) are reviewed for possible reversal of previous impairment at each reporting date. Impairment reversal cannot exceed the carrying amount that would have been determined (net of depreciation) had no impairment loss been recognised for the asset or cash generating units (CGUs). There were no reversals of impairment in the current or prior year.

How recoverable amount is calculated

The recoverable amount is the higher of an asset's fair value less cost of disposal (FVLCD) and its value in use (VIU). For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows.

Valuation methods

Fair value less cost of disposal

FVLCD is an estimate of the amount that a market participant would pay for an asset or CGU, less the cost of disposal. FVLCD for mineral and petroleum assets is generally determined using independent market assumptions to calculate the present value of the estimated future post-tax cash flows expected to arise from the continued use of the asset, including the anticipated cash flow effects of any capital expenditure to enhance production or reduce cost, and its eventual disposal where a market participant may take a consistent view. Cash flows are discounted using an appropriate post-tax market discount rate to arrive at a net present value of the asset, which is compared against the asset's carrying value. FVLCD may also take into consideration other market-based indicators of fair value.

Value in use

VIU is determined as the present value of the estimated future cash flows expected to arise from the continued use of the asset in its present form and its eventual disposal. VIU is determined by applying assumptions specific to the Group's continued use and cannot take into account future development. These assumptions are different to those used in calculating FVLCD and consequently the VIU calculation is likely to give a different result (usually lower) to a FVLCD calculation.

11 Property, plant and equipment continued



Key judgements and estimates

Judgements: Assessment of indicators of impairment or impairment reversal and the determination of CGUs for impairment purposes require significant management judgement.

Indicators of impairment may include changes in the Group's operating and economic assumptions, including those arising from changes in reserves or mine planning, updates to the Group's commodity supply, demand and price forecasts (which include carbon price forecasts), or the possible additional impacts from emerging risks such as those related to climate change and the transition to a lower carbon economy.

Additional impacts related to climate change and the transition to a lower carbon economy may include:

- a proportion of a CGU's reserves becoming incapable of extraction in an economically viable fashion;
- demand for the Group's commodities decreasing, due to policy, regulatory (including carbon pricing mechanisms), legal, technological, market or societal responses to climate change;
- physical impacts related to acute risks resulting from increased severity of extreme weather events, and those related to chronic risks resulting from longer-term changes in climate patterns.

Estimates: In determining the recoverable amount of assets, in the absence of quoted market prices, estimates are made regarding the present value of future post-tax cash flows. These estimates require significant management judgements and assumptions and are subject to risk and uncertainty that may be beyond the control of the Group; hence, there is a possibility that changes in circumstances will materially alter projections, which may impact the recoverable amount of assets at each reporting date. The estimates are made from the perspective of a market participant and include prices, future production volumes, operating costs, tax attributes and discount rates.

An indicator of impairment has been identified for the Jansen potash CGU at 30 June 2019 as the Group continues to assess project feasibility and the timing of project approval in accordance with the Group's Capital Allocation Framework. Accordingly, the Group has assessed the recoverable amount of the Jansen CGU using FVLCD methodology including a market participant's perspective of the net present value of future post-tax cash flows and other market-based indicators of fair value. The Jansen CGU carrying amount of US\$3.0 billion as at 30 June 2019 is supported by the recoverable amount determination and as such, no impairment has been recognised.

The recoverable amount estimate is most sensitive to assumptions regarding the long-term forecasts of potash prices and discount rates:

- Potash price: prices are based on the latest internal forecasts taking into account expected demand and supply for potash globally (which includes, amongst a range of factors, carbon price forecasts), benchmarked with external sources of information;
- Discount rate: the discount rate is derived using the weighted average cost of capital methodology adjusted for any risks that are not reflected in the underlying cash flows, including where appropriate a country risk premium. A real post-tax discount rate of 7.5 per cent was applied to post-tax cash flows.

Changes in circumstances may affect the assumptions used to determine recoverable amount and could result in an impairment of non-current assets at future reporting dates.

12 Intangible assets

	2019			2018		
	Goodwill US\$M	Other intangibles US\$M	Total US\$M	Goodwill US\$M	Other intangibles US\$M	Total US\$M
Net book value						
At the beginning of the financial year	247	531	778	3,269	699	3,968
Additions	-	31	31	-	50	50
Amortisation for the year	-	(142)	(142)	-	(197)	(197)
Impairments for the year ⁽¹⁾	-	(14)	(14)	(2,339)	(14)	(2,353)
Disposals	-	-	-	(16)	(7)	(23)
Transferred to assets held for sale	-	-	-	(667)	-	(667)
Transfers and other movements	-	22	22	-	-	-
At the end of the financial year⁽²⁾	247	428	675	247	531	778
- Cost	247	1,697	1,944	247	1,665	1,912
- Accumulated amortisation and impairments	-	(1,269)	(1,269)	-	(1,134)	(1,134)

(1) Includes impairment charges related to Onshore US assets of US\$ nil (2018: US\$2,339 million). Refer to note 27 'Discontinued operations'.

(2) The Group's aggregate net carrying value of goodwill for Continuing operations is US\$247 million (2018: US\$247 million), representing less than 1 per cent of net equity at 30 June 2019 (2018: less than 1 per cent). The goodwill is allocated across a number of CGUs.

Recognition and measurement

Goodwill

Where the fair value of the consideration paid for a business acquisition exceeds the fair value of the identifiable assets, liabilities and contingent liabilities acquired, the difference is treated as goodwill. Where consideration is less than the fair value of acquired net assets, the difference is recognised immediately in the income statement. Goodwill is not amortised and is measured at cost less any impairment losses.

Other intangibles

The Group capitalises amounts paid for the acquisition of identifiable intangible assets, such as software, licences and initial payments for the acquisition of mineral lease assets, where it is considered that they will contribute to future periods through revenue generation or reductions in cost. These assets, classified as finite life intangible assets, are carried in the balance sheet at the fair value of consideration paid less accumulated amortisation and impairment charges. Intangible assets with finite useful lives are amortised on a straight-line basis over their useful lives. The estimated useful lives are generally no greater than eight years.

Initial payments for the acquisition of intangible mineral lease assets are capitalised and amortised over the term of the permit. A regular review is undertaken of each area of interest to determine the appropriateness of continuing to carry forward costs in relation to that area. Capitalised costs are only carried forward to the extent that they are expected to be recovered through the successful exploitation of the area of interest or alternatively by its sale. To the extent that capitalised expenditure is no longer expected to be recovered, it is charged to the income statement.

Key judgements and estimates

Judgements: Assessment of impairment indicators requires management judgement. If a judgement is made that recovery of previously capitalised intangible mineral lease assets is unlikely, the relevant amount will be charged to the income statement.

Estimates: Determining the recoverable amount requires management to make certain estimates and assumptions as to future events and circumstances, in particular whether an economically viable extraction operation can be established.

Where indicators of impairment exist for intangible assets, in the absence of quoted market prices, estimates are made regarding the present value of future post-tax cash flows. These estimates require management judgement and assumptions and are subject to risk and uncertainty that may be beyond the control of the Group; hence, there is a possibility that changes in circumstances will materially alter projections, which may impact the recoverable amount of assets at each reporting date. The estimates are made from the perspective of a market participant and include prices, future production volumes, operating costs, tax attributes and discount rates.

13 Deferred tax balances

The movement for the year in the Group's net deferred tax position is as follows:

	2019 US\$M	2018 US\$M	2017 US\$M
Net deferred tax asset			
At the beginning of the financial year	569	2,023	1,823
Income tax (charge)/credit recorded in the income statement ⁽¹⁾	(81)	(1,445)	188
Income tax credit/(charge) recorded directly in equity	15	17	12
Other movements	27	(26)	-
At the end of the financial year	530	569	2,023

(1) Includes Discontinued operations income tax credit to the income statement of US\$40 million (2018: US\$510 million, 2017: US\$219 million).

For recognition and measurement refer to note 6 'Income tax expense'.

13 Deferred tax balances continued

The composition of the Group's net deferred tax assets and liabilities recognised in the balance sheet and the deferred tax expense charged/(credited) to the income statement is as follows:

	Deferred tax assets		Deferred tax liabilities		Charged/(credited) to the income statement		
	2019 US\$M	2018 US\$M	2019 US\$M	2018 US\$M	2019 US\$M	2018 US\$M	2017 US\$M
Type of temporary difference							
Depreciation	(1,717)	(2,756)	1,444	1,356	(951)	(752)	391
Exploration expenditure	449	492	–	–	43	51	(22)
Employee benefits	310	321	(6)	(2)	14	31	(37)
Closure and rehabilitation	1,671	1,627	(203)	(194)	(53)	218	(151)
Resource rent tax	431	468	1,112	1,328	(179)	(194)	(189)
Other provisions	144	141	(1)	(2)	(2)	(11)	14
Deferred income	24	21	(5)	–	(9)	(13)	3
Deferred charges	(416)	(374)	286	272	56	(119)	(77)
Investments, including foreign tax credits	412	546	600	691	70	615	(17)
Foreign exchange gains and losses	(97)	(120)	(6)	16	(45)	(20)	(77)
Tax losses	2,611	3,758	–	–	1,147	1,595	(381)
Other	(58)	(83)	13	7	(10)	44	355
Total	3,764	4,041	3,234	3,472	81	1,445	(188)

The Group recognises the benefit of tax losses amounting to US\$2,611 million (2018: US\$3,758 million) only to the extent of anticipated future taxable income or gains in relevant jurisdictions. The amounts recognised in the Financial Statements in respect of each matter are derived from the Group's best judgements and estimates as described in note 6 'Income tax expense'.

The composition of the Group's unrecognised deferred tax assets and liabilities is as follows:

		2019 US\$M	2018 US\$M
Unrecognised deferred tax assets			
Tax losses and tax credits ⁽¹⁾		3,720	3,028
Investments in subsidiaries ⁽²⁾		1,656	1,659
Deductible temporary differences relating to PRRT ⁽³⁾		2,197	2,282
Mineral rights ⁽⁴⁾		2,230	2,263
Other deductible temporary differences ⁽⁵⁾		412	437
Total unrecognised deferred tax assets		10,215	9,669
Unrecognised deferred tax liabilities			
Investments in subsidiaries ⁽²⁾		2,253	2,216
Taxable temporary differences relating to unrecognised deferred tax asset for PRRT ⁽³⁾		659	685
Total unrecognised deferred tax liabilities		2,912	2,901

(1) At 30 June 2019, the Group had income and capital tax losses with a tax benefit of US\$2,265 million (2018: US\$1,946 million) and tax credits of US\$1,455 million (2018: US\$1,082 million), which are not recognised as deferred tax assets, because it is not probable that future taxable profits or capital gains will be available against which the Group can utilise the benefits.

The gross amount of tax losses carried forward that have not been recognised is as follows:

Year of expiry		Total US\$M
Income tax losses		
Not later than one year		359
Later than one year and not later than two years		443
Later than two years and not later than five years		2,723
Later than five years and not later than 10 years		530
Later than 10 years and not later than 20 years		2,312
Unlimited		2,001
		8,368
Capital tax losses		
Not later than one year		–
Later than two years and not later than five years		–
Unlimited		4,114
Gross amount of tax losses not recognised		12,482
Tax effect of total losses not recognised		2,265

Of the US\$1,455 million of tax credits, US\$1,449 million expires not later than 10 years and US\$6 million expires later than 10 years and not later than 20 years.

(2) The Group had deferred tax assets of US\$1,656 million at 30 June 2019 (2018: US\$1,659 million) and deferred tax liabilities of US\$2,253 million (2018: US\$2,216 million) associated with undistributed earnings of subsidiaries that have not been recognised because the Group is able to control the timing of the reversal of the temporary differences and it is not probable that these differences will reverse in the foreseeable future.

(3) The Group had US\$2,197 million of unrecognised deferred tax assets relating to Australian Petroleum Resource Rent Tax (PRRT) at 30 June 2019 (2018: US\$2,282 million relating to Australian PRRT), with a corresponding unrecognised deferred tax liability for income tax purposes of US\$659 million (2018: US\$685 million). Recognition of a deferred tax asset for PRRT depends on benefits expected to be obtained from the deduction against PRRT liabilities.

(4) The Group had deductible temporary differences relating to mineral rights for which deferred tax assets of US\$2,230 million at 30 June 2019 (2018: US\$2,263 million) had not been recognised because it is not probable that future capital gains will be available, against which the Group can utilise the benefits. The deductible temporary differences do not expire under current tax legislation.

(5) The Group had other deductible temporary differences for which deferred tax assets of US\$412 million at 30 June 2019 (2018: US\$437 million) had not been recognised because it is not probable that future taxable profits will be available against which the Group can utilise the benefits. The deductible temporary differences do not expire under current tax legislation.

14 Closure and rehabilitation provisions

	2019 US\$M	2018 US\$M
At the beginning of the financial year	6,330	6,738
Capitalised amounts for operating sites:		
Change in estimate	494	35
Exchange translation	(194)	(122)
Adjustments charged/(credited) to the income statement:		
Increases to existing and new provisions	318	132
Exchange translation	(7)	(11)
Released during the year	(33)	(165)
Other adjustments to the provision:		
Amortisation of discounting impacting net finance costs	353	352
Expenditure on closure and rehabilitation activities	(201)	(178)
Exchange variations impacting foreign currency translation reserve	(2)	-
Divestment and demerger of subsidiaries and operations	(80)	-
Transferred to liabilities held for sale	-	(450)
Other movements	(1)	(1)
At the end of the financial year	6,977	6,330
Comprising:		
Current	361	274
Non-current	6,616	6,056
Operating sites	5,535	5,120
Closed sites	1,442	1,210

The Group is required to rehabilitate sites and associated facilities at the end of, or in some cases, during the course of production, to a condition acceptable to the relevant authorities, as specified in licence requirements and the Group's environmental performance requirements as set out within *Our Charter*.

The key components of closure and rehabilitation activities are:

- the removal of all unwanted infrastructure associated with an operation;
- the return of disturbed areas to a safe, stable, productive and self-sustaining condition, consistent with the agreed end land use.

Recognition and measurement

Provisions for closure and rehabilitation are recognised by the Group when:

- it has a present legal or constructive obligation as a result of past events;
- it is more likely than not that an outflow of resources will be required to settle the obligation;
- the amount can be reliably estimated.

Initial recognition	Subsequent remeasurement
Closure and rehabilitation provisions are initially recognised when an environmental disturbance first occurs. The individual site provisions are an estimate of the expected value of future cash flows required to rehabilitate the relevant site using current restoration standards and techniques and taking into account risks and uncertainties. Individual site provisions are discounted to their present value using country specific discount rates aligned to the estimated timing of cash outflows.	The closure and rehabilitation asset, recognised within property, plant and equipment, is depreciated over the life of the operations. The value of the provision is progressively increased over time as the effect of discounting unwinds, resulting in an expense recognised in net finance costs.
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 closure and rehabilitation provision is reviewed at each reporting date to assess if the estimate continues to reflect the best estimate of the obligation. If necessary, the provision is remeasured to account for factors, including: <ul style="list-style-type: none"> • revisions to estimated reserves, resources and lives of operations; • developments in technology; • regulatory requirements and environmental management strategies; • changes in the estimated extent and costs of anticipated activities, including the effects of inflation and movements in foreign exchange rates; • movements in interest rates affecting the discount rate applied. Changes to the closure and rehabilitation estimate are added to, or deducted from, the related asset and amortised on a prospective basis accordingly over the remaining life of the operation, generally applying the units of production method. 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 that is probable and capable of reliable estimation.

Closed sites

Where future economic benefits are no longer expected to be derived through operation, changes to the associated closure and remediation costs are charged/(credited) to the income statement in the period identified. This amounted to a charge of US\$251 million in the year ended 30 June 2019 (2018: credit of US\$(21) million; 2017: charge of US\$33 million).

14 Closure and rehabilitation provisions continued

Key estimates

The recognition and measurement of closure and rehabilitation provisions requires the use of significant estimates and assumptions, including, but not limited to:

- the extent (due to legal or constructive obligations) of potential activities required for the removal of infrastructure and rehabilitation activities;
- costs associated with future rehabilitation activities;
- applicable real discount rates;
- the timing of cash flows and ultimate closure of operations.

Rehabilitation activities are generally undertaken at the end of the production life at the individual sites. Remaining production lives range from 1-98 years with an average for all sites, weighted by current closure provision, of approximately 32 years. A 0.5 per cent decrease in the real discount rates applied at 30 June 2019 would result in an increase to the closure and rehabilitation provision of US\$618 million, an increase in property, plant and equipment of US\$524 million in relation to operating sites and an income statement charge of US\$94 million in respect of closed sites. In addition, the change would result in an increase of approximately US\$42 million to depreciation expense and an immaterial reduction in net finance costs for the year ending 30 June 2020.

Estimates can also be impacted by the emergence of new restoration techniques, changes in regulatory requirements for rehabilitation, and experience at other operations. These uncertainties may result in future actual expenditure differing from the amounts currently provided for in the balance sheet.

Capital structure

15 Share capital

	BHP Group Limited			BHP Group Plc		
	2019 shares	2018 shares	2017 shares	2019 shares	2018 shares	2017 shares
Share capital issued						
Opening number of shares	3,211,691,105	3,211,691,105	3,211,691,105	2,112,071,796	2,112,071,796	2,112,071,796
Purchase of shares by ESOP Trusts	(6,854,057)	(7,469,236)	(6,481,292)	(274,069)	(679,223)	(225,646)
Employee share awards exercised following vesting	5,902,588	7,339,522	6,945,570	275,984	71,705	940,070
Movement in treasury shares under Employee Share Plans	951,469	129,714	(464,278)	(1,915)	(32,482)	(714,424)
Shares bought back and cancelled ⁽¹⁾	(265,839,711)	-	-	-	-	-
Closing number of shares⁽²⁾	2,945,851,394	3,211,691,105	3,211,691,105	2,112,071,796	2,112,071,796	2,112,071,796
Comprising:						
Shares held by the public	2,944,703,079	3,211,494,259	3,211,623,973	2,112,032,077	2,112,030,162	2,111,997,680
Treasury shares	1,148,315	196,846	67,132	39,719	41,634	74,116
Other share classes						
Special Voting share of no par value	1	1	1	-	-	-
Special Voting share of US\$0.50 par value	-	-	-	1	1	1
5.5% Preference shares of £1 each	-	-	-	50,000	50,000	50,000
DLC Dividend share	1	1	1	-	-	-

(1) During December 2018, BHP completed an off-market buy-back program of US\$5.2 billion of BHP Group Limited shares related to the disbursement of proceeds from the disposal of Onshore US.

(2) No fully paid ordinary shares in BHP Group Limited or BHP Group Plc were issued on the exercise of Group Incentive Scheme awards during the period 1 July 2019 to 5 September 2019.

Recognition and measurement

Share capital of BHP Group Limited and BHP Group Plc is composed of the following classes of shares:

Ordinary shares fully paid	Special Voting shares	Preference shares
BHP Group Limited and BHP Group Plc ordinary shares fully paid of US\$0.50 par value represent 99.99 per cent of the total number of shares. Any profit remaining after payment of preferred distributions is available for distribution to the holders of BHP Group Limited and BHP Group Plc ordinary shares in equal amounts per share.	Each of BHP Group Limited and BHP Group Plc issued one Special Voting share to facilitate joint voting by shareholders of BHP Group Limited and BHP Group Plc on Joint Electorate Actions. There has been no movement in these shares.	Preference shares have the right to repayment of the amount paid up on the nominal value and any unpaid dividends in priority to the holders of any other class of shares in BHP Group Plc on a return of capital or winding up. The holders of preference shares have limited voting rights if payment of the preference dividends are six months or more in arrears or a resolution is passed changing the rights of the preference shareholders. There has been no movement in these shares, all of which are held by JP Morgan Limited.
DLC Dividend share	Treasury shares	
The DLC Dividend share supports the Dual Listed Company (DLC) equalisation principles in place since the merger in 2001, including the requirement that ordinary shareholders of BHP Group Plc and BHP Group Limited are paid equal cash dividends per share. This share enables efficient and flexible capital management across the DLC and was issued on 23 February 2016 at par value of US\$10.	Treasury shares are shares of BHP Group Limited and BHP Group Plc and are held by the ESOP Trusts for the purpose of issuing shares to employees under the Group's Employee Share Plans. Treasury shares are recognised at cost and deducted from equity, net of any income tax effects. When the treasury shares are subsequently sold or reissued, any consideration received, net of any directly attributable costs and income tax effects, is recognised as an increase in equity. Any difference between the carrying amount and the consideration, if reissued, is recognised in retained earnings.	

16 Other equity

	2019 US\$M	2018 US\$M	2017 US\$M	Recognition and measurement
Share premium account	518	518	518	The share premium account represents the premium paid on the issue of BHP Group Plc shares recognised in accordance with the UK Companies Act 2006.
Foreign currency translation reserve	37	42	40	The foreign currency translation reserve represents exchange differences arising from the translation of non-US dollar functional currency operations within the Group into US dollars.
Employee share awards reserve	213	196	214	The employee share awards reserve represents the accrued employee entitlements to share awards that have been charged to the income statement and have not yet been exercised. Once exercised, the difference between the accumulated fair value of the awards and their historical on-market purchase price is recognised in retained earnings.
Cash flow hedge reserve	114	58	153	The cash flow hedging reserve represents hedging gains and losses recognised on the effective portion of cash flow hedges. The cumulative deferred gain or loss on the hedge is recognised in the income statement when the hedged transaction impacts the income statement, or is recognised as an adjustment to the cost of non-financial hedged items. The hedging reserve records the portion of the gain or loss on a hedging instrument in a cash flow hedge that is determined to be an effective hedge relationship.
Cost of hedging reserve	(74)	–	–	The cost of hedging reserve represents the recognition of certain costs of hedging for example, basis adjustments, which have been excluded from the hedging relationship and deferred in other comprehensive income until the hedged transaction impacts the income statement.
Equity investments reserve	17	16	10	The financial assets reserve represents the revaluation of investments in shares recognised through other comprehensive income. Where a revalued financial asset is sold, the relevant portion of the reserve is transferred to retained earnings.
Capital redemption reserve	177	177	177	The capital redemption reserve represents the par value of BHP Group Plc shares that were purchased and subsequently cancelled. The cancellation of the shares creates a non-distributable capital redemption reserve.
Non-controlling interest contribution reserve	1,283	1,283	1,288	The non-controlling interest contribution reserve represents the excess of consideration received over the book value of net assets attributable to equity instruments when acquired by non-controlling interests.
Total reserves	2,285	2,290	2,400	

Summarised financial information relating to each of the Group's subsidiaries with non-controlling interests (NCI) that are material to the Group before any intra-group eliminations is shown below:

US\$M	2019			2018		
	Minera Escondida Limitada	Other individually immaterial subsidiaries (incl. intra-group eliminations)	Total	Minera Escondida Limitada	Other individually immaterial subsidiaries (incl. intra-group eliminations)	Total
Group share (per cent)	57.5			57.5		
Current assets	2,456			2,751		
Non-current assets	12,538			13,389		
Current liabilities	(1,826)			(1,781)		
Non-current liabilities	(4,122)			(4,352)		
Net assets	9,046			10,007		
Net assets attributable to NCI	3,845	739	4,584	4,253	825	5,078
Revenue	6,876			8,775		
Profit after taxation	1,360			2,221		
Other comprehensive income	(1)			(2)		
Total comprehensive income	1,359			2,219		
Profit after taxation attributable to NCI	578	301	879	944	174	1,118
Other comprehensive income attributable to NCI	–	(1)	(1)	(1)	1	–
Net operating cash flow	3,283			5,041		
Net investing cash flow	(1,034)			(997)		
Net financing cash flow	(2,517)			(3,392)		
Dividends paid to NCI⁽¹⁾	986	219	1,205	1,469	135	1,604

(1) Includes dividends paid to non-controlling interests related to Onshore US of US\$7 million (2018: US\$22 million). Refer to note 27 'Discontinued operations'.

While the Group controls Minera Escondida Limitada, the non-controlling interests hold certain protective rights that restrict the Group's ability to sell assets held by Minera Escondida Limitada, or use the assets in other subsidiaries and operations owned by the Group. Minera Escondida Limitada is also restricted from paying dividends without the approval of the non-controlling interests.

17 Dividends

	Year ended 30 June 2019		Year ended 30 June 2018		Year ended 30 June 2017	
	Per share US cents	Total US\$M	Per share US cents	Total US\$M	Per share US cents	Total US\$M
Dividends paid during the period⁽¹⁾						
Prior year final dividend	63	3,356	43	2,291	14	746
Interim dividend	55	2,788	55	2,930	40	2,125
Special dividend	102	5,158	-	-	-	-
	220	11,302	98	5,221	54	2,871

(1) 5.5 per cent dividend on 50,000 preference shares of £1 each determined and paid annually (2018: 5.5 per cent; 2017: 5.5 per cent).

Dividends paid during the period differs from the amount of dividends paid in the Cash Flow Statement as a result of foreign exchange gains and losses relating to the timing of equity distributions between the record date and the payment date.

The Dual Listed Company merger terms require that ordinary shareholders of BHP Group Limited and BHP Group Plc are paid equal cash dividends on a per share basis. Each American Depository Share (ADS) represents two ordinary shares of BHP Group Limited or BHP Group Plc. Dividends determined on each ADS represent twice the dividend determined on BHP Group Limited or BHP Group Plc ordinary shares.

Dividends are determined after period-end and announced with the results for the period. Interim dividends are determined in February and paid in March. Final dividends are determined in August and paid in September. Dividends determined are not recorded as a liability at the end of the period to which they relate. On 17 December 2018, BHP Group Limited and BHP Group Plc determined a special dividend of US\$1.02 per share (US\$5.2 billion), which was paid on 30 January 2019 and related to the disbursement of proceeds from the disposal of Onshore US. Subsequent to year-end, on 20 August 2019, BHP Group Limited and BHP Group Plc determined a final dividend of 78 US cents per share (US\$3,944 million), which will be paid on 25 September 2019 (30 June 2018: final dividend of 63 US cents per share – US\$3,354 million; 30 June 2017: final dividend of 43 US cents per share – US\$2,289 million).

BHP Group Limited dividends for all periods presented are, or will be, fully franked based on a tax rate of 30 per cent.

	2019 US\$M	2018 US\$M	2017 US\$M
Franking credits as at 30 June	8,681	10,400	10,155
Franking credits arising from the payment of current tax	1,194	1,330	1,239
Total franking credits available⁽¹⁾	9,875	11,730	11,394

(1) The payment of the final 2019 dividend determined after 30 June 2019 will reduce the franking account balance by US\$984 million.

18 Provisions for dividends and other liabilities

The disclosure below excludes closure and rehabilitation provisions (refer to note 14 'Closure and rehabilitation provisions'), employee benefits, restructuring and post-retirement employee benefits provisions (refer to note 24 'Employee benefits, restructuring and post-retirement employee benefits provisions') and provisions related to the Samarco dam failure (refer to note 4 'Significant events – Samarco dam failure').

	2019 US\$M	2018 US\$M
Movement in provision for dividends and other liabilities		
At the beginning of the financial year	944	984
Dividends determined	11,302	5,221
Charge/(credit) for the year:		
Underlying	372	337
Discounting	10	4
Exchange variations	101	3
Released during the year	(391)	(78)
Utilisation	(338)	(150)
Dividends paid	(11,395)	(5,325)
Transferred to liabilities held for sale	–	(39)
Transfers and other movements	(104)	(13)
At the end of the financial year	501	944
Comprising:		
Current	220	290
Non-current	281	654

Financial management

19 Net debt

The Group seeks to maintain a strong balance sheet and deploys its capital with reference to the Capital Allocation Framework.

The Group monitors capital using the net debt balance and the gearing ratio, being the ratio of net debt to net debt plus net assets.

US\$M	2019		2018	
	Current	Non-current	Current	Non-current
Interest bearing liabilities				
Bank loans	508	1,990	308	2,247
Notes and debentures	1,002	20,527	2,228	21,070
Finance leases	65	650	77	725
Bank overdraft and short-term borrowings	20	-	58	-
Other	66	-	65	27
Total interest bearing liabilities	1,661	23,167	2,736	24,069
Less cash and cash equivalents				
Cash	2,210	-	1,065	-
Short-term deposits	13,403	-	14,806	-
Total cash and cash equivalents	15,613	-	15,871	-
Net debt			9,215	10,934
Net assets			51,824	60,670
Gearing			15.1%	15.3%

Cash and short-term deposits are disclosed in the cash flow statement net of bank overdrafts and interest bearing liabilities at call.

	2019 US\$M	2018 US\$M	2017 US\$M
Total cash and cash equivalents	15,613	15,871	14,153
Bank overdrafts and short-term borrowing	(20)	(58)	(45)
Total cash and cash equivalents, net of overdrafts	15,593	15,813	14,108

Recognition and measurement

Cash and short-term deposits in the balance sheet comprise cash at bank and on hand and highly liquid cash deposits with short-term maturities that are readily convertible to known amounts of cash with insignificant risk of change in value. The Group considers that the carrying value of cash and cash equivalents approximate fair value due to their short term to maturity.

Cash and cash equivalents includes US\$108 million (2018: US\$98 million) restricted by legal or contractual arrangements.

Interest bearing liabilities and cash and cash equivalents include balances denominated in the following currencies:

	Interest bearing liabilities		Cash and cash equivalents	
	2019 US\$M	2018 US\$M	2019 US\$M	2018 US\$M
USD	12,485	12,981	9,214	7,024
EUR	7,680	9,070	6	5,845
GBP	3,118	3,104	48	1,560
AUD	951	1,077	3,023	9
CAD	594	573	3,092	1,301
Other	-	-	230	132
Total	24,828	26,805	15,613	15,871

The Group enters into derivative transactions to convert the majority of its exposures above into US dollars. Further information on the Group's risk management activities relating to these balances is provided in note 21 'Financial risk management'.

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 and is managed as part of the portfolio risk management strategy. Operational, capital and regulatory requirements are considered in the management of liquidity risk, in conjunction with short-term and long-term forecast information.

Recognising the cyclical volatility of operating cash flows, the Group has defined minimum target cash and liquidity buffers to be maintained to mitigate liquidity risk and support operations through the cycle.

The Group's strong credit profile, diversified funding sources, its minimum cash buffer and its committed credit facilities ensure that sufficient liquid funds are maintained to meet its daily cash requirements.

Standard & Poor's credit rating of the Group remained at the A level with stable outlook throughout FY2019. Moody's upgraded its credit rating of the Group from A3 to A2 on 31 October 2018 with a stable outlook thereafter in FY2019.

There were no defaults on the Group's liabilities during the period.

19 Net debt continued

Counterparty risk

The Group is exposed to credit risk from its financing activities, including short-term cash investments such as deposits with banks and derivative contracts. This risk is managed by Group Treasury in line with the counterparty risk framework, which aims to minimise the exposure to a counterparty and mitigate the risk of financial loss through counterparty failure.

Exposure to counterparties is monitored at a Group level across all products and includes exposure with derivatives and cash investments.

Investments and derivatives are only transacted with approved counterparties who have been assigned specific limits based on a quantitative credit risk model. These limits are updated at least bi-annually. Additionally, derivatives are subject to tenor limits and investments are subject to concentration limits by rating.

Derivative fair values are inclusive of valuation adjustments that take into account consideration of both the counterparty and the Group's risk of default.

Standby arrangements and unused credit facilities

The Group's committed revolving credit facility operates as a back-stop to the Group's uncommitted commercial paper program. The combined amount drawn under the facility or as commercial paper will not exceed US\$6.0 billion. As at 30 June 2019, US\$ nil commercial paper was drawn (2018: US\$ nil). The revolving credit facility has a five-year maturity ending 7 May 2021. A commitment fee is payable on the undrawn balance and an interest rate comprising an interbank rate plus a margin applies to any drawn balance. The agreed margins are typical for a credit facility extended to a company with the Group's credit rating.

Maturity profile of financial liabilities

The maturity profile of the Group's financial liabilities based on the undiscounted contractual amounts, taking into account the derivatives related to debt, is as follows:

2019 US\$M	Bank loans, debentures and other loans	Expected future interest payments	Derivatives related to debentures	Other derivatives	Obligations under finance leases	Trade and other payables ⁽¹⁾	Total
Due for payment:							
In one year or less or on demand	1,587	864	200	64	110	6,555	9,380
In more than one year but not more than two years	4,107	775	226	1	110	5	5,224
In more than two years but not more than five years	5,513	1,864	558	–	307	–	8,242
In more than five years	11,662	4,896	1,102	–	501	–	18,161
Total	22,869	8,399	2,086	65	1,028	6,560	41,007
Carrying amount	24,113	–	958	65	715	6,560	32,411

2018 US\$M	Bank loans, debentures and other loans	Expected future interest payments	Derivatives related to debentures	Other derivatives	Obligations under finance leases	Trade and other payables ⁽¹⁾	Total
Due for payment:							
In one year or less or on demand	2,647	682	302	17	127	5,788	9,563
In more than one year but not more than two years	1,545	957	188	1	113	3	2,807
In more than two years but not more than five years	8,019	2,203	823	–	335	–	11,380
In more than five years	13,287	5,519	1,191	–	590	–	20,587
Total	25,498	9,361	2,504	18	1,165	5,791	44,337
Carrying amount	26,003	–	1,213	18	802	5,791	33,827

(1) Excludes input taxes of US\$162 million (2018: US\$189 million) included in other payables. Refer to note 9 'Trade and other payables'.

20 Net finance costs

	2019 US\$M	2018 US\$M	2017 US\$M
Financial expenses			
Interest expense using the effective interest rate method:			
Interest on bank loans, overdrafts and all other borrowings	1,296	1,168	1,130
Interest capitalised at 4.96% (2018: 4.24%; 2017: 3.25%) ⁽¹⁾	(248)	(139)	(113)
Interest on finance leases	47	59	33
Discounting on provisions and other liabilities	470	414	450
<i>Other gains and losses:</i>			
Fair value change on hedged loans	729	(265)	(1,185)
Fair value change on hedging derivatives	(809)	329	1,244
Exchange variations on net debt	6	(19)	(23)
Other	19	20	24
Total financial expenses	1,510	1,567	1,560
Financial income			
Interest income	(446)	(322)	(143)
Net finance costs	1,064	1,245	1,417

(1) Interest has been capitalised at the rate of interest applicable to the specific borrowings financing the assets under construction or, where financed through general borrowings, at a capitalisation rate representing the average interest rate on such borrowings. Tax relief for capitalised interest is approximately US\$74 million (2018: US\$42 million; 2017: US\$34 million).

Recognition and measurement

Interest income is accrued using the effective interest rate method. Finance costs are expensed as incurred, except where they relate to the financing of construction or development of qualifying assets.

21 Financial risk management

21.1 Financial risks

Financial and capital risk management strategy

The financial risks arising from the Group's operations comprise market, liquidity and credit risk. These risks arise in the normal course of business and the Group manages its exposure to them in accordance with the Group's portfolio risk management strategy. The objective of the strategy is to support the delivery of the Group's financial targets, while protecting its future financial security and flexibility by taking advantage of the natural diversification provided by the scale, diversity and flexibility of the Group's operations and activities.

A Cash Flow at Risk (CFaR) framework is used to measure the aggregate and diversified impact of financial risks upon the Group's financial targets. The principal measurement of risk is CFaR measured on a portfolio basis, which is defined as the worst expected loss relative to projected business plan cash flows over a one-year horizon under normal market conditions at a confidence level of 90 per cent.

Market risk management

The Group's activities expose it to market risks associated with movements in interest rates, foreign currencies and commodity prices. Under the strategy outlined above, the Group seeks to achieve 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 are potentially employed in three distinct but related activities. The following table summarises these activities and the key risk management processes:

Activity	Key risk management processes
1 Risk mitigation On an exception basis, hedging for the purposes of mitigating risk related to specific and significant expenditure on investments or capital projects will be executed if necessary to support the Group's strategic objectives.	Execution of transactions within approved mandates.
2 Economic hedging of commodity sales, operating costs, short-term cash deposits and debt instruments Where Group commodity production is sold to customers on pricing terms that deviate from the relevant index target and where a relevant derivatives market exists, financial instruments may be executed as an economic hedge to align the revenue price exposure with the index target and US dollars. Where debt is issued in a currency other than the US dollar and/or at a fixed interest rate, fair value and cash flow hedges may be executed to align the debt exposure with the Group's functional currency of US dollars and/or to swap to a floating interest rate. Where short-term cash deposits are held in a currency other than US dollars, derivative financial instruments may be executed to align the foreign exchange exposure to the Group's functional currency of US dollars.	Measuring and reporting the exposure in customer commodity contracts and issued debt instruments. Executing hedging derivatives to align the total group exposure to the index target. Execution of transactions within approved mandates.
3 Strategic financial transactions Opportunistic transactions may be executed with financial instruments to capture value from perceived market over/under valuations.	Execution of transactions within approved mandates.

Primary responsibility for the identification and control of financial risks, including authorising and monitoring the use of financial instruments for the above activities and stipulating policy thereon, rests with the Financial Risk Management Committee under authority delegated by the Chief Executive Officer.

Interest rate risk

The Group is exposed to interest rate risk on its outstanding borrowings and short-term cash deposits from the possibility that changes in interest rates will affect future cash flows or the fair value of fixed interest rate financial instruments. Interest rate risk is managed as part of the portfolio risk management strategy.

The majority of the Group's debt is issued at fixed interest rates. The Group has entered into interest rate swaps and cross currency interest rate swaps to convert most of its fixed interest rate exposure to floating US dollar interest rate exposure. As at 30 June 2019, 87 per cent of the Group's borrowings were exposed to floating interest rates inclusive of the effect of swaps (2018: 89 per cent).

The fair value of interest rate swaps and cross currency interest rate swaps in hedge relationships used to hedge both interest rate and foreign currency risks are shown in the valuation hierarchy of this note.

Based on the net debt position as at 30 June 2019, taking into account interest rate swaps and cross currency interest rate swaps, it is estimated that a one percentage point increase in the US LIBOR interest rate will decrease the Group's equity and profit after taxation by US\$39 million (2018: decrease of US\$54 million). This assumes 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. 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.

Currency risk

The US dollar is the predominant functional currency within the Group and as a result, currency exposures arise from transactions and balances in currencies other than the US dollar. The Group's potential currency exposures comprise:

- translational exposure in respect of non-functional currency monetary items;
- transactional exposure in respect of non-functional currency expenditure and revenues.

The Group's foreign currency risk is managed as part of the portfolio risk management strategy.

Translational exposure in respect of non-functional currency monetary items

Monetary items, including financial assets and liabilities, denominated in currencies other than the functional currency of an operation are periodically restated to US dollar equivalents and the associated gain or loss is taken to the income statement. The exception is foreign exchange gains or losses on foreign currency denominated provisions for closure and rehabilitation at operating sites, which are capitalised in property, plant and equipment.

The Group has entered into cross currency interest rate swaps and foreign exchange forwards to convert its significant foreign currency exposures in respect of monetary items into US dollars. Changes in foreign exchange rates will therefore have an insignificant impact on equity and profit after tax.

The principal non-functional currencies to which the Group is exposed are the Australian dollar, the Euro, the Pound sterling and the Chilean peso; however, 82 per cent (2018: 88 per cent) of the Group's net financial liabilities are denominated in US dollars. Based on the Group's net financial assets and liabilities as at 30 June 2019, a weakening of the US dollar against these currencies (one cent strengthening in Australian dollar, one cent strengthening in Euro, one penny strengthening in Pound sterling and 10 pesos strengthening in Chilean peso), with all other variables held constant, would decrease the Group's equity and profit after taxation by US\$12 million (2018: decrease of US\$10 million).

21 Financial risk management continued

Transactional exposure in respect of non-functional currency expenditure and revenues

Certain operating and capital expenditure is incurred in currencies other than an operation's functional currency. To a lesser extent, certain sales revenue is earned in currencies other than the functional currency of operations and certain exchange control restrictions may require that funds be maintained in currencies other than the functional currency of the operation. These currency risks are managed as part of the portfolio risk management strategy. The Group may enter into forward exchange contracts when required under this strategy.

Commodity price risk

The risk associated with commodity prices is managed as part of the portfolio risk management strategy. Contracts for the sale and physical delivery of commodities are executed whenever possible on a pricing basis intended to achieve a relevant index target. While substantially all of the Group's commodity production is sold on market-based index pricing terms, derivatives may from time to time be used to align realised prices with the relevant index.

Financial instruments with commodity price risk comprise forward commodity and other derivative contracts with a net assets fair value of US\$199 million (2018: US\$210 million). Significant commodity price risk instruments within other derivative balances include derivatives embedded in physical commodity purchase and sales contracts of gas in Trinidad and Tobago with a net assets fair value of US\$202 million (2018: US\$216 million). These are included within other derivatives.

The potential effect on these derivatives' fair values of using reasonably possible alternative assumptions in these models, based on a change in the most significant input, such as commodity prices, by a 10 per cent change with all other factors held constant, would increase or decrease profit after taxation by US\$55 million (2018: US\$9 million).

21.2 Recognition and measurement (following adoption of IFRS 9)

All financial assets and liabilities, other than derivatives, are initially recognised at the fair value of consideration paid or received, net of transaction costs as appropriate.

The resulting financial statement classifications of financial assets can be summarised as follows:

Contractual cash flows	Business model	Category
Solely principal and interest	Hold in order to collect contractual cash flows	Amortised cost
Solely principal and interest	Hold in order to collect contractual cash flows and sell	Fair value through other comprehensive income
Solely principal and interest	Hold in order to sell	Fair value through profit or loss
Other	Any of those mentioned above	Fair value through profit or loss

Solely principal and interest refers to the Group receiving returns only for the time value of money and the credit risk of the counterparty for financial assets held. The main exceptions for the Group are provisionally priced receivables and derivatives.

The Group has the intention of collecting payment directly from its customers in most cases, however the Group also participates in receivables financing programs in respect of selected customers. Receivables in these portfolios are therefore held at fair value through profit or loss prior to sale to the financial institution.

With the exception of derivative contracts and provisionally priced trade payables, the Group's financial liabilities are classified as subsequently measured at amortised cost.

The Group may in addition elect to designate certain financial assets or liabilities at fair value through profit or loss or to apply hedge accounting where they are not mandatorily held at fair value through profit or loss.

Derivatives are initially recognised at fair value on the date the contract is entered into and are subsequently remeasured at their fair value.

Provisionally priced commodity sales and purchases contracts

Provisionally priced sales or purchases volumes are those for which price finalisation, referenced to the relevant index, is outstanding at the reporting date. Provisional pricing mechanisms within these sales and purchases arrangements have the character of a commodity derivative. Trade receivables or payables under these contracts are carried at fair value through profit and loss. The Group's exposure at 30 June 2019 to the impact of movements in commodity prices upon provisionally invoiced sales and purchases volumes was predominately around copper.

The Group had 277 thousand tonnes of copper exposure as at 30 June 2019 (2018: 356 thousand tonnes) that was provisionally priced. The final price of these sales and purchases volumes will be determined during the first half of FY2020. A 10 per cent change in the price of copper realised on the provisionally priced sales, with all other factors held constant, would increase or decrease profit after taxation by US\$114 million (2018: US\$178 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.

Liquidity risk

Refer to note 19 'Net debt' for details on the Group's liquidity risk.

Credit risk

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Group is exposed to credit risk from its operating activities (primarily from customer receivables) and from its financing activities, including deposits with banks and financial institutions, other short-term investments, interest rate and currency derivative contracts and other financial instruments.

Refer to note 8 'Trade and other receivables' and note 19 'Net debt' for details on the Group credit risk.

Financial assets are subsequently carried at fair value or amortised cost based on:

- the Group's purpose, or business model, for holding the financial asset;
- whether the financial asset's contractual terms give rise to cash flows that are solely payments of principal and interest.

Fair value measurement

The carrying amount of financial assets and liabilities measured at fair value is principally calculated based on inputs other than quoted prices that are observable for these financial assets or liabilities, either directly (i.e. as unquoted prices) or indirectly (i.e. derived from prices). Where no price information is available from a quoted market source, alternative market mechanisms or recent comparable transactions, fair value is estimated based on the Group's views on relevant future prices, net of valuation allowances to accommodate liquidity, modelling and other risks implicit in such estimates.

The inputs used in fair value calculations are determined by the relevant segment or function. The functions support the assets and operate under a defined set of accountabilities authorised by the Executive Leadership Team. Movements in the fair value of financial assets and liabilities may be recognised through the income statement or in other comprehensive income.

21 Financial risk management continued

For financial assets and liabilities carried at fair value, the Group uses the following to categorise the method used based on the lowest level input that is significant to the fair value measurement as a whole:

Fair value hierarchy	Level 1	Level 2	Level 3
Valuation method	Based on quoted prices (unadjusted) in active markets for identical financial assets and liabilities.	Based on inputs other than quoted prices included within 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).	Based on inputs not observable in the market using appropriate valuation models, including discounted cash flow modelling.

21.3 Financial assets and liabilities

The financial assets and liabilities are presented by class in the table below at their carrying amounts.

	IFRS 13 Fair value hierarchy Level	IFRS 9 Classification ⁽¹⁾	2019 US\$M	2018 US\$M
Fair value hierarchy ⁽²⁾				
Current cross currency and interest rate swaps	2	Fair value through profit or loss	15	12
Current other derivative contracts ⁽³⁾	2,3	Fair value through profit or loss	57	170
Current other investments ⁽⁴⁾	1,2	Fair value through profit or loss	15	18
Non-current cross currency and interest rate swaps	2	Fair value through profit or loss	739	396
Non-current other derivative contracts ⁽³⁾	2,3	Fair value through profit or loss	180	195
Non-current investment in shares	3	Fair value through other comprehensive income	34	33
Non-current investment in shares	3	Fair value through profit or loss	6	–
Non-current other investments ⁽⁴⁾⁽⁵⁾	1,2,3	Fair value through profit or loss	344	375
Total other financial assets			1,390	1,199
Cash and cash equivalents		Amortised cost	15,613	15,871
Trade and other receivables ⁽⁶⁾		Amortised cost	1,929	1,799
Provisionally priced trade receivables ⁽⁶⁾	2	Fair value through profit or loss	1,446	1,126
Loans to equity accounted investments		Amortised cost	33	13
Total financial assets			20,411	20,008
Non-financial assets			80,450	91,985
Total assets			100,861	111,993
Current cross currency and interest rate swaps	2	Fair value through profit or loss	63	121
Current other derivative contracts ⁽³⁾	2,3	Fair value through profit or loss	64	17
Non-current cross currency and interest rate swaps	2	Fair value through profit or loss	895	1,092
Non-current other derivative contracts ⁽³⁾	2,3	Fair value through profit or loss	1	1
Total other financial liabilities			1,023	1,231
Trade and other payables ⁽⁷⁾		Amortised cost	6,283	5,414
Provisionally priced trade payables ⁽⁷⁾	2	Fair value through profit or loss	277	377
Bank overdrafts and short-term borrowings ⁽⁸⁾		Amortised cost	20	58
Bank loans ⁽⁸⁾		Amortised cost	2,498	2,555
Notes and debentures ⁽⁸⁾		Amortised cost	21,529	23,298
Finance leases		Amortised cost	715	802
Other ⁽⁸⁾		Amortised cost	66	92
Total financial liabilities			32,411	33,827
Non-financial liabilities			16,626	17,496
Total liabilities			49,037	51,323

(1) For classifications under IAS 39 refer to note 38 'New and amended accounting standards and interpretations'.

(2) All of the Group's financial assets and financial liabilities recognised at fair value were valued using market observable inputs categorised as Level 2 with the exception of the specified items in the following footnotes.

(3) Includes other derivative contracts of US\$200 million (2018: US\$213 million) categorised as Level 3. Significant items are derivatives embedded in physical commodity purchase and sales contracts of gas in Trinidad and Tobago with net assets fair value of US\$202 million (2018: US\$216 million).

(4) Includes investments held by BHP Billiton Foundation which are restricted and not available for general use by the Group of US\$309 million (2018: US\$343 million) of which other investment (US Treasury Notes) of US\$128 million categorised as Level 1 (2018: US\$108 million).

(5) Includes other investments of US\$47 million (2018: US\$47 million) categorised as Level 3.

(6) Excludes input taxes of US\$367 million (2018: US\$338 million) included in other receivables. Refer to note 8 'Trade and other receivables'.

(7) Excludes input taxes of US\$162 million (2018: US\$189 million) included in other payables. Refer to note 9 'Trade and other payables'.

(8) All interest bearing liabilities, excluding finance leases, are unsecured.

The carrying amounts in the table above generally approximate to fair value. In the case of US\$3,019 million (2018: US\$3,019 million) of fixed rate debt not swapped to floating rate, the fair value at 30 June 2019 was US\$3,757 million (2018: US\$3,434 million).

For financial instruments that are carried at fair value on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by reassessing categorisation at the end of each reporting period. There were no transfers between categories during the period.

For financial instruments not valued at fair value on a recurring basis, the Group uses a method that can be categorised as Level 2.

21 Financial risk management continued

Offsetting financial assets and liabilities

The Group enters into money market deposits and derivative transactions under International Swaps and Derivatives Association master netting agreements that do not meet the criteria for offsetting, but allow for the related amounts to be set-off in certain circumstances. The amounts set out as cross currency and interest rate swaps in the table above represent the derivative financial assets and liabilities of the Group that may be subject to the above arrangements and are presented on a gross basis.

21.4 Derivatives and hedge accounting

The Group uses derivatives to hedge its exposure to certain market risks and may elect to apply hedge accounting.

Hedge accounting

Derivatives are included within financial assets or liabilities at fair value through profit or loss unless they are designated as effective hedging instruments. Financial instruments in this category are classified as current if they are expected to be settled within 12 months otherwise they are classified as non-current.

The Group uses derivatives to hedge its exposure to certain market risks and may elect to apply hedge accounting. Where hedge accounting is applied, at the start of the transaction, the Group documents the type of hedge, the relationship between the hedging instrument and hedged items and its risk management objective and strategy for undertaking various hedge transactions. The documentation also demonstrates that the hedge is expected to be effective.

The Group applies the following types of hedge accounting to its derivatives hedging the interest rate and currency risks in its notes and debentures:

- Fair value hedges – the fair value gain or loss on interest rate and cross currency swaps relating to interest rate risk, together with the change in the fair value of the hedged fixed rate borrowings attributable to interest rate risk are recognised immediately in the income statement.

If the hedge no longer meets the criteria for hedge accounting, the fair value adjustment on the note or debenture is amortised to the income statement over the period to maturity using a recalculated effective interest rate.

- Cash flow hedges – changes in the fair value of cross currency interest rate swaps which hedge foreign currency cash flows on the notes and debentures are recognised directly in other comprehensive income and accumulated in the cash flow hedging reserve. To the extent a hedge is ineffective, changes in fair value are recognised immediately in the income statement.

When a hedging instrument expires, or is sold, terminated or exercised, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is amortised to the income statement over the period to the hedged item's maturity.

When hedged, the Group hedges the full notional value of notes or debentures. However, certain components of the fair value of derivatives are not permitted under IFRS 9 to be included in the hedge accounting above. Certain costs of hedging are permitted to be recognised in other comprehensive income. Any change in the fair value of a derivative that does not qualify for hedge accounting, or is ineffective in hedging the designated risk due to contractual differences between the hedged item and hedging instrument, is recognised immediately in the income statement.

The table below shows the carrying amounts of the Group's notes and debentures by currency and the derivatives which hedge them:

- The carrying amount of the notes and debentures includes foreign exchange remeasurement to period end rates and fair value adjustments when included in a fair value hedge.
- The breakdown of the hedging derivatives includes remeasurement of foreign currency notional values at period end rates, fair value movements due to interest rate risk, foreign currency cash flows designated into cash flow hedges, costs of hedging recognised in other comprehensive income, ineffectiveness recognised in the income statement and accruals or prepayments.
- The hedged value of notes and debentures includes their carrying amounts adjusted for the offsetting derivative fair value movements due to foreign currency and interest rate risk remeasurement.

2019 US\$M	Fair value of derivatives							Total	Hedged value of notes and debentures A + B + C		
	Carrying amount of notes and debentures A	Foreign exchange notional at spot rates B	Interest rate risk C	Recognised in cash flow hedging reserve D	Recognised in cost of hedging reserve E	Recognised in the income statement F	Accrued cash flows G				
USD	9,433	–	(253)	–	–	20	111	(122)	9,180		
GBP	3,118	678	(517)	(57)	70	(2)	62	234	3,279		
EUR	7,680	378	(566)	(100)	33	54	82	(119)	7,492		
CAD	594	175	(22)	(5)	3	(4)	1	148	747		
AUD	704	73	(4)	(1)	–	–	(5)	63	773		
Total	21,529	1,304	(1,362)	(163)	106	68	251	204	21,471		
2018 US\$M	23,298	1,145	(633)	(85)	–	71	307	805	23,810		

The weighted average interest rate payable is USD LIBOR + 2.3%. Refer to note 20 'Net finance costs' for details of net finance costs for the year.

Movements in reserves relating to hedge accounting

The following table shows a reconciliation of the components of equity and an analysis of the movements in reserves for all hedges. For a description of these reserves, refer to note 16 'Other equity'.

2019 US\$M	Cash flow hedging reserve			Cost of hedging reserve		
	Gross	Tax	Net	Gross	Tax	Net
At the beginning of the financial year	85	(27)	58	–	–	–
Impact of adoption of IFRS 9	176	(52)	124	(176)	52	(124)
Add: Change in fair value of hedging instrument recognised in OCI	(327)	98	(229)	–	–	–
Less: Reclassified from reserves to interest expense – recognised through OCI	229	(68)	161	70	(20)	50
At the end of the financial year	163	(49)	114	(106)	32	(74)
						40

21 Financial risk management continued

Changes in interest bearing liabilities and related derivatives resulting from financing activities

The movement in the year in the Group's interest bearing liabilities and related derivatives are as follows:

2019 US\$M	Interest bearing liabilities					Derivatives (assets)/ liabilities	Total
	Bank loans	Notes and debentures	Finance leases	Bank overdraft and short-term borrowings	Other		
At the beginning of the financial year	2,555	23,298	802	58	92	805	
Proceeds from interest bearing liabilities	250	—	—	—	—	—	250
Settlements of debt related instruments	—	—	—	—	—	(160)	(160)
Repayment of interest bearing liabilities	(308)	(2,198)	(75)	—	(23)	—	(2,604)
Change from Net financing cash flows	(58)	(2,198)	(75)	—	(23)	(160)	(2,514)
Other movements:							
Interest rate impacts	—	729	—	—	—	(809)	
Foreign exchange impacts	—	(311)	(11)	—	—	319	
Other interest bearing liabilities/derivative related changes	1	11	(1)	(38)	(3)	49	
At the end of the financial year	2,498	21,529	715	20	66	204	

2018 US\$M	Interest bearing liabilities					Derivatives (assets)/ liabilities	Total
	Bank loans	Notes and debentures	Finance leases	Bank overdraft and short-term borrowings	Other		
At the beginning of the financial year	2,281	27,041	897	45	210	740	
Proceeds from interest bearing liabilities	500	—	—	—	28	—	528
Settlements of debt related instruments	—	—	—	—	—	(218)	(218)
Repayment of interest bearing liabilities	(221)	(3,736)	(81)	—	(150)	—	(4,188)
Change from Net financing cash flows	279	(3,736)	(81)	—	(122)	(218)	(3,878)
Other movements:							
Interest rate impacts	—	(353)	—	—	—	329	
Foreign exchange impacts	—	245	(9)	—	—	(254)	
Other interest bearing liabilities/derivative related changes	(5)	101	—	13	4	208	
Liabilities transferred to held for sale	—	—	(5)	—	—	—	
At the end of the financial year	2,555	23,298	802	58	92	805	

Employee matters

22 Key management personnel

Key management personnel compensation comprises:

	2019 US\$	2018 US\$	2017 US\$
Short-term employee benefits	11,557,506	13,190,838	16,439,948
Post-employment benefits	1,490,716	1,506,108	1,895,828
Share-based payments	15,821,972	13,356,657	13,747,355
Total	28,870,194	28,053,603	32,083,131

Following the dissolution of the Operations Management Committee (OMC) in FY2018, the Remuneration Committee re-examined the classification of Key Management Personnel (KMP) for FY2018 and determined that the roles which have the authority and responsibility for planning, directing and controlling the activities of BHP are Non-executive Directors, the CEO, the Chief Financial Officer, the President Operations, Minerals Australia, the President Operations, Minerals Americas, and the President Operations, Petroleum. The Remuneration Committee also determined that, effective 1 July 2017 the Chief External Affairs Officer and Chief People Officer roles are no longer considered KMP.

Transactions and outstanding loans/amounts with key management personnel

There were no purchases by key management personnel from the Group during the financial year (2018: US\$ nil; 2017: US\$ nil).

There were no amounts payable by key management personnel at 30 June 2019 (2018: US\$ nil; 2017: US\$ nil).

There were no loans receivable from or payable to key management personnel at 30 June 2019 (2018: US\$ nil; 2017: US\$ nil).

Transactions with personally related entities

A number of Directors of the Group hold or have held positions in other companies (personally related entities) where it is considered they control or significantly influence the financial or operating policies of those entities. There were no reportable transactions with those entities and no amounts were owed by the Group to personally related entities at 30 June 2019 (2018: US\$ nil; 2017: US\$ nil).

For more information on remuneration and transactions with key management personnel, refer to section 3.

23 Employee share ownership plans

Awards, in the form of the right to receive ordinary shares in either BHP Group Limited or BHP Group Plc, have been granted under the following employee share ownership plans: Long-Term Incentive Plan (LTIP), Short-Term Incentive Plan (STIP), Management Award Plan (MAP), Group Short-Term Incentive Plan (GSTIP), Transitional Executive KMP awards and the all-employee share plan, Shareplus.

Some awards are eligible to receive a cash payment, or the equivalent value in shares, equal to the dividend amount that would have been earned on the underlying shares awarded to those participants (the Dividend Equivalent Payment, or DEP). The DEP is provided to the participants once the underlying shares are allocated or transferred to them. Awards under the plans do not confer any rights to participate in a share issue; however, there is discretion under each of the plans to adjust the awards in response to a variation in the share capital of BHP Group Limited or BHP Group Plc.

The table below provides a description of each of the plans.

Plan	STIP and GSTIP	LTIP and MAP	Transitional Executive KMP awards	Shareplus
Type	Short-term incentive	Long-term incentive	Long-term incentive	All-employee share purchase plan
Overview	The STIP is generally a plan for the Executive KMP and the GSTIP is a plan for BHP senior management who are not KMP. Under both plans, half of the value of a participant's short-term incentive amount is awarded as rights to receive BHP Group Limited or BHP Group Plc shares at the end of the vesting period.	The LTIP is a plan for Executive KMP and awards are granted annually. The MAP is a plan for BHP senior management who are not KMP. The number of share rights awarded is determined by a participant's role and grade.	Awards may be granted to new Executive KMP recruited from within the Group to bridge the gap created by the different timeframes of the vesting of MAP awards, granted in their non-KMP roles, and LTIP awards, granted to Executive KMP. No awards were granted to Executive KMP in FY2019.	Employees may contribute up to US\$5,000 to acquire shares in any plan year. On the third anniversary of the start of a plan year, the Group will match the number of acquired shares.
Vesting conditions	Service conditions only.	LTIP: Service and performance conditions. For awards granted from December 2013 onwards, BHP's Total Shareholder Return (TSR) ⁽¹⁾ performance relative to the Peer Group TSR over a five-year performance period determines the vesting of 67 per cent of the awards, while performance relative to the Index TSR (being the index value where the comparator group is a market index) determines the vesting of 33 per cent of the awards. For the awards to vest in full, BHP's TSR must exceed the Peer Group TSR and Index TSR (if applicable) by a specified percentage per year, determined for each grant by the Remuneration Committee. From the establishment of the LTIP in 2004 until the awards granted in December 2016, this percentage was set at 5.5 per cent per year. For awards granted from December 2017 onwards, 25 per cent of the award will vest where BHP's TSR is equal to the median TSR of the relevant comparator group(s), as measured over the performance period. Where TSR is below the median, awards will not vest. Vesting occurs on a sliding scale when BHP's TSR measured over the performance period is between the median TSR of the relevant comparator group(s) up to a nominated level of TSR outperformance over the relevant comparator group(s), as determined by the Committee, above which 100 per cent of the award will vest. MAP: Service conditions only.	Service conditions and performance conditions. The Remuneration Committee has absolute discretion to determine if the performance condition has been met and whether any, all or part of the award will vest (or otherwise lapse), having regard to (but not limited to) the BHP's TSR ⁽¹⁾ over the three- or four-year performance period (respectively), the participant's contribution to Group outcomes and the participant's personal performance (with guidance on this assessment from the CEO).	Service conditions only.
Vesting period	2 years	LTIP – 5 years MAP – 1 to 5 years	3 or 4 years	3 years
Dividend Equivalent Payment	STIP – Yes GSTIP – No	LTIP – Yes MAP – No	No	No
Exercise period	None	LTIP – None MAP – None	None	None

(1) BHP's TSR is the weighted average of the TSRs of BHP Group Limited and BHP Group Plc.

23 Employee share ownership plans continued

Employee share awards

2019	Number of awards at the beginning of the financial year	Number of awards issued during the year	Number of awards vested and exercised	Number of awards lapsed	Number of awards at the end of the financial year	Number of awards vested and exercisable at the end of the financial year	Weighted average remaining contractual life (years)
BHP Group Limited							
STIP awards	308,028	271,355	65,392	–	513,991	–	0.7
GSTIP awards	2,008,455	–	780,315	85,656	1,142,484	15,932	0.2
LTIP awards	5,980,975	947,153	–	1,197,239	5,730,889	–	2.1
Transitional Executive KMP awards	46,840	–	16,160	7,260	23,420	–	0.2
MAP awards	10,379,263	4,604,638	2,416,107	1,077,449	11,490,345	94,921	1.3
Shareplus	4,775,079	2,025,302	2,590,297	352,939	3,857,145	–	1.2
BHP Group Plc							
GSTIP awards	63,868	–	22,911	11,531	29,426	–	0.2
MAP awards	315,451	132,676	107,756	67,340	273,031	–	1.3
Shareplus	282,159	111,866	145,666	24,289	224,070	–	1.2

Employee share awards expense is US\$138.275 million (2018: US\$123.313 million; 2017: US\$106.214 million) and includes Onshore US.

Fair value and assumptions in the calculation of fair value for awards issued

2019	Weighted average fair value of awards granted during the year US\$	Risk-free interest rate	Estimated life of awards	Share price at grant date	Estimated volatility of share price	Dividend yield
BHP Group Limited						
STIP awards	24.10	n/a	3 years	A\$33.50	n/a	n/a
LTIP awards	17.36	2.04%	5 years	A\$33.50	30.0%	n/a
MAP awards ⁽¹⁾	21.29	n/a	1-5 years	A\$33.83/A\$33.41/A\$33.50	n/a	5.30%
Shareplus	20.68	2.13%	3 years	A\$28.29	n/a	4.71%
BHP Group Plc						
MAP awards	18.68	n/a	1-5 years	£16.71	n/a	5.80%
Shareplus	14.71	0.86%	3 years	£14.04	n/a	5.40%

(1) Includes MAP awards granted on 24 September 2018, 12 November 2018 and 18 December 2018.

Recognition and measurement

The fair value at grant date of equity-settled share awards is charged to the income statement over the period for which the benefits of employee services are expected to be derived. The fair values of awards granted were estimated using a Monte Carlo simulation methodology and Black-Scholes option pricing technique and consider the following factors:

- exercise price;
- expected life of the award;
- current market price of the underlying shares;
- expected volatility using an analysis of historic volatility over different rolling periods. For the LTIP, it is calculated for all sector comparators and the published MSCI World index;
- expected dividends;
- risk-free interest rate, which is an applicable government bond rate;
- market-based performance hurdles;
- non-vesting conditions.

Where awards are forfeited because non-market-based vesting conditions are not satisfied, the expense previously recognised is proportionately reversed.

The tax effect of awards granted is recognised in income tax expense, except to the extent that the total tax deductions are expected to exceed the cumulative remuneration expense. In this situation, the excess of the associated current or deferred tax is recognised in other comprehensive income and forms part of the employee share awards reserve. The fair value of awards as presented in the tables above represents the fair value at grant date.

In respect of employee share awards, the Group utilises the Billiton Employee Share Ownership Trust and the BHP Billiton Limited Employee Equity Trust. The trustees of these trusts are independent companies, resident in Jersey. The trusts use funds provided by the Group to acquire ordinary shares to enable awards to be made or satisfied. The ordinary shares may be acquired by purchase in the market or by subscription at not less than nominal value. The BHP Billiton Limited Employee Equity Trust has waived its rights to current and future dividends on shares held to meet future awards under the plans.

24 Employee benefits, restructuring and post-retirement employee benefits provisions

	2019 US\$M	2018 US\$M
Employee benefits ⁽¹⁾	1,140	1,232
Restructuring ⁽²⁾	78	8
Post-retirement employee benefits	493	449
Total provisions	1,711	1,689
Comprising:		
Current	1,154	1,148
Non-current	557	541

2019	Employee benefits US\$M	Restructuring US\$M	Post-retirement employee benefits ⁽³⁾ US\$M	Total US\$M
At the beginning of the financial year	1,232	8	449	1,689
Charge/(credit) for the year:				
Underlying	1,011	160	55	1,226
Discounting	–	–	42	42
Net interest expense	–	–	(21)	(21)
Exchange variations	(49)	1	(6)	(54)
Released during the year	(146)	(11)	–	(157)
Remeasurement gains taken to retained earnings	–	–	20	20
Utilisation	(908)	(80)	(46)	(1,034)
At the end of the financial year	1,140	78	493	1,711

(1) The expenditure associated with total employee benefits will occur in a pattern consistent with when employees choose to exercise their entitlement to benefits.

(2) Total restructuring provisions include provisions for terminations and office closures.

(3) Refer to note 25 'Pension and other post-retirement obligations'.

Recognition and measurement

Provisions are recognised by the Group when:

- there is a present legal or constructive obligation as a result of past events;
- it is more likely than not that a permanent outflow of resources will be required to settle the obligation;
- the amount can be reliably estimated and measured at the present value of management's best estimate of the cash outflow required to settle the obligation at reporting date.

Provision	Description
Employee benefits	<p>Liabilities for annual leave and any accumulating sick leave accrued up until the reporting date that are expected to be settled within 12 months are measured at the amounts expected to be paid when the liabilities are settled.</p> <p>Liabilities for long service leave are measured as the present value of estimated future payments for the services provided by employees up to the reporting date and disclosed within employee benefits.</p> <p>Liabilities that are not expected to be settled within 12 months are discounted at the reporting date using market yields of high-quality corporate bonds or government bonds for countries where there is no deep market for corporate bonds. The rates used reflect the terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.</p> <p>In relation to industry-based long service leave funds, the Group's liability, including obligations for funding shortfalls, is determined after deducting the fair value of dedicated assets of such funds.</p> <p>Liabilities for unpaid wages and salaries are recognised in other creditors.</p>
Restructuring	<p>Restructuring provisions are recognised when:</p> <ul style="list-style-type: none"> • the Group has a detailed formal plan identifying the business or part of the business concerned, the location and approximate number of employees affected, a detailed estimate of the associated costs, and an appropriate timeline; • the restructuring has either commenced or been publicly announced and can no longer be withdrawn. <p>Payments falling due greater than 12 months after the reporting date are discounted to present value.</p>

25 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.

Schemes/Obligations	Description
Defined contribution pension schemes and multi-employer pension schemes	For defined contribution schemes or schemes operated on an industry-wide basis where it is not possible to identify assets attributable to the participation by the Group's employees, the pension charge is calculated on the basis of contributions payable. The Group contributed US\$274 million during the financial year (2018: US\$277 million; 2017: US\$247 million) to defined contribution plans and multi-employer defined contribution plans. These contributions are expensed as incurred.
Defined benefit pension schemes	For defined benefit pension schemes, the cost of providing pensions is charged to the income statement so as to recognise current and past service costs, net interest cost on the net defined benefit obligations/plan assets and the effect of any curtailments or settlements. Remeasurement gains and losses are recognised directly in equity. An asset or liability is consequently recognised in the balance sheet based on the present value of defined benefit obligations less the fair value of plan assets, except that any such asset cannot exceed the present value of expected refunds from and reductions in future contributions to the plan. Defined benefit obligations are estimated by discounting expected future payments using market yields at the reporting date on high-quality corporate bonds in countries that have developed corporate bond markets. However, where developed corporate bond markets do not exist, the discount rates are selected by reference to national government bonds. In both instances, the bonds are selected with terms to maturity and currency that match, as closely as possible, the estimated future cash flows. The Group has closed all defined benefit pension schemes to new entrants. Defined benefit pension schemes remain operating in Australia, the United States, Canada and Europe for existing members. Full actuarial valuations are prepared and updated annually to 30 June by local actuaries for all schemes. The Group operates final salary schemes (that provide final salary benefits only), non-salary related schemes (that provide flat dollar benefits) and mixed benefit schemes (that consist of a final salary defined benefit portion and a defined contribution portion).
Defined benefit post-retirement medical schemes	The Group operates a number of post-retirement medical schemes in the United States, Canada and Europe and certain Group companies provide post-retirement medical benefits to qualifying retirees. In some cases, the benefits are provided through medical care schemes to which the Group, the employees, the retirees and covered family members contribute. Full actuarial valuations are prepared by local actuaries for all schemes. These schemes are recognised on the same basis as described for defined benefit pension schemes. All of the post-retirement medical schemes in the Group are unfunded.
Defined benefit post-employment obligations	The Group has a legal obligation to provide post-employment benefits to employees in Chile. The benefit is a function of an employee's final salary and years of service. These obligations are recognised on the same basis as described for defined benefit pension schemes. Full actuarial valuations are prepared by local actuaries. These post-employment obligations are unfunded.

Risk

The Group's defined benefit schemes/obligations expose the Group to a number of risks, including asset value volatility, interest rate variations, inflation, longevity and medical expense inflation risk.

Recognising this, the Group has adopted an approach of moving away from providing defined benefit pensions. The majority of Group-sponsored defined benefit pension schemes have been closed to new entrants for many years. Existing benefit schemes and the terms of employee participation in these schemes are reviewed on a regular basis.

Fund assets

The Group follows a coordinated strategy for the funding and investment of its defined benefit pension schemes (subject to meeting all local requirements). The Group's aim is for the value of defined benefit pension scheme assets to be maintained at close to the value of the corresponding benefit obligations, allowing for some short-term volatility.

Scheme assets are invested in a diversified range of asset classes, predominantly comprising bonds and equities.

The Group's aim is to progressively shift defined benefit pension scheme assets towards investments that match the anticipated profile of the benefit obligations, as funding levels improve and benefit obligations mature. Over time, this is expected to result in a further reduction in the total exposure of pension scheme assets to equity markets. For pension schemes that pay lifetime benefits, the Group may consider and support the purchase of annuities to back these benefit obligations if it is commercially sensible to do so.

Net liability recognised in the Consolidated Balance Sheet

The net liability recognised in the Consolidated Balance Sheet is as follows:

	Defined benefit pension schemes/ post-employment obligations		Post-retirement medical schemes	
	2019 US\$m	2018 US\$m	2019 US\$m	2018 US\$m
Present value of funded defined benefit obligation	632	616	-	-
Present value of unfunded defined benefit obligation	306	274	203	192
Fair value of defined benefit scheme assets	(648)	(633)	-	-
Scheme deficit	290	257	203	192
Unrecognised surplus	-	-	-	-
Unrecognised past service credits	-	-	-	-
Adjustment for employer contributions tax	-	-	-	-
Net liability recognised in the Consolidated Balance Sheet	290	257	203	192

The Group has no legal obligation to settle these liabilities with any immediate contributions or additional one-off contributions. The Group intends to continue to contribute to each defined benefit pension and post-retirement medical scheme in accordance with the latest recommendations of each scheme actuary.

26 Employees

	2019 Number	2018 Number	2017 Number
Average number of employees⁽¹⁾			
Australia	18,146	16,504	15,906
South America	6,979	6,729	6,361
North America	1,999	1,839	2,072
Asia	1,743	1,368	1,019
Europe	59	70	74
Total average number of employees from Continuing operations	28,926	26,510	25,432
Total average number of employees from Discontinued operations	–	651	714
Total average number of employees	28,926	27,161	26,146

(1) Average employee numbers include the Executive Director and 100 per cent of employees of subsidiary companies. Employees of equity accounted investments and joint operations are not included. Part-time employees are included on a full-time equivalent basis. Employees of businesses disposed of during the year are included for the period of ownership. Contractors are not included.

Group and related party information

27 Discontinued operations

On 28 September 2018, BHP completed the sale of 100 per cent of the issued share capital of BHP Billiton Petroleum (Arkansas) Inc. and 100 per cent of the membership interests in BHP Billiton Petroleum (Fayetteville) LLC, which held the Fayetteville assets, for a gross cash consideration of US\$0.3 billion.

On 31 October 2018, BHP completed the sale of 100 per cent of the issued share capital of Petrohawk Energy Corporation, the BHP subsidiary which held the Eagle Ford (being Black Hawk and Hawkvile), Haynesville and Permian assets, for a gross cash consideration of US\$10.3 billion (net of preliminary customary completion adjustments of US\$0.2 billion).

While the effective date at which the right to economic profits transferred to the purchasers was 1 July 2018, the Group continued to control the Onshore US assets until the completion dates of their respective transactions. As such the Group continued to recognise its share of revenue, expenses, net finance costs and associated income tax expense related to the operation until the completion date. In addition, the Group provided transitional services to the buyer, which ceased in July 2019.

The completion adjustments included a reduction in sale proceeds, based on the operating cash generated and retained by the Group in the period prior to completion, in order to transfer the economic profits from 1 July 2018 to completion date to the buyers. Therefore, the pre-tax profit from operating the assets is largely offset by a pre-tax loss on disposal. Accordingly, the net loss from discontinued operations predominantly relates to incremental costs arising as a consequence of the divestment, including restructuring costs and provisions for surplus office accommodation, and tax expenses largely triggered by the completion of the transactions.

27 Discontinued operations continued

The contribution of Discontinued operations included within the Group's profit and cash flows are detailed below:

Income statement – Discontinued operations

	2019 US\$M	2018 US\$M	2017 US\$M
Revenue	851	2,171	2,150
Other income	94	34	74
Expenses excluding net finance costs	(729)	(5,790)	(3,025)
Profit/(loss) from operations	216	(3,585)	(801)
Financial expenses	(8)	(22)	(14)
Net finance costs	(8)	(22)	(14)
Profit/(loss) before taxation	208	(3,607)	(815)
Income tax (expense)/benefit	(33)	686	343
Profit/(loss) after taxation from operating activities	175	(2,921)	(472)
Net loss on disposal	(510)	–	–
Loss after taxation	(335)	(2,921)	(472)
Attributable to non-controlling interests	7	26	13
Attributable to BHP shareholders	(342)	(2,947)	(485)
Basic loss per ordinary share (cents)	(6.6)	(55.4)	(9.1)
Diluted loss per ordinary share (cents)	(6.6)	(55.4)	(9.1)

The total comprehensive income attributable to BHP shareholders from Discontinued operations was a loss of US\$342 million (2018: loss of US\$2,943 million; 2017: loss of US\$489 million).

The conversion of options and share rights would decrease the loss per share for the years ended 30 June 2019, 2018 and 2017 and therefore its impact has been excluded from the diluted earnings per share calculation.

Cash flows from Discontinued operations

	2019 US\$M	2018 US\$M	2017 US\$M
Net operating cash flows	474	900	928
Net investing cash flows ⁽¹⁾	(443)	(861)	(437)
Net financing cash flows ⁽²⁾	(13)	(40)	(28)
Net increase/(decrease) in cash and cash equivalents from Discontinued operations	18	(1)	463
Net proceeds received from the sale of Onshore US	10,531	–	–
Less Cash and cash equivalents	(104)	–	–
Proceeds from divestment of Onshore US, net of its cash	10,427	–	–
Total cash impact	10,445	(1)	463

(1) Includes purchases of property, plant and equipment of US\$443 million (2018: US\$900 million; 2017: US\$555 million) less proceeds from sale of assets of US\$ nil (2018: US\$39 million; 2017: US\$118 million).

(2) Includes net repayment of interest bearing liabilities of US\$6 million (2018: US\$4 million; 2017: US\$6 million), distribution to non-controlling interests of US\$ nil (2018: US\$14 million; 2017: US\$16 million) and dividends paid to non-controlling interests of US\$7 million (2018: US\$22 million; 2017: US\$6 million).

Net loss on disposal of Discontinued operations

Details of the net loss on disposal is presented below:

	2019 US\$M
Assets	
Cash and cash equivalents	104
Trade and other receivables	562
Other financial assets	31
Inventories	34
Property, plant and equipment	10,998
Intangible assets	667
Total assets	12,396
Liabilities	
Trade and other payables	794
Provisions	491
Total liabilities	1,285
Net assets	11,111
Less non-controlling interest share of net assets disposed	(168)
BHP Share of net assets disposed	10,943
Gross consideration	10,555
Less transaction costs	(54)
Income tax expense	(68)
Net loss on disposal	(510)

27 Discontinued operations continued

Exceptional items – Discontinued operations

Exceptional items are those gains or losses where their nature, including the expected frequency of the events giving rise to them, and amount is considered material to the Financial Statements.

There were no exceptional items related to Discontinued operations for the year ended 30 June 2019 and 30 June 2017.

Items related to Discontinued operations included within profit for the year ended 30 June 2018 are detailed below.

Year ended 30 June 2018	Gross US\$M	Tax US\$M	Net US\$M
Exceptional items by category			
US tax reform	–	492	492
Impairment of Onshore US assets	(2,859)	109	(2,750)
Total	(2,859)	601	(2,258)
Attributable to non-controlling interests	–	–	–
Attributable to BHP shareholders	(2,859)	601	(2,258)

US tax reform

On 22 December 2017, the US President signed the Tax Cuts and Jobs Act (TCJA) into law. The TCJA (effective 1 January 2018) includes a broad range of tax reforms affecting the Group, including, but not limited to, a reduction in the US corporate tax rate from 35 per cent to 21 per cent and changes to international tax provisions. As a result of the TCJA, the Group has recognised an exceptional income tax benefit of US\$492 million relating to the re-measurement of the Onshore US deferred tax positions arising from temporary differences.

Impairment of Onshore US assets

For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows. At 30 June 2018, the Onshore US assets, including goodwill, have been allocated to two CGUs reflecting the separately identifiable cash flows expected from the divestment of the assets.

The Group recognised impairment charges as follows:

Cash generating unit	Property, plant and equipment US\$M	Goodwill US\$M	Total US\$M
Petrohawk	–	(2,253)	(2,253)
Fayetteville	(520)	(86)	(606)
Total impairment of non-current assets	(520)	(2,339)	(2,859)

The charges reflect a robust and competitive exit process with fair value based on the agreed sales consideration (Level 2 of the fair value hierarchy) less expected costs of disposal.

In previous reporting periods the Group performed impairment testing of the five individual Onshore US assets as each asset had separately identifiable cash flows. In addition, the goodwill attributable to the Onshore US group of CGUs (2017: US\$3,022 million) was tested for impairment after the assessment of the individual CGUs. The recoverable amount determinations for the Onshore US CGUs were based on FVLCD using discounted cash flow techniques. The FVLCD calculations were based primarily on Level 3 inputs and significant assumptions included management's assessment of a market participant's perspective of crude oil and natural gas prices, production volumes and discount rates.

28 Subsidiaries

Significant subsidiaries of the Group are those with the most significant contribution to the Group's net profit or net assets. The Group's interest in the subsidiaries results are listed in the table below. For a complete list of the Group's subsidiaries, refer to note 13 'Related undertakings of the Group' in section 5.2.

Significant subsidiaries	Country of incorporation	Principal activity	Group's interest	
			2019 %	2018 %
Coal				
BHP Billiton Mitsui Coal Pty Ltd	Australia	Coal mining	80	80
Hunter Valley Energy Coal Pty Ltd	Australia	Coal mining	100	100
Copper				
BHP Billiton Olympic Dam Corporation Pty Ltd	Australia	Copper and uranium mining	100	100
Compañía Minera Cerro Colorado Limitada	Chile	Copper mining	100	100
Minera Escondida Limitada ⁽¹⁾	Chile	Copper mining	57.5	57.5
Minera Spence S.A.	Chile	Copper mining	100	100
Iron Ore				
BHP Billiton Iron Ore Pty Ltd	Australia	Service company	100	100
BHP Billiton Minerals Pty Ltd	Australia	Iron ore and coal mining	100	100
BHP Iron Ore (Jimblebar) Pty Ltd ⁽²⁾	Australia	Iron ore mining	85	85
BHP (Towage Service) Pty Ltd	Australia	Towing services	100	100
Marketing				
BHP Billiton Freight Singapore Pte Limited	Singapore	Freight services	100	100
BHP Billiton Marketing AG	Switzerland	Marketing and trading	100	100
BHP Billiton Marketing Asia Pte Ltd	Singapore	Marketing support and other services	100	100
Group and Unallocated				
BHP Billiton Canada Inc.	Canada	Potash development	100	100
BHP Billiton Finance BV	The Netherlands	Finance	100	100
BHP Billiton Finance Limited	Australia	Finance	100	100
BHP Billiton Finance (USA) Ltd	Australia	Finance	100	100
BHP Group Operations Pty Ltd	Australia	Administrative services	100	100
BHP Billiton Nickel West Pty Ltd	Australia	Nickel mining, smelting, refining and administrative services	100	100
WMC Finance (USA) Limited	Australia	Finance	100	100

(1) As the Group has the ability to direct the relevant activities at Minera Escondida Limitada, it has control over the entity. The assessment of the most relevant activity in this contractual arrangement is subject to judgement. The Group establishes the mine plan and the operating budget and has the ability to appoint the key management personnel, demonstrating that the Group has the existing rights to direct the relevant activities of Minera Escondida Limitada.

(2) The Group has an effective interest of 92.5 per cent in BHP Iron Ore (Jimblebar) Pty Ltd; however, by virtue of the shareholder agreement with ITOCHU Iron Ore Australia Pty Ltd and Mitsui & Co. Iron Ore Exploration & Mining Pty Ltd, the Group's interest in the Jimblebar mining operation is 85 per cent, which is consistent with the other respective contractual arrangements at Western Australia Iron Ore.

29 Investments accounted for using the equity method

Significant interests in equity accounted investments of the Group are those with the most significant contribution to the Group's net profit or net assets. The Group's ownership interest in equity accounted investments results are listed in the table below. For a complete list of the Group's associates and joint ventures, refer to note 13 'Related undertakings of the Group' in section 5.2.

Significant associates and joint ventures	Country of incorporation/principal place of business	Associate or joint venture	Principal activity	Reporting date	Ownership interest	
					2019 %	2018 %
Cerrejón	Anguilla/Colombia/Ireland	Associate	Coal mining in Colombia	31 December	33.33	33.33
Compañía Minera Antamina S.A. (Antamina)	Peru	Associate	Copper and zinc mining	31 December	33.75	33.75
Samarco Mineração S.A. (Samarco)	Brazil	Joint venture	Iron ore mining	31 December	50.00	50.00

Voting in relation to relevant activities in Antamina and Cerrejón, determined to be the approval of the operating and capital budgets, does not require unanimous consent of all participants to the arrangement, therefore joint control does not exist. Instead, because the Group has the power to participate in the financial and operating policies of the investee, these investments are accounted for as associates.

Samarco is jointly owned by BHP Billiton Brasil and Vale. As the Samarco entity has the rights to the assets and obligations to the liabilities relating to the joint arrangement and not its owners, this investment is accounted for as a joint venture.

The Group is restricted in its ability to make dividend payments from its investments in associates and joint ventures as any such payments require the approval of all investors in the associates and joint ventures. The ownership interest at the Group's and the associates' or joint ventures' reporting dates are the same. When the annual financial reporting date is different to the Group's, financial information is obtained as at 30 June in order to report on an annual basis consistent with the Group's reporting date.

The movement for the year in the Group's investments accounted for using the equity method is as follows:

Year ended 30 June 2019 US\$M	Investment in associates	Investment in joint ventures	Total equity accounted investments
At the beginning of the financial year	2,473	–	2,473
(Loss)/profit from equity accounted investments, related impairments and expenses ⁽¹⁾	399	(945)	(546)
Investment in equity accounted investments	207	96	303
Dividends received from equity accounted investments	(510)	–	(510)
Other	–	849	849
At the end of the financial year	2,569	–	2,569

(1) US\$(945) million represents US\$(96) million share of loss from US\$(96) million funding provided during the period and US\$(849) million movement in provisions related to the Samarco dam failure including US\$(579) million change in estimate, US\$(7) million exchange translation and US\$(263) million Samarco Germano dam decommissioning provision. Refer to note 4 'Significant events – Samarco dam failure' for further information.

The following table summarises the financial information relating to each of the Group's significant equity accounted investments. BHP Billiton Brasil's 50 per cent portion of Samarco's commitments, for which BHP Billiton Brasil has no funding obligation, is US\$250 million (2018: US\$550 million).

2019 US\$M	Associates			Joint ventures		Total
	Antamina	Cerrejón	Individually immaterial ⁽¹⁾	Samarco ⁽²⁾	Individually immaterial	
Current assets	1,065	845		290 ⁽³⁾		
Non-current assets	4,495	2,664		6,103		
Current liabilities	(498)	(344)		(6,704) ⁽⁴⁾		
Non-current liabilities	(1,076)	(801)		(5,830)		
Net assets/(liabilities) – 100%	3,986	2,364		(6,141)		
Net assets/(liabilities) – Group share	1,345	788		(3,071)		
Adjustments to net assets related to accounting policy adjustments	–	65		366 ⁽⁵⁾		
Impairment of the carrying value of the investment in Samarco	–	–		(525) ⁽⁶⁾		
Additional share of Samarco losses	–	–		3,145 ⁽⁷⁾		
Unrecognised losses	–	–		85 ⁽⁸⁾		
Carrying amount of investments accounted for using the equity method	1,345	853	371	–	–	2,569
Revenue – 100%	3,203	2,094		24		
Profit/(loss) from Continuing operations – 100%	1,168	309		(2,166) ⁽⁹⁾		
Share of operating profit/(loss) of equity accounted investments	394	103		(1,075)		
Additional share of Samarco losses	–	–		108		
Unrecognised losses	–	–		22 ⁽⁸⁾		
(Loss)/profit from equity accounted investments, related impairments and expenses	394	103	(98)	(945)	–	(546)
Comprehensive income/(loss) – 100%	1,168	309		(2,166)		
Share of comprehensive income/(loss) – Group share in equity accounted investments	394	103	(98)	(945)	–	(546)
Dividends received from equity accounted investments	361	134	15	–	–	510

29 Investments accounted for using the equity method continued

2018 US\$M	Associates			Joint ventures		
	Antamina	Cerrejón	Individually immaterial ⁽¹⁾	Samarco ⁽²⁾	Individually immaterial	Total
Current assets	1,099	1,187		79 ⁽³⁾		
Non-current assets	4,385	2,485		6,023		
Current liabilities	(532)	(585)		(5,811) ⁽⁴⁾		
Non-current liabilities	(1,064)	(663)		(4,265)		
Net assets/(liabilities) – 100%	3,888	2,424		(3,974)		
Net assets/(liabilities) – Group share	1,312	808		(1,987)		
Adjustments to net assets related to accounting policy adjustments	1	75		357 ⁽⁵⁾		
Impairment of the carrying value of the investment in Samarco	–	–		(525) ⁽⁶⁾		
Additional share of Samarco losses	–	–		2,092 ⁽⁷⁾		
Unrecognised losses	–	–		63 ⁽⁸⁾		
Carrying amount of investments accounted for using the equity method	1,313	883	277	–	–	2,473
Revenue – 100%	3,866	2,453		30		
Profit/(loss) from Continuing operations – 100%	1,613	576		(1,558) ⁽⁹⁾		
Share of operating profit/(loss) of equity accounted investments	544	192		(823)		
Additional share of Samarco losses	–	–		251		
Unrecognised losses	–	–		63 ⁽⁸⁾		
Profit/(loss) from equity accounted investments, related impairments and expenses	544	192	(80)	(509)	–	147
Comprehensive income/(loss) – 100%	1,613	576		(1,558)		
Share of comprehensive income/(loss) – Group share in equity accounted investments	544	192	(80)	(509)	–	147
Dividends received from equity accounted investments	496	181	16	–	–	693
2017 US\$M	Associates			Joint ventures		
	Antamina	Cerrejón	Individually immaterial	Samarco ⁽²⁾	Individually immaterial	Total
Revenue – 100%	2,905	2,247		28		
Profit/(loss) from Continuing operations – 100%	1,010	388		(1,520) ⁽⁹⁾		
Share of operating profit/(loss) of equity accounted investments	341	129		(760)		
Additional share of Samarco losses	–	–		588		
Profit/(loss) from equity accounted investments, related impairments and expenses	341	129	(26)	(172)	–	272
Comprehensive income/(loss) – 100%	1,010	388		(1,520)		
Share of comprehensive income/(loss) – Group share in equity accounted investments	341	129	(26)	(172)	–	272
Dividends received from equity accounted investments	425	163	32	–	–	620

(1) The unrecognised share of profit for the period was US\$15 million (2018: unrecognised share of loss for the period was US\$56 million), which decreased the cumulative losses to US\$181 million (2018: increase to US\$196 million).

(2) Refer to note 4 'Significant events – Samarco dam failure' for further information regarding the financial impact of the Samarco dam failure in November 2015 on BHP Billiton Brasil's share of Samarco's losses.

(3) Includes cash and cash equivalents of US\$246 million (2018: US\$23 million).

(4) Includes current financial liabilities (excluding trade and other payables and provisions) of US\$5,510 million (2018: US\$5,066 million).

(5) Relates mainly to dividends declared by Samarco that remain unpaid at balance date and which, in accordance with the Group's accounting policy, are recognised when received not receivable.

(6) In the year ended 30 June 2016 BHP Billiton Brasil adjusted its investment in Samarco to US\$ nil (resulting from US\$(655) million share of loss from Samarco and US\$(525) million impairment).

(7) BHP Billiton Brasil has recognised accumulated additional share of Samarco losses of US\$(3,145) million resulting from US\$(310) million share of loss from funding provided to Samarco and US\$(2,835) million from provisions relating to the Samarco dam failure, including US\$(319) million recognised as net finance costs.

(8) Share of Samarco's losses for which BHP Billiton Brasil does not have an obligation to fund.

(9) Includes depreciation and amortisation of US\$85 million (2018: US\$73 million; 2017: US\$88 million), interest income of US\$22 million (2018: US\$31 million; 2017: US\$57 million), interest expense of US\$342 million (2018: US\$385 million; 2017: US\$473 million) and income tax benefit/(expense) of US\$52 million (2018: US\$(154) million; 2017: US\$(851) million).

30 Interests in joint operations

Significant joint operations of the Group are those with the most significant contributions to the Group's net profit or net assets. The Group's interest in the joint operations results are listed in the table below. For a complete list of the Group's investments in joint operations, refer to note 13 'Related undertakings of the Group' in section 5.2.

Significant joint operations	Country of operation	Principal activity	Group's interest	
			2019 %	2018 %
Bass Strait	Australia	Hydrocarbons production	50	50
Greater Angostura	Trinidad and Tobago	Hydrocarbons production	45	45
Gulf of Mexico	US	Hydrocarbons exploration and production	23.9–44	23.9–44
Macedon ⁽¹⁾	Australia	Hydrocarbons exploration and production	71.43	71.43
North West Shelf	Australia	Hydrocarbons production	12.5–16.67	12.5–16.67
Pyrenees ⁽¹⁾	Australia	Hydrocarbons exploration and production	40–71.43	40–71.43
ROD Integrated Development ⁽²⁾	Algeria	Hydrocarbons exploration and production	29.50	29.50
Mt Goldsworthy ⁽³⁾	Australia	Iron ore mining	85	85
Mt Newman ⁽³⁾	Australia	Iron ore mining	85	85
Yandi ⁽³⁾	Australia	Iron ore mining	85	85
Central Queensland Coal Associates	Australia	Coal mining	50	50

(1) While the Group may hold a greater than 50 per cent interest in these joint operations, all the participants in these joint operations approve the operating and capital budgets and therefore the Group has joint control over the relevant activities of these arrangements.

(2) Group interest reflects the working interest and may vary year-on-year based on the Group's effective interest in producing wells.

(3) These contractual arrangements are controlled by the Group and do not meet the definition of joint operations. However, as they are formed by contractual arrangement and are not entities, the Group recognises its share of assets, liabilities, revenue and expenses arising from these arrangements.

Assets held in joint operations subject to significant restrictions are as follows:

	Group's share	
	2019 US\$M	2018 US\$M
Current assets	1,946	2,445
Non-current assets	35,682	36,144
Total assets⁽¹⁾	37,628	38,589

(1) While the Group is unrestricted in its ability to sell a share of its interest in these joint operations, it does not have the right to sell individual assets that are used in these joint operations without the unanimous consent of the other participants. The assets in these joint operations are also restricted to the extent that they are only available to be used by the joint operation itself and not by other operations of the Group.

31 Related party transactions

The Group's related parties are predominantly subsidiaries, joint operations, joint ventures and associates and key management personnel of the Group. Disclosures relating to key management personnel are set out in note 22 'Key management personnel'. Transactions between each parent company and its subsidiaries are eliminated on consolidation and are not disclosed in this note.

- All transactions to/from related parties are made at arm's length, i.e. at normal market prices and rates and on normal commercial terms.
- Outstanding balances at year-end are unsecured and settlement occurs in cash. Loan amounts owing from related parties represent secured loans made to joint operations, associates and joint ventures under co-funding arrangements. Such loans are made on an arm's length basis with interest charged at market rates and are due to be repaid by 16 August 2022.
- No guarantees are provided or received for any related party receivables or payables.
- No provision for expected credit losses has been recognised in relation to any outstanding balances and no expense has been recognised in respect of expected credit losses due from related parties.
- There were no other related party transactions in the year ended 30 June 2019 (2018: US\$ nil), other than those with post-employment benefit plans for the benefit of Group employees. These are shown in note 25 'Pension and other post-retirement obligations'.

Transactions with related parties

Further disclosures related to other related party transactions are as follows:

	Joint operations		Joint ventures		Associates	
	2019 US\$M	2018 US\$M	2019 US\$M	2018 US\$M	2019 US\$M	2018 US\$M
Sales of goods/services	–	–	–	–	–	–
Purchases of goods/services	–	–	–	–	1,141.230	1,358.016
Interest income	1.532	1.764	–	–	0.826	19.337
Interest expense	–	–	–	–	0.011	–
Dividends received	–	–	–	–	509.577	693.105
Net loans made to/(repayments from) related parties	12.539	60.566	–	–	14.547	(599.979)

Outstanding balances with related parties

Disclosures in respect of amounts owing to/from joint operations represent the amount that does not eliminate on consolidation.

	Joint operations		Joint ventures		Associates	
	2019 US\$M	2018 US\$M	2019 US\$M	2018 US\$M	2019 US\$M	2018 US\$M
Trade amounts owing to related parties	–	–	–	–	169.773	210.716
Loan amounts owing to related parties	40.513	55.667	–	–	10.097	4.097
Trade amounts owing from related parties	–	–	–	–	3.828	3.932
Loan amounts owing from related parties	15.474	18.089	–	–	33.486	12.939

Unrecognised items and uncertain events

32 Commitments

The Group's commitments for capital expenditure were US\$3,308 million as at 30 June 2019 (2018: US\$2,110 million). The Group's other commitments are as follows:

	Commitments under finance leases		Commitments under operating leases	
	2019 US\$M	2018 US\$M	2019 US\$M	2018 US\$M
Due not later than one year	110	127	440	388
Due later than one year and not later than five years	417	448	876	785
Due later than five years	501	590	589	839
Total	1,028	1,165	1,905	2,012
Future financing liability	(313)	(363)		
Finance lease liability	715	802		

Finance leases include leases of power generation and transmission assets. Certain lease payments may be subject to inflation escalation clauses on which contingent rentals are determined. The leases contain extension and renewal options.

Operating leases include leases of property, plant and equipment. Rental payments are generally fixed, but with inflation escalation clauses on which contingent rentals are determined. Certain leases contain extension and renewal options. From 1 July 2019, IFRS 16/AASB 16 'Leases' became effective for the Group. Refer to note 38 'New and amended accounting standards and interpretations'.

33 Contingent liabilities

	2019 US\$M	2018 US\$M
Associates and joint ventures ⁽ⁱ⁾	1,822	1,588
Subsidiaries and joint operations ⁽ⁱ⁾	1,621	1,915
Total	3,443	3,503

(i) There are a number of matters, for which it is not possible at this time to provide a range of possible outcomes or a reliable estimate of potential future exposures, and for which no amounts have been included in the table above.

A contingent liability is a possible obligation arising from past events and whose existence will be confirmed only by occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group. A contingent liability may also be a present obligation arising from past events but is not recognised on the basis that an outflow of economic resources to settle the obligation is not viewed as probable, or the amount of the obligation cannot be reliably measured.

When the Group has a present obligation, an outflow of economic resources is assessed as probable and the Group can reliably measure the obligation, a provision is recognised.

The Group has entered into various counter-indemnities of bank and performance guarantees related to its own future performance, which are in the normal course of business. The likelihood of these guarantees being called upon is considered remote.

The Group presently has tax matters, litigation and other claims, for which the timing of resolution and potential economic outflow are uncertain. Obligations assessed as having probable future economic outflows capable of reliable measurement are provided at reporting date and matters assessed as having possible future economic outflows capable of reliable measurement are included in the total amount of contingent liabilities above. Individually significant matters, including narrative on potential future exposures incapable of reliable measurement, are disclosed below, to the extent that disclosure does not prejudice the Group.

Uncertain tax and royalty matters	The Group is subject to a range of taxes and royalties across many jurisdictions, the application of which is uncertain in some regards. Changes in tax law, changes in interpretation of tax law, periodic challenges and disagreements with tax authorities, and legal proceedings result in uncertainty of the outcome of the application of taxes and royalties to the Group's business. Areas of uncertainty at reporting date include the application of taxes and royalties to the Group's cross-border operations and transactions. Details of uncertain tax and royalty matters have been disclosed in note 6 'Income tax expense'. To the extent uncertain tax and royalty matters give rise to a contingent liability, an estimate of the potential liability is included within the table above, where it is capable of reliable measurement.
Samarco contingent liabilities	The table above includes contingent liabilities related to the Group's equity accounting investment in Samarco to the extent they are capable of reliable measurement. Details of contingent liabilities related to Samarco are disclosed in note 4 'Significant events – Samarco dam failure'.
Demerger of South32	As part of the demerger of South32 Limited (South32) in May 2015, certain indemnities were agreed under the Separation Deed. Subject to certain exceptions, BHP Group Limited indemnifies South32 against claims and liabilities relating to the Group Businesses and former Group Businesses prior to the demerger and South32 indemnifies the Group against all claims and liabilities relating to the South32 Businesses and former South32 Businesses. No material claims have been made pursuant to the Separation Deed as at 30 June 2019.

34 Subsequent events

Other than the matters outlined in the Financial Statements, no 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.

Other items

35 Auditor's remuneration

	2019 US\$M	2018 US\$M	2017 US\$M
Fees payable to the Group's auditors for assurance services			
Audit of the Group's Annual Report	4.033	3,909	3,381
Audit of subsidiaries, joint ventures and associates	5.275	13,902	7,040
Audit-related assurance services	4.089	4,039	3,597
Other assurance services	0.594	1,343	1,849
Total assurance services	13.991	23,193	15,867
Fees payable to the Group's auditors for other services			
Other services relating to corporate finance	0.055	0.104	0.042
All other services	0.482	0.553	0.589
Total other services	0.537	0.657	0.631
Total fees	14.528	23,850	16,498

All amounts were paid to KPMG or KPMG affiliated firms. Fees are determined in local currencies and are predominantly billed in US dollars based on the exchange rate at the beginning of the relevant financial year.

Fees payable to the Group's auditors for assurance services

For all periods disclosed, no fees are payable in respect of the audit of pension funds.

Audit of subsidiaries, joint ventures and associates comprise audit of the Group's subsidiaries, joint ventures and associates including additional non-recurring audit fees in FY2018 in connection with the sale of the Onshore US oil and gas assets.

Audit-related assurance services comprise review of half-year reports and audit work in relation to compliance with section 404 of the US Sarbanes-Oxley Act.

Other assurance services comprise assurance in respect of the Group's sustainability reporting.

Fees payable to the Group's auditors for other services

Other services relating to corporate finance comprise services in connection with debt raising transactions.

All other services comprise non-statutory assurance based procedures, advice on accounting matters, as well as tax compliance services of US\$0.013 million (2018: US\$ nil; 2017: US\$0.027 million).

36 BHP Group Limited

BHP Group Limited does not present unconsolidated parent company financial statements. Selected financial information of the BHP Group Limited parent company is as follows:

	2019 US\$M	2018 US\$M
Income statement information for the financial year		
Profit after taxation for the year	5,820	7,818
Total comprehensive income	5,830	7,830
Balance sheet information as at the end of the financial year		
Current assets	3,804	16,935
Total assets	49,111	56,448
Current liabilities	1,724	2,313
Total liabilities	1,854	2,805
Share capital	823	898
Treasury shares	(30)	(5)
Reserves	203	182
Retained earnings	46,261	52,568
Total equity	47,257	53,643

Parent company guarantees

BHP Group Limited has guaranteed certain financing arrangements available to subsidiaries of US\$11,368 million at 30 June 2019 (2018: US\$13,108 million).

Under the terms of a Deed Poll Guarantee, BHP Group Limited has guaranteed certain current and future liabilities of BHP Group Plc. The guaranteed liabilities at 30 June 2019 amounted to US\$10 million (2018: US\$11 million).

BHP Group Limited and BHP Group Plc have severally, fully and unconditionally guaranteed the payment of the principal and premium, if any, and interest, including certain additional amounts that may be payable in respect of the notes issued by 100 per cent owned finance subsidiary, BHP Billiton Finance (USA) Ltd. BHP Group Limited and BHP Group Plc have guaranteed the payment of such amounts when they become due and payable, whether on an interest payment date, at the stated maturity of the notes, by declaration or acceleration, call for redemption or otherwise. The guaranteed liabilities at 30 June 2019 amounted to US\$8,716 million (2018: US\$9,486 million). In addition, BHP Group Limited and BHP Group Plc have severally guaranteed a Group Revolving Credit Facility of US\$6,000 million (2018: US\$6,000 million), which remains undrawn.

37 Deed of Cross Guarantee

BHP Group Limited together with wholly owned subsidiaries identified in note 13 'Related undertakings of the Group' in section 5.2 entered into a Deed of Cross Guarantee (Deed) on 6 June 2016. The effect of the Deed is that BHP Group Limited has guaranteed to pay any outstanding liabilities upon the winding up of any wholly owned subsidiary that is party to the Deed. Wholly owned subsidiaries that are party to the Deed have also given a similar guarantee in the event that BHP Group Limited or another party to the Deed is wound up.

The wholly owned Australian subsidiaries identified in note 13 'Related undertakings of the Group' in section 5.2 are relieved from the requirements to prepare and lodge audited financial reports.

A Consolidated Statement of Comprehensive Income and Retained Earnings and Consolidated Balance Sheet, comprising BHP Group Limited and the wholly owned subsidiaries that are party to the Deed for the year ended 30 June 2019 and 30 June 2018 are as follows:

	2019 US\$M	2018 US\$M
Consolidated Statement of Comprehensive Income and Retained Earnings		
Revenue	22,660	20,434
Other income	2,881	3,188
Expenses excluding net finance costs	(14,610)	(12,693)
Net finance costs	(414)	(470)
Income tax expense	(2,317)	(2,218)
Profit after taxation	8,200	8,241
Total other comprehensive income	10	12
Total comprehensive income	8,210	8,253
Retained earnings at the beginning of the financial year	48,442	45,979
Net effect on retained earnings of entities added to/removed from the Deed	(34)	48
Profit after taxation for the year	8,200	8,241
Transfers to and from reserves	(31)	(15)
Shares bought back and cancelled	(5,199)	–
Dividends	(6,655)	(5,811)
Retained earnings at the end of the financial year	44,723	48,442

37 Deed of Cross Guarantee continued

Consolidated Balance Sheet	2019 US\$M	2018 US\$M
ASSETS		
Current assets		
Cash and cash equivalents	13	2
Trade and other receivables	4,875	3,977
Loans to related parties	4,255	16,730
Inventories	1,677	1,649
Other	92	90
Total current assets	10,912	22,448
Non-current assets		
Trade and other receivables	40	73
Loans to related parties	-	151
Inventories	326	323
Property, plant and equipment	31,508	31,009
Intangible assets	362	444
Investments in Group companies	33,123	27,354
Deferred tax assets	442	329
Other	59	68
Total non-current assets	65,860	59,751
Total assets	76,772	82,199
LIABILITIES		
Current liabilities		
Trade and other payables	4,790	3,425
Loans from related parties	13,682	15,719
Interest bearing liabilities	104	115
Current tax payable	694	1,053
Provisions	889	952
Deferred income	6	6
Total current liabilities	20,165	21,270
Non-current liabilities		
Trade and other payables	8	3
Loans from related parties	7,689	7,870
Interest bearing liabilities	143	191
Non-current tax payable	75	-
Deferred tax liabilities	542	573
Provisions	2,136	2,475
Deferred income	14	18
Total non-current liabilities	10,607	11,130
Total liabilities	30,772	32,400
Net assets	46,000	49,799
EQUITY		
Share capital – BHP Group Limited	1,111	1,186
Treasury shares	(31)	(5)
Reserves	197	176
Retained earnings	44,723	48,442
Total equity	46,000	49,799

38 New and amended accounting standards and interpretations

The Group adopted IFRS 9/AASB 9 'Financial Instruments' (IFRS 9) and IFRS 15/AASB 15 'Revenue from Contracts with Customers' (IFRS 15) in these Financial Statements from 1 July 2018. The adoption of other changes to IFRS applicable from 1 July 2018, including IFRIC 22 'Foreign Currency Transactions and Advance Consideration', did not have a significant impact on these Financial Statements.

IFRS 9 Financial Instruments

This standard replaces IAS 39/AASB 139 'Financial Instruments: Recognition and measurement' (IAS 39). It revises the classification and measurement of financial assets and financial liabilities, introduces a forward looking 'expected credit loss' impairment model and modifies the approach to hedge accounting. Upon adoption of the new standard on 1 July 2018, the Group adjusted the opening balance sheet, with no restatement of comparatives required. Adoption impacts include:

- At 1 July 2018, the Group reassessed the classification and measurement of financial assets and liabilities based on the business model by which they are managed and their cash flow characteristics.

Financial assets previously classified as loans and receivables of US\$17.7 billion were recategorised as amortised cost. The Group's available for sale (AFS) shares of US\$33 million were designated as fair value through other comprehensive income (FVOCI), while investments in shares after 1 July 2018 will be designated at fair value through profit or loss (FVTPL) or FVOCI on an investment by investment basis.

Other AFS investments of US\$47 million were classified as held at FVTPL because they are not investments in shares and their cash flows do not consist solely of payments of principal and interest. The adoption of IFRS 9 has not resulted in any changes to the classification of financial assets held at FVTPL or to the classification or measurement of financial liabilities.

The impact of adopting IFRS 9 on Total equity as at 1 July 2018 is as follows:

	US\$M
Total equity as at 30 June 2018	60,670
Impairment provision resulting from application of the Expected Credit Loss model	(7)
Total equity as at 1 July 2018	60,663

The table below summarises the change in classification and measurement of financial assets and liabilities upon adoption of IFRS 9 on 1 July 2018.

	Measurement category under IAS 39	Measurement category under IFRS 9
Financial assets		
Derivative contracts	FVTPL	FVTPL
Investment in shares	AFS	FVOCI or FVTPL
Other investments	AFS or FVTPL	FVTPL
Cash and cash equivalents	Loans and receivables	Amortised cost
Trade and other receivables	Loans and receivables	Amortised cost
Provisionally priced trade receivables	FVTPL	FVTPL
Loans to equity accounted investments	Loans and receivables	Amortised cost
Financial liabilities		
Other financial liabilities	FVTPL	FVTPL
Trade and other payables	Amortised cost	Amortised cost
Provisionally priced trade payables	FVTPL	FVTPL
Bank overdrafts and short-term borrowings	Amortised cost	Amortised cost
Bank loans	Amortised cost	Amortised cost
Notes and debentures	Amortised cost	Amortised cost
Finance leases	Amortised cost	Amortised cost
Other	Amortised cost	Amortised cost

- Financial assets carried at amortised cost are tested for impairment based on expected losses, whereas the previous policy required that impairments were recognised only when there was objective evidence that a credit loss was present. Upon adoption of IFRS 9, an expected credit loss provision of US\$7 million against cash and cash equivalents and trade receivables was recognised in retained earnings.

- From 1 July 2018, the Group has applied the amended rules on hedge accounting which enable closer alignment between the Group's risk management strategy and the accounting outcomes. IFRS 9 broadens the scope of arrangements that may qualify for hedge accounting and allows for simplification of hedge designations. Other changes under the standard mean that hedge effectiveness is only considered on a prospective basis with no set quantitative thresholds and voluntary de-designation of hedges is prohibited.

Certain of the Group's existing derivatives hedging foreign currency notes and debentures, were in qualifying fair value and cash flow hedge relationships and have been treated as continuing hedges. The opportunity to apply simplified hedge designations under IFRS 9 will continue to be assessed for future hedge relationships. Risks present in the derivative only, such as counterparty credit risk, are not part of the hedge designation and will continue to be recognised through the income statement.

Foreign currency basis has been separately measured as a cost of hedging and movements continue to be recognised in reserves, with US\$176 million being reclassified from the cash flow hedging reserve into the cost of hedging reserve on transition. The hedging reserves at transition will continue to be transferred to the income statement over the life of the underlying notes and debentures.

38 New and amended accounting standards and interpretations continued

IFRS 15 Revenue from Contracts with Customers

This standard modifies the determination of when to recognise revenue and how much revenue to recognise. Revenue is recognised when control of the promised goods or services passes to the customer. The amount of revenue recognised should reflect the consideration to which the entity expects to be entitled in exchange for those goods or services.

The Group has applied the full retrospective transition approach, resulting in the restatement of comparative information. Comparative information in the consolidated income statement has been restated to reflect changes in the presentation of treatment costs and refining charges (TCRC) included in concentrate sales contracts.

Concentrate sales contracts require the Group to physically deliver concentrate with the contractual sales amount reflecting the final refined metal content delivered, reduced by TCRC. Revenue was previously recognised at the gross value of the final refined metal content delivered with contractually agreed TCRC recorded as an expense. Under IFRS 15, TCRC will instead be recognised as a reduction to revenue, reflecting the consideration that the Group expects to receive from the customer. This will have no net income statement impact as applying this change would have reduced revenue and expenses by US\$522 million for the year ended 30 June 2019, US\$509 million for the year ended 30 June 2018 and US\$395 million for the year ended 30 June 2017, with no impact on profit after tax. This change has no impact on the basic and diluted earnings per ordinary share.

Revenue includes both revenue from contracts with customers, which is recognised under IFRS 15 and provisional pricing adjustments, which are recognised under IFRS 9. Following adoption of IFRS 15 provisional pricing adjustments will be separately disclosed in the notes to these Financial Statements as other revenue. The impact of all other measurement differences identified between IAS 18 and IFRS 15 was immaterial at 1 July 2018.

Issued but not yet effective

The following new accounting standards and interpretations will become effective for future reporting periods and may have a significant impact on the income statement or net assets of the Group.

IFRS 16 Leases

This standard provides a new model for lessee accounting under which all leases, with the exception of short term (under 12 months) and low-value leases, will be accounted for by the recognition on the balance sheet of a right of use asset and a corresponding lease liability. Lease costs will be recognised in the income statement over the lease term in the form of depreciation on the right of use asset and finance charges representing the unwind of the discount on the lease liability.

The standard became effective for the Group from 1 July 2019 and the Group has elected to apply the modified retrospective transition approach, with no restatement of comparative financial information. For existing finance leases, the right of use asset and lease liability on transition will be the IAS 17/AASB 117 'Leases' (IAS 17) carrying amounts as at 30 June 2019.

As allowed by the standard, the Group has elected:

- except for existing finance leases, to measure the right of use asset on transition at an amount equal to the lease liability (as adjusted for prepaid or accrued lease payments);
- not to recognise low-value or short term leases on the balance sheet. Costs for these lease arrangements will continue to be expensed;
- to only recognise, within the lease liability, the lease component of contracts that include non-lease components and other services;
- to reflect the impairment of right of use assets on transition by adjusting their carrying amounts for onerous lease provisions recognised on the Group balance sheet as at 30 June 2019.

Where the Group is the operator of an unincorporated joint operation and all investors are parties to a lease, the Group will recognise its proportionate share of the lease liability and associated right of use asset. Where the Group is the sole signatory to a lease, and therefore has the sole legal obligation to make lease payments, the lease liability will be recognised in full. Where the associated right of use asset is sub-leased (under a finance sub-lease) to a joint operation, for instance where it is dedicated to a single operation and the joint operation has the right to direct the use of the asset, the Group will recognise its proportionate share of the right of use asset and a net investment in the lease, representing amounts to be recovered from the other parties. If the Group is not party to the lease contract but sub-leases the associated right of use asset it will recognise its proportionate share of the right of use asset and a lease liability which is payable to the operator.

The application of IFRS 16 requires certain significant judgements, estimates and assumptions including whether the Group controls the right to direct the use of assets in certain contractual arrangements, the likelihood of extension and termination options being exercised, the separation and estimation of non-lease components of payments, the identification and valuation of in-substance fixed payments and the determination of the incremental borrowing rate relevant in calculating lease liabilities.

The impact on transition is expected to result in an increase in lease liabilities of approximately US\$2.3 billion, right of use assets of US\$2.2 billion, and net adjustments to other assets and liabilities of US\$0.1 billion. The Group is required to recognise these leases applying the incremental borrowing rate that takes into account the currency, tenor and location of each lease. The weighted average incremental borrowing rate applied to the Group's additional lease liabilities at 1 July 2019 is 2.1 per cent. The Group will recognise leases entered into after 1 July 2019 using the interest rate implicit in the lease, where this is readily determinable.

The following table provides a reconciliation of the operating lease commitments disclosed in note 32 'Commitments' to the expected total lease liability to be recognised at 1 July 2019:

	US\$B
Operating lease commitments as at 30 June 2019	1.9
Add: Leases which did not meet the definition of a lease under IAS 17	0.7
Add: Cost of reasonably certain extension options (undiscounted)	0.1
Less: Components excluded from lease liability (undiscounted)	(0.2)
Less: Effect of discounting	(0.2)
Total additional lease liabilities recognised on transition	2.3

Leases recognised under IFRS 16, which did not meet the definition of a lease under IAS 17, relate to freight contracts known as continuous voyage charters (CVCs). The lease asset and liability associated with all index-linked freight contracts, including CVCs, will be remeasured at each reporting date based on the prevailing freight index (Baltic C5 index). Freight indices, which reflect demand and supply for vessels, have shown historic volatility. The accounting for these contracts continues to evolve and the Group is monitoring industry practice.

The Group's finance lease obligations at 30 June 2019 are currently included in the Group's net debt (note 19 'Net debt'). From 1 July 2019, net debt will include the Group's total lease liabilities.

The Group has developed lease accounting systems, processes and controls which will be used to account for the Group's lease contracts following transition. Practical application of the standard continues to develop in a number of areas and the Group will continue to monitor developments and assess any implications for the expected lease liability on transition and post transition accounting.

Other interpretations issued but not yet effective

The adoption of other changes to IFRS applicable from 1 July 2019, including IFRIC 23 'Uncertainty over Income Tax Treatments' is not expected to have a significant impact on these Financial Statements.

A number of other accounting standards and interpretations, along with revisions to the Conceptual Framework for Financial Reporting, have been issued and will be applicable in future periods. While these remain subject to ongoing assessment, no significant impacts have been identified to date. These standards have not been applied in the preparation of these Financial Statements.

5.2 BHP Group Plc

BHP Group Plc is required to present its unconsolidated parent company balance sheet and certain notes to the balance sheet on a stand-alone basis as at 30 June 2019 and 2018. The BHP Group Plc Balance Sheet has been prepared in accordance with Financial Reporting Standard 101 'Reduced Disclosure Framework' (FRS 101). Refer to note 1 'Principal accounting policies' for information on the principal accounting policies.

BHP Group Plc is exempt from presenting an unconsolidated parent company profit and loss account and statement of comprehensive income in accordance with section 408 of the UK Companies Act 2006.

Parent company Financial Statements of BHP Group Plc

BHP Group Plc Balance Sheet as at 30 June 2019

	Notes	2019 US\$M	2018 US\$M
ASSETS			
Current assets			
Debtors – Amounts owed by Group undertakings	2	8,258	11,503
		8,258	11,503
Non-current assets			
Investments in subsidiaries	3	3,131	3,131
Deferred tax assets	4	–	–
		3,131	3,131
Total assets		11,389	14,634
LIABILITIES			
Current liabilities			
Creditors – Amounts owed to Group undertakings	5	(38)	(4)
Provisions	6	(2)	(1)
		(40)	(5)
Non-current liabilities			
Pension liabilities	6, 7	(9)	(9)
		(9)	(9)
Total liabilities		(49)	(14)
Net assets		11,340	14,620
Capital and reserves			
Called up share capital		1,057	1,057
Share premium account		518	518
Capital redemption reserve		177	177
Profit and loss account		9,588	12,868
Total equity		11,340	14,620

The accompanying notes form part of these Parent company Financial Statements.

The Parent company Financial Statements of BHP Group Plc, registration number 3196209, were approved by the Board of Directors on 5 September 2019 and signed on its behalf by:

Ken MacKenzie
Chairman

Andrew Mackenzie
Chief Executive Officer

BHP Group Plc Statement of Changes in Equity for the year ended 30 June 2019

US\$M	Share capital	Treasury shares ⁽¹⁾	Share premium account	Capital redemption reserve	Profit and loss account	Total equity
Balance as at 1 July 2018	1,057	-	518	177	12,868	14,620
Profit for the year after taxation	-	-	-	-	1,372	1,372
Other comprehensive income for the year:						
Tax on employee entitlements taken to retained earnings	-	-	-	-	-	-
Actuarial loss on pension scheme	-	-	-	-	-	-
Total comprehensive income for the year	-	-	-	-	1,372	1,372
Transactions with owners:						
Purchase of shares by ESOP trusts	-	(6)	-	-	-	(6)
Employee share awards exercised net of employee contributions and forfeitures	-	6	-	-	(6)	-
Accrued employee entitlement for unexercised awards	-	-	-	-	2	2
Dividends	-	-	-	-	(4,648)	(4,648)
Balance as at 30 June 2019	1,057	-	518	177	9,588	11,340
Balance as at 1 July 2017	1,057	(1)	518	177	6,436	8,187
Profit for the year after taxation	-	-	-	-	8,512	8,512
Other comprehensive income for the year:						
Tax on employee entitlements taken to retained earnings	-	-	-	-	-	-
Actuarial loss on pension scheme	-	-	-	-	-	-
Total comprehensive income for the year	-	-	-	-	8,512	8,512
Transactions with owners:						
Purchase of shares by ESOP trusts	-	(12)	-	-	-	(12)
Employee share awards exercised net of employee contributions and forfeitures	-	13	-	-	(13)	-
Accrued employee entitlement for unexercised awards	-	-	-	-	3	3
Dividends	-	-	-	-	(2,070)	(2,070)
Balance as at 30 June 2018	1,057	-	518	177	12,868	14,620

(1) Shares held by the Billiton Employee Share Ownership Trust as at 30 June 2019 were 39,719 shares with a market value of US\$1 million (2018: 41,634 shares with a market value of US\$1 million).

The accompanying notes form part of these Parent company Financial Statements.

1 Principal accounting policies

BHP Group Plc company information

BHP Group Plc is a public company limited by shares, registered in England and Wales and with a registered office located at Nova South, 160 Victoria Street, London SW1E 5LB, United Kingdom. BHP Group Plc has a premium listing on the UK Listing Authority's Official List and its ordinary shares are admitted to trading on the London Stock Exchange in the United Kingdom and have a secondary listing on the Johannesburg Stock Exchange in South Africa.

Basis of preparation

BHP Group Plc meets the definition of a qualifying entity under Financial Reporting Standard 100 'Application of Financial Reporting Requirements' (FRS 100) as issued by the Financial Reporting Council.

The BHP Group Plc Parent company Financial Statements are:

- unconsolidated Financial Statements of the stand-alone company. BHP Group Plc is exempt from preparing consolidated accounts by virtue of section 400 of the UK Companies Act 2006;
- prepared in accordance with the provisions of the UK Companies Act 2006;
- presented in accordance with Financial Reporting Standard 101 'Reduced Disclosure Framework' (FRS 101);
- prepared on a going concern basis;
- using historical cost principles as modified by the revaluation of certain financial assets and liabilities in accordance with the UK Companies Act 2006;
- presented in US dollars, which is the functional currency of BHP Group Plc. Amounts are rounded to the nearest million dollars, unless otherwise stated.

The principal accounting policies applied in the preparation of these Parent company Financial Statements are set out below. These have been applied consistently to all periods presented. The following disclosure exemptions have been applied under FRS 101:

- paragraphs 45(b) and 46-52 of IFRS 2 'Share-based Payment' (details of number and weighted average exercise price of share options, and how the fair value of goods or services received was determined);
- the requirements of IFRS 7 'Financial Instruments: Disclosures';
- paragraphs 91-99 of IFRS 13 'Fair Value Measurement' (disclosure of valuation techniques and inputs used for fair value measurement of assets and liabilities);
- paragraph 38 of IAS 1 'Presentation of Financial Statements' (comparative financial information in respect of paragraph 79(a)(iv) of IAS 1);
- disclosure of the following requirements of IAS 1 'Presentation of Financial Statements':
 - 10(d) – A statement of cash flows for the period;
 - 16 – A statement that the Financial Statements are in compliance with all IFRSs;
 - 38A – Requirement for a minimum of two primary statements including cash flow statements;
 - 38 B-D – Comparative information;
 - 111 – Cash flow statement information;
 - 134-136 – Capital management disclosures;
- IAS 7 'Statement of Cash Flows';
- paragraphs 30 and 31 of IAS 8 'Accounting Policies and Changes in Accounting Estimates and Errors' (disclosure of information when an entity has not applied a new IFRS that has been issued and is not yet effective);
- paragraphs 17 and 18A of IAS 24 'Related Party Disclosures' (key management compensation);
- the requirements of IAS 24 'Related Party Disclosures' (disclosure of related party transactions entered into between two or more members of a group).

Judgements in applying accounting policies and key sources of estimation uncertainties

The preparation of financial statements in conformity with FRS 101 requires the use of critical accounting estimates, and requires the application of judgement in applying BHP Group Plc's accounting policies. Significant judgements and estimates applied in the preparation of these Parent company Financial Statements have been identified and disclosed throughout.

Foreign currencies

The accounting policy is consistent with the Group's policy on 'Foreign currencies' as set out in section 5.1.

Investments in subsidiaries (Group undertakings)

Investments in subsidiaries are stated at cost less provisions for impairments. Investments in subsidiaries are reviewed for impairment where events or changes in circumstances indicate that the carrying amount of the investment may not be recoverable.

If any such indication exists, BHP Group Plc makes an assessment of the recoverable amount. If the asset is determined to be impaired, an impairment loss will be recorded and the asset written down based on the amount by which the asset carrying amount exceeds the higher of fair value less cost of disposal and value in use. An impairment loss is recognised immediately in the income statement.

Taxation

The accounting policy is consistent with the Group's policy set out in note 6 'Income tax expense' in section 5.1.

Key judgements and estimates

Judgements: Judgement is required to determine the amount of deferred tax assets that are recognised based on the likely timing and the level of future taxable profits.

Estimates: The Group assesses the recoverability of recognised and unrecognised deferred taxes on a consistent basis, using estimates and assumptions relating to projected cash flows as applied in the Group impairment reviews for associated operations.

Share-based payments

The accounting policy is consistent with the Group's policy set out in note 23 'Employee share ownership plans' in section 5.1 and is applied with respect to all rights and options granted over BHP Group Plc shares, including those granted to employees of other Group companies. However, the cost of rights and options granted is recovered from subsidiaries of the Group where the participants are employed.

BHP Group Plc is the Trust's sponsoring company and so the Parent company Financial Statements of BHP Group Plc represent the combined financial statements of BHP Group Plc and the Trust.

Revenue recognition

Interest income is recognised on an accruals basis using the effective interest method. Dividend income is recognised when the right to receive payment is established, typically on declaration by subsidiaries.

Treasury shares

The consideration paid for the repurchase of BHP Group Plc shares that are held as treasury shares is recognised as a reduction in shareholders' funds and represents a reduction in distributable reserves.

Pension costs and other post-retirement benefits

The accounting policy is consistent with the Group's policy set out in note 25 'Pension and other post-retirement obligations' in section 5.1.

Financial guarantees

Financial guarantees issued by BHP Group Plc are contracts that require a payment to be made to reimburse the holder for a loss it incurs because the specified debtor fails to comply with the terms of the debt instrument. Financial guarantees are recognised initially as a liability at fair value less transaction costs as appropriate. Subsequently, the liability is measured at the higher of the best estimate of the expenditure required to settle the present obligation at the reporting date and the amount recognised less cumulative amortisation.

2 Debtors – Amounts owed by Group undertakings

	2019 US\$M	2018 US\$M
Amounts owed by Group undertakings	8,258	11,503
Total debtors	8,258	11,503
Comprising:		
Current	8,258	11,503
Non-current	–	–

The amounts due from Group undertakings primarily relate to unsecured receivable balances that are at call.

3 Investments in subsidiaries

	2019 US\$M	2018 US\$M
Investments in subsidiaries (Group undertakings): At the beginning and the end of the financial year	3,131	3,131

BHP Group Plc had the following principal subsidiary undertakings as at 30 June 2019:

Company	Principal activity	Country of incorporation	Percentage shareholding	Carrying value of investment US\$M
BHP Billiton Group Limited	Holding company	UK	100%	3,131
BHP Billiton Finance Plc	Finance company	UK	99%	0.1
BHP (AUS) DDS Pty Ltd	General finance	Australia	100%	–

BHP Billiton Group Limited, BHP Billiton Finance Plc and BHP (AUS) DDS Pty Ltd are included in the consolidation of the Group.

During the year, BHP Group Plc received dividends of US\$1,246 million (2018: US\$5,947 million) from BHP Billiton Group Limited and dividends of US\$ nil (2018: US\$2,660 million) were received from BHP (AUS) DDS Pty Ltd.

In accordance with section 409 of the UK Companies Act 2006, a full list of related undertakings is disclosed in note 13 'Related undertakings of the Group' in this section.

4 Deferred tax assets

The movement for the year in BHP Group Plc's deferred tax position is as follows:

	2019 US\$M	2018 US\$M
Deferred tax assets		
At the beginning of the financial year	–	111
Income tax charge recorded in the income statement	–	(111)
Income tax credit recorded directly to other comprehensive income	–	–
At the end of the financial year	–	–

The composition of BHP Group Plc's deferred tax asset recognised in the balance sheet and the deferred tax expense charged to the income statement is as follows:

Type of temporary difference	Deferred tax assets		Charged to the income statement	
	2019 US\$M	2018 US\$M	2019 US\$M	2018 US\$M
Tax losses	–	–	–	105
Employee benefits	–	–	–	6
Total	–	–	–	111

As at 30 June 2019, BHP Group Plc had unused income tax losses of US\$605 million (2018: US\$618 million), with income tax benefit of US\$103 million (2018: US\$105 million), and other deductible temporary differences of US\$17 million (2018: US\$33 million) with income tax benefit of US\$3 million (2018: US\$6 million). A deferred tax asset has not been recognised on these losses and deductible temporary differences, as it is not probable that future tax benefits will be available against which they can be utilised.

5 Creditors – Amounts owed to Group undertakings

	2019 US\$M	2018 US\$M
Group relief payable	34	–
Amounts owed to Group undertakings	4	4
Total creditors	38	4
Comprising:		
Current	38	4
Non-current	–	–

The amounts due to Group undertakings are unsecured, interest free and repayable on demand.

6 Provisions

	2019 US\$M	2018 US\$M
Employee benefits	2	1
Pension liabilities	9	9
Total provisions	11	10
Comprising:		
Current	2	1
Non-current	9	9

	Employee benefits US\$M	Pension liabilities US\$M	Total US\$M
At the beginning of the financial year	1	9	10
Actuarial loss on pension scheme	–	–	–
Charge for the year	–	–	–
Transfers and other movements	1	–	1
At the end of the financial year	2	9	11

7 Pension liabilities

The Group operates the UK Executive fund in the United Kingdom. A full actuarial valuation is prepared by the independent actuary to the fund as at 30 June 2019. The Group operates final salary schemes that provide final salary benefits only, non-salary related schemes that provide flat dollar benefits and mixed benefit schemes that consist of a final salary defined benefit portion and a defined contribution portion.

The defined benefit pension scheme exposes BHP Group Plc to a number of risks, including asset value volatility, interest rate, inflation, longevity and medical expense inflation risk.

The Group follows a coordinated strategy for the funding and investment of its defined benefit pension schemes (subject to meeting all local requirements). Scheme assets are predominantly invested in bonds and equities.

Amounts recognised in the BHP Group Plc balance sheet are as follows:

	2019 US\$M	2018 US\$M
Present value of funded defined benefit obligation	15	15
Fair value of defined benefit scheme assets	(6)	(6)
Scheme deficit	9	9
Net liability recognised in the Balance Sheet	9	9

8 Share capital

	BHP Group Plc	
	2019 Shares	2018 Shares
Share capital issued (issued and fully paid)		
Opening number of shares	2,112,071,796	2,112,071,796
Purchase of shares by ESOP Trusts	(274,069)	(679,223)
Employee share awards exercised following vesting	275,984	711,705
Movement in treasury shares under Employee Share Plans	(1,915)	(32,482)
Closing number of shares⁽¹⁾	2,112,071,796	2,112,071,796
Comprising:		
Shares held by the public	2,112,032,077	2,112,030,162
Treasury shares	39,719	41,634
Other share classes		
Special Voting Share of US\$0.50 par value	1	1
5.5% Preference shares of £1 each	50,000	50,000

(1) The total number of BHP Group Plc shares for all classes is 2,112,071,796 of which 99.99 per cent are ordinary shares with a par value of US\$0.50.

Refer to note 15 'Share capital' in section 5.1 for descriptions of the nature of share capital held.

9 Employee numbers

	2019 Number	2018 Number
Average number of employees during the year including Executive Directors	1	1

10 Financial guarantees

Under the terms of a Deed Poll Guarantee, BHP Group Plc has guaranteed certain current and future liabilities of BHP Group Limited. At 30 June 2019, the guaranteed liabilities amounted to US\$13,222 million (2018: US\$15,908 million).

BHP Group Plc and BHP Group Limited have severally, fully and unconditionally guaranteed the payment of the principal and premium, if any, and interest, including certain additional amounts that may be payable in respect of the notes issued by 100 per cent owned finance subsidiary BHP Billiton Finance (USA) Limited. BHP Group Plc and BHP Group Limited have guaranteed the payment of such amounts when they become due and payable, whether on an interest payment date, at the stated maturity of the notes, by declaration or acceleration, call for redemption or otherwise. At 30 June 2019, the guaranteed liabilities amounted to US\$8,716 million (2018: US\$9,486 million). Further, BHP Group Plc and BHP Group Limited have severally guaranteed a Group Revolving Credit Facility of US\$6,000 million (2018: US\$6,000 million), which remains undrawn.

At 30 June 2019, the liability recognised for financial guarantees was US\$ nil (2018: US\$ nil).

11 Financing facilities

BHP Group Plc is a party to a revolving credit facility. Refer to note 19 'Net debt' in section 5.1.

12 Other matters

Note 35 'Auditor's remuneration' in section 5.1 provides details of the remuneration of BHP Group Plc's auditor on a Group basis.

The Directors are remunerated by BHP Group Plc for their services to the Group as a whole. No remuneration was paid to them specifically in respect of their services to BHP Group Plc. Details of the Directors' remuneration are disclosed in section 3.3 'Annual report on remuneration'.

BHP Group Plc had no capital or operating/finance lease commitments as at 30 June 2019 (2018: US\$ nil).

13 Related undertakings of the Group

In accordance with Section 409 of the UK Companies Act 2006 the following tables disclose a full list of related undertakings, the country of incorporation, the registered office address and the effective percentage of equity owned as at 30 June 2019.

Unless otherwise stated, the share capital disclosed comprises ordinary or common shares which are held by subsidiaries of the Group. Refer to note 28 'Subsidiaries', 29 'Investments accounted for using the equity method' and 30 'Interests in joint operations' in section 5.1 for undertakings that have a significant contribution to the Group's net profit or net assets.

Wholly owned subsidiaries ^(a)

Country of incorporation
Argentina
Registered office address
Sarmiento 580, piso 4º – 5º, Buenos Aires, C1041AAL, Argentina
Company Name
BHP Petroleum (Argentina) S.A.
Australia
125 St Georges Terrace, Perth, WA 6000, Australia
BHP (Towage Services) Pty Ltd ^{(v)(y)}
BHP Billiton IO Pilbara Mining Pty Ltd
BHP Billiton Iron Ore Pty Limited ^{(s)(v)(x)}
BHP Billiton Minerals Pty Ltd ^{(f)(s)(v)(x)}
BHP Billiton Petroleum (Australia) Pty Ltd
BHP Billiton Petroleum (Bass Strait) Pty Ltd
BHP Billiton Petroleum (International Exploration) Pty Ltd
BHP Billiton Petroleum (North West Shelf) Pty Ltd
BHP Billiton Petroleum (Victoria) Pty Ltd
BHP Billiton Petroleum International Pty Ltd ^(s)
BHP Billiton Petroleum Investments (Great Britain) Pty Ltd
BHP Direct Reduced Iron Pty Limited ^{(v)(x)}
BHP IO Mining Pty Ltd
BHP IO Workshop Pty Ltd
BHP Iron Ore Holdings Pty Ltd ^(s)
BHP Petroleum (Cambodia) Pty Ltd
BHP Petroleum Pty Ltd
BHP Towage Services (Boodarie) Pty Ltd
BHP Towage Services (Iron Brolga) Pty Ltd
BHP Towage Services (Iron Corella) Pty Ltd
BHP Towage Services (Iron Ibis) Pty Ltd
BHP Towage Services (Iron Kestrel) Pty Ltd
BHP Towage Services (Iron Osprey) Pty Ltd
BHP Towage Services (Iron Whistler) Pty Ltd
BHP Towage Services (Mallina) Pty Ltd
BHP Towage Services (Mount Florance) Pty Ltd
BHP Towage Services (RT Atlantis) Pty Ltd
BHP Towage Services (RT Darwin) Pty Ltd
BHP Towage Services (RT Discovery) Pty Ltd
BHP Towage Services (RT Eduard) Pty Ltd
BHP Towage Services (RT Endeavour) Pty Ltd
BHP Towage Services (RT Enterprise) Pty Ltd
BHP Towage Services (RT Force) Pty Ltd
BHP Towage Services (RT Inspiration) Pty Ltd
BHP Towage Services (RT Rotation) Pty Ltd
BHP Towage Services (RT Sensation) Pty Ltd
BHP Towage Services (RT Tough) Pty Ltd
BHP WAIQ Pty Ltd ^{(v)(y)}
Pilbara Gas Pty Limited ^{(v)(x)}
United Iron Pty Ltd

Australia
Level 14, 480 Queen Street, Brisbane, QLD, 4000, Australia
BHP Coal Pty Ltd ^{(u)(v)}
BHP Energy Coal Australia Pty Ltd
BHP MetCoal Holdings Pty Ltd ^{(s)(u)(v)}
BHP Minerals Asia Pacific Pty Ltd
BHP Queensland Coal Investments Pty Ltd ^(w)
Broadmeadow Mine Services Pty Ltd ^{(u)(v)}
Central Queensland Services Pty Ltd ^{(u)(v)}
Coal Mines Australia Pty Ltd
Dampier Coal (Queensland) Proprietary Limited ^{(v)(x)}
Hay Point Services Pty Limited ^{(u)(v)}
Hunter Valley Energy Coal Pty Ltd
Mt Arthur Coal Pty Limited
Mt Arthur Underground Pty Ltd
OS ACPM Pty Ltd ^{(v)(y)}
OS MCAP Pty Ltd ^{(v)(z)}
Red Mountain Infrastructure Pty Ltd
UMAL Consolidated Pty Ltd ^{(v)(x)}
Level 15, 171 Collins Street, Melbourne, VIC, 3000, Australia
Agnew Pastoral Company Pty Ltd
Albion Downs Pty Limited
BHP (AUS) DDS Pty Ltd ^(t)
BHP Aluminium Australia Pty Ltd
BHP Billiton Finance (USA) Limited ^(s)
BHP Billiton Finance Limited ^(s)
BHP Billiton Nickel West Pty Ltd ^{(u)(v)}
BHP Billiton Olympic Dam Corporation Pty Ltd ^{(u)(v)}
BHP Billiton SSM Development Pty Ltd
BHP Capital No. 20 Pty Limited ^(s)
BHP Group Operations Pty Ltd ^{(u)(v)}
BHP Innovation Pty Ltd ^{(s)(u)(v)}
BHP Lonsdale Investments Pty Ltd ^{(s)(u)(v)}
BHP Manganese Australia Pty Ltd
BHP Marine & General Insurances Pty Ltd ^(s)
BHP Minerals Holdings Proprietary Limited ^{(s)(v)(x)}
BHP Nickel Operations Pty Ltd
BHP Pty Ltd
BHP Shared Business Services Pty Ltd ^(s)
BHP SSM Indonesia Holdings Pty Ltd ^(s)
BHP SSM International Pty Ltd
BHP Titanium Minerals Pty Ltd ^{(p)(s)}
BHP Western Mining Resources International Pty Ltd
BHP Yakabindie Nickel Pty Ltd
BHPB Freight Pty Ltd ^{(s)(u)(v)}
Billiton Australia Finance Pty Ltd
The Broken Hill Proprietary Company Pty Ltd ^{(s)(u)(v)}
Weebo Pastoral Company Pty Ltd
WMC Finance (USA) Limited

13 Related undertakings of the Group continued

Bermuda

Victoria Place, 31 Victoria Street, Hamilton, HM 10, Bermuda
BHP Petroleum (Tankers) Limited

Brazil

Avenida Rio Branco, No. 110, room 901, Centro, Rio de Janeiro, 20040-001, Brazil
BHP Billiton Brasil Exploração e Produção de Petróleo Limitada
BHP Billiton Brasil Investimentos de Petróleo Ltda

Rua Paraíba, 1122, 5º andar, Belo Horizonte, MG, 30130-918, Brazil
Araguaia Participações Ltda
BHP Billiton Brasil Ltda
BHP Internacional Participações Ltda
Jenipapo Recursos Naturais Ltda
WMC Mineração Ltda

British Virgin Islands

Trident Chambers, Wickhams Cay, Road Town, Tortola, British Virgin Islands
BHP Billiton UK Holdings Limited
BHP Billiton UK Investments Limited

Canada

1959 Upper Water Street, Suite 900, Halifax NS B3J 3N2, Canada
BHP Billiton Petroleum (New Ventures) Corporation
BHP Billiton Petroleum (Philippines) Corporation

2900 – 550 Burrard Street, Vancouver BC V6C 0A3, Canada
BHP Billiton Canada Inc.
BHP Billiton World Exploration Inc.

333 Bay Street, Suite 2400, Bay Adelaide Centre, Box 20, Toronto ON M5H2T6, Canada
Rio Algom Exploration Inc.
Rio Algom Investments (Chile) Inc.
Rio Algom Limited
WMC Resources Marketing Limited

4500 Bankers Hall East, 855-2nd Street S.W., Calgary, Alberta, T2P 4K7, Canada
BHP Billiton (Trinidad-2C) Ltd

Cayman Islands

2nd Floor Building 3, Governors Square 23 Lime Three Bay Avenue, Grand Cayman, KY1-1205, BWI, Cayman Islands
Global BHP Copper Ltd
RAL Cayman Inc.

238 North Church Street, George Town, Grand Cayman, KY1-1102, Cayman Islands
Riocerro Inc.
Riochile Inc.

Chile

Cerro El Plomo 6000, Piso 15, Las Condes, Santiago, Chile
BHP Billiton Chile Inversiones Limitada⁽ⁱ⁾
BHP Explorations Chile SpA
Compañía Minera Cerro Colorado Limitada⁽ⁱ⁾
Kelti S.A.
Minera Spence SA
Tamakaya Energía SpA

China

Xin Mao Mansion, South Taizhong Road, Free Trade Zone Waigaoqiao, Shanghai, 200131, China
BHP Billiton International Trading (Shanghai) Co. Ltd

Suite 1209, Level 12, One Corporate Avenue, 222 Hubin Road, Shanghai, Huangpu, China
BHP Billiton Technology (Shanghai) Co Ltd

Ecuador

Av. Patria 640 intersección Av. Amazonas, Edificio Patria Piso 10, Pichincha, Quito, Ecuador
Cerro-Quebrado S.A.

Av. Simon Bolivar SN, Intersección Via A Nayon, Quito, Pichincha, Ecuador
Cerro-Yatsur S.A.

Guernsey

Heritage Hall, Le Marchant Street, St Peter Port, Guernsey, GY1 4HY, Channel Islands
Stein Insurance Company Limited

India

12th Floor, One Horizon Centre, Golf Course Road, DLF Phase V, Sector 43, Gurgaon, HR, 122002, India
BHP Billiton Marketing Services India Pvt Ltd
BHP Minerals India Private Limited

Indonesia

MidPlaza 1 Building, Level 17, Jl.Jend.Sudirman Kav.10-11, JKT, 10220, Indonesia
PT BHP Billiton Indonesia
PT Billiton Indonesia

MidPlaza 2 Building, Level 3, Jl.Jend.Sudirman Kav.10-11, JKT, 10220, Indonesia
PT BHP Billiton Services Indonesia

Ireland

19-20 Seagrave House (1st Floor), Earlsfort Terrace, DUB 2, Ireland
Billiton Investments Ireland Limited

Japan

1-8-3 Marunouchi, Chiyoda-ku, Tokyo, Japan
BHP Billiton Japan Limited

Jersey

31 Esplanade, St Helier, JE1 1FT, Jersey
BHP Billiton Services Jersey Limited

Malaysia

Level 19-1 Menara Milenium, Jalan Damanlela, Pusat Bandar Damansara, 50490, Wilayah Persekutuan, Malaysia
BHP Billiton Shared Services Malaysia Sdn. Bhd.

13 Related undertakings of the Group continued

Mexico

Av. Ejercito Nacional #769, Torre B, Piso 3, Colonia Granada, Delegación Miguel Hidalgo, Ciudad de Mexico, 11520, Mexico

BHP Billiton Petróleo Holdings de México S. de R.L. de C.V. ^(k)
 BHP Billiton Petróleo Operaciones de México S. de R.L. de C.V. ^(k)
 BHP Billiton Petróleo Servicios Administrativos S. de R.L. de C.V. ^(k)
 BHP Billiton Petróleo Servicios de México S. de R.L. de C.V. ^(k)
 Operaciones Conjuntas S. de R.L. de C.V. ^(k)

Netherlands

Naritaweg 165, 1043 BW, AMS, Netherlands

BHP Billiton Company B.V.
 BHP Billiton International Metals B.V.
 Billiton Development B.V.
 Billiton Investment 3 B.V.
 Billiton Investment 8 B.V.
 Billiton Marketing Holding B.V.

Nova South, 160 Victoria Street, London, England, SW1E 5LB,
 United Kingdom

BHP Billiton Finance B.V.
 Billiton Guinea B.V.
 Billiton Suriname Holdings B.V.

Panama

33 Central Avenue, City of Panama, Republic of Panama

Marcona International S.A. ^{(g) (h)}

Papua New Guinea

Level 11, MRDC Haus, Cnr Musgrave Street and Champion Parade,
 Port Moresby, National Capital District, Papua New Guinea

BHP Billiton PNG Services Limited ^(s)

Saint Lucia

Pointe Seraphine, Castries, St Lucia
 BHP Billiton (Trinidad) Holdings Ltd

Singapore

10 Marina Boulevard, #07-01 Marina Bay Financial Centre Tower 2,
 018983, Singapore

BHP Billiton Freight Singapore Pte Limited
 BHP Billiton Marketing Asia Pte Ltd
 BHP Billiton SSM Indonesia Pte Ltd

8 Marina View #09-05, Asia Square Tower 1, 018960, Singapore

Westminers Insurance Pte Ltd ^(l)

South Africa

7 West Street, Houghton, 2198, South Africa
 Phoenix Mining Finance Company Proprietary Limited

Unit G05 Century Gate Office Park, Corner Bosmansdam Road
 and Century Way, Century City, Cape Town, Western Cape, 7441,
 South Africa

Consolidated Nominees Proprietary Limited

Switzerland

Joechlerweg 2, CH-6341, Baar, Switzerland
 BHP Billiton Marketing AG

Trinidad and Tobago

Invaders Bay Tower, Invaders Bay, off Audrey Jeffers Highway,
 Port of Spain, Trinidad, Trinidad and Tobago
 BHP Billiton (Trinidad-3A) Ltd

United Kingdom

36 East Stockwell Street, Colchester, Essex, CO1 1ST, England,
 United Kingdom
 Billiton Executive Pension Scheme Trustee Limited

88 Leadenhall Street, London, England, EC3A 3BP, United Kingdom
 The World Marine & General Insurance Plc ^(s)

Nova South, 160 Victoria Street, London, England, SW1E 5LB,
 United Kingdom

BHP Aluminium Limited
 BHP Billiton (UK) DDS Limited ^(s)
 BHP Billiton (UK) Limited
 BHP Billiton Finance Plc ^(t)
 BHP Billiton Group Limited ^(t)
 BHP Billiton Holdings Limited

BHP Billiton International Services Limited
 BHP Billiton Investment Holdings Limited ^(s)
 BHP Billiton Marketing UK Limited ^(g)
 BHP Billiton Petroleum (Bimshire) Limited

BHP Billiton Petroleum (South Africa 3B/4B) Limited ^(f)
 BHP Billiton Petroleum (Trinidad Block 23B) Limited ^(f)
 BHP Billiton Petroleum (Trinidad Block 7) Limited

BHP Billiton Petroleum Great Britain Limited
 BHP Billiton Petroleum Limited
 BHP Billiton Sustainable Communities

BHP BK Limited
 BHP Finance Limited
 BHP Group Holdings Limited
 BHP Holdings Limited
 BHP International Services Limited
 BHP Marketing UK Limited
 BHP Minerals Europe Limited
 BHP Petroleum (Brazil) Limited
 BHP Petroleum (Carlisle Bay) Limited
 BHP Petroleum (Mexico) Limited
 BHP Petroleum (Trinidad Block 14) Limited
 BHP Petroleum (Trinidad Block 23A) Limited ^(f)
 BHP Petroleum (Trinidad Block 28) Limited ^(f)
 BHP Petroleum (Trinidad Block 29) Limited ^(f)
 BHP Petroleum (Trinidad Block 3) Limited
 BHP Petroleum (Trinidad Block 5) Limited ^(f)
 BHP Petroleum (Trinidad Block 6) Limited ^(f)

13 Related undertakings of the Group continued

United States of America

1209 Orange Street, Wilmington, DE, 19801, United States of America

BHP Billiton Boliviana de Petróleo Inc.
 BHP Billiton Marketing Inc.
 BHP Billiton Petroleum (Americas) Inc.
 BHP Billiton Petroleum (Deepwater) Inc.
 BHP Billiton Petroleum (GOM) Inc.
 BHP Billiton Petroleum (North America) Inc.
 BHP Billiton Petroleum Holdings (USA) Inc.^{(g) (h)}
 BHP Billiton Petroleum Holdings LLC
 BHP Copper Inc.
 BHP Escondida Inc.
 BHP Petroleum (Arkansas Holdings) LLC
 BHP Petroleum (Foreign Exploration Holdings) LLC
 BHP Petroleum (Mexico Holdings) LLC
 BHPB Resolution Holdings LLC
 Broken Hill Proprietary (USA) Inc.
 Hamilton Brothers Petroleum Corporation
 Hamilton Oil Company Inc.
 IPS USA Inc.
 Rio Algom Mining LLC

1500 Post Oak Boulevard, Houston, TX, 77056-3030,
 United States of America

BHP Billiton Foundation

Suite 301, 1136 Union Mall, Honolulu, HI, 96813,
 United States of America

BHP Hawaii Inc.

Suite 500, 6100 Neil Road, Reno, NV, 89511, United States of America

Carson Hill Gold Mining Corporation

Suite B, 1675 South State Street, Dover, DE, 19901,
 United States of America

141 Union Company
 BHP Billiton New Mexico Coal Inc.
 BHP Capital Inc.
 BHP Chile Inc.
 BHP Finance (International) Inc.
 BHP Foreign Holdings Inc.
 BHP Holdings (International) Inc.
 BHP Holdings (Resources) Inc.
 BHP Holdings (USA) Inc.^{(m) (s)}
 BHP Holdings International (Investments) Inc.
 BHP International Finance Corp
 BHP Mineral Resources Inc
 BHP Minerals Exploration Inc.
 BHP Minerals International Exploration Inc.
 BHP Minerals International LLC
 BHP Minerals Service Company
 BHP Peru Holdings Inc.
 BHP Resources Inc.
 WMC (Argentina) Inc.
 WMC Corporate Services Inc.

202 South Minnesota Street, Carson City, NV, 89703,
 United States of America

BHP Queensland Coal Limited^{(s) (w)}

Subsidiaries where effective interest is less than 100 per cent^(b)

Country of incorporation Australia

Registered office address
 125 St Georges Terrace, Perth, WA 6000, Australia

Company Name
 BHP Iron Ore (Jimbabar) Pty Ltd (85%)^{(n) (r)}

Level 14, 480 Queen Street, Brisbane, QLD 4000, Australia
 BHP Billiton Mitsui Coal Pty Ltd (80%)^(l)

Brazil

Rua Paraíba, 1122, 5º andar, Belo Horizonte, MG, 30130-918, Brazil
 Consórcio Santos Luz de Imóveis Ltda (90%)

Chile

Cerro El Plomo 6000, Piso 15, Las Condes, Santiago, Chile
 Minera Escondida Ltda (57.5%)^(l)

Philippines

Arthaland Century Pacific Tower, 27th Floor – 5th Ave. cor. 30th Street
 and 4th Ave. cor. 30th Street, Bonifacio Global City, Taguig, Philippines

BHP Shared Services Philippines Inc. (99.99%)

Pearlbank Centre, 20th Floor – 146 Valero Street, Salcedo Village,
 Makati City, 1227, Philippines

BHP Billiton (Philippines) Inc. (99.99%)
 QNI Philippines Inc. (99.99%)

Joint operations^(c)

Country of incorporation Algeria

Registered office address
 125 St Georges Terrace, Perth, WA 6000, Australia

Company Name
 ROD Integrated Development (29.50%)^(q)

Australia

125 St Georges Terrace, Perth, WA 6000, Australia
 Bass Strait (50%)^(q)
 Macedon (71.43%)^(q)
 Minerva (90%)^(q)
 Mt Goldsworthy (85%)^(q)
 Mt Newman (85%)^(q)
 North West Shelf (12.5–16.67%)^(q)
 Posmac (65%)^(q)
 Pyrenees (40–71.43%)^(q)
 Stybarrow (50%)^(q)
 Yandi (85%)^(q)

ESSO House, 12 Riverside Quay, Southbank, VIC 3006, Australia
 Southern Natural Gas Development Pty Limited (50%)

Level 14, 480 Queen Street, Brisbane, QLD 4000, Australia
 BM Alliance Coal Marketing Pty Limited (50%)
 BM Alliance Coal Operations Pty Limited (50%)
 Central Queensland Coal Associates (50%)^(q)
 Gregory (50%)^(q)
 South Blackwater Coal Pty Limited (50%)

13 Related undertakings of the Group continued

Australia continued	Joint ventures and associates ^(d)
Level 16, Alluvion Building, 58 Mounts Bay Road, Perth, WA 6000, Australia	Country of incorporation Anguilla
North West Shelf Gas Pty Limited (16.67%)	Registered office address Harlaw Chambers, The Valley, Anguilla
North West Shelf Liaison Company Pty Ltd (16.67%) ^(h)	Company Name Carbones del Cerrejón Limited (33.33%)
North West Shelf Lifting Coordinator Pty Ltd (16.67%) ^(g)	
North West Shelf Shipping Service Company Pty Ltd (16.67%)	
Canada	Australia
Suite 1500, 1874 Scarth Street, Regina, SK, S4P 4E9, Canada	30 Raven St, Kooragang, NSW 2304, Australia
BHP Billiton SaskPower Carbon Capture and Storage (CCS) Knowledge Centre Inc. (50%) ^(k)	NCIG Holdings Pty Ltd (35.47%)
Japan	Level 20, 500 Collins Street, Melbourne, VIC 3000, Australia
1-8-3 Marunouchi, Chiyoda-ku, Tokyo, Japan	Rightship Pty Limited (33.33%)
BMA Japan KK (50%)	
Liberia	Brazil
80 Broad Street, Monrovia, Liberia	Rua Paraíba, 1122, 9o andar, Belo Horizonte, MG, Brazil
Blue Ocean Bulk Shipping Limited (50%)	Samarco Mineração S.A. (50%)
Mexico	Colombia
Av. Ejercito Nacional #769, Torre B, Piso 3, Colonia Granada, Delegación Miguel Hidalgo, Ciudad de Mexico, 11520, Mexico	Calle 100, No. 19-54, Bogota, Colombia
Trion (60%) ^(a)	Cerrejón Zona Norte S.A. (33.33%)
Singapore	Ireland
10 Marina Boulevard, #07-01 Marina Bay Financial Centre Tower 2, 018983, Singapore	Furnbally Square, New Street, DUB 8, Ireland
BM Alliance Marketing Pte Ltd (50%)	CMC-Coal Marketing DAC (33.33%)
South Africa	Netherlands
Roger Dyason Road, Pretoria West, 0183, South Africa	Herikerbergweg 238, AMS, 1101 CM, The Netherlands
Thakweneng Mineral Resources Pty Ltd (50%)	Global HubCo B.V. (33.33%) ^(o)
Trinidad and Tobago	Peru
48-50 Sackville Street, Port of Spain, Trinidad, Trinidad and Tobago	Av El Derby N° 055 Torre 1 Of 801, Santiago del Surco, Lima, Peru
Greater Angostura (45%) ^(a)	Compañía Minera Antamina S.A. (33.75%)
United States of America	United Kingdom
1209 Orange Street, Wilmington, DE, 19801, United States of America	201 Bishopsgate, London, EC2M 3AB, United Kingdom
Gulf of Mexico (23.9–44%) ^(a)	SolGold Plc (11.2%)
	United States of America
	1209 Orange Street, Wilmington, DE, 19801, United States of America
	Caesar Oil Pipeline Company LLC (25%) ^(k)
	Cleopatra Gas Gathering Company LLC (22%) ^(k)
	2711 Centerville Road, Suite 400, Wilmington DE 19808, United States
	Resolution Copper Mining LLC (45%)
	9807 Katy Freeway, Suite 1200, Houston, TX, 77024, United States of America
	Marine Well Containment Company LLC (10%) ^(k)

13 Related undertakings of the Group continued

Minority Investments ^(e)

Country of incorporation Australia

Registered office address

125 St Georges Terrace, Perth, WA 6000, Australia

Company Name

Pilbara Pastoral Company Pty Limited (25%)

727 Collins Street, Melbourne, VIC 3008, Australia

Commonwealth Steamship Insurance Company Pty Limited (29.72%)

Interstate Steamship Insurance Company Pty Ltd (24.91%)

Brazil

Rodovia do Sol, S/N, Ponta Ubu, Anchieta, ES, 29230-000, Brazil

Ponta Ubu Agropecuária Ltda. (49%)

Jersey

13 Castle Street, St Helier, Jersey Channel Islands, JE4 5UT, Jersey

Euronimba Limited (45.5%)

- (a) Wholly owned 100 per cent subsidiary consolidated by the Group.
- (b) Subsidiaries where the effective interest is less than 100 per cent but controlled by the Group.
- (c) Interests in joint operations. The Consolidated Financial Statements include the Group's share of the assets in joint operations, together with its share of the liabilities, revenues and expenses arising jointly or otherwise from those operations and its revenue derived from the sale of its share of output from the joint operation.
- (d) Investments accounted for using the equity method.
- (e) Minority investments which represent a non-controlling interest held by the Group.
- (f) Ownership held in ordinary and preference shares.
- (g) Ownership held in class A shares.
- (h) Ownership held in class B shares.
- (i) Capital injection, no shares.
- (j) Ownership held in redeemable preference, class A and class B shares.
- (k) Ownership in Membership interest.
- (l) Ownership in ordinary redeemable preference shares.
- (m) Ownership held in class A common shares.
- (n) Ownership held in preference A and class B shares.
- (o) Ownership in preference B shares.
- (p) Ownership in ordinary and special share classes L and M.
- (q) Joint operation held by a subsidiary of the Group.
- (r) The Group has an effective interest of 92.5 per cent in BHP Iron Ore (Jimblebar) Pty Ltd, however by virtue of the shareholder agreement with ITOCHU Iron Ore Australia Pty Ltd and Mitsui & Co. Iron Ore Exploration & Mining Pty Ltd, the Group's interest in the Jimblebar mining operation is 85 per cent which is consistent with the other respective contractual arrangements at Western Australia Iron Ore.
- (s) Directly held by BHP Group Limited.
- (t) Directly held by BHP Group Plc.
- (u) These companies are parties to the Limited Deed of Cross Guarantee, originally entered into on 6 June 2016, and members of the Closed Group, as at 30 June 2019.
- (v) These companies are parties to the Limited Deed of Cross Guarantee and are relieved from the Corporations Act 2001 requirements for preparation, audit and lodgement of financial reports and Directors' reports.
- (w) These companies were removed from the Limited Deed of Cross Guarantee based on the Revocation Deed executed on 20 December 2016.
- (x) These companies were added into the Limited Deed of Cross Guarantee based on the Assumption Deed executed on 29 June 2017 and are members of the Closed Group, as at 30 June 2017.
- (y) These companies were added into the Limited Deed of Cross Guarantee based on the Assumption Deed executed on 26 June 2018 and are members of the Closed Group, as at 30 June 2018.
- (z) These companies were added into the Limited Deed of Cross Guarantee based on the Assumption Deed executed on 29 June 2019 and are members of the Closed Group, as at 30 June 2019

5.3 Directors' declaration

In accordance with a resolution of the Directors of BHP Group Limited and BHP Group Plc, the Directors declare that:

- (a) in the Directors' opinion and to the best of their knowledge the Financial Statements and notes, set out in sections 5.1 and 5.2, are in accordance with the UK Companies Act 2006 and the Australian Corporations Act 2001, including:
 - (i) complying with the applicable Accounting Standards;
 - (ii) giving a true and fair view of the assets, liabilities, financial position and profit or loss of each of BHP Group Limited, BHP Group Plc, the Group and the undertakings included in the consolidation taken as a whole as at 30 June 2019 and of their performance for the year ended 30 June 2019;
- (b) the Financial Statements also comply with International Financial Reporting Standards, as disclosed in section 5.1;
- (c) to the best of the Directors' knowledge, the management report (comprising the Strategic Report and Directors' Report) includes a fair review of the development and performance of the business and the financial 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 that the Group faces;
- (d) in the Directors' opinion there are reasonable grounds to believe that each of BHP Group Limited, BHP Group Plc and the Group will be able to pay its debts as and when they become due and payable;
- (e) as at the date of this declaration, there are reasonable grounds to believe that BHP Group Limited and each of the Closed Group entities identified in note 13 in section 5.2 will be able to meet any liabilities to which they are or may become, subject because of the Deed of Cross Guarantee between BHP Group Limited and those group entities pursuant to ASIC Corporations (Wholly-owned Companies) Instrument 2016/785; and
- (f) the Directors have been given the declarations required by Section 295A of the Australian Corporations Act 2001 from the Chief Executive Officer and Chief Financial Officer for the financial year ended 30 June 2019.

Signed in accordance with a resolution of the Board of Directors.



Ken MacKenzie
Chairman



Andrew Mackenzie
Chief Executive Officer
Dated this 5th day of September 2019

5.4 Statement of Directors' responsibilities in respect of the Annual Report and the Financial Statements

The Directors are responsible for preparing the Annual Report and the Group and Parent company Financial Statements in accordance with applicable law and regulations. References to the 'Group and Parent company Financial Statements' are made in relation to the Group and individual Parent company Financial Statements of BHP Group Plc.

UK company law requires the Directors to prepare Group and Parent company Financial Statements for each financial year. The Directors are required to prepare the Group Financial Statements in accordance with IFRS as adopted by the EU and applicable law and have elected to prepare the Parent company Financial Statements in accordance with UK Accounting Standards and applicable law (UK Generally Accepted Accounting Practice).

The Group Financial Statements must, in accordance with IFRS as adopted by the EU and applicable law, present fairly the financial position and performance of the Group; references in the UK Companies Act 2006 to such Financial Statements giving a true and fair view are references to their achieving a fair presentation.

The Parent company Financial Statements must, in accordance with UK Generally Accepted Accounting Practice, give a true and fair view of the state of affairs of the parent company at the end of the financial year and of the profit or loss of the parent company for the financial year.

In preparing each of the Group and Parent company Financial Statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- for the Group Financial Statements, state whether they have been prepared in accordance with IFRS as adopted by the EU;
- for the Parent company Financial Statements, state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the Parent company Financial Statements;
- assess the Group and parent company's ability to continue as a going concern, disclosing, as applicable, related matters;
- use the going concern basis of accounting unless they either intend to liquidate the Group or the parent company or to cease operations, or have no realistic alternative but to do so.

The Directors are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the parent company and enable them to ensure that its Financial Statements comply with the UK Companies Act 2006. They are responsible for such internal control as they determine is necessary to enable the preparation of Financial Statements that are free from material misstatement, whether due to fraud or error, and have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Group and to prevent and detect fraud and other irregularities.

Under applicable law and regulations, the Directors are also responsible for preparing a Strategic Report, Directors' Report, Directors' Remuneration Report and Corporate Governance Statement that complies with that law and those regulations.

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Group's website. Legislation in the United Kingdom governing the preparation and dissemination of Financial Statements may differ from legislation in other jurisdictions.

5.5 Lead Auditor's Independence Declaration under Section 307C of the Australian Corporations Act 2001

To the Directors of BHP Group Limited:

I declare that, to the best of my knowledge and belief, in relation to the audit of BHP Group Limited for the financial year ended 30 June 2019 there have been:

- (i) no contraventions of the auditor independence requirements as set out in the *Australian Corporations Act 2001* in relation to the audit; and
- (ii) no contraventions of any applicable code of professional conduct in relation to the audit.

This declaration is in respect of BHP Group Limited and the entities it controlled during the year.

KPMG

Anthony Young
Partner

Melbourne
5 September 2019

KPMG, an Australian partnership and KPMG LLP, a UK limited liability partnership are member firms of the KPMG network of independent member firms affiliated with KPMG International Cooperative ('KPMG International'), a Swiss entity.

KPMG Australia's liability limited by a scheme approved under Professional Standards Legislation.

5.6 Independent Auditors' reports

Independent auditors' reports of KPMG LLP ('KPMG UK') to the members of BHP Group Plc and of KPMG ('KPMG Australia') to the members of BHP Group Limited

1. Opinions

For the purpose of these reports, the terms 'we' and 'our' denote KPMG UK in relation to UK responsibilities and reporting obligations to the members of BHP Group Plc, and KPMG Australia in relation to Australian responsibilities and reporting obligations to the members of BHP Group Limited. BHP ('the Group') consists of BHP Group Plc, BHP Group Limited and the entities they controlled during the financial year ended 30 June 2019.

We have audited the Consolidated Financial Statements which comprise the:

- Consolidated Balance Sheet as at 30 June 2019;
- Consolidated Income Statement, Consolidated Statement of Comprehensive Income, Consolidated Statement of Changes in Equity and Consolidated Cash Flow Statement for the year then ended; and
- Notes to the Financial Statements including a summary of significant accounting policies.

In addition:

- KPMG UK has audited the BHP Group Plc company Financial Statements for the year ended 30 June 2019, which comprise the unconsolidated parent company Balance Sheet and related notes; and
- KPMG Australia considers the Directors' declaration to be part of the Consolidated Financial Statements when forming its opinion under the requirements of the Corporations Act 2001.

A. KPMG UK's opinion on the Consolidated Financial Statements and BHP Group Plc company Financial Statements (collectively the 'Financial Statements') is unmodified

In our opinion the:

- Financial Statements give a true and fair view of the state of the Group's and of BHP Group Plc's affairs as at 30 June 2019 and of the Group's profit for the year then ended;
- Consolidated Financial Statements have been properly prepared in accordance with International Financial Reporting Standards ('IFRSs') as adopted by the European Union ('EU');
- BHP Group Plc company Financial Statements have been properly prepared in accordance with UK accounting standards, including FRS 101 Reduced Disclosure Framework; and
- Financial Statements have been prepared in accordance with the requirements of the UK Companies Act 2006 and, as regards to the Consolidated Financial Statements, Article 4 of the IAS Regulation.

B. KPMG UK's additional opinion in relation to IFRSs as issued by the International Accounting Standards Board ('IASB') is unmodified

As explained in section 5.1 'Basis of preparation' to the Consolidated Financial Statements, the Group, in addition to complying with its legal obligation to apply IFRSs as adopted by the EU, has also applied IFRSs as issued by the IASB. In our opinion the Consolidated Financial Statements have been properly prepared in accordance with IFRSs as issued by the IASB.

C. KPMG Australia's opinion on the Consolidated Financial Statements is unmodified

In our opinion the accompanying Consolidated Financial Statements, are in accordance with the Australian Corporations Act 2001, including:

- Giving a true and fair view of the Group's financial position as at 30 June 2019 and of its financial performance for the year ended on that date; and
- Complying with Australian Accounting Standards and the Corporations Regulations 2001.

2. Basis for opinions

We conducted our audits in accordance with Australian Auditing Standards and International Standards on Auditing (UK) and applicable law. Our responsibilities under these standards are further described in the *Auditors' responsibilities for the audits of the Financial Statements* item of our report below. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions, and KPMG UK notes that its opinions are consistent with its report to the Risk and Audit Committee.

We were first appointed as auditors by the Directors on 3 May 2002. The period of total uninterrupted engagement is the 17 financial years ended 30 June 2019. We have fulfilled our ethical responsibilities under, and we remain independent of the Group in accordance with: the Australian Corporations Act 2001; the relevant ethical requirements of the Australian Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants; and UK ethical requirements, including the UK FRC Ethical Standard as applied to listed public interest entities. No non-audit services prohibited by the UK FRC Ethical Standard were provided.

3. Key audit matters: including our assessment of risks of material misstatement

Key audit matters are those matters that, in our professional judgement, were of most significance in the audits of the Financial Statements for the current year and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by us, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. We summarise below the key audit matters, in decreasing order of audit significance, in arriving at our audit opinion above, together with our key audit procedures to address those matters and, as required for EU public interest entities, our results from those procedures. These matters were addressed, and our results are based on procedures undertaken in the context of, and solely for the purpose of, our audits of the Financial Statements as a whole, and in forming our opinions thereon, and consequently are incidental to those opinions, and we do not provide a separate opinion on these matters.

Key Audit Matter	How the matter was addressed in our audit
<p>Samarco dam failure (Risk v 2018: ↔)</p> <p>Losses attributable to the dam failure (pre-tax and finance costs): US\$1.0 billion (2018: US\$0.6 billion)</p> <p>Provision: US\$1.9 billion (2018: US\$1.3 billion)</p> <p>Contingent liability disclosure</p> <p>There are a number of complex accounting judgements and disclosures made by the Group resulting from the Samarco dam failure, including:</p> <ul style="list-style-type: none">• Determining the legal status of claims made against Samarco, the Group and BHP Billiton Brasil Ltda and the resulting accounting treatment;• Determining the extent of BHP Billiton Brasil Ltda's legal obligation to provide funding to Samarco and the quantification of that obligation in line with the requirements of the Governance Agreement, Framework Agreement and Preliminary Agreement; and• Disclosure of contingent liabilities associated with the various claims and other circumstances that represent exposures to Samarco and the Group and that cannot be reliably estimated. <p>We identified the evaluation of the accounting treatment of the Samarco dam failure as a key audit matter due to the high degree of estimation uncertainty and the significant size of the potential claims, which required especially challenging auditor judgement in:</p> <ul style="list-style-type: none">• Assessing the status, the Group's accounting treatment, and disclosure of potential and existing legal claims; and• Assessing the key assumptions the Group used to determine the provision recorded by BHP Billiton Brasil Ltda in relation to its potential funding obligations, including:<ul style="list-style-type: none">– Cost estimates to remediate the Samarco dam failure;– Nature and extent of remediation activities; and– Timing of cash flows. <p>The effect of these matters is that, as part of our risk assessment, we determined that provisions and contingencies related to the Samarco dam failure have a high degree of estimation uncertainty with a particularly wide potential range of reasonable outcomes.</p>	<p>The primary procedures we performed to address this key audit matter included the following:</p> <ul style="list-style-type: none">• Testing certain internal controls over the Group's accounting and disclosure process relating to the Samarco dam failure. This included controls over the Group's review of legal claims and assessment of the accounting treatment and controls over the determination of key assumptions such as the cost estimates to remediate the Samarco dam failure, nature and extent of remediation activities and timing of cash flows;• Assessing the existence of legal and/or constructive obligations under the Samarco shareholders' agreement, Brazilian law, and the Group's public statements;• Assessing the key assumptions the Group used to determine the provision recorded by BHP Billiton Brasil Ltda in relation to its potential funding obligations by:<ul style="list-style-type: none">– Comparing the nature, timing and extent of remediation activities described in the Framework Agreement with those included within the cash flow forecasts;– Testing a sample of cost estimates included in the provision to underlying documentation, such as the Group's external engineering reports;– Evaluating the scope, competency and objectivity of the Group's experts involved in the determination of the cost estimates by considering the work they were engaged to perform, their professional qualifications, and remuneration structure; and– Evaluating the historical accuracy of prior year's forecasted cash flows by comparing to current year's actual cash flows; and• Assessing the status of claims and disclosures relating to contingent liabilities through inspection of the Group's internal legal documentation, inquiry of internal and external legal personnel, Group finance and members of the executive leadership team, and inspection of documentation provided by external legal counsel. <p>Results: We considered the level of provisioning and related disclosures to be acceptable.</p>

Refer to note 4 'Significant events – Samarco dam failure' and section 2.13.1 Risk and Audit Committee Report (Significant issues – Samarco dam failure).

3. Key audit matters: including our assessment of risks of material misstatement continued

Key Audit Matter	How the matter was addressed in our audit
Impairment of non-current assets (Risk v 2018: ↔)	
Property, plant and equipment: US\$68.0 billion (2018: US\$67.2 billion)	
Impairment of property, plant and equipment (pre-tax): US\$0.3 billion (2018: US\$0.3 billion)	
Fixed assets – Investments in subsidiaries of BHP Group Plc: US\$3.1 billion (2018: US\$3.1 billion)	
<p>The Group is required to perform impairment tests for all assets, including BHP Group Plc's investment in subsidiaries, where there is an indication of impairment. As part of their assessment of indicators of impairment, the Group determines an estimate of future cash flows for each cash generating unit ('CGU'), considering different internal and external factors.</p> <p>The Group determined that there was an indicator of impairment for the Jansen CGU and therefore estimated its recoverable amount and compared it to its carrying value, and concluded that no impairment is required.</p> <p>The determination of the future cash flows in the process for identifying impairment indicators and the Jansen CGU recoverable amount use forward looking estimates which are inherently difficult to determine with precision. There is also a level of judgement applied by the Group in determining the key inputs into these forward looking estimates, including:</p> <ul style="list-style-type: none"> • Future commodity prices; • Reserves; • Future production volumes; • Discount rates; and • Future capital and operating expenditures. <p>We identified the assessment of possible indicators of impairment and the evaluation of the recoverable amount of the Jansen CGU as a key audit matter. This was due to the complex auditor judgement and level of specialised skills needed to evaluate the key inputs noted above.</p> <p>The effect of these matters is that, as part of our risk assessment, we determined that the future cash flows and other key inputs have a high degree of estimation uncertainty with a wide potential range of reasonable outcomes.</p>	
<p>The primary procedures we performed to address this key audit matter included the following:</p> <ul style="list-style-type: none"> • Testing certain internal controls over the Group's impairment assessment process including controls over the Group's assessment of indicators of impairment and controls over the determination of key inputs such as future commodity prices, reserves and production volumes, discount rates, and future capital and operating expenditures; • Evaluating key inputs used in the Group's assessment for indicators of impairment and determination of the recoverable amount of the Jansen CGU by: <ul style="list-style-type: none"> – Evaluating future commodity prices by comparing to published commodity price reports and research reports from external parties; – Comparing future capital and operating expenditures and future reserves to the latest approved mine plans and long term budgets. We assessed the Group's ability to budget accurately by comparing prior years' estimated cashflows to actual results; – Evaluating the scope, competency, and objectivity of the Group's experts who produced the reserve estimates used in the valuations by considering the work that they were engaged to perform, their professional qualifications, experience, use of industry accepted methodology, remuneration structure, and reporting lines; and – Involving our valuation specialists with specialised skill and knowledge, who assisted in comparing key inputs such as discount rates to external market data; and – Performing sensitivity analysis on the key inputs including: future commodity prices, future production volumes, future capital and operating expenditures, and discount rates. • Additional procedures were performed over the evaluation of the recoverable amount of the Jansen CGU including: <ul style="list-style-type: none"> – Challenging estimated future capital expenditures by: <ul style="list-style-type: none"> • Comparing the capital expenditures to a report prepared by the Group's external expert with specialised skills; and • Testing a sample of future capital expenditures to current third-party quotations. – Evaluating the scope, competency, and objectivity of the Group's expert who assisted in determining the capital expenditure estimate by considering the work that they were engaged to perform, their professional qualifications, experience, and remuneration structure. <p><i>Procedures performed over the investment in subsidiaries of BHP Group Plc</i></p> <ul style="list-style-type: none"> • Assessing the impact of changes in the estimated future cash flows on the carrying value of investments in the BHP Group's Plc parent company balance sheet. <p><i>Results:</i> We considered the carrying amount of property, plant and equipment and investments to be acceptable.</p>	

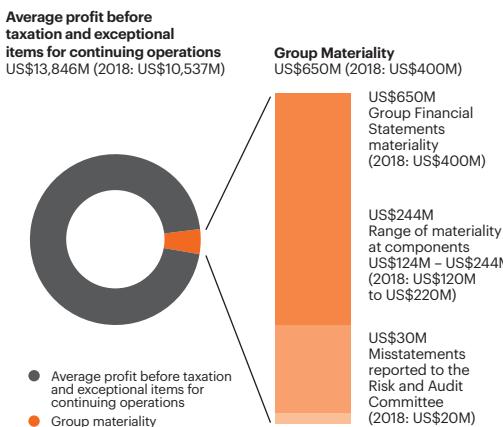
Refer to note 11 'Property, plant and equipment' (Recognition and measurement), section 5.2 'BHP Group Plc' and section 2.13.1 Risk and Audit Committee Report (Significant issues – Carrying value of long-term assets).

Key Audit Matter	How the matter was addressed in our audit
Closure and rehabilitation provisions (Risk v 2018: ↔)	
Closure and rehabilitation provisions: US\$7.0 billion (2018: US\$6.3 billion)	
The Group incurs obligations to close, restore and rehabilitate its sites and associated facilities. The majority of the Group's assets are long-life, which increases the estimation uncertainty relating to future cash flows. The size of the closure and rehabilitation provisions are significant relative to the Group's financial position.	The primary procedures we performed to address this key audit matter included the following:
Closure and rehabilitation activities are governed by a combination of legislative requirements and the Group's policies. Estimates over the life of mine and reserves are made by the Group in determining its rehabilitation provision.	<ul style="list-style-type: none"> Testing certain internal controls over the Group's process to estimate closure and rehabilitation provisions including controls over the determination of key inputs such as life of mine reserves and production profile, discount rates, future rehabilitation costs, and timing of future cash flows; Involving our environmental specialists with specialised skills and knowledge, who assisted in assessing the estimates of life of mine and reserves used by the Group. We evaluated a sample of closure and rehabilitation provisions based on the known reserves and the expected production profile of the reserves; Assessing the nature and extent of the work performed by the Group's mine closure engineers in identifying future rehabilitation activities against our independent interpretation of the legislative requirements and the Group's policies and assessing the timing and likely cost of such activities. We evaluated the methodology used by the mine closure engineers against industry practice and our understanding of the business; Evaluating the scope, competency and objectivity of the mine closure engineers based on the work that they were engaged to perform, their professional qualifications, experience, remuneration structure, and reporting lines; and Evaluating the discount rates applied to calculate the net present value of the provision. The assumptions used by the Group to determine the discount rates were compared against market available data including risk free rates.
We identified the evaluation of the closure and rehabilitation provisions as a key audit matter due to the significant size of the provision and the complex auditor judgement and specialised skills required to evaluate:	Results: We considered the level of closure and rehabilitation provisioning to be acceptable.
<ul style="list-style-type: none"> The life of mine including the reserves and production profile; The interpretation of legislative requirements; The costs associated with future rehabilitation; Discount rates; and The timing of future rehabilitation costs. 	
The effect of these matters is that, as part of our risk assessment, we determined that closure and rehabilitation provisions have a high degree of estimation uncertainty with a wide potential range of reasonable outcomes.	
Refer to note 14 'Closure and rehabilitation provisions' (Recognition and measurement) and section 2.13.1 Risk and Audit Committee Report (Significant issues – Closure and rehabilitation provisions).	
Taxation (Risk v 2018: ↓)	
Income tax expense (including royalties): US\$5.5 billion (2018: US\$7.0 billion)	
Current tax payable: US\$1.5 billion (2018: US\$1.8 billion)	
Non-current deferred tax assets US\$3.8 billion (2018: US\$4.0 billion) and non-current deferred tax liabilities: \$US3.2 billion (2018: US\$3.5 billion)	
Contingent liability disclosure	
Taxation risk is considered less significant in 2019 due to the settlement of some of the uncertain tax positions during the year.	
The Group has operations in multiple countries, each with its own taxation regime. The nature of the Group's activities triggers various taxation obligations including corporation tax, royalties, other resource and production based taxes, and employment related taxes.	The primary procedures we performed to address this key audit matter included the following:
We identified the assessment of the Group's uncertain tax matters as a key audit matter because complex auditor judgement and specialised skills were required in evaluating the Group's interpretation of tax law in multiple countries, and its estimate of the associated provisions, tax charges and contingent liability disclosures across the various tax obligations.	<ul style="list-style-type: none"> Testing certain internal controls over the Group's uncertain tax position process, including controls over the Group's assessment of tax law and the process to estimate the associated provisions and contingent liability disclosures; Involving our tax specialists with specialised skills and knowledge, who assisted in evaluating the Group's tax obligations by: <ul style="list-style-type: none"> Inquiring with the Group's Tax team and inspecting internally and externally prepared documentation to evaluate current disputes and uncertain tax positions; and Evaluating the Group's conclusions regarding the status, possible outcomes and associated exposures, and the related accounting treatment. Inspecting settlement documents with applicable taxation authorities. We compared the total amount per the settlement to the cash paid and the release of the provision; and Assessing the Group's disclosures in respect of tax and the associated contingent liabilities disclosures.
The effect of these matters is that, as part of our risk assessment, we determined that the uncertain tax matters have a high degree of estimation uncertainty with a wide potential range of reasonable outcomes.	Results: We considered the level of tax provisioning and related disclosures to be acceptable.
Refer to note 6 'Income tax expense' (Recognition and measurement) and section 2.13.1 Risk and Audit Committee Report (Significant issues – Tax and royalty liabilities).	
Valuation, classification and presentation of Onshore US assets is not a KAM in 2019 given that the sale of the Onshore US business was completed during the year.	

4. Our application of materiality and an overview of the scope of our audits

The materiality for the audit of the Consolidated Financial Statements was set at US\$650 million (2018: US\$400 million). Materiality has been determined with reference to a benchmark of the three year average Group profit before taxation and exceptional items for Continuing operations (i.e. normalised profit), of US\$13,846 million, which we consider to be one of the principal considerations for users in assessing the financial performance of the Group.

Materiality for the Group Financial Statements



The use of a normalised three year average profit measure is consistent with the approach used last year, and this approach is considered to be appropriate given the cyclical nature of the industry and the volatility in commodity prices impacting current levels of profitability. Materiality represents approximately five per cent of the three year average Group profit before taxation and exceptional items for Continuing operations (exceptional items is defined in note 3 to the Financial Statements), and one per cent of Group revenue (2018: four per cent and one per cent respectively).

Materiality for BHP Group Plc parent company Financial Statements as a whole was set at US\$113 million (2018: US\$146 million), determined with reference to a benchmark of total assets, of which it represents one per cent (2018: one per cent).

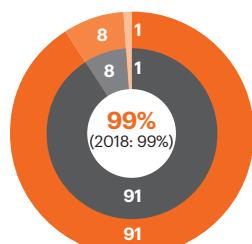
We agreed to report to the Risk and Audit Committee all corrected and uncorrected misstatements we identified through our audit in excess of US\$30 million (2018: US\$20 million). We report other audit misstatements below that threshold that we believe warrant reporting on qualitative grounds. For those items excluded from normalised profit, component auditors performed procedures on items relating to their components. The Group audit team performed procedures on the remaining excluded items.

In order to achieve appropriate audit coverage of the risks described above and of each individually significant component of the Group, including each asset, segment and group function:

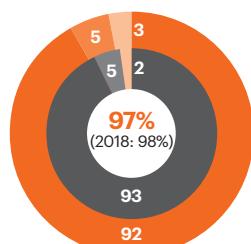
- Of the Group's 10 (2018: 10) reporting components, we subjected 6 (2018: 6) to full scope audits for Group purposes and 4 (2018: 4) to specified risk-focused audit procedures over closure and rehabilitation (2 components (2018: 2)), property, plant and equipment (3 components (2018: 3)), deferred tax assets (1 component (2018: 1)), cash (1 component (2018: 1)), inventory (1 component (2018: nil)), provisions and contingent liabilities (1 component (2018: 1)). The latter were not individually financially significant enough to require a full scope audit for Group purposes, but did present specific individual risks that needed to be addressed.

The components within the scope of our work accounted for the following percentages of the Group's measures¹:

Group revenue %



Group profit before tax %



- The work on 9 of the 10 components (2018: 9 of the 10 components) was performed by component auditors and the rest, including the audit of the parent company, was performed by the Group audit team.
- Audit instructions set out the significant audit areas (and include the relevant risks detailed above), materiality thresholds which ranged from US\$124 million to US\$244 million (2018: ranged from US\$120 million to US\$220 million) and specific reporting requirements. The Group audit team directed the work undertaken by component auditors, through a combination of related inter-office reporting, regular interaction on audit and accounting matters, periodic site visits and review of specific audit work papers.
- The 10 reporting components cover 6 geographical locations being Australia, Brazil, Canada, Chile, Singapore and the United States. During the year the Group audit team performed visits to 5 of the Group's reporting components.

5. KPMG UK have nothing to report on going concern

The Directors have prepared the Financial Statements on the going concern basis as they do not intend to liquidate the Group or BHP Group Plc or to cease their operations, and as they have concluded that the Group's and BHP Group Plc's financial position means that this is realistic. They have also concluded that there are no material uncertainties that could have cast significant doubt over their ability to continue as a going concern for at least a year from the date of approval of the Financial Statements ('the going concern period').

Our responsibility is to conclude on the appropriateness of the Directors' conclusions and, had there been a material uncertainty related to going concern, to make reference to that in this audit report. However, as we cannot predict all future events or conditions and as subsequent events may result in outcomes that are inconsistent with judgements that were reasonable at the time they were made, the absence of reference to a material uncertainty in this auditor's report is not a guarantee that the Group and BHP Group Plc will continue in operation.

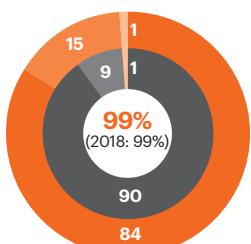
In our evaluation of the Directors' conclusions, we considered the inherent risks to the Group's and BHP Group Plc's business model including the impact of Brexit, and analysed how those risks might affect the Group's and BHP Group Plc's financial resources or ability to continue operations over the going concern period. We evaluated those risks and concluded that they were not significant enough to require us to perform additional procedures.

Based on this work, we are required to report to you if:

- we have anything material to add or draw attention to in relation to the Directors' statement in section 5.4 to the Financial Statements on the use of the going concern basis of accounting with no material uncertainties that may cast significant doubt over the Group's use of that basis for a period of at least twelve months from the date of approval of the Financial Statements; or
- the related statement under the Listing Rules set out within section 4.3 is materially inconsistent with our audit knowledge.

We have nothing to report in these respects, and we did not identify going concern as a key audit matter.

Group total assets %



- Full scope audits 2019
- Audits of account balances 2019
- Full scope audits 2018
- Audits of account balances 2018
- Out of scope

(1) Presented as a percentage of the Group's consolidated result at 30 June 2019.

6. Other information

Other information is financial and non-financial information in the Group's Annual Report which is provided in addition to the Financial Statements and the auditors' reports. The Directors are responsible for the other information presented in the Annual Report together with the Financial Statements. Our opinions on the Financial Statements do not cover the other information, and, accordingly, we do not express an audit opinion or, except as explicitly stated in items 7 and 8 below, any form of assurance conclusion thereon.

In connection with our audits of the Financial Statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Financial Statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

We are required to report if we conclude that there is a material misstatement of this other information. Based solely on that work, we have not identified material misstatements in the other information.

7. KPMG UK's reporting on specific sections of the other information

A. Strategic Report and Directors' Report

Based solely on our work on the other information:

- we have not identified material misstatements in the Strategic Report and the Directors' Report;
- in our opinion the information given in those reports for the financial year is consistent with the Financial Statements; and
- in our opinion those reports have been prepared in accordance with the UK Companies Act 2006.

B. Disclosures of principal risks and longer-term viability

Based on the knowledge we acquired during our Financial Statements audit, we have nothing material to add or draw attention to in relation to:

- the Directors' confirmation within section 1.6.4 of the Annual Report that they have carried out a robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency and liquidity;
- the Risk factors disclosures describing these risks and explaining how they are being managed and mitigated; and
- the Directors' explanation in section 1.6.4 of the Annual Report of how they have assessed the prospects of the Group, over what period they have done so and why they considered that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

Under the Listing Rules we are required to review section 4.3 of the Annual Report. We have nothing to report in this respect.

Our work is limited to assessing these matters in the context of only the knowledge acquired during our Financial Statements audit. As we cannot predict all future events or conditions and as subsequent events may result in outcomes that are inconsistent with judgments that were reasonable at the time they were made, the absence of anything to report on these statements is not a guarantee as to the Group's longer-term viability.

C. Corporate governance disclosures

We are required to report to you if:

- we have identified material inconsistencies between the knowledge we acquired during our Financial Statements audit and the Directors' statement that they consider that the Annual Report and Financial Statements taken as a whole are fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's position and performance, business model and strategy; or
- the Risk and Audit Committee report does not appropriately address matters communicated by us to the Risk and Audit Committee.

We are required to report to you if the Corporate Governance Statement does not properly disclose a departure from the eleven provisions of the UK Corporate Governance Code specified by the UK Listing Rules for our review.

We have nothing to report in these respects.

8. Report on the Remuneration Report

A. KPMG UK's opinion on the Remuneration Report

In our opinion the part of the Remuneration Report to be audited set out in section 3 of the Annual Report has been properly prepared in accordance with the UK Companies Act 2006.

B. KPMG Australia's opinion on the Remuneration Report

We have audited the Remuneration Report set out in section 3 of the Annual Report. The Directors of BHP Group Limited are responsible for the preparation and presentation of the Remuneration Report in accordance with Section 300A of the Australian Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

In our opinion, the Remuneration Report of BHP Group Limited for the year ended 30 June 2019 complies with Section 300A of the Australian Corporations Act 2001.

9. KPMG UK has nothing to report on the other matters on which we are required to report by exception

Under the UK Companies Act 2006 we are required to report to you if, in our opinion:

- adequate accounting records have not been kept by BHP Group Plc, or returns adequate for our audit have not been received from branches not visited by us; or
- the BHP Group Plc company Financial Statements and the part of the Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of Directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

We have nothing to report in these respects.

10. Respective responsibilities

A. Responsibilities of the Directors for the Financial Statements

The statement of Directors' responsibilities in respect of the Annual Report and the Financial Statements in section 5.4 describes the Directors' responsibility for the preparation of the Annual Report including the Consolidated Financial Statements and the BHP Group Plc company Financial Statements (collectively, 'the Financial Statements').

The Directors are responsible for:

- preparing Financial Statements that give a true and fair view in accordance with the relevant financial reporting frameworks;
- implementing necessary internal controls to enable the preparation of Financial Statements that give a true and fair view and are free from material misstatement whether due to fraud or error; and
- assessing the Group's and BHP Group Plc's ability to continue as a going concern and whether the use of 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 or BHP Group Plc or to cease operations, or have no realistic alternative but to do so.

B. Auditors' responsibilities for the audits of the Financial Statements

Our objectives are:

- to obtain reasonable assurance about whether each of the Financial Statements as a whole are free from material misstatement, whether due to fraud, other irregularities, or error; and
- to issue an Auditors' Report that includes our opinions.

Reasonable assurance is a high level of assurance, but is not a guarantee that our audits conducted in accordance with Australian Auditing Standards and International Standards on Auditing (UK) will always detect a material misstatement when it exists.

Misstatements can arise from fraud, other irregularities or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the Financial Statements.

A fuller description of KPMG UK's responsibilities for the audit of the Financial Statements is provided on the UK FRC's website at www.frc.org.uk/auditorsresponsibilities and a further description of KPMG Australia's responsibilities for the audit of the Consolidated Financial Statements is located at the Australian Auditing and Assurance Standards Board website at http://www.auasb.gov.au/auditors_responsibilities/ar1.pdf. This description forms part of our Australian auditors' report.

10. Respective responsibilities continued

C. Irregularities – ability to detect

We identified areas of laws and regulations that could reasonably be expected to have a material effect on the Financial Statements from our sector experience, and through discussion with the Directors and other management (as required by auditing standards), and from inspection of the Group's regulatory and legal correspondence and discussed with Directors and other management the policies and procedures regarding compliance with laws and regulations. We communicated identified laws and regulations throughout our team and remained alert to any indications of non-compliance throughout the audit. This included communication from the Group audit team to component audit teams of relevant laws and regulations identified at Group level.

The potential effect on laws and regulations on the Financial Statements varies considerably.

Firstly, the Group is subject to laws and regulations that directly affect the Financial Statements including financial reporting (including the Australian Corporations Act 2001 and UK Companies Act 2006), distributable profits legislation and taxation legislation and we assessed the extent of compliance with those laws and regulations as part of our procedures on the related Financial Statement items.

Secondly, the Group is subject to many other laws and regulations where the consequences of non-compliance could have a material effect on amounts or disclosures in the Financial Statements, for instance through the imposition of fines or litigation or the loss of the Group's license to operate. We identified the following areas as those most likely to have such an effect: health and safety, anti-bribery, environmental and certain aspects of company legislation recognising the regulated nature of the Group's mining activities and its legal form. Auditing standards limit the required audit procedures to identify non-compliance with these laws and regulations to enquiry of the Directors and other management, and inspection of regulatory and legal correspondence. Through these procedures we became aware of actual or suspected non-compliance and considered the effect as part of our procedures on the related Financial Statement items. The identified actual or suspected non-compliance included items that were not sufficiently significant to our audit to result in our response being identified as a key audit matter. Further detail in respect of the legal claims related to the Samarco dam failure are set out in the key audit matter disclosures in section 3 of this report.

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the Financial Statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, the further removed non-compliance with laws and regulations (irregularities) is from the events and transactions reflected in the Financial Statements, the less likely the inherently limited procedures required by auditing standards would identify it. In addition, as with any audit, there remained a higher risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls. We are not responsible for preventing non-compliance and cannot be expected to detect non-compliance with all laws and regulations.

11. The purpose of our audit work, to whom we owe our responsibilities

KPMG UK's report is made solely to BHP Group Plc's members, as a body, in accordance with Chapter 3 of Part 16 of the UK Companies Act 2006. KPMG Australia's report is made solely to BHP Group Limited's members, as a body, in accordance with the Australian Corporations Act 2001. Our audit work has been undertaken so that we might state to the members of each company those matters we are required to state to them in an auditor's report, and the further matters we are required to state to them in accordance with the terms agreed with each company, and for no other purpose. Accordingly, each of KPMG UK and KPMG Australia makes the following statement: to the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for our report, or for the opinions we have formed.

Michiel Soeting (Senior Statutory Auditor)
For and on behalf of KPMG LLP, Statutory Auditor
Chartered Accountants
London
5 September 2019

KPMG

Anthony Young
Partner
Melbourne
5 September 2019

5.7 Supplementary oil and gas information – unaudited

In accordance with the requirements of the Financial Accounting Standards Board (FASB) Accounting Standard Codification ‘Extractive Activities-Oil and Gas’ (Topic 932) and SEC requirements set out in Subpart 1200 of Regulation S-K, the Group is presenting certain disclosures about its oil and gas activities. These disclosures are presented below as supplementary oil and gas information, in addition to information disclosed in section 1.13.1 ‘Petroleum’ and section 6.3.1 ‘Petroleum reserves’.

The information set out in this section is referred to as unaudited as it is not included in the scope of the audit opinion of the independent auditor on the Financial Statements, refer to section 5.6 ‘Independent Auditors’ reports’.

On 28 September 2018, BHP completed the sale of 100 per cent of the issued share capital of BHP Billiton Petroleum (Arkansas) Inc. and 100 per cent of the membership interests in BHP Billiton Petroleum (Fayetteville) LLC, which held the Fayetteville assets. On 31 October 2018, BHP completed the sale of 100 per cent of the issued share capital of Petrohawk Energy Corporation, the BHP subsidiary which held the Eagle Ford (being Black Hawk and Hawkville), Haynesville and Permian assets. The financial and non-financial impact of the Onshore US assets is included in the supplementary oil and gas information presented below. The financial and non-financial impact of these assets has been footnoted beneath each applicable table. Refer to note 27 ‘Discontinued operations’ in Section 5.1 for further information.

Reserves and production

Proved oil and gas reserves and net crude oil and condensate, natural gas, LNG and NGL production information is included in section 6.2.2 ‘Production – Petroleum’ and section 6.3.1 ‘Petroleum reserves’.

Capitalised costs relating to oil and gas production activities

The following table shows the aggregate capitalised costs relating to oil and gas exploration and production activities and related accumulated depreciation, depletion, amortisation and valuation provisions.

	Australia US\$M	United States ⁽¹⁾ US\$M	Other ⁽²⁾ US\$M	Total US\$M
Capitalised cost				
2019				
Unproved properties	10	875	458	1,343
Proved properties	16,514	11,751	1,625	29,890
Total costs	16,524	12,626	2,083	31,233
Less: Accumulated depreciation, depletion, amortisation and valuation provisions	(10,867)	(8,339)	(1,302)	(20,508)
Net capitalised costs	5,657	4,287	781	10,725
2018				
Unproved properties	10	4,528	202	4,740
Proved properties	16,258	43,885	2,424	62,567
Total costs	16,268	48,413	2,626	67,307
Less: Accumulated depreciation, depletion, amortisation and valuation provisions	(9,984)	(33,437)	(2,065)	(45,486)
Net capitalised costs	6,284	14,976	561	21,821
2017				
Unproved properties	94	5,284	165	5,543
Proved properties	16,190	41,837	2,404	60,431
Total costs	16,284	47,121	2,569	65,974
Less: Accumulated depreciation, depletion, amortisation and valuation provisions	(9,085)	(30,969)	(1,984)	(42,038)
Net capitalised costs	7,199	16,152	585	23,936

(1) Net capitalised costs includes Onshore US assets of US\$ nil (2018: US\$10,672 million; 2017: US\$11,803 million).

(2) Other is primarily comprised of Algeria, Mexico, Trinidad and Tobago and the United Kingdom (divested 30 November 2018).

Costs incurred relating to oil and gas property acquisition, exploration and development activities

The following table shows costs incurred relating to oil and gas property acquisition, exploration and development activities (whether charged to expense or capitalised). Amounts shown include interest capitalised.

	Australia US\$M	United States ⁽³⁾ US\$M	Other ⁽⁴⁾ US\$M	Total US\$M
2019				
Acquisitions of proved property	–	–	–	–
Acquisitions of unproved property	–	5	–	5
Exploration ⁽¹⁾	44	190	492	726
Development	132	792	54	978
Total costs⁽²⁾	176	987	546	1,709
2018				
Acquisitions of proved property	–	–	–	–
Acquisitions of unproved property	–	9	–	9
Exploration ⁽¹⁾	25	418	291	734
Development	195	1,548	34	1,777
Total costs ⁽²⁾	220	1,975	325	2,520
2017				
Acquisitions of proved property	–	–	–	–
Acquisitions of unproved property	–	12	62	74
Exploration ⁽¹⁾	32	471	235	738
Development	360	1,034	18	1,412
Total costs⁽²⁾	392	1,517	315	2,224

(1) Represents gross exploration expenditure, including capitalised exploration expenditure, geological and geophysical expenditure and development evaluation costs charged to income as incurred.

(2) Total costs include US\$1,275 million (2018: US\$1,970 million; 2017: US\$1,744 million) capitalised during the year.

(3) Total costs include Onshore US assets of US\$331 million (2018: US\$1,081 million; 2017: US\$608 million).

(4) Other is primarily comprised of Algeria, Canada, Mexico and Trinidad and Tobago.

5.7 Supplementary oil and gas information – unaudited continued

Results of operations from oil and gas producing activities

The following information is similar to the disclosures in note 1 'Segment reporting' in section 5.1, but differs in several respects as to the level of detail and geographic information. Amounts shown in the following table exclude financial income, financial expenses, and general corporate overheads. Further, the amounts shown below include Onshore US however the disclosures in note 1 'Segment reporting' in Section 5.1 do not.

Income taxes were determined by applying the applicable statutory rates to pre-tax income with adjustments for permanent differences and tax credits.

	Australia US\$M	United States ⁽⁷⁾ US\$M	Other ⁽⁸⁾ US\$M	Total US\$M
2019				
Oil and gas revenue ⁽¹⁾	3,404	2,675	610	6,689
Production costs	(752)	(568)	(118)	(1,438)
Exploration expenses	(44)	(162)	(229)	(435)
Depreciation, depletion, amortisation and valuation provision ⁽²⁾	(917)	(621)	(103)	(1,641)
Production taxes ⁽³⁾	(198)	–	(25)	(223)
Accretion expense ⁽⁴⁾	1,493	1,324	135	2,952
Income taxes	(80)	(34)	(13)	(127)
Royalty-related taxes ⁽⁵⁾	(530)	(193)	(267)	(990)
Results of oil and gas producing activities ⁽⁶⁾	719	1,097	(145)	1,671
2018				
Oil and gas revenue ⁽¹⁾	3,229	3,747	421	7,397
Production costs	(701)	(1,312)	(121)	(2,134)
Exploration expenses	(25)	(270)	(254)	(549)
Depreciation, depletion, amortisation and valuation provision ⁽²⁾	(1,045)	(2,842)	(81)	(3,968)
Production taxes ⁽³⁾	(171)	–	(1)	(172)
Accretion expense ⁽⁴⁾	1,287	(677)	(36)	574
Income taxes	(81)	(46)	(14)	(141)
Royalty-related taxes ⁽⁵⁾	(418)	(723)	(124)	(1,265)
Results of oil and gas producing activities ⁽⁶⁾	685	(1,446)	(174)	(935)
2017				
Oil and gas revenue ⁽¹⁾	2,876	3,479	356	6,711
Production costs	(533)	(1,515)	(200)	(2,248)
Exploration expenses	(32)	(242)	(206)	(480)
Depreciation, depletion, amortisation and valuation provision ⁽²⁾	(814)	(2,592)	(91)	(3,497)
Production taxes ⁽³⁾	(158)	(4)	–	(162)
Accretion expense ⁽⁴⁾	1,339	(874)	(141)	324
Income taxes	(56)	(32)	(14)	(102)
Royalty-related taxes ⁽⁵⁾	(361)	386	(142)	(117)
Results of oil and gas producing activities ⁽⁶⁾	818	(520)	(297)	1

(1) Includes sales to affiliated companies of US\$75 million (2018: US\$75 million; 2017: US\$83 million).

(2) Includes valuation provision of US\$21 million (2018: US\$596 million; 2017: US\$102 million).

(3) Includes royalties and excise duty.

(4) Represents the unwinding of the discount on the closure and rehabilitation provision.

(5) Includes petroleum resource rent tax and petroleum revenue tax where applicable.

(6) Amounts shown exclude financial income, financial expenses and general corporate overheads and, accordingly, do not represent all of the operations attributable to the Petroleum segment presented in note 1 'Segment reporting' in section 5.1.

(7) Results of oil and gas producing activities includes Onshore US assets of US\$431 million (2018: US\$(465) million; 2017: US\$(564) million).

(8) Other is primarily comprised of Algeria, Canada, Mexico, Trinidad and Tobago and the United Kingdom (divested 30 November 2018).

5.7 Supplementary oil and gas information – unaudited continued

Standardised measure of discounted future net cash flows relating to proved oil and gas reserves (Standardised measure)

The following tables set out the standardised measure of discounted future net cash flows, and changes therein, related to the Group's estimated proved reserves as presented in section 6.3.1 'Petroleum reserves', and should be read in conjunction with that disclosure.

The analysis is prepared in compliance with FASB Oil and Gas Disclosure requirements, applying certain prescribed assumptions under Topic 932 including the use of, unweighted average first-day-of-the-month market prices for the previous 12-months, year-end cost factors, currently enacted tax rates and an annual discount factor of 10 per cent to year end quantities of net proved reserves.

Certain key assumptions prescribed under Topic 932 are arbitrary in nature and may not prove to be accurate. The reserve estimates on which the Standard measure is based are subject to revision as further technical information becomes available or economic conditions change.

Discounted future net cash flows like those shown below are not intended to represent estimates of fair value. An estimate of fair value would also take into account, among other things, the expected recovery of reserves in excess of proved reserves, anticipated future changes in commodity prices, exchange rates, development and production costs as well as alternative discount factors representing the time value of money and adjustments for risk inherent in producing oil and gas.

	Australia US\$M	United States ⁽¹⁾ US\$M	Other ⁽²⁾ US\$M	Total US\$M
Standardised measure				
2019				
Future cash inflows	18,292	18,076	1,807	38,175
Future production costs	(4,710)	(4,917)	(459)	(10,086)
Future development costs	(3,860)	(4,516)	(226)	(8,602)
Future income taxes	(2,551)	(1,657)	(711)	(4,919)
Future net cash flows	7,171	6,986	411	14,568
Discount at 10 per cent per annum	(1,926)	(3,396)	(94)	(5,416)
Standardised measure	5,245	3,590	317	9,152
2018				
Future cash inflows	17,398	28,012	2,124	47,534
Future production costs	(5,345)	(11,182)	(501)	(17,028)
Future development costs	(3,842)	(6,554)	(189)	(10,585)
Future income taxes	(1,919)	(1,236)	(901)	(4,056)
Future net cash flows	6,292	9,040	533	15,865
Discount at 10 per cent per annum	(1,713)	(3,783)	(129)	(5,625)
Standardised measure	4,579	5,257	404	10,240
2017				
Future cash inflows	18,407	23,537	1,954	43,898
Future production costs	(6,663)	(11,176)	(534)	(18,373)
Future development costs	(3,714)	(6,451)	(208)	(10,373)
Future income taxes	(1,508)	(18)	(746)	(2,272)
Future net cash flows	6,522	5,892	466	12,880
Discount at 10 per cent per annum	(2,104)	(2,426)	(108)	(4,638)
Standardised measure	4,418	3,466	358	8,242

(1) Standardised measure includes Onshore US assets of US\$ nil (2018: US\$1,932 million; 2017: US\$1,962 million).

(2) Other is primarily comprised of Algeria and Trinidad and Tobago.

5.7 Supplementary oil and gas information – unaudited continued

Changes in the Standardised measure are presented in the following table.

	2019 US\$M	2018 US\$M	2017 US\$M
Changes in the Standardised measure			
Standardised measure at the beginning of the year	10,240	8,242	8,987
Revisions:			
Prices, net of production costs	3,821	5,540	(96)
Changes in future development costs	(228)	(358)	275
Revisions of reserves quantity estimates ⁽¹⁾	1,268	(166)	2,961
Accretion of discount	1,178	1,016	1,147
Changes in production timing and other	(618)	946	(1,611)
Sales of oil and gas, net of production costs	15,661	15,220	11,663
Acquisitions of reserves-in-place	(5,029)	(5,091)	(4,301)
Sales of reserves-in-place ⁽²⁾	-	-	-
Previously estimated development costs incurred	(1,489)	(26)	(15)
Extensions, discoveries, and improved recoveries, net of future costs	545	1,068	718
Changes in future income taxes	(33)	502	(401)
Standardised measure at the end of the year⁽³⁾	9,152	10,240	8,242

(1) Changes in reserves quantities are shown in the Petroleum reserves tables in section 6.3.1.

(2) Onshore US assets disposal.

(3) Standardised measure at the end of the year includes Onshore US assets of US\$ nil (2018: US\$1,932 million; 2017: US\$1,962 million).

Accounting for suspended exploratory well costs

Refer to note 11 'Property, plant and equipment' in section 5.1 for a discussion of the accounting policy applied to the cost of exploratory wells. Suspended wells are also reviewed in this context.

The following table provides the changes to capitalised exploratory well costs that were pending the determination of proved reserves for the three years ended 30 June 2019, 30 June 2018 and 30 June 2017.

	2019 US\$M	2018 US\$M	2017 US\$M
Movement in capitalised exploratory well costs			
At the beginning of the year	794	668	770
Additions to capitalised exploratory well costs pending the determination of proved reserves	297	186	258
Capitalised exploratory well costs charged to expense	(9)	(62)	(69)
Capitalised exploratory well costs reclassified to wells, equipment, and facilities based on the determination of proved reserves	(42)	2	(155)
Other	-	-	(136)
At the end of the year	1,040	794	668

The following table provides an ageing of capitalised exploratory well costs, based on the date the drilling was completed, and the number of projects for which exploratory well costs has been capitalised for a period greater than one year since the completion of drilling.

Exploration activity typically involves drilling multiple wells, over a number of years, to fully evaluate and appraise a project. The term 'project' as used in this disclosure refers primarily to individual wells and associated exploratory activities.

	2019 US\$M	2018 US\$M	2017 US\$M
Ageing of capitalised exploratory well costs			
Exploratory well costs capitalised for a period of one year or less	210	124	120
Exploratory well costs capitalised for a period greater than one year	830	670	548
At the end of the year	1,040	794	668

	2019	2018	2017
Number of projects that have been capitalised for a period greater than one year			
	13	17	14

5.7 Supplementary oil and gas information – unaudited continued

Drilling and other exploratory and development activities

The number of crude oil and natural gas wells drilled and completed for each of the last three years was as follows:

	Net exploratory wells			Net development wells			Total
	Productive	Dry	Total	Productive	Dry	Total	
Year ended 30 June 2019							
Australia	–	–	–	1	–	1	1
United States ⁽¹⁾	1	–	1	33	–	33	34
Other ⁽²⁾	4	2	6	–	–	–	6
Total	5	2	7	34	–	34	41
Year ended 30 June 2018							
Australia	–	–	–	1	–	1	1
United States ⁽¹⁾	1	1	2	84	1	85	87
Other ⁽²⁾	–	–	–	–	–	–	–
Total	1	1	2	85	1	86	88
Year ended 30 June 2017							
Australia	–	–	–	–	–	–	–
United States ⁽¹⁾	–	–	–	80	–	80	80
Other ⁽²⁾	3	2	5	1	–	1	6
Total	3	2	5	81	–	81	86

(1) Includes Onshore US assets net productive development wells of 33 (2018: 84; 2017: 79) and net dry development wells of nil (2018: 1; 2017: nil). Onshore US assets had nil net exploratory wells in 2019, 2018 and 2017.

(2) Other is primarily comprised of Algeria, Mexico and Trinidad and Tobago.

The number of wells drilled refers to the number of wells completed at any time during the respective year, regardless of when drilling was initiated. Completion refers to the installation of permanent equipment for production of oil or gas, or, in the case of a dry well, to reporting to the appropriate authority that the well has been abandoned.

An exploratory well is a well drilled to find oil or gas in a new field or to find a new reservoir in a field previously found to be productive of oil or gas in another reservoir. A development well is a well drilled within the limits of a known oil or gas reservoir to the depth of a stratigraphic horizon known to be productive.

A productive well is an exploratory, development or extension well that is not a dry well. Productive wells include wells in which hydrocarbons were encountered and the drilling or completion of which, in the case of exploratory wells, has been suspended pending further drilling or evaluation. A dry well (hole) is an exploratory, development, or extension well that proves to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

Oil and gas properties, wells, operations, and acreage

The following tables show the number of gross and net productive crude oil and natural gas wells and total gross and net developed and undeveloped oil and natural gas acreage as at 30 June 2019. A gross well or acre is one in which a working interest is owned, while a net well or acre exists when the sum of fractional working interests owned in gross wells or acres equals one. Productive wells are producing wells and wells mechanically capable of production. Developed acreage is comprised of leased acres that are within an area by or assignable to a productive well. Undeveloped acreage is comprised of leased acres on which wells have not been drilled or completed to a point that would permit the production of economic quantities of oil and gas, regardless of whether such acres contain proved reserves.

The number of productive crude oil and natural gas wells in which the Group held an interest at 30 June 2019 was as follows:

	Crude oil wells		Natural gas wells		Total	
	Gross	Net	Gross	Net	Gross	Net
Australia	352	176	153	53	505	229
United States	60	25	–	–	60	25
Other ⁽¹⁾	57	21	8	4	65	25
Total	469	222	161	57	630	279

(1) Other is primarily comprised of Algeria, Mexico and Trinidad and Tobago.

Of the productive crude oil and natural gas wells, 43 (net: 18) operated wells had multiple completions.

Developed and undeveloped acreage (including both leases and concessions) held at 30 June 2019 was as follows:

Thousands of acres	Developed acreage		Undeveloped acreage	
	Gross	Net	Gross	Net
Australia	2,152	823	963	393
United States	105	39	828	776
Other ⁽¹⁾⁽²⁾	146	57	3,526	2,869
Total	2,403	919	5,317	4,038

(1) Developed acreage in Other primarily consists of Algeria and Trinidad and Tobago.

(2) Undeveloped acreage in Other primarily consists of Canada, Mexico and Trinidad and Tobago.

Approximately 126 thousand gross acres (59 thousand net acres), 1,612 thousand gross acres (932 thousand net acres) and 1,257 thousand gross acres (889 thousand net acres) of undeveloped acreage will expire in the years ending 30 June 2020, 2021 and 2022 respectively, if the Group does not establish production or take any other action to extend the terms of the licences and concessions.

Section 6

Additional information



In this section

- 6.1 Information on mining operations
- 6.2 Production
- 6.3 Resources and Reserves
- 6.4 Major projects
- 6.5 Climate change data
- 6.6 Legal proceedings
- 6.7 Glossary

6.1 Information on mining operations

Minerals Australia

Copper mining operations

The following table contains additional details of our mining operations. This table should be read in conjunction with the production table (refer to section 6.2.1) and reserves table (refer to section 6.3.2).

Mine & location	Means of access	Ownership	Operator	Title, leases or options	History	Mine type & mineralisation style	Power source	Facilities, use & condition
Olympic Dam								
560 km northwest of Adelaide, South Australia	Public road Copper cathode trucked to ports Uranium oxide transported by road to ports	BHP 100%	BHP	Mining lease granted by South Australian Government expires in 2036 Right of extension for 50 years (subject to remaining mine life)	Acquired in 2005 as part of WMC acquisition Copper production began in 1988 Nominal milling capacity raised to 9 Mtpa in 1999 Optimisation project completed in 2002 New copper solvent extraction plant commissioned in 2004 Major smelter maintenance campaign completed in 2018	Underground Large poly-metallic deposit of iron oxide-copper-uranium-gold mineralisation	Electricity transmitted via (i) BHP's 275 kV power line from Port Augusta and (ii) ElectraNet's system upstream of Port Augusta Energy purchased via Retail Agreement	Underground automated train and trucking network feeding crushing, storage and ore hoisting facilities 2 grinding circuits Nominal milling capacity: 10.3 Mtpa Flash furnace produces copper anodes, then refined to produce copper cathodes Electrowon copper cathode and uranium oxide concentrate produced by leaching and solvent extracting flotation tailings

Iron ore mining operations

The following table contains additional details of our iron ore mining operations. This table should be read in conjunction with the production table (refer to section 6.2.1) and reserves table (refer to section 6.3.2).

Mine & location	Means of access	Ownership	Operator	Title, leases or options	History	Mine type & mineralisation style	Power source	Facilities, use & condition
WAIO								
Mt Newman joint venture								
Pilbara region, Western Australia Mt Whaleback Orebodies 18, 24, 25, 29, 30, 31, 32 and 35	Private road Ore transported by Mt Newman JV-owned rail to Port Hedland (427 km)	BHP 85% Mitsui-ITOCHU Iron 10% ITOCHU Minerals and Energy of Australia 5%	BHP	Mineral lease granted and held under the Iron Ore (Mount Newman) Agreement Act 1964 expires in 2030 with right to successive renewals of 21 years each	Production began at Mt Whaleback in 1969 Production from Orebodies 18, 24, 25, 29, 30, 31, 32 and 35 complements production from Mt Whaleback Production from Orebodies 31 and 32 started in 2015 and 2017 respectively	Open-cut Bedded ore types classified as per host Archaean or Proterozoic iron formation, which are Brockman and Marra Mamba	Power for all mine operations both in the Central and Eastern Pilbara is supplied by BHP's natural gas fired Yarntima power station Power consumed in port operations is supplied via a contract with Alinta	Newman Hub: primary crusher, ore handling plant, heavy media beneficiation plant, stockyard blending facility, single cell rotary car dumper, train load out (nominal capacity 73 Mtpa) Orebody 25 Ore processing plant (nominal capacity 12 Mtpa)
Yandi joint venture								
Pilbara region, Western Australia Yandi JV's railway spur links Yandi hub to Mt Newman JV main line	Private road Ore transported by Mt Newman JV-owned rail to Port Hedland (316 km)	BHP 85% ITOCHU Minerals and Energy of Australia 8% Mitsui Iron Ore Corporation 7%	BHP	Mining lease granted pursuant to the Iron Ore (Marillana Creek) Agreement Act 1991 expires in 2033 with 1 renewal right to a further 21 years to 2054	Production began at the Yandi mine in 1992 Capacity of Yandi hub expanded between 1994 and 2013	Open-cut Channel Iron Deposits are Cainozoic fluvial sediments	Power for all mine operations both in the Central and Eastern Pilbara is supplied by BHP's natural gas fired Yarntima power station Power consumed in port operations is supplied via a contract with Alinta	3 primary crushers, 3 ore handling plants, stockyard blending facility, and 2 train load outs (nominal capacity 80 Mtpa)

Mine & location	Means of access	Ownership	Operator	Title, leases or options	History	Mine type & mineralisation style	Power source	Facilities, use & condition
Jimblebar operation*								
Pilbara region, Western Australia	Private road Ore is transported via overland conveyor (12.4 km)	BHP 85% ITOCHU Minerals and Energy of Australia 8% Mitsui & Co. Iron Ore Exploration & Mining 7%	BHP	Mining lease granted pursuant to the Iron Ore (McCamey's Monster) Agreement. Authorisation Act 1972 expires in 2030 with rights to successive renewals of 21 years each. *Jimblebar is an 'incorporated' venture, with the above companies holding A Class Shares in Mining Lease 266SA Section 1 and Section 3 held by BHP Iron Ore Jimblebar Pty Ltd (BHPJOJ). BHP holds 100% of the B Class Shares, which has rights to all other BHPJOJ assets	Production began in March 1989. From 2004, production was transferred to Wheelarra JV as part of the Wheelarra sublease agreement. This sublease agreement expired in March 2018. Ore was first produced from the newly commissioned Jimblebar hub in late 2013. Jimblebar sells ore to the Newman JV proximate to the Jimblebar hub	Open-cut Bedded ore types classified as per host Archaean or Proterozoic banded iron formation, which are Brockman and Marra Mamba	Power for all mine operations both in the Central and Eastern Pilbara is supplied by BHP's natural gas fired Yarnima power station Power consumed in port operations is supplied via a contract with Alinta	3 primary crushers, ore handling plant, train loadout, stockyard blending facility and supporting mining hub infrastructure (nominal capacity 65 Mtpa)
Mt Goldsworthy joint venture								
Pilbara region, Western Australia	Private road Yarrie and Nimingarra iron ore transported by Mt Goldsworthy JV-owned rail to Port Hedland (218 km)	BHP 85% Mitsui Iron Ore Corporation 7% ITOCHU Minerals and Energy of Australia 8%	BHP	1 mineral lease and 1 mining lease both granted pursuant to the Iron Ore (Goldsworthy - Nimingarra) Agreement Act 1972, expire 2035, with rights to successive renewals of 21 years A number of smaller mining leases granted under the Mining Act 1978 expire in 2026 with rights to successive renewals of 21 years 3 mineral leases granted under the Iron Ore (Mount Goldsworthy) Agreement Act 1964, which expire 2028 with rights to successive renewals of 21 years each	Operations commenced at Mt Goldsworthy in 1966 and at Shay Gap in 1973. Original Goldsworthy mine closed in 1982. Associated Shay Gap mine closed in 1993. Mining at Nimingarra mine ceased in 2007, then continued from adjacent Yarrie area. Production commenced at Mining Area C mine in 2003. Yarrie mine operations were suspended in February 2014.	Mining Area C, Yarrie and Nimingarra all open-cut Bedded ore types classified as per host Archaean or Proterozoic iron formation, which are Brockman, Marra Mamba and Nimingarra	Power for Yarrie and Shay Gap is supplied by their own small diesel generating stations Power for all remaining mine operations both in the Central and Eastern Pilbara is supplied by BHP's natural gas fired Yarnima power station Power consumed in port operations is supplied via a contract with Alinta	2 primary crushers, 2 ore handling plants, stockyard blending facility and train load out (nominal capacity 60 Mtpa)
Pilbara Region, Western Australia	Private road POSMAC JV sells ore to Mt Goldsworthy JV at Mining Area C	BHP 65% ITOCHU Minerals and Energy of Australia 8%, Mitsui Iron Ore Corporation 7% POS-Ore 20%	BHP	Sublease over part of Mt Goldsworthy Mining Area C mineral lease that expires on the earlier of termination of the mineral lease or the end of the POSMAC JV	Production commenced in October 2003. POSMAC JV sells all ore to Mt Goldsworthy JV at Mining Area C	Open-cut Bedded ore types classified as per host Archaean or Proterozoic iron formation, which is Marra Mamba	Power for all mine operations both in the Central and Eastern Pilbara is supplied by BHP's natural gas fired Yarnima power station Power consumed in port operations is supplied via a contract with Alinta	POSMAC sells all ore to Mt Goldsworthy JV, which is then processed at Mining Area C

Coal mining operations

The following table contains additional details of our mining operations. This table should be read in conjunction with the production table (refer to section 6.2.1) and reserves table (refer to section 6.3.2).

Mine & location	Means of access	Ownership	Operator	Title, leases or options	History	Mine type & mineralisation style	Power source	Facilities, use & condition
Queensland Coal								
Central Queensland Coal Associates joint venture								
Bowen Basin, Queensland, Australia Goonella Riverside, Broadmeadow, Daunia, Caval Ridge, Peak Downs, Saraji, Blackwater and Norwich Park mines	Public road Coal transported by rail to Hay Point, Gladstone, Dalrymple Bay and Abbot Point ports Distances between the mines and port are between 160 km and 315 km	BHP 50% Mitsubishi Development 50%	BMA	Mining leases, including undeveloped tenements, expire in 2031, renewable for further periods as Queensland Government legislation allows Mining is permitted to continue under the legislation during the renewal application period	Goonyella mine commenced in 1971, merged with adjoining Riverside mine in 1989 Operates as Goonyella Riverside Production commenced at: Peak Downs in 1972 Saraji in 1974 Norwich Park in 1979 Blackwater in 1967 Broadmeadow (longwall operations) in 2005 Daunia in 2013 and Caval Ridge in 2014 Production at Norwich Park ceased in May 2012	All open-cut except Broadmeadow: longwall underground Bituminous coal is mined from the Permian Moranbah and Rangal Coal measures Products range from premium quality, low volatile, high vitrinite, hard coking coal to medium volatile hard coking coal, to weak coking coal, some pulverised coal injection (PCI) coal and medium ash thermal coal as a secondary product	Queensland electricity grid connection is under long-term contracts and energy purchased via Retail Agreements	On-site beneficiation processing facilities Combined nominal capacity: in excess of 67 Mtpa
Gregory joint venture								
Bowen Basin, Queensland, Australia Gregory and Crinum mines	Public road Coal transported by rail to Hay Point and Gladstone ports Distances between the mines and port are between 310 km and 370 km	BHP 50% Mitsubishi Development 50%	BMA	Mining leases, including undeveloped tenements, expire between 2019 and 2039, renewable for further periods as Queensland Government legislation allows Mining is permitted to continue under the legislation during the renewal application period	Production commenced at: Gregory in 1979 Crinum mine (longwall) commenced in 1997 Production at Gregory open-cut mine ceased in October 2012 Production at Crinum underground mine ceased in November 2015 Agreement entered for sale of our entire 50% interest in Gregory Joint Venture On 27 March 2019, BMA completed the sale of Gregory Crinum Mine to Sojitz Corporation	Gregory: open-cut Crinum: longwall underground Bituminous coal is mined from the Permian German Creek Coal measures Product is a high volatile, low ash hard coking coal	Queensland electricity grid connection is under long-term contracts and energy purchased via Retail Agreements	On-site beneficiation facility Facilities under care and maintenance
BHP Mitsui Coal								
Bowen Basin, Queensland, Australia South Walker Creek and Poitrel mines	Public road Coal transported by rail to Hay Point and Dalrymple Bay ports Distances between the mines and port are between 135 km and 165 km	BHP 80% Mitsui and Co 20%	BMC	Mining leases, including undeveloped tenements expire between 2020 and 2034, and are renewable for further periods as Queensland Government legislation allows Mining is permitted to continue under the legislation during the renewal application period	South Walker Creek commenced in 1996 Poitrel commenced in 2006 BMC purchased remaining 50% share of Red Mountain processing facility in 2018 to secure 100% ownership	Open-cut Bituminous coal is mined from the Permian Rangal Coal measures Produces a range of coking coal and pulverised coal injection (PCI) coal	Queensland electricity grid connection is under long-term contracts and energy purchased via Retail Agreements	South Walker Creek coal beneficiated on-site Nominal capacity: in excess of 6 Mtpa Poitrel mine utilises Red Mountain for processing and rail loading facilities Nominal capacity: in excess of 4 Mtpa

Mine & location	Means of access	Ownership	Operator	Title, leases or options	History	Mine type & mineralisation style	Power source	Facilities, use & condition
New South Wales Energy Coal								
Mt Arthur Coal								
Approximately 126 km northwest of Newcastle, New South Wales, Australia	Public road Domestic coal transported by conveyor to Bayswater and Liddell Power Stations Export coal transported by third party rail to Newcastle port	BHP 100%	BHP	Current Development Consent expires in 2026, an extension will be sought within the next few years MAC holds 10 mining leases and 3 exploration licences MAC's primary exploration licence is currently being renewed	Production commenced in 2002 Government approval permits extraction of up to 36 Mtpa of run of mine coal from underground and open-cut operations, with open-cut extraction limited to 32 Mtpa	Open-cut Produces a medium rank bituminous thermal coal	NSW electricity grid connection under a deemed long-term contract and energy purchased via a Retail Agreement	Beneficiation facilities: coal handling, preparation, washing plants Nominal capacity: in excess of 23 Mtpa

Nickel mining operations

The following table contains additional details of our mining operations. This table should be read in conjunction with the production table (refer to section 6.2.1) and reserves table (refer to section 6.3.2).

Mine & location	Means of access	Ownership	Operator	Title, leases or options	History	Mine type & mineralisation style	Power source	Facilities, use & condition
Nickel West								
Mt Keith mine and concentrator								
485 km north of Kalgoorlie, Western Australia	Private road Nickel concentrate transported by road to Leinster nickel operations for drying and on-shipping	BHP 100%	BHP	Mining leases granted by Western Australian Government Key leases expire between 2029 and 2036 Renewals at government discretion	Commissioned in 1995 by WMC Acquired in 2005 as part of WMC acquisition	Open-cut Disseminated textured magmatic nickel-sulphide mineralisation associated with a metamorphosed ultramafic intrusion	On-site third party gas-fired turbines Contracts expire in December 2023 Natural gas sourced and transported under separate long-term contracts	Concentration plant with a nominal capacity: 11 Mtpa of ore
Leinster mine complex and concentrator								
375 km north of Kalgoorlie, Western Australia	Public road Nickel concentrate shipped by road and rail to Kalgoorlie nickel smelter	BHP 100%	BHP	Mining leases granted by Western Australian Government Key leases expire between 2025 and 2034 Renewals of principal mineral lease in accordance with Nickel (agnew) Agreement	Production commenced in 1979 Acquired in 2005 as part of WMC acquisition Perseverance underground mine ceased operations during 2013	Open-cut and underground Steeply dipping disseminated and massive textured nickel-sulphide mineralisation associated with metamorphosed ultramafic lava flows and intrusions	On-site third party gas-fired turbines Contracts expire in December 2023 Natural gas sourced and transported under separate long-term contracts	Concentration plant with a nominal capacity: 3 Mtpa of ore
Cliffs mine								
481 km north of Kalgoorlie, Western Australia	Private road Nickel ore transported by road to Leinster nickel operations for further processing	BHP 100%	BHP	Mining leases granted by Western Australian Government Key leases expire between 2025 and 2028 Renewals at government discretion	Production commenced in 2008 Acquired in 2005 as part of WMC acquisition	Underground Steeply dipping massive textured nickel-sulphide mineralisation associated with metamorphosed ultramafic lava flows	Supplied from Mt Keith	Mine site

Nickel smelters, refineries and processing plants

Smelter, refinery or processing plant	Location	Ownership	Operator	Title, leases or options	Product	Nominal production capacity	Power source
Nickel West							
Kambalda							
Nickel concentrator	56 km south of Kalgoorlie, Western Australia	BHP 100%	BHP	Mineral leases granted by Western Australian Government Key leases expire in 2028 No further term possible. New mining lease will be sought	Concentrate containing approximately 13% nickel	1.6 Mtpa ore Ore sourced through tolling and concentrate purchase arrangements with third parties in Kambalda region	On-site third party gas-fired turbines supplemented by access to grid power Contracts expire in December 2023 Natural gas sourced and transported under separate long-term contracts
Kalgoorlie							
Nickel smelter	Kalgoorlie, Western Australia	BHP 100%	BHP	Freehold title over the property	Matte containing approximately 65% nickel	110 ktpa matte	On-site third party gas-fired turbines supplemented by access to grid power Contracts expire in December 2023 Natural gas sourced and transported under separate long-term contracts
Kwinana							
Nickel refinery	30 km south of Perth, Western Australia	BHP 100%	BHP	Freehold title over the property	LME grade nickel briquettes, nickel powder Also intermediate products, including copper sulphide, cobalt-nickel-sulphide, ammonium-sulphate	79 ktpa nickel matte	Power is sourced from the local grid, which is supplied under a retail contract

Minerals Americas

Copper mining operations

The following table contains additional details of our mining operations. This table should be read in conjunction with the production table (refer to section 6.2.1) and reserves table (refer to section 6.3.2).

Mine & location	Means of access	Ownership	Operator	Title, leases or options	History	Mine type & mineralisation style	Power source	Facilities, use & condition
Escondida								
Atacama Desert 170 km southeast of Antofagasta, Chile	Private road available for public use Copper cathode transported by privately owned rail to ports at Antofagasta and Mejillones	BHP 57.5% Rio Tinto 30% JECO Corporation consortium comprising Mitsubishi, JX Nippon Mining and Metals 10% JECO2 Ltd 2.5%	BHP	Mining concession from Chilean Government valid indefinitely (subject to payment of annual fees)	Original construction completed in 1990 Sulphide leach copper production commenced in 2006	2 open-cut pits: Escondida and Escondida Norte Escondida and Escondida Norte mineral deposits are adjacent but distinct supergene enriched porphyry copper deposits	Escondida-owned transmission lines connect to Chile's northern power grid Electricity sourced from a combination of contracts with external vendors expiring in 2029 and Tamakaya SpA (100% owned by BHP), which generates power from the recently commissioned Kelar gas-fired power plant	3 concentrator plants extract copper concentrate from sulphide ore by flotation extraction process 2 solvent extraction plants produce copper cathode Nominal capacity: 153.7 Mtpa (nominal milling capacity) and 350 ktpa copper cathode (nominal capacity of tank house) 2 x 168 km concentrate pipelines 167 km water pipeline Port facilities at Coloso, Antofagasta Desalinated water plant (Nominal capacity 2,500 litre per second)
Pampa Norte Spence								
Atacama Desert 162 km northeast of Antofagasta, Chile	Public road Copper cathode transported by rail to ports at Mejillones and Antofagasta	BHP 100%	BHP	Mining concession from Chilean Government valid indefinitely (subject to payment of annual fees)	Development cost of US\$1.1 billion approved in 2004 First copper produced in 2006	Open-cut Enriched and oxidised porphyry copper deposit containing in situ copper oxide mineralisation that overlies a near-horizontal sequence of supergene sulphides, transitional sulphides, and finally primary (hypogene) sulphide mineralisation	Spence-owned transmission lines connect to Chile's northern power grid Electricity purchased under contract	Processing and crushing facilities, separate dynamic (on-off) leach pads, solvent extraction plant, electrowinning plant Nominal capacity of tank house: 200 ktpa copper cathode

Mine & location	Means of access	Ownership	Operator	Title, leases or options	History	Mine type & mineralisation style	Power source	Facilities, use & condition
Pampa Norte Cerro Colorado								
Atacama Desert 120 km east of Iquique, Chile	Public road Copper cathode trucked to port at Iquique	BHP 100%	BHP	Mining concession from Chilean Government valid indefinitely (subject to payment of annual fees)	Commercial production commenced in 1994 Expansions in 1996 and 1998	Open-cut Enriched and oxidised porphyry copper deposit containing in situ copper oxide mineralisation that overlies a near-horizontal sequence of supergene sulphides, transitional sulphides, and finally primary (hypogene) sulphide mineralisation	Long-term contracts with northern Chile power grid	2 primary, secondary and tertiary crushers, dynamic leaching pads, solvent extraction plant, electrowinning plant Nominal capacity of tank house: 130 ktpa copper cathode
Antamina								
Andes mountain range 270 km north of Lima, north central Peru	Public road Copper and zinc concentrates transported by pipeline to port of Huarmey Molybdenum and lead/bismuth concentrates transported by truck	BHP 33.75% Glencore 33.75% Teck 22.5% Mitsubishi 10%	Compañía Minera Antamina S.A.	Mining rights from Peruvian Government held indefinitely, subject to payment of annual fees and supply of information on investment and production	Commercial production commenced in 2001	Open-cut Zoned porphyry and skarn deposit with central copper dominated ores and an outer band of copper-zinc dominated ores	Long-term contracts with individual power producers	Primary crusher, concentrator, copper and zinc flotation circuits, bismuth/moly cleaning circuit Nominal milling capacity 53 Mtpa 300 km concentrate pipeline Port facilities at Huarmey

Iron ore mining operations

The following table contains additional details of our mining operations. This table should be read in conjunction with the production table (refer to section 6.2.1) and reserves table (refer to section 6.3.2).

Mine & location	Means of access	Ownership	Operator	Title, leases or options	History	Mine type & mineralisation style	Power source	Facilities, use & condition
Samarco								
Southeast Brazil	Public road Conveyor belts were used to transport iron ore to beneficiation plant 3 slurry pipelines used to transport concentrate to pellet plants on coast Iron pellets were exported via port facilities	BHP Billiton Brasil Limitada 50% of Samarco Mineração S.A. Vale S.A. 50%	Samarco	The mining facilities are currently under administrative embargoes and judicial injunction given the Fundão dam failure	Production began at Germano mine in 1977 and at Alegria complex in 1992 Second pellet plant built in 1997 Third pellet plant, second concentrator and second pipeline built in 2008 Fourth pellet plant, third concentrator and third pipeline built in 2014	Open-cut Itabirites (metamorphic quartz-hematite rock) and friable hematite ores	Samarco holds interests in 2 hydroelectric power plants, which supply part of its electricity Power supply contract with Cemig Geração e Transmissão expires in 2022	Samarco mining activities are currently suspended after the failure of Fundão dam The beneficiation plants, pipelines, pellet plants and port facilities are intact

Coal mining operations

The following table contains additional details of our mining operations. This table should be read in conjunction with the production table (refer to section 6.2.1) and reserves table (refer to section 6.3.2).

Mine & location	Means of access	Ownership	Operator	Title, leases or options	History	Mine type & mineralisation style	Power source	Facilities, use & condition
Cerrejón								
La Guajira province, Colombia	Public road Coal exported by company-owned rail to Puerto Bolívar (150 km)	BHP 33.33% Anglo American 33.33% Glencore 33.33%	Cerrejón	Mining leases expire progressively from 2028 to early 2034 Production not scheduled after 2033	Original mine began producing in 1976 BHP interest acquired in 2000	Open-cut Produces a medium rank bituminous thermal coal (non-coking, suitable for the export market)	Local Colombian power system	Beneficiation facilities: crushing plant with capacity in excess of 40 Mtpa and washing plant Nominal capacity in excess of 3 Mtpa
Navajo								
40 km southwest of Farmington, New Mexico, United States	Public road Coal transported by rail to Four Corners Power Plant	BHP 0% Navajo Transitional Energy Company 100%	BHP	Lease held by Navajo Transitional Energy Company	Production commenced in 1963 Divested in FY2014 BHP continued to manage and operate the mine until the Mine Management Agreement with Navajo Transitional Energy Company (NTEC) ended on 31 December 2016	Open-cut Produces a medium rank bituminous thermal coal (non-coking suitable for the domestic market only)	Four Corners Power Plant	Stackers and reclaimers used to size and blend coal to meet contract quantities and specification Nominal capacity in excess of 4 Mtpa

Petroleum

Petroleum operations

The following table contains additional details of our petroleum operations. This table should be read in conjunction with the production table (refer to section 6.2.2) and reserves table (refer to section 6.3.1).

Operation & location	Product	Ownership	Operator	Title, leases or options	Nominal production capacity	Facilities, use & condition
United States						
Offshore Gulf of Mexico						
Neptune (Green Canyon 613)						
Offshore deepwater Gulf of Mexico (1,300m)	Oil and gas	BHP 35% EnVen Energy 30% W&T Offshore 20% 31 Offshore 15%	BHP	Lease from US Government as long as oil and gas produced in paying quantities	50 Mbbl/d oil 50 MMcf/d gas	Stand-alone tension leg platform (TLP)
Shenzi (Green Canyon 653)						
Offshore deepwater Gulf of Mexico (1,310m)	Oil and gas	BHP 44% Hess 28% Repsol 28%	BHP	Lease from US Government as long as oil and gas produced in paying quantities	100 Mbbl/d oil 50 MMcf/d gas	Stand-alone TLP Genghis Khan field (part of same geological structure) tied back to Marco Polo TLP
Atlantis (Green Canyon 743)						
Offshore deepwater Gulf of Mexico (2,155m)	Oil and gas	BHP 44% BP 56%	BP	Lease from US Government as long as oil and gas produced in paying quantities	200 Mbbl/d oil 180 MMcf/d gas	Moored semi-submersible platform
Mad Dog (Green Canyon 782)						
Offshore deepwater Gulf of Mexico (1,310m)	Oil and gas	BHP 23.9% BP 60.5% Chevron 15.6%	BP	Lease from US Government as long as oil and gas produced in paying quantities	100 Mbbl/d oil 60 MMcf/d gas	Moored integrated truss spar, facilities for simultaneous production and drilling operations

Operation & location	Product	Ownership	Operator	Title, leases or options	Nominal production capacity	Facilities, use & condition
Australia						
Bass Strait						
Offshore and onshore Victoria	Oil and gas	Gippsland Basin joint venture (GBJV): BHP 50% Esso Australia (Exxon Mobil subsidiary) 50% Kipper Unit joint venture (KUJV): BHP 32.5% Esso Australia 32.5% MEPAU A Pty Ltd 35%	Esso Australia	20 production licences and 2 retention leases issued by Australian Government Expire between 2019 and end of life of field 1 production licence held with MEPAU A Pty Ltd	65 Mbbl/d oil 1,040 TJ/d 5,150 tpd LPG 850 tpd Ethane	4 offshore fields producing through offshore infrastructure, including 12 steel jacket platforms, 2 concrete gravity platforms and a subsea pipeline network Onshore infrastructure: <ul style="list-style-type: none">• Longford facility (gas conditioning/processing and liquids processing facilities)• interconnecting pipelines• long Island Point (LPG processing and liquids storage/offtake)• heliport and onshore supply base
North West Shelf						
Offshore and onshore Western Australia North Rankin Goodwyn Perseus Angel and Searipple fields	Domestic gas, LPG, condensate, LNG	North West Shelf Project is an unincorporated JV BHP: 16.67% of Incremental Pipeline Gas (IPG) domestic gas JV 16.67% of original LNG JV 12.5% of China LNG JV 16.67% of LPG JV Other participants: subsidiaries of Woodside, Chevron, BP, Shell, Mitsubishi/Mitsui and China National Offshore Oil Corporation	Woodside Petroleum Ltd	14 production licences issued by Australian Government Expire between 2022 and 5 years after production ceases	North Rankin Complex: 3,010 MMcf/d gas 53 Mbbl/d condensate Goodwyn A platform: 1,746 MMcf/d gas 100 Mbbl/d condensate Angel platform: 960 MMcf/d gas 51 Mbbl/d condensate Withnell Bay gas plant: 630 MMcf/d gas 5-train LNG plant: 52,000 tpd LNG	Production from North Rankin, Persephone and Perseus processed through the interconnected North Rankin A and North Rankin B platforms Production from Goodwyn processed through Goodwyn A platform Production from Perseus, Tidepole, Keast, Dockrell, Sculptor, Rankin, Lady Nora and Pemberton fields tied back via subsea wells to the Goodwyn A platform Production from Angel field processed through Angel platform Onshore gas treatment plant at Withnell Bay processes gas for domestic market 5-train LNG plant
North West Shelf						
Offshore Western Australia Wanaea Cossack Lambert and Hermes fields	Oil	BHP 16.67% Woodside 33.34%, BP, Chevron, Japan Australia LNG (MIMI) 16.67% each	Woodside Petroleum Ltd	3 production licences issued by Australian Government Expire between 2033 and 2039	Production: 60 Mbbl/d Storage: 1 MMbbl	FPSO unit
Pyrenees						
Offshore Western Australia Crosby Moondyne Wild Bull Tanglehead Stickle and Ravensworth fields	Oil	WA-42-L permit: BHP 71.43% Quadrant PVG P/L 28.57% WA-43-L permit: BHP 39.999% Quadrant PVG P/L 31.501% Inpex Alpha Ltd 28.5%	BHP	Production licence issued by Australian Government expires 5 years after production ceases	Production: 96 Mbbl/d oil Storage: 920 Mbbl	26 subsea well completions (21 producers, 4 water injectors, 1 gas injector), FPSO
Macedon						
Offshore and onshore Western Australia	Gas and condensate	WA-42-L permit BHP 71.43% Quadrant PVG P/L 28.57%	BHP	Production licence issued by Australian Government expires 5 years after production ceases	Production: 213 MMcf/d gas 20 bbl/d condensate	4 well completions Single flow line transports gas to onshore gas processing facility Gas plant located approximately 17 km southwest of Onslow
Minerva						
Offshore and onshore Victoria	Gas and condensate	BHP 90% Cooper Energy (MF) Pty Ltd 10%	BHP	Production licence issued by Australian Government expires 5 years after production ceases	150 TJ/d gas 600 bbl/d condensate	2 subsea well completions (2 producing wells) Single flow line transports gas to onshore gas processing facility Gas plant located approximately 4 km inland from Port Campbell On 1 May 2018, BHP entered into an agreement for the sale of its interests in the onshore gas plant with subsidiaries of Cooper Energy and Mitsui E&P Australia Pty Ltd. Agreement is conditional on regulatory approval

Operation & location	Product	Ownership	Operator	Title, leases or options	Nominal production capacity	Facilities, use & condition
Other production operations						
Trinidad and Tobago						
Greater Angostura						
Offshore Trinidad and Tobago	Oil and gas	BHP 45% National Gas Company 30% Chaoyang 25%	BHP	Production sharing contract with the Trinidad and Tobago Government entitles us to operate Greater Angostura until 2026	100 Mbbl/d oil 340 MMcf/d gas	Integrated oil and gas development: central processing platform connected to 4 wellhead platforms and a gas export platform 31 wells completed for production and injection including: 17 oil producers, 7 gas producers (3 subsea) and 7 gas injectors
Algeria						
ROD Integrated Development						
Onshore Berkine Basin 900 km southeast of Algiers, Algeria	Oil	BHP 45% interest in 401a/402a production sharing contract ENI 55% BHP effective 29.3% interest in ROD unitised integrated development	Joint Sonatrach/ENI entity	Production sharing contract with Sonatrach (title holder)	Approximately 80 Mbbl/d oil	Development and production of 6 oil fields 2 largest fields (ROD and SF SFNE) extend into neighbouring blocks 403a, 403d Production through dedicated processing train on block 403

6.2 Production

6.2.1 Production – Minerals

The table below details our mineral and derivative product production for all operations (except Petroleum) for the three years ended 30 June 2019, 2018 and 2017. Unless otherwise stated, the production numbers represent our share of production and include BHP's share of production from which profit is derived from our equity accounted investments. Production information for equity accounted investments is included to provide insight into the operational performance of these entities. For discussion of minerals pricing during the past three years, refer to section 1.6.2.

	BHP Group interest %	BHP share of production ⁽¹⁾ Year ended 30 June		
		2019	2018	2017
Copper ⁽²⁾				
Payable metal in concentrate ('000 tonnes)				
Escondida, Chile ⁽³⁾	57.5	882.1	925.8	539.6
Antamina, Peru ⁽⁴⁾	33.75	147.2	139.5	133.8
Total copper concentrate		1,029.3	1,065.3	673.4
Copper cathode ('000 tonnes)				
Escondida, Chile ⁽³⁾	57.5	253.2	287.5	232.0
Pampa Norte, Chile ⁽⁵⁾	100	246.5	263.8	254.3
Olympic Dam, Australia	100	160.3	136.7	166.3
Total copper cathode		660.0	688.0	652.6
Total copper concentrate and cathode		1,689.3	1,753.3	1,326.0
Lead				
Payable metal in concentrate ('000 tonnes)				
Antamina, Peru ⁽⁴⁾	33.75	2.4	3.4	5.5
Total lead		2.4	3.4	5.5
Zinc				
Payable metal in concentrate ('000 tonnes)				
Antamina, Peru ⁽⁴⁾	33.75	98.1	119.8	87.5
Total zinc		98.1	119.8	87.5
Gold				
Payable metal in concentrate ('000 ounces)				
Escondida, Chile ⁽³⁾	57.5	286.0	229.1	110.9
Olympic Dam, Australia (refined gold)	100	107.0	91.6	104.1
Total gold		393.0	320.7	215.0
Silver				
Payable metal in concentrate ('000 ounces)				
Escondida, Chile ⁽³⁾	57.5	8,830	8,796	4,326
Antamina, Peru ⁽⁴⁾	33.75	4,758	5,437	5,783
Olympic Dam, Australia (refined silver)	100	923	792	768
Total silver		14,511	15,025	10,877
Uranium				
Payable metal in concentrate (tonnes)				
Olympic Dam, Australia	100	3,565	3,364	3,661
Total uranium		3,565	3,364	3,661
Molybdenum				
Payable metal in concentrate (tonnes)				
Antamina, Peru ⁽⁴⁾	33.75	1,141	1,662	1,144
Total molybdenum		1,141	1,662	1,144
 Iron ore				
Western Australia Iron Ore				
Production ('000 tonnes) ⁽⁶⁾				
Newman, Australia	85	66,622	67,071	68,283
Area C Joint Venture, Australia	85	47,440	51,517	48,744
Yandi Joint Venture, Australia	85	65,197	64,048	65,355
Jimblebar, Australia ⁽⁷⁾	85	58,546	30,627	21,950
Wheelarra, Australia ⁽⁸⁾	85	159	25,158	27,020
Total Western Australia Iron Ore		237,964	238,421	231,352
Samarco, Brazil ⁽⁴⁾	50	-	-	-
Total iron ore		237,964	238,421	231,352

	BHP Group interest %	BHP Group share of production ⁽¹⁾ Year ended 30 June		
		2019	2018	2017
Coal				
Metallurgical coal				
Production ('000 tonnes) ⁽⁹⁾				
Blackwater, Australia	50	6,603	6,688	7,296
Goonyella Riverside, Australia	50	8,563	7,961	7,355
Peak Downs, Australia	50	5,933	6,350	6,055
Saraji, Australia	50	4,892	5,053	4,734
Daunia, Australia	50	2,178	2,556	2,560
Caval Ridge, Australia	50	3,967	4,285	3,458
Total BHP Mitsubishi Alliance		32,136	32,893	31,458
South Walker Creek, Australia ⁽¹⁰⁾	80	6,194	6,029	5,123
Poitrel, Australia ⁽¹⁰⁾	80	4,071	3,718	3,189
Total BHP Mitsui Coal		10,265	9,747	8,312
Total Queensland Coal		42,401	42,640	39,770
IndoMet, Haju, Indonesia ⁽¹¹⁾	75	-	-	129
Total metallurgical coal		42,401	42,640	39,899
Energy coal				
Production ('000 tonnes)				
Navajo, United States ⁽¹²⁾	100	-	-	451
San Juan, United States	100	-	-	-
Total New Mexico Coal		-	-	451
New South Wales Energy Coal, Australia	100	18,257	18,541	18,176
Cerrejón, Colombia ⁽⁴⁾	33.3	9,230	10,617	10,959
Total energy coal		27,487	29,158	29,586

	BHP Group interest %	BHP Group share of production ⁽¹⁾ Year ended 30 June		
		2019	2018	2017
Other assets				
Nickel				
Saleable production ('000 tonnes)				
Nickel West, Australia ^{(13) (14)}	100	87.4	93.0	85.8
Total nickel		87.4	93.0	85.8

- (1) BHP share of production includes the Group's share of production for which profit is derived from our equity accounted investments, unless otherwise stated.
(2) Metal production is reported on the basis of payable metal.
(3) Shown on 100 per cent basis following the application of IFRS 10. BHP interest in saleable production is 57.5 per cent.
(4) For statutory financial reporting purposes, this is an equity accounted investment. We have included production numbers from our equity accounted investments as the level of production and operating performance from these operations impacts Underlying EBITDA of the Group. Our use of Underlying EBITDA is explained in section 1.12. Samarco operations are currently suspended following the Samarco dam failure as explained in section 1.7.
(5) Includes Cerro Colorado and Spence.
(6) Iron ore production is reported on a wet tonnes basis.
(7) Shown on 100 per cent basis. BHP interest in saleable production is 85 per cent.
(8) All production from Whealarrra is now processed via the Jimblebar processing hub.
(9) Metallurgical coal production is reported on the basis of saleable product. Production figures include some thermal coal.
(10) Shown on 100 per cent basis. BHP interest in saleable production is 80 per cent.
(11) Shown on 100 per cent basis. BHP interest in saleable production is 75 per cent.
(12) BHP completed the sale of Navajo Mine on 30 December 2013. As BHP retained control of the mine until 29 July 2016, production has been reported through such date.
(13) Production restated to include other nickel by-products.
(14) Nickel contained in refined nickel metal, including briquette and power, matte and by-product streams.

6.2.2 Production – Petroleum

The table below details Petroleum's historical net crude oil and condensate, natural gas and natural gas liquids production, primarily by geographic segment, for each of the three years ended 30 June 2019, 2018 and 2017. We have shown volumes of marketable production after deduction of applicable royalties, fuel and flare. We have included in the table average production costs per unit of production and average sales prices for oil and condensate and natural gas for each of those periods.

	BHP Group share of production Year ended 30 June		
	2019	2018	2017
Production volumes			
Crude oil and condensate ('000 of barrels)			
Australia	14,365	16,545	18,658
United States – Conventional	28,047	27,476	29,933
United States – Onshore US ⁽⁵⁾	6,411	19,464	22,944
Other ⁽⁴⁾	4,885	4,616	4,850
Total crude oil and condensate	53,708	68,101	76,385
Natural gas (billion cubic feet)			
Australia	310.1	325.0	345.7
United States – Conventional	10.4	9.5	10.3
United States – Onshore US ⁽⁵⁾	96.3	258.5	275.0
Other ⁽⁴⁾	76.2	42.5	36.8
Total natural gas	493.0	635.5	667.8
Natural gas liquids⁽¹⁾ ('000 of barrels)			
Australia	6,265	6,955	7,423
United States – Conventional	1,581	1,725	1,725
United States – Onshore US ⁽⁵⁾	3,505	9,560	11,427
Other ⁽⁴⁾	42	88	119
Total NGL⁽¹⁾	11,392	18,328	20,694
Total production of petroleum products (million barrels of oil equivalent)⁽²⁾			
Australia	72.3	77.7	83.7
United States – Conventional	31.4	30.8	33.4
United States – Onshore US ⁽⁵⁾	26.0	72.1	80.2
Other ⁽⁴⁾	17.6	11.8	11.1
Total production of petroleum products	147.3	192.4	208.4
Average sales price			
Crude oil and condensate (US\$ per barrel)			
Australia	69.50	63.69	50.59
United States – Conventional	64.65	58.55	45.45
United States – Onshore US	68.02	59.03	47.91
Other ⁽⁴⁾	68.86	61.73	47.96
Total crude oil and condensate	66.73	60.12	47.61
Natural gas (US\$ per thousand cubic feet)			
Australia	7.00	5.97	5.06
United States – Conventional	3.22	3.12	4.39
United States – Onshore US	2.90	2.79	2.82
Other ⁽⁴⁾	2.87	3.19	2.72
Total natural gas	5.50	4.44	4.00
Natural gas liquids (US\$ per barrel)			
Australia	36.54	35.99	27.76
United States – Conventional	25.73	27.52	21.29
United States – Onshore US	27.74	22.15	15.14
Other ⁽⁴⁾	28.66	25.85	21.10
Total NGL	32.17	27.95	20.37
Total average production cost (US\$ per barrel of oil equivalent)⁽³⁾			
Australia	8.98	8.06	5.78
United States – Conventional	5.29	7.43	6.62
United States – Onshore US	4.93	6.43	7.87
Other ⁽⁴⁾	6.41	9.31	13.55
Total average production cost	7.18	7.43	7.14

(1) LPG and ethane are reported as natural gas liquids (NGL).

(2) Total barrels of oil equivalent (boe) conversion is based on the following: 6,000 standard cubic feet (scf) of natural gas equals one boe.

(3) Average production costs include direct and indirect costs relating to the production of hydrocarbons and the foreign exchange effect of translating local currency denominated costs into US dollars, but excludes ad valorem and severance taxes, and the cost to transport our produced hydrocarbons to the point of sale.

(4) Other comprises Algeria, Canada, Mexico, Trinidad and Tobago, and the United Kingdom (divested 30 November 2018).

(5) Production for Onshore US assets shown through the closing date of the divestment. Production for Eagle Ford, Permian, and Haynesville assets are shown through 31 October 2018 and production for Fayetteville is shown through 28 September 2018.

6.3 Resources and Reserves

Resources are the estimated quantities of material that can potentially be commercially recovered from the Group's properties. Reserves are a subset of resources that can be demonstrated to be able to be economically and legally extracted. In order to estimate reserves, assumptions are required about a range of technical and economic factors, including quantities, qualities, production techniques, recovery efficiency, production and transport costs, commodity supply and demand, commodity prices and exchange rates.

Estimating the quantity and/or quality of reserves requires the size, shape and depth of ore bodies or oil and gas reservoirs to be determined by analysing geological data, such as drilling samples and geophysical survey interpretations. Economic assumptions used to estimate reserves change from period-to-period as additional technical and operational data is generated.

6.3.1 Petroleum reserves

Estimates of oil and gas reserves involve some degree of uncertainty, are inherently imprecise, require the application of judgement and are subject to future revision. Accordingly, financial and accounting measures (such as the standardised measure of discounted cash flows, depreciation, depletion and amortisation charges, the assessment of impairments and the assessment of valuation allowances against deferred tax assets) that are based on reserve estimates are also subject to change.

How we estimate and report reserves

Petroleum's reserves are estimated as of 30 June each year. Reported reserves include both Conventional Petroleum reserves and Onshore US reserves for FY2017 and FY2018. Footnotes have been included to identify the contribution of the discontinued Onshore US operations for these years. The sale of Petroleum's interests in Onshore US reserves was completed in FY2019. Remaining reserves at the end of FY2019 reflect the continuing conventional operations only.

Our proved reserves are estimated and reported according to SEC regulations and have been determined in accordance with SEC Rule 4-10(a) of Regulation S-X.

Proved oil and gas reserves

Proved oil and gas reserves are those quantities of crude oil, natural gas and natural gas liquids (NGL) that, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward from known reservoirs and under existing economic conditions, operating methods, operating contracts and government regulations. Unless evidence indicates that renewal of existing operating contracts is reasonably certain, estimates of economically producible reserves reflect only the period before the contracts expire. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence within a reasonable time. As specified in SEC Rule 4-10(a) of Regulation S-X, oil and gas prices are taken as the unweighted average of the corresponding first day of the month prices for the 12 months prior to the ending date of the period covered.

Proved reserves were estimated by reference to available well and reservoir information, including but not limited to well logs, well test data, core data, production and pressure data, geologic data, seismic data and in some cases, to similar data from analogous, producing reservoirs. A wide range of engineering and geoscience methods, including performance analysis, numerical simulation, well analogues and geologic studies were used to estimate high confidence proved developed and undeveloped reserves in accordance with SEC regulations.

Proved reserve estimates were attributed to future development projects only where there is a significant commitment to project funding and execution and for which applicable government and regulatory approvals have been secured or are reasonably certain to be secured. Furthermore, estimates of proved reserves include only volumes for which access to market is assured with reasonable certainty. All proved reserve estimates are subject to revision (either upward or downward) based on new information, such as from development drilling and production activities or from changes in economic factors, including product prices, contract terms or development plans.

Developed oil and gas reserves

Proved developed oil and gas reserves are reserves that can be expected to be recovered through:

- existing wells with existing equipment and operating methods;
- installed extraction equipment and infrastructure operational at the time of the reserve estimate if the extraction is by means not involving a well.

Performance-derived reserve assessments for producing wells were primarily based in the following manner:

- for our conventional operations, reserves were estimated using rate and pressure decline methods, including material balance, supplemented by reservoir simulation models where appropriate;
- for our discontinued Onshore US operations reported for FY2017 and FY2018, rate-transient analysis and decline curve analysis methods;
- for wells that lacked sufficient production history, reserves were estimated using performance-based type curves and offset location analogues with similar geologic and reservoir characteristics.

Proved undeveloped reserves

Proved undeveloped oil and gas reserves are reserves that are expected to be recovered from new wells on undrilled acreage where commitment has been made to commence development within five years from first reporting or from existing wells where a relatively major expenditure is required for recompletion.

A combination of geologic and engineering data and where appropriate, statistical analysis was used to support the assignment of proved undeveloped reserves when assessing planned drilling locations. Performance data along with log and core data was used to delineate consistent, continuous reservoir characteristics in core areas of the development. Proved undeveloped locations were included in core areas between known data and adjacent to productive wells using performance-based type curves and offset location analogues with similar geologic and reservoir characteristics. Locations where a high degree of certainty could not be demonstrated using the above technologies and techniques were not categorised as proved.

Methodology used to estimate reserves

Reserve estimates have been estimated with deterministic methodology, with the exception of the North West Shelf gas operation in Australia, where probabilistic methodology has been used to estimate and aggregate reserves for the reservoirs dedicated to the gas project only. The probabilistic based portion of these reserves totals 16 million barrels of oil equivalent (MMboe) in FY2019, 23 MMboe in FY2018 and 39 MMboe in 2017. These amounts represent approximately 2 per cent of our total reported proved reserves in FY2019, 2 per cent in FY2018 and 3 per cent in FY2017, respectively. Total boe conversion is based on the following: 6,000 standard cubic feet (scf) of natural gas equals 1 boe. Aggregation of proved reserves beyond the field/project level has been performed by arithmetic summation. Due to portfolio effects, aggregates of proved reserves may be conservative. The custody transfer point(s) or point(s) of sale applicable for each field or project are the reference point for reserves. The reserves replacement ratio is the change in reserves during the year excluding production, divided by the production during the year and stated as a percentage.

Governance

The Petroleum Reserves Group (PRG) is a dedicated group that provides oversight of the reserves' assessment and reporting processes. It is independent of the various operation teams directly responsible for development and production activities. The PRG is staffed by individuals averaging more than 30 years' experience in the oil and gas industry. The manager of the PRG, Abhijit Gadgil, is a full-time employee of BHP and is responsible for overseeing the preparation of the reserve estimates and compiling the information for inclusion in this Annual Report. He has an advanced degree in engineering and more than 35 years of diversified industry experience in reservoir engineering, reserves assessment, field development and technical management. He is a 35-year member of the Society of Petroleum Engineers (SPE). He has also served on the Society of Petroleum Engineers Oil and Gas Reserves Committee. Mr Gadgil has the qualifications and experience required to act as a qualified petroleum reserves evaluator under the Australian Securities Exchange (ASX) Listing Rules. The estimates of petroleum reserves are based on and fairly represent information and supporting documentation prepared under the supervision of Mr Gadgil. He has reviewed and agrees with the information included in section 6.3.1 and has given his prior written consent for its publication. No part of the individual compensation for members of the PRG is dependent on reported reserves.

Reserve assessments for all Petroleum operations were conducted by technical staff within the operating organisation. These individuals meet the professional qualifications outlined by the SPE, are trained in the fundamentals of SEC reserves reporting and the reserves processes and are endorsed by the PRG. Each reserve assessment is reviewed annually by the PRG to ensure technical quality, adherence to internally published Petroleum guidelines and compliance with SEC reporting requirements. Once endorsed by the PRG, all reserves receive final endorsement by senior management and the Risk and Audit Committee prior to public reporting. Our Internal Audit and Assurance function provides secondary assurance of the oil and gas reserve reporting processes through audits of the key controls that have been implemented, as required by the U.S. Sarbanes-Oxley Act of 2002.



For more information on our risk management governance, refer to section 2.13.1.

FY2019 reserves

Production for FY2019 totalled 147 MMboe in sales, which was comprised of 121 MMboe for our conventional fields and 26 MMboe that was produced from our US Onshore fields prior to the closure of the divestment agreements. In comparison, our conventional fields produced approximately 1 MMboe more than in FY2018. This increase was due to a number of factors, including start-up of the Greater Western Flank Phase B project in the North West Shelf in Australia and higher uptime in several fields, which more than offset natural production declines in more mature fields. Refer to section 6.2.2 for more information. There was also an additional 5 MMboe in non-sales production, primarily for fuel consumed in our Petroleum operations. The combined sales and non-sales production totalled 152 MMboe for FY2019. For our conventional fields, additions and revisions to reserves added 57 MMboe, which replaced 45 per cent of the production in FY2019. As of 30 June 2019, our proved reserves totalled 841 MMboe.

Reserves have been calculated using the economic interest method and represent net interest volumes after deduction of applicable royalty. Reserves of 64 MMboe are in two production and risk-sharing arrangements where BHP has a revenue interest in production without transfer of ownership of the products. At 30 June 2019, approximately 8 per cent of the proved reserves were attributable to such arrangements.

Discoveries and extensions

Extensions added a total of approximately 2 MMboe to proved reserves, of which 1 MMboe was added for the Atlantis field in the US Gulf of Mexico with the balance being added in the Snapper field in Bass Strait in Australia.

Improved recovery revisions

There were no improved recovery revisions during the year.

Revisions

Revisions for FY2019 added a total of 56 MMboe. The largest addition was in the Atlantis field where 28 MMboe was added for performance and approval of Phase 3 infill drilling. Other revisions, primarily in the Mad Dog field, brought the total revisions for our US Gulf of Mexico assets to 29 MMboe. Additions through revisions in Australia totalled 22 MMboe, with the North West Shelf project adding 11 MMboe. The Goodwyn field was the largest component of this change adding 10 MMboe for strong performance. In Bass Strait, 11 MMboe was added with the largest changes occurring in the Snapper and Turrum fields, which added 5 MMboe and 2 MMboe, respectively. In other geographic areas, 4 MMboe was added for better performance in the Offshore Angostura project in Trinidad and Tobago, while 1 MMboe was added for improved performance in the ROD Integrated Development in Algeria.

Sales

The sale of Petroleum's interests in the US Onshore Permian, Eagle Ford, Haynesville and Fayetteville fields accounted for reported sales of approximately 464 MMboe. There were no purchases during FY2019.

FY2018 reserves

Production for FY2018 totalled 192 MMboe in sales, which is a decrease of 16 MMboe from FY2017. Refer to section 6.2.2 for more information. There was an additional 5 MMboe in non-sales production, primarily for fuel consumed in our Petroleum operations. The combined sales and non-sales production totalled 198 MMboe. The natural decline of production in our Onshore US fields and mature fields in other locations was the primary reason for the lower amount produced.

As of 30 June 2018, our proved reserves totalled 1400 MMboe and reflected a net increase of 62 MMboe and production of 198 MMboe from the 1535 MMboe reported at FY2017. This increase was primarily the result of continued strong performance in our Offshore US fields in the Gulf of Mexico and Offshore Trinidad and Tobago along with better performance and improved liquid product prices for our North American shale operations. These increases were partially offset by reductions in the North West Shelf (Australia) and reduced gas prices received for production from our Onshore US fields. Net additions to reserves resulted in a reserves replacement of 32 per cent overall, (Conventional: 25 per cent reserves replacement, Onshore US: 43 per cent reserves replacement). As of 30 June 2018, approximately 65 per cent of our proved reserves were in conventional fields, while about 35 per cent of our proved reserves were in unconventional fields.

Discoveries and extensions

Discoveries and extensions added 75 MMboe to proved reserves during FY2018. This was comprised of 69 MMboe of extensions related to planned drilling in new locations in our Onshore US operations within the next five years and an additional 4 MMboe in the Mad Dog field and 2 MMboe in the Shenzi field, both of which are in the US Gulf of Mexico.

Improved recovery revisions

There were no improved recovery revisions during the year.

Revisions

Overall, net revisions decreased proved reserves by 7 MMboe during FY2018. In our Australian operations, reductions of 21 MMboe occurred, primarily in the North West Shelf, due to revisions related to updated technical assessments. In the United States, net revisions increased reserves by approximately 4 MMboe. This was a result of additions of 35 MMboe, primarily for strong performance in the Atlantis field in the Offshore US Gulf of Mexico, and better performance in our Onshore US Eagle Ford and Permian assets. These additions were partially offset by reductions of 33 MMboe, mainly in our Onshore US fields as a result of lower planned drilling activity in light of our previously announced plan to exit our shale operations and the effect of lower gas prices. In other areas outside of Australia and the United States, revisions increased reserves by 10 MMboe, primarily for strong performance in the Angostura Phase 3 project in Offshore Trinidad and Tobago.

Of the overall decrease in proved reserves of 7 MMboe through revisions, the impact of commodity prices using the required SEC price-basis represented a decrease of 4 MMboe while well performance, interest changes and other revisions resulted in a net decrease of 3 MMboe. Virtually all of the price-related decrease occurred in our Onshore US fields where increases of 26 MMboe occurred in the Eagle Ford and Permian fields as a result of higher liquids prices, but these additions were more than offset by 31 MMboe in reductions in Haynesville and Fayetteville due to lower gas prices.

Sales

The sale of Petroleum's interests in the US Onshore Eagle Ford field accounted for our reported sales of approximately 5 MMboe. There were no purchases during FY2018.

FY2017 reserves

Production for FY2017 totalled 208 MMboe in sales, which was a decrease of 32 MMboe from FY2016. Refer to section 6.2.2 for more information. There was an additional 5 MMboe in non-sales production, primarily for fuel consumed in our Petroleum operations. The combined sales and non-sales production totalled 213 MMboe. The natural decline of production, primarily in our Onshore US fields and mature fields in other locations was the primary reason for the lower amount produced.

As of 30 June 2017, our proved reserves totalled 1535 MMboe and reflected a net increase of 445 MMboe and annual production of 213 MMboe from the 1303 MMboe reported at FY2016. This increase was primarily the result of higher product prices experienced during the reporting period, reductions in unconventional well operating costs and an increase in planned drilling activity which enabled the addition of new proved undeveloped reserves for our Onshore US fields. As of 30 June 2017, approximately 65 per cent of our proved reserves were in conventional fields, while about 35 per cent of our proved reserves were in unconventional fields.

Discoveries and extensions

Discoveries and extensions added 172 MMboe to proved reserves during FY2017. This was comprised of 105 MMboe of extensions related to the decision to proceed and funding of the Phase 2 development of the Mad Dog field and 3 MMboe related to drilling in the Atlantis field in the US Gulf of Mexico along with 65 MMboe related to planned drilling in new locations in our Onshore US operations within the next five years.

Improved recovery revisions

There were no improved recovery revisions during the year.

Revisions

Overall, net revisions increased proved reserves by 274 MMboe during FY2017. Of this, the impact of commodity prices using the required SEC price-basis represented an increase of 271 MMboe. Well performance, interest changes and other revisions resulted in a net increase of 3 MMboe. Virtually all of the price-related increase occurred in our Onshore US fields.

In our US operations, the overall increase in proved reserves through revisions totalled 258 MMboe. This included price related additions of 269 MMboe, 32 MMboe for additional drilling locations planned in our Onshore US fields and a reduction of 51 MMboe related to performance and other revisions in our Onshore US operations. There were also additions of 8 MMboe for better than expected performance and increased prices in the Shenzi, Atlantis and Mad Dog fields in our Gulf of Mexico operations.

In our Australian operations, continued strong performance of the North West Shelf and Minerva fields added a total of 7 MMboe through revisions. This was partially offset by performance and other related reductions of 3 MMboe in Bass Strait fields. Overall, revisions for Australian fields totalled about 4 MMboe.

Operations outside of Australia and the United States also added approximately 12 MMboe through revisions. In the Angostura area fields in Trinidad and Tobago, 6 MMboe was added for better than expected performance. The ROD Integrated Development in Algeria also added 4 MMboe primarily for better than expected performance. Our fields in the United Kingdom also added 1 MMboe offsetting production during the year.

Sales

The sale of acreage in our Eagle Ford and Permian fields accounted for our reported sales of approximately 1 MMboe. There were no purchases during FY2017.

These results are summarised in the following tables, which detail estimated oil, condensate, NGL and natural gas reserves at 30 June 2019, 30 June 2018 and 30 June 2017, with a reconciliation of the changes in each year.

Millions of barrels	Australia	United States	Other ^(b)	Total
Proved developed and undeveloped oil and condensate reserves ^(a)				
Reserves at 30 June 2016	113.2	253.7 ^(c)	26.5	393.4 ^(c)
Improved recovery	-	-	-	-
Revisions of previous estimates	(5.9)	17.0	4.4	15.4
Extensions and discoveries	-	123.3	-	123.3
Purchase/sales of reserves	-	(0.4)	-	(0.4)
Production	(18.7)	(52.9)	(4.8)	(76.4)
Total changes	(24.6)	87.0	(0.5)	61.9
Reserves at 30 June 2017	88.6	340.7 ^(c)	26.0	455.3 ^(c)
Improved recovery	-	-	-	-
Revisions of previous estimates	(1.6)	41.2	0.6	40.1
Extensions and discoveries	-	27.6	-	27.6
Purchase/sales of reserves	-	(0.7)	-	(0.7)
Production	(16.5)	(46.9)	(4.6)	(68.1)
Total changes	(18.2)	21.1	(4.0)	(1.1)
Reserves at 30 June 2018	70.5	361.8 ^(c)	21.9	454.2 ^(c)
Improved recovery	-	-	-	-
Revisions of previous estimates	7.8	25.9	1.0	34.7
Extensions and discoveries	0.0	0.8	-	0.9
Purchase/sales of reserves	-	(79.7)	-	(79.7)
Production	(14.4)	(34.5)	(4.9)	(53.7)
Total changes	(6.5)	(87.5)	(3.9)	(97.9)
Reserves at 30 June 2019	63.9	274.4	18.0	356.3
Developed				
Proved developed oil and condensate reserves				
as of 30 June 2016	82.2	187.3	20.0	289.5
as of 30 June 2017	76.2	162.3	21.9	260.5
as of 30 June 2018	60.5	181.2	19.2	260.8
Developed reserves as of 30 June 2019	59.0	128.9	16.3	204.2
Undeveloped				
Proved undeveloped oil and condensate reserves				
as of 30 June 2016	31.0	66.4	6.5	103.9
as of 30 June 2017	12.4	178.4	4.0	194.8
as of 30 June 2018	10.0	180.7	2.8	193.4
Undeveloped reserves as of 30 June 2019	5.0	145.4	1.7	152.1

(a) Small differences are due to rounding to first decimal place.

(b) 'Other' comprises Algeria, Trinidad and Tobago and the United Kingdom.

(c) For FY2016, FY2017, and FY2018 amounts include 62.9, 73.0 and 86.1 million barrels respectively attributable to discontinued operations of Onshore US.

Millions of barrels	Australia	United States	Other ^(c)	Total
Proved developed and undeveloped NGL reserves ^(a)				
Reserves at 30 June 2016	71.3	35.6 ^{(d) (e)}	–	107.0 ^{(d) (e)}
Improved recovery	–	–	–	–
Revisions of previous estimates	1.2	23.4	0.1	24.8
Extensions and discoveries	–	13.1	–	13.1
Purchase/sales of reserves	–	(0.1)	–	(0.1)
Production ^(b)	(7.4)	(13.2)	(0.1)	(20.7)
Total changes	(6.2)	23.2	–	17.0
Reserves at 30 June 2017	65.2	58.9 ^{(d) (e)}	–	124.0 ^{(d) (e)}
Improved recovery	–	–	–	–
Revisions of previous estimates	(1.7)	12.7	0.1	11.0
Extensions and discoveries	–	13.4	–	13.4
Purchase/sales of reserves	–	(1.7)	–	(1.7)
Production ^(b)	(7.0)	(11.3)	(0.1)	(18.3)
Total changes	(8.7)	13.1	–	4.4
Reserves at 30 June 2018	56.5	72.0 ^{(d) (e)}	–	128.4 ^{(d) (e)}
Improved recovery	–	–	–	–
Revisions of previous estimates	4.9	0.8	0.0	5.7
Extensions and discoveries	0.2	0.1	–	0.2
Purchase/sales of reserves	–	(58.7)	–	(58.7)
Production ^(b)	(6.3)	(5.1)	(0.0)	(11.4)
Total changes	(1.2)	(62.9)	–	(64.1)
Reserves at 30 June 2019	55.2	9.1^(d)	–	64.3^(d)
Developed				
Proved developed NGL reserves				
as of 30 June 2016	38.0	30.7	–	68.7
as of 30 June 2017	56.6	31.4	–	88.0
as of 30 June 2018	49.8	37.0	–	86.8
Developed reserves as of 30 June 2019	46.5	4.3	–	50.8
Undeveloped				
Proved undeveloped NGL reserves				
as of 30 June 2016	33.3	4.9	–	38.2
as of 30 June 2017	8.6	27.5	–	36.1
as of 30 June 2018	6.6	35.0	–	41.6
Undeveloped reserves as of 30 June 2019	8.7	4.8	–	13.5

(a) Small differences are due to rounding to first decimal place.

(b) Production includes volumes consumed by operations.

(c) 'Other' comprises Algeria, Trinidad and Tobago and the United Kingdom.

(d) For FY2016, FY2017 and FY2018 amounts include 0.2, 2.1 and 2.5 million barrels respectively, which are anticipated to be consumed as fuel in the United States.

(e) For FY2016, FY2017 and FY2018 amounts include 28.3, 51.0 and 62.2 million barrels respectively attributable to discontinued operations of Onshore US.

Billions of cubic feet	Australia ^(c)	United States	Other ^(d)	Total
Proved developed and undeveloped natural gas reserves ^(a)				
Reserves at 30 June 2016	3,192.0 ^(e)	1,311.1 ^{(f) (i)}	310.8 ^(g)	4,813.8 ^{(h) (i)}
Improved recovery	-	-	-	-
Revisions of previous estimates	49.9	1,307.4	43.5	1,400.7
Extensions and discoveries	-	216.5	-	216.5
Purchase/sales of reserves	-	(0.7)	-	(0.7)
Production ^(b)	(372.1)	(287.9)	(38.3)	(698.4)
Total changes	(322.3)	1,235.3	5.1	918.1
Reserves at 30 June 2017	2,869.7 ^(e)	2,546.3 ^{(f) (i)}	315.9 ^(g)	5,731.9 ^{(h) (i)}
Improved recovery	-	-	-	-
Revisions of previous estimates	(105.3)	(302.0)	57.0	(350.2)
Extensions and discoveries	-	204.1	-	204.1
Purchase/sales of reserves	-	(17.8)	-	(17.8)
Production ^(b)	(351.9)	(270.7)	(44.3)	(666.9)
Total changes	(457.2)	(386.3)	12.7	(830.7)
Reserves at 30 June 2018	2,412.5 ^(e)	2,160.1 ^{(f) (i)}	328.6 ^(g)	4,901.2 ^{(h) (i)}
Improved recovery	-	-	-	-
Revisions of previous estimates	53.7	14.0	24.7	92.4
Extensions and discoveries	2.5	0.4	-	3.0
Purchase/sales of reserves	-	(1,952.8)	-	(1,952.8)
Production ^(b)	(336.8)	(109.4)	(77.8)	(524.1)
Total changes	(280.6)	(2,047.8)	(53.1)	(2,381.5)
Reserves at 30 June 2019	2,131.9 ^(e)	112.3 ^{(f) (i)}	275.5 ^(g)	2,519.7 ^{(h) (i)}
Developed				
Proved developed natural gas reserves				
as of 30 June 2016	2,204.6	1,268.1	182.9	3,655.6
as of 30 June 2017	2,346.3	1,556.4	315.9	4,218.5
as of 30 June 2018	1,975.9	1,479.4	328.6	3,783.8
Developed reserves as of 30 June 2019	1,856.4	65.5	275.5	2,197.3
Undeveloped				
Proved undeveloped natural gas reserves				
as of 30 June 2016	987.4	43.0	127.8	1,158.2
as of 30 June 2017	523.4	989.9	-	1,513.3
as of 30 June 2018	436.6	680.7	-	1,117.3
Undeveloped reserves as of 30 June 2019	275.5	46.8	-	322.3

(a) Small differences are due to rounding to first decimal place.

(b) Production includes volumes consumed by operations.

(c) Production for Australia includes gas sold as LNG.

(d) 'Other' comprises Algeria, Trinidad and Tobago and the United Kingdom.

(e) For FY2016, FY2017, FY2018 and FY2019 amounts include 321, 295, 295 and 268 billion cubic feet respectively, which are anticipated to be consumed as fuel in operations in Australia.

(f) For FY2016, FY2017, FY2018 and FY2019 amounts include 75, 155, 160 and 64 billion cubic feet respectively, which are anticipated to be consumed as fuel in operations in the United States.

(g) For FY2016, FY2017, FY2018 and FY2019 amounts include 17, 17, 16 and 14 billion cubic feet respectively, which are anticipated to be consumed as fuel in operations in Other areas.

(h) For FY2016, FY2017, FY2018 and 2019 amounts include 413, 467, 472 and 346 billion cubic feet respectively, which are anticipated to be consumed as fuel in operations.

(i) For FY2016, FY2017 and FY2018 amounts include 1238, 2444 and 2049 billion cubic feet respectively attributable to discontinued operations of Onshore US.

Millions of barrels of oil equivalent ^(a)	Australia	United States	Other ^(d)	Total
Proved developed and undeveloped oil, condensate, natural gas and NGL reserves ^(b)				
Reserves at 30 June 2016	716.5 ^(e)	507.9 ^{(f) (i)}	78.2 ^(g)	1,302.7 ^{(h) (i)}
Improved recovery	–	–	–	–
Revisions of previous estimates	3.6	258.3	11.7	273.6
Extensions and discoveries	–	172.4	–	172.4
Purchase/sales of reserves	–	(0.6)	–	(0.6)
Production ^(c)	(88.1)	(114.0)	(11.4)	(213.5)
Total changes	(84.5)	316.1	0.4	232.0
Reserves at 30 June 2017	632.1 ^(e)	824.0 ^{(f) (i)}	78.6 ^(g)	1,534.6 ^{(h) (i)}
Improved recovery	–	–	–	–
Revisions of previous estimates	(20.9)	3.5	10.2	(7.3)
Extensions and discoveries	–	75.0	–	75.0
Purchase/sales of reserves	–	(5.3)	–	(5.3)
Production ^(c)	(82.2)	(103.3)	(12.1)	(197.6)
Total changes	(103.1)	(30.1)	(1.9)	(135.1)
Reserves at 30 June 2018	529.0 ^(e)	793.8 ^{(f) (i)}	76.7 ^(g)	1,399.5 ^{(h) (i)}
Improved recovery	–	–	–	–
Revisions of previous estimates	21.6	29.1	5.1	55.8
Extensions and discoveries	0.6	0.9	–	1.6
Purchase/sales of reserves	–	(463.9)	–	(463.9)
Production ^(c)	(76.8)	(57.8)	(17.9)	(152.4)
Total changes	(54.5)	(491.7)	(12.8)	(558.9)
Reserves at 30 June 2019	474.5 ^(e)	302.2 ^{(f) (i)}	63.9 ^(g)	840.6 ^{(h) (i)}
Developed				
Proved developed oil, condensate, natural gas and NGL reserves				
as of 30 June 2016	487.6	429.4	50.5	967.5
as of 30 June 2017	523.8	453.1	74.6	1,051.6
as of 30 June 2018	439.6	464.7	73.9	978.2
Developed reserves as of 30 June 2019	414.9	144.1	62.2	621.2
Undeveloped				
Proved undeveloped oil, condensate, natural gas and NGL reserves				
as of 30 June 2016	228.9	78.5	27.8	335.2
as of 30 June 2017	108.2	370.8	4.0	483.1
as of 30 June 2018	89.4	329.2	2.8	421.3
Undeveloped reserves as of 30 June 2019	59.6	158.1	1.7	219.4

(a) Barrel oil equivalent conversion based on 6,000 scf of natural gas equals 1 boe.

(b) Small differences are due to rounding to first decimal place.

(c) Production includes volumes consumed by operations.

(d) 'Other' comprises Algeria, Trinidad and Tobago and the United Kingdom.

(e) For FY2016, FY2017, FY2018 and FY2019 amounts include 53, 49, 49 and 45 million barrels equivalent respectively, which are anticipated to be consumed as fuel in operations in Australia.

(f) For FY2016, FY2017, FY2018 and FY2019 amounts include 13, 28, 29 and 11 million barrels equivalent respectively, which are anticipated to be consumed as fuel in operations in the United States.

(g) For FY2016, FY2017, FY2018 and FY2019 amounts include 3, 3 and 2 million barrels equivalent respectively, which are anticipated to be consumed as fuel in operations in Other areas.

(h) For FY2016, FY2017, FY2018 and FY2019 amounts include 69, 80, 81 and 58 million barrels equivalent respectively, which are anticipated to be consumed as fuel in operations.

(i) For FY2016, FY2017 and FY2018 amounts include 298, 531 and 490 million barrels equivalent respectively attributable to discontinued operations of Onshore US.

FY2019 proved undeveloped reserves

At 30 June 2019, Petroleum had 219 MMboe of proved undeveloped reserves, which corresponds to 26 per cent of the reported proved reserves of 841 MMboe. This represents a reduction in proved undeveloped reserves of 202 MMboe from the 421 MMboe at 30 June 2018. The largest element of this reduction was 185 MMboe, which occurred with the divestment of unconventional Onshore US assets. A reclassification from proved undeveloped to proved developed status of approximately 40 MMboe that occurred in the North West Shelf, Australia, with the completion of development and the start of production from the Greater Western Flank Phase B project, also contributed to the reduction. An additional 1 MMboe was also reclassified from proved undeveloped to proved developed status with the completion of an infill well in the ROD Integrated Development in Algeria. Partially offsetting these reductions were revisions for technical studies of 10 MMboe for the Kipper field in the Bass Strait, Australia. Additions following the approval of the Atlantis Phase 3 project in the Offshore US Gulf of Mexico added 8 MMboe for development plan changes, 7 MMboe for performance and 1 MMboe as an extension. A performance reduction of 2 MMboe in the Mad Dog field partially offset the Atlantis performance addition.

Over the past three years, the conversion of proved undeveloped reserves to developed has totalled 267MMboe, averaging 89 MMboe per year. At 30 June 2019, a total of 69 MMboe proved undeveloped reserves have been reported for five or more years. These reserves are in our currently producing fields and will be developed and brought on stream in a phased manner to best optimise the use of production facilities and to meet sales commitments. During FY2019, Petroleum spent US\$1.0 billion on development activities worldwide. Of this amount:

- US\$0.5 billion was spent progressing the conversion of previously reported proved undeveloped reserves for conventional projects where developed status was achieved in FY2019 or, will be achieved when development is completed in the future;
- US\$0.3 billion related to development expenditures occurring in divested Onshore US fields; and
- US\$0.2 billion represented other development expenditures, including compliance and infrastructure improvements.

FY2018 proved undeveloped reserves

At 30 June 2018, Petroleum had 421 MMboe of proved undeveloped reserves, which represented 30 per cent of year-end 2018 proved reserves of 1400 MMboe. Approximately 237 MMboe or 56 per cent of the proved undeveloped reserves resided in our conventional offshore fields in Australia, the Gulf of Mexico and Algeria, while 185 MMboe or 44 per cent resided in our Onshore US fields. The proved undeveloped reserves at 30 June 2018 reflect a net decrease of 62 MMboe from the 483 MMboe reported at 30 June 2017. This decrease was in large part the result of changes to development plans and reduced pace of drilling which resulted in a reduction of 67 MMboe, the majority of which occurred in our Onshore US fields. This was partially offset by extensions of 50 MMboe for new drilling locations in our Onshore US fields.

The conversion of 48 MMboe from proved undeveloped to proved developed through drilling and development activities also contributed to the decrease. The largest component of this conversion occurred in our Onshore US fields where 26 MMboe was moved to proved developed status. An additional 11 MMboe was converted in the North West Shelf Persephone development in Australia, while 10 MMboe was converted in the Atlantis field in the Offshore US Gulf of Mexico. An additional 1 MMboe was also converted as a result of drilling in the ROD Integrated Development in Algeria. Improved liquids prices but reduced gas prices led to a net reduction due to price in Onshore US proved undeveloped reserves of 4 MMboe. Performance revisions overall totalled 9 MMboe, with an increase of 11 MMboe in Onshore US fields, primarily in Eagle Ford and Permian, and a net reduction of 2 MMboe in Australia.

FY2017 proved undeveloped reserves

At 30 June 2017, Petroleum had 483 MMboe of proved undeveloped reserves, which represented 31 per cent of year-end 2017 proved reserves of 1535 MMboe. Approximately 263 MMboe or 54 per cent of the proved undeveloped reserves resided in our conventional offshore fields in Australia, the Gulf of Mexico and Trinidad and Tobago, while 220 MMboe or 46 per cent resided in our Onshore US fields. The proved undeveloped reserves at 30 June 2017 reflected a net increase of 148 MMboe from the 335 MMboe reported at 30 June 2016. This increase was primarily the result of adding 202 MMboe of new proved undeveloped reserves for drilling planned over the next five years in our Onshore US fields. In the Gulf of Mexico, 105 MMboe was also added for the Mad Dog Phase 2 project approval and 3 MMboe was added in the Atlantis field as a result of drilling and reservoir assessments. The portion of these additions reported as extensions totalled 161 MMboe with the balance being reported as revisions. The additions from revisions were offset by development activities that converted 177 MMboe of proved undeveloped to proved developed reserves. The largest of these conversions occurred in Australia where 111 MMboe were converted to proved developed in the Kipper, Tuna and Turrum fields in Bass Strait with the start-up of the Longford gas conditioning plant. The start-up and first gas from the Tidepole field in the Greater Western Flank A project in the North West Shelf also converted 10 MMboe to proved developed. In Trinidad and Tobago, 23 MMboe was converted to proved developed for the completion of Angostura Phase 3 development. In the United States, drilling and completion activities resulted in the conversion of 15 MMboe to proved developed in the Eagle Ford field, 9 MMboe in the Atlantis and 8 MMboe in the Mad Dog (Spar A) fields in the Gulf of Mexico. Price related additions in our Onshore US fields added 163 MMboe due to improved product prices.

The changes in proved undeveloped reserves in FY2019, FY2018 and FY2017 are summarised by change category in the table below. Additional information detailing the effect of price, performance, changes in capital development plans and technical studies are also provided for Revisions.

	Year Ended 30 June		
	2019	2018	2017
Proved Undeveloped Reserves (PUD) Reconciliation (MMboe)			
PUD Opening Balance	421	483	335
Revisions of Previous Estimates	(18)	(111)	(13)
Reclassifications to developed	(42)	(48)	(177)
Price	-	(4)	163
Performance	5	9	-
Development Plan Changes	8	(67)	1
Technical Studies and Other	10	(1)	-
Extensions/Discoveries	1	50	161
Acquisitions/Sales	(185)	-	-
Total Change	(202)	(62)	148
PUD Closing Balance	219	421	483

6.3.2 Mineral Resources and Ore Reserves

The statement of Mineral Resources and Ore Reserves presented in this Annual Report has been produced in accordance with the Australian Securities Exchange (ASX) Listing Rules Chapter 5 2014 and the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, December 2012 (JORC Code).

The JORC Code requires the use of reasonable investment assumptions when reporting reserves. As a result, management predicts sales prices, based on supply and demand forecast and current and long-term historical average price trends.

The Ore Reserves tabulated are held within existing, permitted mining tenements. BHP's mineral leases are of sufficient duration (or convey a legal right to renew for sufficient duration) to enable all reserves on the leased properties to be mined in accordance with current production schedules. Our Ore Reserves may include areas where some additional approvals remain outstanding, but where, based on the technical investigations we carry out as part of our planning process and our knowledge and experience of the approvals process, we expect that such approvals will be obtained as part of the normal course of business and within the time frame required by the current life of mine schedule.

The information in this Annual Report relating to Mineral Resources and Ore Reserves is based on and fairly represents information and supporting documentation compiled by Competent Persons (as defined in the JORC Code). All Competent Persons have, at the time of reporting, sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity they are undertaking to qualify as a Competent Person. At the reporting date, each Competent Person listed in this Annual Report is a full-time employee of BHP or a company in which BHP has a controlling interest (unless otherwise noted) and is a Member or Fellow of the AusIMM or AIG or a Recognised Professional Organisation. Each Competent Person consents to the inclusion in this Annual Report of the matters based on his or her information in the form and context in which it appears.

All Mineral Resources and Ore Reserves presented are reported in 100 per cent terms (unless otherwise stated) and represent estimates at 30 June 2019. Tonnes are reported as dry metric tonnes (unless otherwise stated). All tonnes and grade/quality information have been rounded, hence small differences may be present in the totals. The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves. The information contained in this document differs in certain respects from that reported to the SEC. Reserve reporting requirements for SEC filings in the United States are specified in Industry Guide 7, with economic assumptions based on current economic conditions that may differ to the JORC Code's reasonable investment assumptions. Accordingly, a SEC pricing assumptions test is performed with reserve estimates derived under the JORC Code compared to those derived assuming 'current economic conditions'. Reserves disclosed in the United States will differ if the SEC pricing assumption test indicates reserves lower than those reported under the JORC Code in Australia and the United Kingdom and/or Inferred Mineral Resources are included in the mine plan. BHP applies assurance arrangements and internal controls to verify the estimates and estimation process for Mineral Resources and Ore Reserves.

These include:

- standard BHP procedures for public reporting aligned with current regulatory requirements;
- independent audits of new and materially changed estimates;
- annual reconciliation performance metrics to validate reserves estimates for operating mines;
- internal technical assessments of resources and reserves estimates for each asset scheduled every two years.

The Geoscience and Resource Engineering Centres of Excellence manage assurance and functional leadership for Mineral Resources and Ore Reserves. The Geoscience Centre of Excellence coordinates Mineral Resources and Ore Reserves reporting to support the above controls.

Mineral Resources and Ore Reserves are presented in the accompanying tables.

Competent Persons

Copper

Mineral Resources

Escondida, Pampa Escondida, Pinta Verde and Chimborazo: R Maureira (MAusIMM) employed by Minera Escondida Limitada
Cerro Colorado: G Merello (MAusIMM)
Spence: R Ferrer (MAusIMM)
Pinto Valley Miami unit: M Williams (MAusIMM)
Olympic Dam: K Ehrig (FAusIMM), D Clarke (MAusIMM)
Antamina: L Canchis (MAusIMM) employed by Minera Antamina S.A.

Ore Reserves

Escondida: F Barrera (MAusIMM) employed by Minera Escondida Limitada
Cerro Colorado and Spence: C González (MAusIMM)
Olympic Dam: M Hamilton (MAusIMM)
Antamina: L Mamani (MAusIMM) employed by Minera Antamina S.A.

Iron Ore

Mineral Resources

WAIO: C Allison (MAusIMM), S Whittaker (MAusIMM), A Williamson (MAIG), P Androszczuk (MAusIMM), W Patton (MAusIMM)
Samarco: L Bonfioli (MAusIMM) employed by Samarco Mineração S.A.

Ore Reserves

WAIO: P Kumar Chhajer (MAusIMM), A Greaves (MAusIMM), A McLean (MAusIMM), C Burke (MAusIMM)

Coal

Coal Resources

Goonyella Riverside, Broadmeadow, Blackwater, Gregory, Crinum, Liskeard, Red Hill, Nebo West, Bee Creek, Wards Well and Togara South: R Macpherson (MAIG)

Peak Downs and Caval Ridge: S Martinez (MAusIMM)
Saraji, Norwich Park, South Walker Creek and Saraji East: R Saha (MAusIMM)

Daunia and Poitrel: S Cutler (MAusIMM)

Mt Arthur Coal: B Wesley (MAusIMM)

Cerrejón: G Hernandez (MGSSA) employed by Cerrejón Limited, D Lawrence (MAusIMM) employed by DJL Geological Consulting Limited

Coal Reserves

Goonyella Riverside: J Holdt (MAusIMM)

Broadmeadow: R Sharma (MAusIMM)

Peak Downs: P Gupta (MAusIMM)

Caval Ridge : H Mirabediny (MAusIMM)

Saraji: G Clarete (MAusIMM)

Norwich Park: S de la Cruz (MAusIMM)

Blackwater: A Hardy (MAusIMM)

Daunia: R Lumbanradja (MAusIMM)

Gregory: R Macpherson (MAIG)

South Walker Creek: N Wilson (MAusIMM)

Poitrel: G Bustos (MAusIMM)

Mt Arthur Coal: G Foster (MAusIMM)

Cerrejón: S Chaudari (MAusIMM) employed by Cerrejón Limited, D Lawrence (MAusIMM) employed by DJL Geological Consulting Limited

Potash

Mineral Resources

Jansen: B Németh (MAusIMM), O Turkekul (APEGS)

Nickel

Mineral Resources

Leinster, Mt Keith, Cliffs, Yakabindie, Venus and Jericho: M Menicheli (MAusIMM)

Ore Reserves

Leinster: C Barclay (MAusIMM), S Gadi (MAusIMM)

Mt Keith and Yakabindie: S Gadi (MAusIMM), D Brosztl (MAusIMM)
Cliffs: A Hadzhiev (MAusIMM)

Venus: C Barclay (MAusIMM), P Cunningham (MAusIMM) employed by AMC Consultants Pty Limited

Copper

Mineral Resources

As at 30 June 2019

Commodity Deposit ⁽¹⁾	Ore Type	Measured Resources					Indicated Resources				
		Mt	%TCu	%SCu	ppmMo	g/tAu	Mt	%TCu	%SCu	ppmMo	g/tAu
Copper Operations											
Escondida ⁽²⁾	Oxide	139	0.67	–	–	–	41	0.52	–	–	–
	Mixed	89	0.55	–	–	–	64	0.48	–	–	–
	Sulphide	5,500	0.62	–	–	–	3,490	0.50	–	–	–
Cerro Colorado ⁽³⁾	Oxide	67	0.61	0.42	–	–	131	0.63	0.44	–	–
	Supergene Sulphide	42	0.61	0.11	–	–	100	0.61	0.11	–	–
	Transitional Sulphide	68	0.46	–	–	–	111	0.42	–	–	–
	Hypogene Sulphide	–	–	–	–	–	–	–	–	–	–
Spence ⁽⁴⁾	Oxide	37	0.64	0.43	–	–	1.5	0.60	0.38	–	–
	Low-grade Oxide	1.0	0.23	–	–	–	34	0.20	–	–	–
	Supergene Sulphide	125	0.66	–	–	–	12	0.46	–	–	–
	Transitional Sulphide	21	0.68	–	–	–	0.6	0.56	–	–	–
	Hypogene Sulphide	585	0.45	–	190	–	762	0.45	–	130	–
Copper Projects											
Pampa Escondida	Sulphide	294	0.53	–	–	0.07	1,150	0.55	–	–	0.10
Pinta Verde	Oxide	109	0.60	–	–	–	64	0.53	–	–	–
	Sulphide	–	–	–	–	–	23	0.50	–	–	–
Chimborazo	Sulphide	–	–	–	–	–	139	0.50	–	–	–
Pinto Valley Miami unit	In situ Leach	174	0.31	–	–	–	40	0.32	–	–	–
Copper Uranium Gold Operations											
Olympic Dam ⁽⁵⁾	OC Sulphide	3,160	0.67	0.21	0.34	1	3,110	0.61	0.20	0.26	1
	UG Sulphide	328	1.74	0.50	0.66	4	525	1.67	0.48	0.63	3
Copper Zinc Operations											
Antamina ⁽⁶⁾	Sulphide Cu only	230	0.84	0.13	7	300	439	0.84	0.14	9	260
	Sulphide Cu-Zn	104	0.86	1.77	17	90	260	0.92	1.81	16	80
	UG Sulphide Cu only	–	–	–	–	–	–	–	–	–	–
	UG Sulphide Cu-Zn	–	–	–	–	–	–	–	–	–	–

(1) Cut-off criteria:

Deposit	Ore Type	Mineral Resources	Ore Reserves
Escondida	Oxide	≥ 0.20%SCu	≥ 0.20%SCu
	Mixed	≥ 0.30%TCu	–
	Sulphide	≥ 0.30%TCu	≥ 0.30%TCu and greater than variable cut-off (V_COG) of concentrator. Sulphide ore is processed in the concentrator plants as a result of the optimised mine plan with consideration of technical and economical parameters in order to maximise Net Present Value.
	Sulphide Leach	–	≥ 0.30%TCu and lower than V_COG. Sulphide Leach ore is processed by dump leaching as an alternative to the concentrator process.
Cerro Colorado	Oxide & Supergene Sulphide	≥ 0.30%TCu	≥ 0.30%TCu
	Transitional Sulphide	≥ 0.20%TCu	≥ 0.30%TCu
	Hypogene Sulphide	≥ 0.20%TCu	–
Spence	Oxide	≥ 0.30%TCu	≥ 0.30%TCu
	Low-grade Oxide	≥ 0.10%TCu	–
	Oxide Low Solubility	–	≥ 0.30%TCu
	Supergene Sulphide	≥ 0.20%TCu	≥ 0.20%TCu
	Transitional Sulphide	≥ 0.10%TCu	≥ 0.20%TCu
	Hypogene Sulphide	≥ 0.20%TCu	≥ 0.20%TCu
	ROM	–	≥ 0.10%TCu
Pampa Escondida	Sulphide	≥ 0.30%TCu	–
Pinta Verde	Oxide & Sulphide	≥ 0.30%TCu	–
Chimborazo	Sulphide	≥ 0.30%TCu	–
Pinto Valley Miami unit	In situ Leach	–	–

										As at 30 June 2018					
Inferred Resources					Total Resources					BHP Interest %	Total Resources				
Mt	%TCu	%SCu	ppmMo	g/tAu	Mt	%TCu	%SCu	ppmMo	g/tAu		Mt	%TCu	%SCu	ppmMo	g/tAu
5.0	0.50	-	-	-	185	0.63	-	-	-	57.5	163	0.63	-	-	-
26	0.43	-	-	-	179	0.51	-	-	-		164	0.50	-	-	-
10,200	0.53	-	-	-	19,200	0.55	-	-	-		19,200	0.54	-	-	-
6.0	0.59	0.42	-	-	204	0.62	0.44	-	-	100	212	0.63	0.44	-	-
22	0.66	0.10	-	-	164	0.62	0.11	-	-		165	0.61	0.11	-	-
28	0.42	-	-	-	207	0.43	-	-	-		209	0.43	-	-	-
1,410	0.36	-	-	-	1,410	0.36	-	-	-		1,600	0.35	-	-	-
-	-	-	-	-	39	0.64	0.42	-	-	100	38	0.67	0.42	-	-
28	0.15	-	-	-	63	0.18	-	-	-		59	0.19	-	-	-
3.0	0.76	-	-	-	140	0.65	-	-	-		151	0.69	-	-	-
-	-	-	-	-	22	0.68	-	-	-		23	0.68	-	-	-
863	0.41	-	80	-	2,210	0.44	-	130	-		2,220	0.44	-	120	-
6,000	0.43	-	-	0.04	7,440	0.45	-	-	0.05	57.5	7,440	0.45	-	-	0.05
15	0.54	-	-	-	188	0.57	-	-	-	57.5	188	0.57	-	-	-
37	0.45	-	-	-	60	0.47	-	-	-		60	0.47	-	-	-
84	0.60	-	-	-	223	0.54	-	-	-	57.5	223	0.54	-	-	-
-	-	-	-	-	214	0.31	-	-	-	100	214	0.31	-	-	-
Mt	%Cu	kg/tU ₃ O ₈	g/tAu	g/tAg	Mt	%Cu	kg/tU ₃ O ₈	g/tAu	g/tAg		Mt	%Cu	kg/tU ₃ O ₈	g/tAu	g/tAg
3,610	0.62	0.21	0.24	1	9,880	0.63	0.21	0.28	1	100	9,730	0.62	0.20	0.27	1
159	1.69	0.45	0.61	3	1,012	1.70	0.48	0.64	3		997	1.68	0.49	0.64	4
Mt	%Cu	%Zn	g/tAg	ppmMo	Mt	%Cu	%Zn	g/tAg	ppmMo		Mt	%Cu	%Zn	g/tAg	ppmMo
528	0.76	0.13	8	280	1,200	0.80	0.13	8	280	33.75	1,270	0.86	0.14	8	290
237	0.97	1.58	15	90	601	0.93	1.71	16	90		632	0.93	1.77	16	86
296	1.28	0.22	13	200	296	1.28	0.22	13	200		513	0.96	0.49	11	140
174	1.26	1.35	17	70	174	1.26	1.35	17	70		-	-	-	-	-
Deposit		Ore Type		Mineral Resources					Ore Reserves						
Olympic Dam		OC Sulphide		Variable between 0.10%Cu and 0.30%Cu					-						
		UG Sulphide		Variable between 0.80%Cu and 1.50%Cu					Variable between 1.20%Cu and 1.40%Cu						
		Low-grade		≥ 0.60%Cu											
Antamina		Sulphide Cu only		Net value per concentrator hour incorporating all material revenue and cost factors and includes metallurgical recovery (see footnote 9 for averages). Mineralisation at the US\$0/hr limit is equivalent to 0.14%Cu, 2g/tAg, 77ppmMo with 6,700t/hr mill throughput.					Net value per concentrator hour incorporating all material revenue and cost factors and includes metallurgical recovery (see footnote 9 for averages). Mineralisation at the US\$6,000/hr limit is equivalent to 0.16%Cu, 2g/tAg, 141ppmMo with 6,700t/hr mill throughput.						
		Sulphide Cu-Zn		Net value per concentrator hour incorporating all material revenue and cost factors and includes metallurgical recovery (see footnote 9 for averages). Mineralisation at the US\$0/hr limit is equivalent to 0.07%Cu, 0.61%Zn, 9g/tAg with 6,500t/hr mill throughput.					Net value per concentrator hour incorporating all material revenue and cost factors and includes metallurgical recovery (see footnote 9 for averages). Mineralisation at the US\$6,000/hr limit is equivalent to 0.08%Cu, 0.71%Zn, 12g/tAg with 6,500t/hr mill throughput.						
		UG Sulphide Cu only		Net smelter return (NSR) value incorporating all material revenue and includes metallurgical recovery. Only sub-level stoping mining method at a US\$53.81/t break-even cut-off was applied, equivalent to 0.84%Cu, 10g/tAg and 204ppmMo. NSR estimates are based on Cu price of US\$3.30/lb, Ag price of US\$20.50/oz and Mo price of US\$9.29/lb and predicted metallurgical recoveries of 89% for Cu, 76% for Ag and 28% for Mo.											
		UG Sulphide Cu-Zn		NSR value incorporating all material revenue and includes metallurgical recovery. Only sub-level stoping mining method at a US\$53.81/t break-even cut-off was applied, equivalent to 0.64%Cu, 1.28%Zn and 13g/tAg. NSR estimates are based on Cu price of US\$3.30/lb, Zn price of US\$1.23/lb and Ag price of US\$20.50/oz and predicted metallurgical recoveries of 75% for Cu, 82% for Zn and 40% for Ag.											

Antamina – All metals used in net value calculations are assumed to be recovered into concentrate and sold.

(2) Escondida – The increase in the Oxide and Mixed ore types was mainly due to an updated resource estimate supported by additional drilling.

(3) Cerro Colorado – The decrease in the Hypogene Sulphide ore type was due to changes in cost assumptions partially offset by an updated resource estimate supported by additional drilling.

(4) Spence – The increase in the Low-grade Oxide ore type was due to an update in the resource estimate supported by additional drilling. The decrease in the Supergene Sulphide ore type was due to depletion.

(5) Olympic Dam – Changes in the UG Sulphide ore type resource classification was due to an updated geological model to the south, supported by additional drilling.

(6) Antamina – The decrease in Mineral Resources for Sulphide Cu only and Sulphide Cu-Zn ore types was mainly due to depletion. Changes in ore type definition from UG Sulphide Cu only to UG Sulphide Cu only and UG Sulphide Cu-Zn, considering a sub-level stoping mining method, has resulted in a decrease in tonnage and an increase in qualities.

Copper

Ore Reserves

As at 30 June 2019

Commodity Deposit ^{(1) (7) (8) (9)}	Ore Type	Proved Reserves				Probable Reserves					
		Mt	%TCu	%SCu	ppmMo	Mt	%TCu	%SCu	ppmMo		
Copper Operations											
Escondida ⁽¹⁰⁾	Oxide	104	0.68	—	—	124	0.54	—	—		
	Sulphide	3,570	0.70	—	—	1,850	0.56	—	—		
	Sulphide Leach	1,330	0.42	—	—	335	0.41	—	—		
Cerro Colorado ⁽¹¹⁾	Oxide	33	0.59	0.43	—	7.6	0.54	0.39	—		
	Supergene Sulphide	19	0.62	0.15	—	5.2	0.53	0.13	—		
	Transitional Sulphide	13	0.50	0.10	—	3.8	0.49	0.10	—		
Spence ⁽¹²⁾	Oxide	1.3	0.96	0.77	—	20	0.61	0.39	—		
	Oxide Low Solubility	13	0.69	0.29	—	0.75	0.52	0.23	—		
	Supergene Sulphide	80	0.71	0.10	—	51	0.53	0.18	—		
	Transitional Sulphide	19	0.67	0.06	100	0.53	0.55	0.04	60		
	Hypogene Sulphide	576	0.45	0.02	190	733	0.45	0.02	130		
	ROM	—	—	—	—	0.74	0.65	0.06	—		
Copper Uranium Gold Operations		Mt	%Cu	kg/tU ₃ O ₈	g/tAu	g/tAg	Mt	%Cu	kg/tU ₃ O ₈	g/tAu	g/tAg
Olympic Dam ⁽¹³⁾	UG Sulphide	203	1.92	0.60	0.74	5	334	1.84	0.55	0.69	4
	Low-grade	—	—	—	—	—	24	0.99	0.33	0.40	2
Copper Zinc Operations		Mt	%Cu	%Zn	g/tAg	ppmMo	Mt	%Cu	%Zn	g/tAg	ppmMo
Antamina ⁽¹⁴⁾	Sulphide Cu only	142	0.98	0.15	7	380	124	0.96	0.18	8	350
	Sulphide Cu-Zn	79	0.84	1.91	17	70	123	0.80	2.01	13	80

(7) Approximate drill hole spacings used to classify the reserves were:

Deposit	Proved Reserves	Probable Reserves
Escondida	Oxide: 30m x 30m Sulphide: 50m x 50m Sulphide Leach: 60m x 60m	Oxide: 45m x 45m Sulphide: 90m x 90m Sulphide Leach: 115m x 115m
Cerro Colorado	40m to 50m	100m
Spence	Oxide & Oxide Low Solubility: maximum 50m x 50m Supergene Sulphide, Transitional Sulphide & Hypogene Sulphide: maximum 70m x 70m	100m x 100m for all Ore Types
Olympic Dam	20m to 35m	35m to 70m
Antamina	25m to 40m	40m to 60m

(8) Ore delivered to process plant.

(9) Metallurgical recoveries for the operations were:

Deposit	Metallurgical Recovery
Escondida	Oxide: 62% Sulphide: 85% Sulphide Leach: 38%
Cerro Colorado	Oxide: 75% Supergene Sulphide: 80% Transitional Sulphide: 65%
Spence	Oxide & Oxide Low Solubility: 80% Supergene Sulphide: 82% Transitional Sulphide & Hypogene Sulphide: 84% ROM: 30%
Olympic Dam	Cu 94%, U ₃ O ₈ 68%, Au 70%, Ag 63%
Antamina	Sulphide Cu only: Cu 93%, Zn 0%, Ag 80%, Mo 65% Sulphide Cu-Zn: Cu 78%, Zn 81%, Ag 63%, Mo 0%

(10) Escondida – The decrease in the Oxide ore type was mainly due to depletion. Incorporated within the Reserve Life calculation were Oxide and Sulphide Leach, which have a Reserve Life of 10 years and 16 years respectively.

(11) Cerro Colorado – The decrease in the Oxide and Supergene Sulphide ore types was mainly due to depletion and reduction in annual nominated production rate from 20.7Mtpa to 19.2Mtpa. Metallurgical recoveries are based on testwork.

(12) Spence – The decrease in the Oxide, Oxide Low Solubility and ROM ore types was mainly due to depletion. Transitional Sulphide and Hypogene ore type recoveries are based on metallurgical testwork.

(13) Olympic Dam – The increase in the UG Sulphide ore type was due to improved resource classification supported by additional drilling. The decrease in the Low-grade ore type was due to a revised methodology used to define Low-grade ore in the mine design.

(14) Antamina – The decrease in Ore Reserves was mainly due to depletion.

	As at 30 June 2018										
	Total Reserves			Reserve Life (years)	BHP Interest %		Total Reserves			Reserve Life (years)	
	Mt	%TCu	%SCu	ppmMo			Mt	%TCu	%SCu	ppmMo	
228	0.60	-	-	-	58	57.5	250	0.62	-	-	58
5,420	0.65	-	-	-			5,610	0.66	-	-	
1,670	0.42	-	-	-			1,740	0.41	-	-	
41	0.58	0.42	-	-	4.3	100	57	0.60	0.43	-	5.3
24	0.61	0.15	-	-			36	0.61	0.15	-	
17	0.49	0.10	-	-			17	0.53	0.10	-	
21	0.63	0.42	-	-	46	100	29	0.63	0.42	-	43
14	0.68	0.28	-	-			18	0.72	0.30	-	
131	0.64	0.13	-	-			126	0.71	0.10	-	
20	0.67	0.06	100				20	0.68	0.06	100	
1,310	0.45	0.02	160				1,330	0.45	0.02	150	
0.74	0.65	0.06	-				3.4	0.53	0.12	-	
	Mt	%Cu	kg/tU ₃ O ₈	g/tAu	g/tAg		Mt	%Cu	kg/tU ₃ O ₈	g/tAu	g/tAg
537	1.87	0.57	0.71	4	54	100	500	1.98	0.58	0.72	4
24	0.99	0.33	0.40	2			35	1.15	0.37	0.51	3
	Mt	%Cu	%Zn	g/tAg	ppmMo		Mt	%Cu	%Zn	g/tAg	ppmMo
266	0.97	0.16	7	370	8.8	33.75	298	0.99	0.17	8	350
202	0.82	1.97	15	70			216	0.83	2.05	14	80

Iron Ore

Mineral Resources

As at 30 June 2019

Commodity Deposit ⁽¹⁾⁽²⁾	Ore Type	Measured Resources						Indicated Resources					
		Mt	%Fe	%P	%SiO ₂	%Al ₂ O ₃	%LOI	Mt	%Fe	%P	%SiO ₂	%Al ₂ O ₃	%LOI
Iron Ore Operations Australia													
WAIO ⁽³⁾⁽⁴⁾⁽⁵⁾	BKM	1,300	62.1	0.13	3.7	2.3	4.5	4,560	60.3	0.14	4.7	2.5	5.9
	CID	560	55.8	0.05	6.4	2.2	11.0	360	56.3	0.06	6.4	2.3	10.3
	MM	890	62.2	0.07	2.8	1.6	6.1	1,880	60.7	0.06	3.8	2.0	6.8
	NIM	10	59.0	0.08	10.1	1.2	3.9	120	61.6	0.06	8.0	1.1	1.7
Brazil		Mt	%Fe	%Pc				Mt	%Fe	%Pc			
Samarco	ROM	3,340	39.0	0.05				2,150	37.2	0.05			

Ore Reserves

As at 30 June 2019

Commodity Deposit	Ore Type	Proved Reserves						Probable Reserves					
		Mt	%Fe	%P	%SiO ₂	%Al ₂ O ₃	%LOI	Mt	%Fe	%P	%SiO ₂	%Al ₂ O ₃	%LOI
Iron Ore Operations Australia													
WAIO ⁽¹⁾⁽³⁾⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾⁽⁹⁾⁽¹⁰⁾⁽¹¹⁾	BKM	1,010	62.9	0.12	3.0	2.1	4.3	1,700	62.0	0.13	3.6	2.3	4.8
	BKM Bene	20	59.6	0.13	7.2	3.4	2.1	20	59.5	0.14	7.4	3.2	2.0
	CID	240	56.6	0.05	6.3	1.6	10.6	60	57.0	0.04	6.4	1.4	10.3
	MM	430	62.4	0.06	2.7	1.5	5.9	1,340	61.6	0.06	3.2	1.7	6.5

(1) The Mineral Resources and Ore Reserves qualities listed refer to in situ mass percentage on a dry weight basis. Wet tonnes are reported for WAIO deposits and Samarco, including moisture contents for WAIO: BKM – Brockman 3%, BKM Bene – Brockman Beneficiation 3%, CID – Channel Iron Deposits 8%, MM – Marra Mamba 4%, NIM – Nimirringarra 3.5% and Samarco: ROM – 6.5%.

(2) A single cut-off grade was applied in WAIO per deposit ranging from 50–55%Fe. For Samarco the cut-off grade was 22%Fe.

(3) WAIO – Mineral Resources and Ore Reserves are reported on a Pilbara basis by ore type to align with our production of blended lump products which comprises BKM, BKM Bene and MM ore types and blended fines products including CID. This also reflects our single logistics chain and associated management system.

(4) WAIO – The decrease in CID ore type due to depletion. The increase in MM ore type due to updated resource estimates supported by additional drilling.

(5) WAIO – BHP interest is reported as Pilbara Ore Reserves tonnes weighted average across all joint ventures which can vary from year to year. BHP ownership varies between 85% and 100%.

(6) Approximate drill hole spacings used to classify the reserves were:

Deposit	Proved Reserves	Probable Reserves
WAIO	50m x 50m	150m x 50m

(7) WAIO – Recovery was 100%, except for BKM Bene where Whaleback beneficiation plant recovery was 91% (tonnage basis).

(8) WAIO – Iron ore is marketed for WAIO as Lump (direct blast furnace feed) and Fines (sinter plant feed).

(9) WAIO – Cut-off grades used to estimate Ore Reserves range from 50–62%Fe for all material types. Ore delivered to process facility.

(10) WAIO – Ore Reserves are all located on State Agreement mining leases that guarantee the right to mine. Across WAIO, State Government approvals (including environmental and heritage clearances) are required before commencing mining operations in a particular area. Included in the Ore Reserves are select areas where one or more approvals remain outstanding, but where, based on the technical investigations carried out as part of the mine planning process and company knowledge and experience of the approvals process, it is expected that such approvals will be obtained as part of the normal course of business and within the time frame required by the current mine schedule.

(11) WAIO – The decreases in BKM Bene ore type was due to the application of a higher cut-off grade and CID ore type was due to depletion. The increase in the MM ore type was due to updated reserves estimates including satellite deposits additional to existing operations.

											As at 30 June 2018							
Inferred Resources						Total Resources					BHP Interest %	Total Resources						
Mt	%Fe	%P	%SiO ₂	%Al ₂ O ₃	%LOI	Mt	%Fe	%P	%SiO ₂	%Al ₂ O ₃	%LOI	Mt	%Fe	%P	%SiO ₂	%Al ₂ O ₃	%LOI	
13,780	59.1	0.14	5.4	2.6	6.6	19,650	59.6	0.14	5.2	2.6	6.3	89	19,370	59.6	0.14	5.1	2.6	6.3
920	54.9	0.06	6.7	2.9	11.0	1,850	55.4	0.06	6.6	2.6	10.9		1,980	55.5	0.05	6.6	2.5	10.9
5,370	59.7	0.07	4.6	2.3	7.1	8,140	60.2	0.07	4.2	2.1	6.9		7,730	60.2	0.07	4.2	2.1	6.9
70	60.4	0.05	10.0	1.2	1.7	200	61.1	0.06	8.8	1.2	1.8		200	61.1	0.06	8.8	1.2	1.8
Mt	%Fe	%Pc				Mt	%Fe	%Pc					Mt	%Fe	%Pc			
950	37.2	0.06				6,440	38.1	0.05				50	6,440	38.1	0.05			

											As at 30 June 2018						
Total Reserves						Reserve Life (years)	BHP Interest %	Total Reserves					Reserve Life (years)				
Mt	%Fe	%P	%SiO ₂	%Al ₂ O ₃	%LOI			Mt	%Fe	%P	%SiO ₂	%Al ₂ O ₃					
2,710	62.3	0.13	3.4	2.2	4.6	17	89	2,600	62.4	0.12	3.4	2.2	4.5				16
40	59.5	0.13	7.3	3.3	2.1			50	57.8	0.11	10.1	3.3	2.1				
300	56.7	0.04	6.4	1.5	10.6			400	56.7	0.04	6.1	1.6	10.7				
1,760	61.8	0.06	3.1	1.7	6.3			1,680	61.7	0.06	3.2	1.7	6.3				

Metallurgical Coal

Coal Resources

As at 30 June 2019

Commodity Deposit ^{(1) (2)}	Mining Method	Coal Type	Measured Resources				Indicated Resources					
			Mt	%Ash	%VM	%S	Mt	%Ash	%VM	%S		
Metallurgical Coal Operations												
Queensland Coal												
CQCA JV												
Goonyella Riverside	OC	Met	784	8.8	22.6	0.53	32	11.2	24.3	0.56		
Broadmeadow	UG	Met	580	9.4	21.2	0.52	423	10.2	22.9	0.55		
Peak Downs	OC	Met	519	9.6	19.8	0.64	863	10.0	19.7	0.64		
Caval Ridge	OC	Met	423	12.9	22.1	0.60	207	12.9	21.9	0.57		
Saraji ⁽³⁾	OC	Met	844	10.6	17.6	0.64	137	11.5	18.0	0.75		
Norwich Park	OC	Met	221	9.6	17.6	0.66	128	9.9	17.5	0.71		
	UG	Met	-	-	-	-	20	9.4	17.4	0.73		
Blackwater ⁽⁴⁾	OC	Met/Th	375	6.2	28.2	0.41	506	6.5	27.9	0.42		
	UG	Met/Th	-	-	-	-	-	-	-	-		
Daunia ⁽⁵⁾	OC	PCI	40	9.0	20.8	0.36	14	10.0	19.9	0.30		
	OC	Met	65	7.0	20.9	0.40	21	7.0	21.1	0.40		
Gregory JV ⁽⁶⁾												
Gregory	OC	Met	-	-	-	-	-	-	-	-		
Crinum	UG	Met	-	-	-	-	-	-	-	-		
BHP Mitsui Coal												
South Walker Creek	OC	Met/PCI	215	10.2	13.3	0.31	119	9.4	14.3	0.30		
	UG	Met/PCI	36	10.0	13.8	0.27	154	10.4	12.7	0.28		
Poitrel	OC	Met	55	7.9	23.9	0.35	49	8.0	24.1	0.35		
Metallurgical Coal Projects												
Queensland Coal												
CQCA JV												
Red Hill	OC	Met	-	-	-	-	25	12.4	19.8	0.49		
	UG	Met	-	-	-	-	1,123	9.8	19.5	0.52		
Saraji East ⁽³⁾	OC	Met	458	10.2	16.0	0.63	676	10.3	15.8	0.67		
	UG	Met	-	-	-	-	35	8.3	13.6	0.59		
Gregory JV												
Liskeard ⁽⁶⁾	OC	Met	-	-	-	-	-	-	-	-		
BHP Mitsui Coal												
Nebo West	OC	Anth	-	-	-	-	-	-	-	-		
Bee Creek	OC	Met/Th	-	-	-	-	9.4	8.9	15.4	0.40		
Wards Well	UG	Met	-	-	-	-	1,224	8.9	20.7	0.53		

(1) Tonnages are reported on an in situ moisture basis. Coal qualities are for a potential product on an air-dried basis.

(2) Cut-off criteria:

Deposit	Mining Method	Coal Resources	Coal Reserves
Goonyella Riverside, Norwich Park	OC	≥ 0.5m seam thickness	≥ 0.5m seam thickness
Peak Downs	OC	≥ 0.5m seam thickness and ≤ 35% raw ash	≥ 0.5m seam thickness
Caval Ridge, Saraji	OC	≥ 0.5m seam thickness	≥ 0.4m seam thickness
Blackwater, Daunia	OC	≥ 0.3m seam thickness	≥ 0.3m seam thickness
Norwich Park, Blackwater	UG	≥ 2.0m seam thickness	-
Broadmeadow	UG	≥ 2.0m seam thickness	≥ 2.5m seam thickness
South Walker Creek	OC	≥ 0.5m seam thickness, core yield ≥ 50% and 100m lease boundary buffer	≥ 0.5m seam thickness
	UG	≥ 2.0m seam thickness	-
Poitrel	OC	≥ 0.3m seam thickness	≥ 0.3m seam thickness
Red Hill, Saraji East	OC	≥ 0.5m seam thickness	-
	UG	≥ 2.0m seam thickness	-
Nebo West	OC	≥ 0.5m seam thickness and < 90m below surface	-
Bee Creek	OC	≥ 0.5m seam thickness	-
Wards Well	UG	≥ 2.0m seam thickness	-

(3) Saraji – The increase in Coal Resources was mainly due to resources transferred from Saraji East project resulting from approval of an operating license.

(4) Blackwater – The decrease in OC Coal Resources was mainly due to changes in the resource estimate and a maiden declaration of UG Coal Resources.

(5) Daunia – Change in the coal type from Met to Met and PCI.

(6) Divestment of Gregory JV completed on 27 March 2019.

As at 30 June 2018

Inferred Resources				Total Resources				BHP Interest %	Total Resources			
Mt	%Ash	%VM	%S	Mt	%Ash	%VM	%S		Mt	%Ash	%VM	%S
40	12.6	25.1	0.54	856	9.1	22.8	0.53	50	874	9.1	22.8	0.53
15	13.4	24.5	0.59	1,018	9.8	21.9	0.53		1,026	9.8	21.9	0.53
669	10.3	19.4	0.69	2,051	10.0	19.6	0.66	50	2,072	10.0	19.7	0.66
130	13.6	22.2	0.59	760	13.0	22.1	0.59	50	774	13.0	22.1	0.59
42	11.7	18.4	0.74	1,023	10.8	17.7	0.66	50	968	10.9	17.7	0.66
116	10.3	17.7	0.76	465	9.8	17.6	0.70	50	465	9.8	17.6	0.70
22	9.9	17.1	0.65	42	9.7	17.2	0.69		42	9.7	17.2	0.69
778	7.4	27.8	0.43	1,659	6.8	27.9	0.42	50	2,154	8.9	26.7	0.49
222	7.2	29.1	0.36	222	7.2	29.1	0.36		-	-	-	-
5.1	13.0	19.3	0.30	59	10.0	20.5	0.30	50	-	-	-	-
5.5	7.0	21.1	0.40	92	7.0	20.9	0.40		148	9.1	20.4	0.35
-	-	-	-	-	-	-	-	-	8.6	6.0	33.0	0.60
-	-	-	-	-	-	-	-	-	113	6.3	32.9	0.60
71	10.4	15.7	0.40	405	10.0	14.0	0.32	80	413	10.0	14.0	0.32
108	9.5	15.2	0.35	298	10.0	13.8	0.31		298	10.0	13.8	0.31
59	8.0	24.1	0.36	163	8.0	24.0	0.36	80	166	8.0	23.8	0.35
-	-	-	-	25	12.4	19.8	0.49	50	25	12.4	19.8	0.49
563	10.0	20.4	0.52	1,686	9.9	19.8	0.52		1,686	9.9	19.8	0.52
504	10.0	15.3	0.68	1,638	10.2	15.7	0.66	50	1,708	10.2	15.7	0.66
16	8.5	13.9	0.59	51	8.4	13.7	0.59		51	8.4	13.7	0.59
-	-	-	-	-	-	-	-	-	5.6	7.5	34.6	2.30
14	9.4	6.6	0.64	14	9.4	6.6	0.64	80	14	9.4	6.6	0.64
13	9.6	15.0	0.42	23	9.3	15.2	0.41	80	23	9.3	15.2	0.41
149	9.3	20.1	0.53	1,373	8.9	20.6	0.53	80	1,373	8.9	20.6	0.53

Metallurgical Coal

Coal Reserves

As at 30 June 2019

Commodity Deposit ^{(2) (7) (8) (9) (10)}	Mining Method	Coal Type	Proved Reserves	Probable Reserves	Total Reserves	Proved Marketable Reserves				Probable Marketable Reserves					
			Mt	Mt	Mt	Mt	%Ash	%VM	%S	Mt	%Ash	%VM	%S		
Metallurgical Coal Operations															
Queensland Coal															
CQCA JV															
Goonyella Riverside ⁽¹¹⁾	OC	Met	530	19	549	418	9.1	25.2	0.53	14	10.9	28.4	0.56		
Broadmeadow ^{(11) (12)}	UG	Met	67	114	181	48	8.1	23.7	0.54	72	9.9	23.5	0.55		
Peak Downs	OC	Met/Th	379	339	718	235	10.6	22.3	0.60	208	10.6	22.7	0.65		
Caval Ridge	OC	Met	252	95	347	151	11.0	22.4	0.57	52	11.0	22.0	0.58		
Saraji ⁽¹³⁾	OC	Met	442	60	502	264	10.1	17.7	0.64	29	11.2	18.8	0.79		
Norwich Park ⁽¹⁴⁾	OC	Met	159	70	229	116	10.3	16.8	0.70	49	10.2	16.6	0.70		
Blackwater ⁽¹⁵⁾	OC	Met/Th	183	236	419	173	8.1	26.6	0.43	223	8.7	26.8	0.43		
Daunia ⁽¹⁶⁾	OC	Met/PCI	74	25	99	64	8.1	20.4	0.34	21	8.3	20.0	0.35		
	OC	Met	-	-	-	-	-	-	-	-	-	-	-		
Gregory JV ⁽⁶⁾															
Gregory	OC	Met	-	-	-	-	-	-	-	-	-	-	-		
BHP Mitsui Coal															
South Walker Creek ⁽¹⁷⁾	OC	Met/PCI	101	36	137	80	9.2	13.6	0.29	29	9.2	13.2	0.29		
Poitrel ⁽¹⁸⁾	OC	Met	37	24	61	29	7.9	23.0	0.31	19	8.4	23.3	0.31		

(7) Only geophysically logged, fully analysed cored holes with greater than 95% recovery (or <± 10% expected error at 95% confidence for Goonyella Riverside and Broadmeadow) were used to classify Coal Reserves. Drill hole spacings vary between seams and geological domains and were determined in conjunction with geostatistical analysis where applicable. The range of maximum drill hole spacings used to classify the Coal Reserves were:

Deposit	Proved Reserves	Probable Reserves
Goonyella Riverside, Broadmeadow	900m to 1,300m plus 3D seismic coverage for UG	1,750m to 2,400m
Peak Downs, Caval Ridge	500m to 1,050m	500m to 2,100m
Saraji	450m to 1,800m	800m to 2,600m
Norwich Park	500m to 1,400m	1,000m to 2,800m
Blackwater	450m to 1,000m	900m to 1,850m
Daunia	450m to 850m	900m to 1,400m
South Walker Creek	400m to 800m	650m to 1,500m
Poitrel	300m to 550m	600m to 1,050m

(8) Product recoveries for the operations were:

Deposit	Product Recovery
Goonyella Riverside, Broadmeadow	74%
Peak Downs	61%
Caval Ridge	58%
Saraji	58%
Norwich Park	71%
Blackwater	92%
Daunia	85%
South Walker Creek	75%
Poitrel	79%

(9) Total Coal Reserves were at the moisture content when mined (4% CQCA JV and BHP Mitsui Coal). Total Marketable Reserves were at a product specification moisture content (9.5-10% Goonyella Riverside Broadmeadow, 9.5% Peak Downs, 10% Caval Ridge; 10% Saraji, 10-11% Norwich Park, 7.5-11.5% Blackwater, 10-10.5% Daunia, 9% South Walker Creek, 10-12% Poitrel) and at an air-dried quality basis for sale after the beneficiation of the Total Coal Reserves.

(10) Coal delivered to handling plant.

(11) Goonyella Riverside and Broadmeadow deposits use the same infrastructure and Reserve Life applies to both.

(12) Broadmeadow – The decrease in Coal Reserves was due to depletion and the exclusion of some mining areas impacted by geotechnical issues and the Isaac River.

(13) Saraji – The increase in Coal Reserves and Reserve Life was mainly due to additional resources transferred from Saraji East project due to approval of an operating license.

(14) Norwich Park – Remains on care and maintenance.

(15) Blackwater – The increase in Reserve Life is due to a reduction in the nominated annual production rate from 20Mtpa to 17.2Mtpa.

(16) Daunia – The decrease in Coal Reserves and Reserve Life was mainly due to depletion. Changes in Coal Reserves classification was due to an update in the resource classification supported by drill hole spacing analysis and additional drilling. Change in Coal Type from Met to Met/PCI.

(17) South Walker Creek – The decrease in Coal Reserves and Reserve Life was mainly due to depletion.

(18) Poitrel – The decrease in Reserve Life was mainly due to depletion.

	As at 30 June 2018										
	Total Marketable Reserves				Reserve Life (years)	BHP Interest %	Total Marketable Reserves				
	Mt	%Ash	%VM	%S			Mt	%Ash	%VM	%S	
432	9.1	25.3	0.53		38	50	444	9.2	22.8	0.53	40
120	9.2	23.6	0.54				128	9.1	23.6	0.54	
443	10.6	22.5	0.62		26	50	456	10.6	22.5	0.62	26
203	11.0	22.3	0.58		28	50	211	11.0	22.3	0.58	29
293	10.2	17.8	0.65		31	50	270	10.2	17.9	0.66	25
165	10.3	16.7	0.70		65	50	165	10.3	16.7	0.70	65
396	8.4	26.7	0.43		24	50	411	8.4	26.7	0.43	22
85	8.2	20.3	0.34		18	50	-	-	-	-	22
-	-	-	-				99	8.4	20.4	0.35	
-	-	-	-		-	-	5.6	7.0	34.8	0.60	4.0
108	9.2	13.5	0.30		17	80	114	9.2	13.5	0.30	18
48	8.1	23.1	0.31		10	80	49	8.7	23.6	0.33	11

Energy Coal

Coal Resources

As at 30 June 2019

Commodity Deposit ⁽¹⁾⁽²⁾	Mining Method	Coal Type	Measured Resources						Indicated Resources					
			Mt	%Ash	%VM	%S	KCal/kg CV	Mt	%Ash	%VM	%S	KCal/kg CV		
Energy Coal Operations Australia														
Mt Arthur Coal ⁽³⁾	OC	Th	836	21.5	31.2	0.65	6,170	1,333	19.4	29.9	0.61	6,150		
Colombia														
Cerrejón ⁽⁴⁾	OC	Th	2,832	3.9	34.9	0.52	6,551	1,110	3.8	34.8	0.51	6,576		
Energy Coal Project Australia														
Togara South	UG	Th	719	12.1	29.6	0.31	6,700	177	13.5	28.9	0.31	6,500		

Coal Reserves

As at 30 June 2019

Commodity Deposit ⁽¹⁾⁽⁵⁾⁽⁶⁾⁽⁷⁾	Mining Method	Coal Type	Proved Reserves	Probable Reserves	Total Reserves	Proved Marketable Reserves					Probable Marketable Reserves				
			Mt	Mt	Mt	Mt	%Ash	%VM	%S	KCal/kg CV	Mt	%Ash	%VM	%S	KCal/kg CV
Energy Coal Operations Australia															
Mt Arthur Coal ⁽⁸⁾⁽⁹⁾	OC	Th	292	299	591	228	15.9	28.6	0.52	5,990	225	14.7	28.2	0.46	6,010
Colombia															
Cerrejón ⁽¹⁰⁾⁽¹¹⁾	OC	Th	294	48	342	286	11.7	32.3	0.61	6,091	47	8.5	32.8	0.60	6,155

(1) Cut-off criteria:

Deposit	Coal Resources	Coal Reserves
Mt Arthur Coal	≥ 0.3m seam thickness and ≤35% raw ash	≥ 0.3m seam thickness, ≤ 32% ash, ≥ 40% coal washery yield
Cerrejón	≥ 0.35m seam thickness	≥ 0.35m seam thickness
Togara South	≥ 1.5m seam thickness	–

(2) Qualities are reported on an air-dried in situ basis. Tonnages are reported as in situ for Mt Arthur Coal and Togara South, and on a total moisture basis for Cerrejón.

(3) Mt Arthur Coal – The increase in Coal Resources was mainly due to an updated resource estimate supported by additional drilling and a revised intrusion interpretation based on geophysical surveys.

(4) Cerrejón – The Coal Resources are restricted to areas which have been identified for inclusion by BHP based on a risk assessment.

(5) Approximate drill hole spacings used to classify the reserves were:

Deposit	Proved Reserves	Probable Reserves
Mt Arthur Coal	200m to 800m (geophysically logged, >95% core recovery)	400m to 1,550m (geophysically logged, >95% core recovery)
Cerrejón	>6 drill holes per 100ha	2 to 6 drill holes per 100ha

(6) Overall product recoveries for the operations were:

Deposit	Product Recovery
Mt Arthur Coal	77%
Cerrejón	97%

(7) Total Coal Reserves were at the moisture content when mined (8% Mt Arthur Coal; 13.2% Cerrejón). Total Marketable Reserves were at a product specific moisture content (9.3% Mt Arthur Coal; 14.2% Cerrejón) and at an air-dried quality basis for Mt Arthur Coal and at a total moisture quality basis for Cerrejón.

(8) Mt Arthur Coal – Coal delivered to handling plant.

(9) Mt Arthur Coal – The decrease in Marketable Coal Reserves and Reserve Life was due to additional data informing changes in the mine plan based on revised geotechnical and geological understanding. Coal Reserves cut-off criteria reported for ROM; superseding export product cut-off criteria reported in 2018.

(10) Cerrejón – Marketable Coal Reserves decreased due to depletion, delayed approval of the Bruno Creek diversion permits and a reduction in the nominated annual production rate from 29.5Mt to 25.7Mt partially offset by a change in cut-off criteria from ≥ 0.65m to ≥ 0.35m seam thickness. Approximately 10% of extracted reserves was beneficiated. Lease expiry in 2033.

(11) Cerrejón – While there have been delays in some permits as at 30 June 2019 in response to ongoing local community legal challenges, some replacement reserves have been identified within the mine plan utilising existing fleet capacity. BHP continues to monitor the situation for potential impact on mining.

										As at 30 June 2018					
Inferred Resources					Total Resources					BHP Interest %	Total Resources				
Mt	%Ash	%VM	%S	KCal/kg CV	Mt	%Ash	%VM	%S	KCal/kg CV		Mt	%Ash	%VM	%S	KCal/kg CV
1,255	20.6	29.3	0.62	6,050	3,423	20.4	30.0	0.62	6,120	100	3,193	20.0	29.6	0.66	6,070
658	4.4	34.2	0.54	6,423	4,600	3.9	34.8	0.52	6,540	33.33	4,533	3.8	34.8	0.52	6,552
1,051	16.8	28.4	0.31	6,210	1,947	14.8	28.9	0.31	6,420	100	1,947	14.8	28.9	0.31	6,420

										As at 30 June 2018					
Total Marketable Reserves						Reserve Life (years)	BHP Interest %	Total Marketable Reserves						Reserve Life (years)	
Mt	%Ash	%VM	%S	KCal/kg CV	Mt			Mt	%Ash	%VM	%S	KCal/kg CV	Mt		
453	15.3	28.4	0.49	6,050	21	100		654	17.8	30.9	0.56	6,320	31		
333	11.2	32.4	0.61	6,101	15	33.33		445	9.3	32.6	0.57	6,144	16		

Other Assets

Mineral Resources

As at 30 June 2019													As at 30 June 2018									
Commodity Deposit ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾⁽⁵⁾⁽⁶⁾	Ore Type	Measured Resources				Indicated Resources				Inferred Resources				Total Resources				BHP Interest %	Total Resources			
		Mt	%K ₂ O	%Insol.	%MgO	Mt	%K ₂ O	%Insol.	%MgO	Mt	%K ₂ O	%Insol.	%MgO	Mt	%K ₂ O	%Insol.	%MgO		Mt	%K ₂ O	%Insol.	%MgO
Potash Project																						
Jansen	LPL	5,230	25.6	7.7	0.08	-	-	-	-	1,280	25.6	7.7	0.08	6,510	25.6	7.7	0.08	100	6,440	25.7	7.8	0.08

(1) The Mineral Resources are stated for the Lower Patience Lake (LPL) potash unit. A fixed seam thickness of 3.96m from the top of 406 clay seam was applied.

(2) 25.6%K₂O grade is equivalent to 40.5%KCl content using the mineralogical conversion factor of 1.583.

(3) %MgO is used as a measure of carnallite (KCl.MgCl₂.6H₂O) content where per cent carnallite equivalent = %MgO × 6.8918.

(4) Measured Resources grade has been assigned to Inferred Resources.

(5) Tonnages are reported on an in situ moisture content basis, estimated to be 0.3%.

(6) The change in Mineral Resources was due to modelling methodology changes from a stratigraphic cut-off to a fixed seam thickness model.

Mineral Resources

As at 30 June 2019													As at 30 June 2018										
Commodity Deposit ⁽¹⁾	Ore Type	Measured Resources				Indicated Resources				Inferred Resources				Total Resources				BHP Interest %	Total Resources				
		Mt	%Ni	Mt	%Ni	Mt	%Ni	Mt	%Ni	Mt	%Ni	Mt	%Ni	Mt	%Ni	Mt	%Ni		Mt	%Ni	Mt	%Ni	
Nickel West Operations																							
Leinster ⁽²⁾	OC	3.3	1.8	2.8	1.2	3.2	1.0	9.3	1.4	100	9.3	1.4	100	9.3	1.4	100	9.3	1.4	100	168	0.52		
	Disseminated Sulphide	2.6	0.70	76	0.52	89	0.50	168	0.52														
	UG	16	2.1	10	2.2	5.4	2.0	31	2.1														
	Oxide	-	-	-	-	5.3	1.8	5.3	1.8														
	SP	-	-	1.4	1.0	-	-	1.4	1.0														
	SP Oxidised	-	-	-	-	1.9	1.7	1.9	1.7														
Mt Keith ⁽³⁾	Disseminated Sulphide	134	0.54	67	0.52	24	0.52	225	0.53	100	231	0.54	100	231	0.54	100	231	0.54	100	8.4	0.48	11	0.48
	SP	8.4	0.48	-	-	-	-	-	-														
Cliffs ⁽⁴⁾	Disseminated Sulphide	-	-	6.7	0.88	2.0	1.0	8.6	0.92	100	6.9	0.98	100	6.9	0.98	100	6.9	0.98	100	3.8	2.6	3.5	3.5
	Massive Sulphide	0.72	3.7	1.3	3.9	0.49	3.8	2.5	3.8														
Yakabindie	Disseminated Sulphide	157	0.60	112	0.62	170	0.62	439	0.61	100	440	0.61	100	440	0.61	100	440	0.61	100	5.9	1.8	1.5	5.8
Venus ⁽⁵⁾	Disseminated Sulphide	-	-	4.2	1.9	2.3	1.6	6.5	1.8	100	100	1.8	100	100	1.8	100	100	1.8	100	6.1	1.5	1.5	5.8
	Massive Sulphide	-	-	0.84	6.2	0.69	6.1	1.5	6.2														
Nickel West Project																							
Jericho	Disseminated Sulphide	-	-	-	-	31	0.59	31	0.59	50	31	0.59	50	31	0.59	50	31	0.59	50	31	0.59	50	31

Ore Reserves

As at 30 June 2019													As at 30 June 2018			
Commodity Deposit ⁽¹⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾⁽⁹⁾	Ore Type	Proved Reserves				Probable Reserves				Total Reserves		Reserve Life (years)	BHP Interest %	Total Reserves		Reserve Life (years)
		Mt	%Ni	Mt	%Ni	Mt	%Ni	Mt	%Ni	Mt	%Ni	Mt		Mt	%Ni	
Nickel West Operations																
Leinster ⁽¹⁰⁾⁽¹¹⁾	OC	1.3	0.96	2.8	0.79	4.1	0.84	11	100	4.6	0.87	11	100	4.6	0.87	11
	SP	-	-	-	-	-	-	-	-							
	UG	-	-	5.3	1.6	5.3	1.6	5.3	1.6							
Mt Keith ⁽¹²⁾	OC	69	0.57	19	0.55	88	0.57	12	100	11	0.61	2.0	100	11	0.61	2.0
	SP	4.7	0.51	3.7	0.45	8.4	0.48	11	100	11	0.48	1.7	100	11	0.48	1.7
Cliffs ⁽¹³⁾	UG	-	-	0.45	2.0	0.45	2.0	0.9	100	0.55	2.0	1.7	100	0.55	2.0	1.7
Yakabindie ⁽¹⁴⁾	OC	107	0.56	44	0.61	150	0.57	15	100	96	0.61	11	100	96	0.61	11
Venus ⁽¹⁵⁾	UG	-	-	2.1	2.7	2.1	2.7	7	100	-	-	-	100	-	-	-

(1) Cut-off criteria:

Deposit	Ore Type	Mineral Resources	Ore Reserves
Leinster	OC	≥ 0.40%Ni	≥ 0.40%Ni
	Disseminated Sulphide	≥ 0.40%Ni	-
	UG	≥ 1.0%Ni	≥ 0.90%Ni includes dilution that occurs during block cave mining process
	Oxide	≥ 1.2%Ni	-
	SP, SP oxidised	≥ 0.70%Ni	-
Mt Keith	Disseminated Sulphide	Variable between 0.35%Ni and 0.40%Ni	-
	SP	Variable between 0.35%Ni and 0.40%Ni	Variable between 0.35%Ni and 0.40%Ni and ≥ 0.18% recoverable Ni
	OC	-	Variable between 0.35%Ni and 0.40%Ni and ≥ 0.18% recoverable Ni
Cliffs	Disseminated Sulphide	≥ 0.40%Ni	-
	Massive Sulphide	Stratigraphic	-
	UG	-	≥ 1.2%Ni
Yakabindie	Disseminated Sulphide	≥ 0.40%Ni	-
	OC	-	≥ 0.35%Ni
Venus	Disseminated Sulphide	≥ 0.40%Ni	-
	Massive Sulphide	Stratigraphic	-
	UG	-	≥ 1.3%Ni
Jericho	Disseminated Sulphide	≥ 0.40%Ni	-

- (2) Leinster – Mineral Resources increased including a maiden declaration of Oxide ore type and an updated estimate of UG ore type supported by additional drilling. SP tonnage decreased due to depletion.
- (3) Mt Keith – The decrease in SP Mineral Resources was due to depletion.
- (4) Cliffs – The increase in Disseminated Sulphide Mineral Resources was due to an upgrade in the resource estimate supported by additional drilling.
- (5) Venus – The increase in Disseminated Sulphide Mineral Resources was mainly due to an updated resource estimate supported by additional drilling.

(6) Approximate drill hole spacings used to classify the reserves were:

Deposit	Proved Reserves	Probable Reserves
Leinster	25m × 25m	25m × 50m
Mt Keith	40m × 40m	80m × 80m
Cliffs	25m × 25m (and development)	25m × 25m
Yakabindie	40m × 60m	80m × 60m
Venus	25m × 25m	50m × 50m

(7) Ore delivered to the process plant.

(8) Metallurgical recoveries for the operations were:

Deposit	Metallurgical Recovery
Leinster	OC
	83%
Mt Keith	
	64%
Cliffs	
	83% recovery at 10% concentrate grade
Yakabindie	
	63% (based on metallurgical test work)
Venus	
	89%

(9) Predicted metallurgical recoveries for the projects were:

Deposit	Metallurgical Recovery
Leinster	UG
	88%
	OC
	51%

(10) Leinster – Ore Reserves includes operations and projects.

(11) Leinster – The decrease in Ore Reserves was due to depletion. Incorporated within the Reserve Life calculation were OC and UG, which have a Reserve Life of 3 years and 11 years respectively.

(12) Mt Keith – The increase in Ore Reserves and Reserve Life was mainly due to the inclusion of additional mining areas based on updated economic assumptions.

(13) Cliffs – The decrease in Ore Reserves was mainly due to depletion and redesign of the mine areas.

(14) Yakabindie – The increase in Ore Reserves and Reserve Life was mainly due to the inclusion of additional mining areas.

(15) Venus – Maiden reporting of Ore Reserves.

6.4 Major projects

At the end of FY2019, BHP had five major projects under development in petroleum, copper, iron ore and potash, with a combined budget of US\$11.1 billion over the life of the projects.

Capital and exploration expenditure of US\$7.6 billion in FY2019 was within guidance. Capital and exploration expenditure guidance for FY2020 is unchanged at below US\$8 billion. This guidance includes a US\$0.9 billion exploration program in FY2020, with US\$0.7 billion for petroleum exploration and appraisal expenditure.

Projects in execution at the end of FY2019

Commodity	Project and ownership	Capacity ⁽¹⁾	Date of initial production	Capital expenditure (US\$M) ⁽¹⁾
			Target	Budget
Projects under development				
Petroleum	Atlantis Phase 3 (US Gulf of Mexico) 44% (non-operator)	New subsea production system that will tie back to the existing Atlantis facility, with capacity to produce up to 38,000 gross barrels of oil equivalent per day. Overall project is 13% complete	CY2020	696
Petroleum	Mad Dog Phase 2 (US Gulf of Mexico) 23.9% (non-operator)	New floating production facility with the capacity to produce up to 140,000 gross barrels of crude oil per day. On schedule and on budget, overall project is 53% complete	CY2022	2,154
Iron Ore	South Flank (Australia) 85% (operator)	Sustaining iron ore mine to replace production from the 80 Mtpa Yandi Mine. Overall project is 39% complete	CY2021	3,061
Copper	Spence Growth Option (Chile)	New 95 ktpd concentrator is expected to incrementally increase Spence's payable copper in concentrate production by approximately 185 ktpa in the first 10 years of operation and extend the mining operations by more than 50 years. Overall project is 60% complete. Project approved on 17 August 2017	FY2021	2,460
				8,371

Other projects in progress at the end of FY2019

Commodity	Project and ownership	Scope	Capital expenditure (US\$M) ⁽¹⁾	Budget
Projects under development				
Potash	Jansen Potash (Canada) 100%	Investment to finish the excavation and lining of the production and service shafts, and to continue the installation of essential surface infrastructure and utilities		2,700
				2,700

(1) Unless noted otherwise, references to capacity are on a 100 per cent basis, references to capital expenditure from subsidiaries are reported on a 100 per cent basis and references to capital expenditure from joint operations reflect BHP's share.

6.5 Climate change data⁽¹⁾

6.5.1 Energy consumption⁽²⁾

Operational energy consumption by source

	Year Ended 30 June		
	2019	2018	2017
Operational energy consumption (petajoules)			
Consumption of fuel	114	115	112
- Coal & coke	1	1	1
- Natural gas	24	31	33
- Distillate/Gasoline	87	81	76
- Other	3	2	2
Consumption of electricity	35	35	28
Total operational energy consumption	149	150	140
Operational energy consumption from renewable sources (petajoules)	0.31	0.38	0.26
Operational energy intensity (gigajoules per tonne of copper equivalent production) ⁽³⁾	22	21	19

Operational energy consumption by commodity

Year ended 30 June 2019	Consumption of fuel (petajoules)	Consumption of electricity (petajoules)	Total operational energy consumption (petajoules)
Petroleum	15.0	0.2	15.2
Copper	20.7	24.6	45.3
Iron Ore	31.0	1.2	32.2
Coal	39.3	5.3	44.6
Total	114.4	34.6	149.0

Year ended 30 June 2018	Consumption of fuel (petajoules)	Consumption of electricity (petajoules)	Total operational energy consumption (petajoules)
Petroleum	24.1	0.3	24.4
Copper	19.6	24.6	44.2
Iron Ore	29.3	1.2	30.5
Coal	34.7	5.2	39.9
Total	115.5	34.5	150.0

6.5.2 Greenhouse gas emissions

Operational GHG emissions by source⁽⁴⁾⁽⁵⁾

Operational GHG emissions (million tonnes CO ₂ -e)	Year Ended 30 June		
	2019	2018	2017
Scope 1 GHG emissions ⁽⁶⁾	9.7	10.6	10.5
Scope 2 GHG emissions ⁽⁷⁾	5.0	5.9	5.8
Total operational GHG emissions	14.7	16.5	16.3
Operational GHG emissions intensity (tonnes CO ₂ -e per tonne of copper equivalent production) ⁽³⁾	2.2	2.3	2.2

Operational GHG emissions by commodity and asset⁽⁴⁾⁽⁵⁾

Year ended 30 June 2019	Scope 1 GHG emissions (kilotonnes CO ₂ -e)	Scope 2 GHG emissions (kilotonnes CO ₂ -e)	Operational GHG emissions Total (kilotonnes CO ₂ -e)
Petroleum			
United States – Conventional	200	0	200
United States – US Onshore ⁽⁸⁾	467	3	470
Australia	320	0	320
Other	250	10	260
Total petroleum	1,237	13	1,250
Copper			
Escondida, Chile	930	2,140	3,070
Pampa Norte, Chile	340	330	670
Olympic Dam, Australia	200	470	670
Total copper	1,470	2,940	4,410
Iron Ore			
Western Australia Iron Ore, Australia	2,050	260	2,310
Total iron ore	2,050	260	2,310
Coal			
Metallurgical coal – Queensland Coal, Australia	3,980	1,090	5,070
Energy coal – New South Wales Energy Coal, Australia	520	90	610
Total coal	4,500	1,180	5,680
Nickel			
Nickel West, Australia	460	530	990
Total nickel	460	530	990
Total⁽⁹⁾	9,730	4,970	14,700

Year ended 30 June 2018	Scope 1 GHG emissions (kilotonnes CO ₂ -e)	Scope 2 GHG emissions (kilotonnes CO ₂ -e)	Operational GHG emissions Total (kilotonnes CO ₂ -e)
Petroleum			
United States – Conventional	220	0	220
United States – US Onshore	1,680	10	1,690
Australia	430	0	430
Other	240	0	240
Total petroleum	2,570	10	2,580
Copper			
Escondida, Chile	890	3,040	3,930
Pampa Norte, Chile	320	480	800
Olympic Dam, Australia	180	420	600
Total copper	1,390	3,940	5,330
Iron Ore			
Western Australia Iron Ore, Australia	1,930	260	2,190
Total iron ore	1,930	260	2,190
Coal			
Metallurgical coal – Queensland Coal, Australia	3,820	1,070	4,890
Energy coal – New South Wales Energy Coal, Australia	460	80	540
Total coal	4,280	1,150	5,430
Nickel			
Nickel West, Australia	380	540	920
Total nickel	380	540	920
Total⁽⁹⁾	10,590	5,950	16,540

Scope 3 GHG emissions by category⁽¹⁰⁾

Scope 3 GHG emissions (million tonnes CO ₂ -e)	Year Ended 30 June		
	2019	2018	2017
Upstream			
Purchased goods and services (including capital goods)	17.3	8.2	7.7
Fuel and energy-related activities	1.3	1.4	1.4
Upstream transportation and distribution ⁽¹¹⁾	3.6	3.6	3.2
Business travel	0.1	0.1	0.1
Employee commuting	<0.1	<0.1	<0.1
Downstream			
Downstream transportation and distribution ⁽¹²⁾	4.0	5.0	2.8
Investments (i.e. our non-operated assets) ⁽¹³⁾	3.1	1.7	1.9
Processing of sold products⁽¹⁴⁾			
Iron ore processing ⁽¹⁵⁾	299.6	317.4	309.5
Copper processing	5.1	5.2	4.2
Total processing of sold products	304.7	322.6	313.7
Use of sold products			
Metallurgical coal ⁽¹⁵⁾	111.4	112.3	105.5
Energy coal	67.0	71.0	72.1
Natural gas	28.3	36.4	38.3
Crude oil and condensates ⁽¹⁶⁾	23.3	29.6	33.1
Natural gas liquids	2.8	4.5	5.1
Total use of sold products	232.7	253.8	254.1

- (1) Unless otherwise noted, FY2017 and FY2018 data includes Continuing operations and Discontinued operations (Onshore US assets). FY2019 data includes Continuing operations and Discontinued operations (Onshore US assets) to 31 October 2018.
- (2) Calculated on an operational control basis in line with World Resources Institute/World Business Council for Sustainable Development guidance.
- (3) Copper equivalent production has been calculated based on FY2019 average realised product prices for FY2019 production, FY2018 average realised product prices for FY2018 production and FY2017 average realised product prices for FY2017 production. Production figures used are consistent with energy and emissions reporting boundaries (i.e. BHP operational control).
- (4) BHP currently uses Global Warming Potentials (GWP) from the Intergovernmental Panel on Climate Change (IPCC) Assessment Report 4 (AR4) based on 100-year timeframe.
- (5) Scope 1 and 2 emissions have been calculated on an operational control basis in line with the GHG Protocol Corporate Accounting and Reporting Standard.
- (6) Scope 1 refers to direct GHG emissions from operated assets.
- (7) Scope 2 refers to indirect GHG emissions from the generation of purchased electricity and steam that is consumed by operated assets. Our Scope 2 emissions have been calculated using the market-based method using supplier specific emissions factors, in line with the GHG Protocol Scope 2 Guidance. Our market-based Scope 2 emissions were 5.0 Mt CO₂-e which compares to 5.1 Mt CO₂-e if calculated using the location-based method. A residual mix is currently unavailable to account for voluntary purchases and this may result in double counting between electricity consumers.
- (8) Includes four months of emissions in FY2019 prior to divestment of this asset.
- (9) Total includes functions, projects, exploration, closed sites and consolidation adjustments.
- (10) Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Scope 3 emissions reporting necessarily requires a degree of overlap in reporting boundaries due to our involvement at multiple points in the life cycle of the commodities we produce and consume. A significant example of this is that Scope 3 emissions reported under the 'Processing of sold products' category include the processing of our iron ore to steel. This third party activity also consumes metallurgical coal as an input, a portion of which is produced by us. For reporting purposes, we account for Scope 3 emissions from combustion of metallurgical coal with all other fossil fuels under the 'Use of sold products' category, such that a portion of metallurgical coal emissions is accounted for under two categories. This is an expected outcome of emissions reporting between the different scopes defined under standard GHG accounting practices and is not considered to detract from the overall value of our Scope 3 emissions disclosure. This double counting means that the emissions reported under each category should not be added up, as to do so would give an inflated total figure. For this reason we do not report a total Scope 3 emissions figure. Further details of the calculation methodologies, assumptions and key references used in the preparation of our Scope 3 emissions data can be found in the associated Scope 3 calculation methodology document available online at bhp.com/climate.
- (11) Includes product transport where freight costs are covered by BHP, for example under Cost and Freight (CFR) or similar terms, as well as purchased transport services for process inputs to our operations.
- (12) Product transport where freight costs are not covered by BHP, for example under Free on Board (FOB) or similar terms.
- (13) For BHP, this category covers the Scope 1 and 2 emissions (on an equity basis) from our assets that are owned as a joint venture but not operated by BHP.
- (14) All iron ore production is assumed to be processed into steel and all copper metal production is assumed to be processed into copper wire for end use. Processing of nickel, zinc, gold, silver, ethane and uranium oxide is not currently included, as production volumes are much lower than iron ore and copper and a large range of possible end uses apply. Processing/refining of petroleum products is also excluded as these emissions are considered immaterial compared to the end-use product combustion reported in the 'Use of sold products' category.
- (15) Scope 3 emissions reported under the 'Processing of sold products' category include the processing of our iron ore to steel. This third party activity also consumes metallurgical coal as an input, a portion of which is produced by us. For reporting purposes, we account for Scope 3 emissions from combustion of metallurgical coal with all other fossil fuels under the 'Use of sold products' category, such that a portion of metallurgical coal emissions is accounted for under two categories.
- (16) All crude oil and condensates are conservatively assumed to be refined and combusted as diesel.

6.6 Legal proceedings

We are involved from time-to-time in legal proceedings and governmental investigations of a character normally incidental to our business, including claims and pending actions against us seeking damages, or clarification or prosecution of legal rights and regulatory inquiries regarding business practices. Insurance or other indemnification protection may offset the financial impact on the Group of a successful claim.

This section summarises the significant legal proceedings and investigations and associated matters in which we are currently involved or have finalised since our last Annual Report.

Legal proceedings relating to the failure of the Fundão tailings dam at the iron ore operations of Samarco in Minas Gerais and Espírito Santo (Samarco dam failure)

We are engaged in numerous legal proceedings relating to the Samarco dam failure. Given all of these proceedings are in early stages, it is not possible at this time to provide a range of possible outcomes or a reliable estimate of potential future exposures. The most significant of these proceedings are summarised below. As described below, many of these proceedings involve claims for compensation for the similar or possibly the same damages. There are numerous additional lawsuits against Samarco relating to the Samarco dam failure to which we are not party.

R\$20 billion public civil claim commenced by the Federal Government of Brazil, states of Espírito Santo and Minas Gerais and other authorities (R\$20 billion Public Civil Claim)

On 30 November 2015, the Federal Government of Brazil, states of Espírito Santo and Minas Gerais and other public authorities collectively filed a public civil claim before the 12th Federal Court of Belo Horizonte against Samarco and its shareholders, BHP Billiton Brasil and Vale, seeking the establishment of a fund of up to R\$20 billion (approximately US\$5.2 billion) in aggregate for clean-up costs and damages.

The plaintiffs also requested certain interim injunctions in connection with the public civil claim. On 18 December 2015, the Federal Court granted the injunctions and, among other things, ordered Samarco to deposit R\$2 billion (approximately US\$605 million) into a court-managed bank account for use towards community and environmental rehabilitation. BHP Billiton Brasil, Vale and Samarco immediately appealed against the injunction. On 4 November 2016, the Federal Court reduced the R\$2 billion injunction to R\$1.2 billion (approximately US\$365 million).

On 2 March 2016, BHP Billiton Brasil, together with Vale and Samarco, entered into a Framework Agreement with the plaintiffs to establish a foundation (Fundação Renova) to develop and execute environmental and socioeconomic programs (Programs) to remediate and provide compensation for damage caused by the Samarco dam failure.

The term of the Framework Agreement is 15 years, renewable for periods of one year successively until all obligations under the Framework Agreement have been performed. Under the Framework Agreement, Samarco is responsible for funding Fundação Renova's annual calendar year budget for the duration of the Framework Agreement. The amount of funding for each calendar year will be dependent on the remediation and compensation projects to be undertaken in a particular year. To the extent that Samarco does not meet its funding obligations under the Framework Agreement, each of Vale and BHP Billiton Brasil has funding obligations under the Framework Agreement in proportion to its 50 per cent shareholding in Samarco.

On 25 June 2018, a Governance Agreement (summarised below), was entered into providing for the settlement of this public civil claim, suspension of the R\$155 billion (approximately US\$40 billion) Federal Public Prosecution Office claim for 24 months, partial ratification of the Framework Agreement and a formal declaration that the Framework Agreement remains valid for the signing parties. On 8 August 2018, the 12th Federal Court of Minas Gerais ratified the Governance Agreement.

Ratification of the Governance Agreement on 8 August 2018 settled this public civil claim, including the R\$1.2 billion (approximately US\$365 million) injunction order.

(1) Currently, solely BHP Billiton Brasil, Vale and Samarco, the Federal Government and the State of Minas Gerais are defendants.

Preliminary Agreement

On 18 January 2017, BHP Billiton Brasil, together with Vale and Samarco, entered into a Preliminary Agreement with the Federal Prosecutors' Office in Brazil, which outlines the process and timeline for further negotiations towards a final settlement regarding the R\$20 billion (approximately US\$5.2 billion) public civil claim and the R\$155 billion (approximately US\$40 billion) Federal Public Prosecution Office claim relating to the dam failure.

Under the Preliminary Agreement, BHP Billiton Brasil, Vale and Samarco agreed interim security (Interim Security) comprising:

- R\$1.3 billion (approximately US\$335 million) in insurance bonds;
- R\$100 million (approximately US\$20 million) in liquid assets;
- A charge of R\$800 million (approximately US\$210 million) over Samarco's assets;
- R\$200 million (approximately US\$50 million) to be allocated within the next four years through existing Framework Agreement programs in the Municipalities of Barra Longa, Rio Doce, Santa Cruz do Escalvado and Ponte Nova.

On 24 January 2017, BHP Billiton Brasil, Vale and Samarco provided the Interim Security to the 12th Federal Court of Belo Horizonte, which was to remain in place until the earlier of 30 June 2017 and the date that a final settlement arrangement was agreed between the Federal Prosecutors and BHP Billiton Brasil, Vale and Samarco. Following a series of extensions, on 25 June 2018, the parties reached an agreement in the form of the Governance Agreement (summarised below).

Governance Agreement

On 25 June 2018, BHP Billiton Brasil, Vale, Samarco, the other parties to the Framework Agreement, the Public Prosecutors Office and the Public Defence Office entered into a Governance Agreement which settles the R\$20 billion (approximately US\$5.2 billion) public civil claim, enhances community participation in decisions related to Programs under the Framework Agreement and establishes a process to renegotiate the Programs over two years to progress settlement of the R\$155 billion (approximately US\$40 billion) Federal Public Prosecution Office claim (Governance Agreement).

Renegotiation of the Programs will be based on certain agreed principles, such as full reparation consistent with Brazilian law, the requirement for a technical basis for any proposed changes, consideration of findings from experts appointed by BHP Billiton Brasil, Samarco and Vale, consideration of findings from experts appointed by Prosecutors and consideration of feedback from impacted communities. During the renegotiation period and up until revisions to the Programs are agreed, the Renova Foundation will continue to implement the Programs in accordance with the terms of the Framework Agreement and the Governance Agreement.

The Governance Agreement was ratified by the 12th Federal Court of Minas Gerais on 8 August 2018, settling the R\$20 billion (approximately US\$5.2 billion) public civil claim and suspending the R\$155 billion (approximately US\$40 billion) Federal Public Prosecution Office claim for a period of two years from the date of ratification.

Interim Security provided under the Preliminary Agreement is maintained for a period of 30 months under the Governance Agreement, after which BHP Billiton Brasil, Vale and Samarco will be required to provide security of an amount equal to Fundação Renova's annual budget up to a limit of R\$2.2 billion (approximately US\$570 million).

R\$155 billion public civil claim commenced by the Federal Public Prosecution Service (R\$155 billion Federal Public Prosecution Office claim)

On 3 May 2016, the Federal Public Prosecution Office filed a public civil claim before the 12th Federal Court of Belo Horizonte against BHP Billiton Brasil, Vale and Samarco – as well as 18 other public entities (which has since been reduced to five defendants⁽¹⁾ by the Court) – seeking R\$155 billion (approximately US\$40 billion) for reparation, compensation and collective moral damages in relation to the Samarco dam failure.

In addition, the claim includes a number of preliminary injunction requests, seeking orders that BHP Billiton Brasil, Vale and Samarco deposit R\$7.7 billion (approximately US\$2 billion) in a special

company account and provide guarantees equivalent to R\$155 billion (approximately US\$40 billion). The injunctions also seek to prohibit BHP Billiton Brasil, Vale and Samarco from distributing dividends and selling certain assets (among other things).

The 12th Federal Court previously suspended this public civil claim, including the R\$7.7 billion (approximately US\$2 billion) injunction request. Suspension of the claim continues for a period of two years from the date of ratification of the Governance Agreement on 8 August 2018.

Public civil claims commenced by the State Prosecutors' Office in the state of Minas Gerais

On 10 December 2015, the State Prosecutors' Office in the state of Minas Gerais filed a public civil claim against BHP Billiton Brasil, Vale and Samarco before the State Court in Mariana claiming indemnification (amount not specified) for moral and material damages to an unspecified group of individuals affected by the Samarco dam failure, including the payment of costs for housing and social and economic assistance.

The State Prosecutors' Office also requested certain interim injunctions in connection with this claim, including orders for BHP Billiton Brasil, Vale and Samarco to provide housing, health care, financial assistance and education facilities to the people affected by the Samarco dam failure. The plaintiff also sought an order to freeze R\$300 million (approximately US\$80 million) in Samarco's bank accounts. The Court granted the injunction freezing R\$300 million (approximately US\$80 million) in Samarco's bank accounts for use towards the compensation and remediation measures requested under this public civil claim. At a Court hearing on 20 January 2016, the parties agreed that Samarco should unilaterally provide:

- flexible housing solutions for 271 displaced families;
- monthly salaries to the displaced families for at least 12 months;
- a R\$20,000 (approximately US\$5,000) payment to each displaced family;
- a R\$100,000 (approximately US\$25,000) payment to each of the families of those deceased, as advance compensation.

There have been multiple hearings, injunctions and enforcement petitions of previous settlements requested in this public civil claim. Following Samarco's request, the Court released part of the frozen amount to pay for (i) the technical entity hired to assist the impacted community and (ii) payments related to the Preliminary Agreement. On 2 October 2018, the parties reached an agreement that was ratified by the Court for the dismissal of the claim. Under this settlement, Renova Foundation has reached more than 83 individual agreements with impacted families in Mariana for the payment of damages.

On 2 February 2016, the State Prosecutors' Office in the state of Minas Gerais filed another public civil claim against BHP Billiton Brasil, Vale and Samarco before the State Court in Ponte Nova claiming compensation of R\$7.5 billion (approximately US\$2.3 billion) for moral and material damages suffered by 1,350 individuals in Ponte Nova and collective moral damages allegedly suffered by the community in Ponte Nova. The claim also sought a number of preliminary injunctions, including orders to:

- freeze R\$1 billion (approximately US\$305 million) of cash in the defendants' bank accounts in order to secure the compensation requested under the public civil claim;
- require the defendants to pay minimum wages and basic food supplies to the families in Ponte Nova affected by the Samarco dam failure;
- require the defendants to pay R\$30,000 (approximately US\$8,000) per affected family and compensation to provide dignified and adequate housing for the affected families.

On 5 February 2016, the Court granted an injunction to freeze R\$475 million (approximately US\$145 million) from bank accounts of BHP Billiton Brasil, Vale and Samarco and ordered them to pay preliminary amounts to families in Ponte Nova affected by the Samarco dam failure. This injunction was revoked on 9 November 2016 and the Court, on 8 May 2018, also ordered the frozen funds to be returned to BHP Billiton Brasil (R\$2 million). Samarco and BHP Billiton Brasil filed their defences, respectively on 6 December 2016 and 9 March 2017. This case has been remitted to the 12th Federal Court in Belo Horizonte and is currently suspended.

In November 2018, the State Prosecutor's Office in the State of Minas Gerais filed another public civil claim against BHP Billiton Brasil, Vale, Samarco and Renova Foundation claiming approximately R\$2 billion (approximately US\$500 million) for damages. The public civil claim was terminated before the subpoenas on the basis that the claim has already been addressed in the first public civil claim filed on 10 December 2015, which has been settled. The State Prosecutor's Office has appealed the decision.

Public civil claim commenced by the Public Defender Department in Minas Gerais

On 25 April 2016, the Public Defender Department filed a public civil claim against BHP Billiton Brasil, Vale and Samarco in the State Court in Belo Horizonte, Minas Gerais, Brazil claiming R\$10 billion (approximately US\$2.6 billion) for collective moral damages to be deposited in the State Human Rights Defense Fund. The Public Defender Department is also seeking a number of social and environmental remediation measures in relation to the Samarco dam failure, including orders requiring the reparation of the environmental damage and the reconstruction of properties and populations, including historical, religious, cultural, social, environmental and immaterial heritages affected by the dam failure. On 16 March 2016, the Court denied the remediation measures requested as an injunction by the Public Defender Department. The public civil claim was remitted to the 12th Federal Court in Belo Horizonte and is currently suspended.

Public civil claim commenced by the State Prosecutors' Office in the state of Espírito Santo

On 15 January 2016, the State Prosecutors' Office of Espírito Santo filed a public civil claim before the State Court in Espírito Santo against BHP Billiton Brasil, Vale and Samarco seeking compensation for collective moral damages in relation to the suspension of the water supply of the Municipality of Colatina as a result of the Samarco dam failure. As part of the public civil claim, the State Prosecutors' Office sought a number of injunctions, including an order to freeze R\$2 billion (approximately US\$520 million) in the defendants' bank accounts in order to secure the requested compensation. On 11 February 2016, the Court denied all of the injunction requests made by the State Prosecutors' Office. The State Prosecutors' Office appealed the decision and on 2 August 2016 the State Court of Appeal decided to remit the case to the 12th Federal Court in Belo Horizonte. This public civil claim is suspended.

Public civil claim commenced by the state of Espírito Santo

On 8 January 2016, the state of Espírito Santo filed a public civil claim against BHP Billiton Brasil, Vale and Samarco before the State Court in Colatina (later remitted to the 12th Federal Court in Belo Horizonte) seeking the remediation and restoration of the water supply of the residents of Baixo Guandu, Linhares, Colatina and Marilândia. In addition, the claim sought injunctions ordering, among other things, the execution of several works and improvements in public equipment in order to repair and upgrade the sewerage system and water network in Colatina and Linhares, and an order to freeze R\$1 billion (approximately US\$260 million) of the defendants' assets. On 4 February 2016, the Court ordered Samarco to deposit approximately R\$7 million (approximately US\$2 million) in a fund of the state of Espírito Santo to be created and granted certain injunctions relating to remediation measures. At the same time it denied the injunction request to freeze assets of R\$1 billion (approximately US\$260 million). On 6 April 2016, the Court of Appeals suspended the injunctions granted. BHP Billiton Brasil, Vale and Samarco filed their defences in March 2016 and also requested the suspension of this public civil claim. On 18 December 2017, the case was remitted to the 12th Federal Court.

Public civil claim commenced by the Association for the Defense of Collective Interests – ADIC

On 17 November 2015, ADIC, a non-governmental organisation (NGO) in Brazil, filed a public civil claim solely against Samarco before the 12th Federal Court in Belo Horizonte claiming at least R\$10 billion (approximately US\$2.6 billion) for environmental and social damages in relation to the Samarco dam failure, in addition to collective moral damages and reparation measures. The NGO also requested preliminary injunctions ordering the deposit of R\$1 billion (approximately US\$260 million) and prohibiting Samarco from distributing dividends to its shareholders. Samarco presented its defence on 12 February 2016. The Court did not decide on the injunction request and on 27 March 2017, the Court suspended this public civil claim.

Other civil proceedings in Brazil

As noted above, BHP Billiton Brasil has been named as a defendant in numerous other lawsuits that are at early stages of proceedings. The lawsuits seek various remedies, including rehabilitation costs, compensation to injured individuals and families of the deceased, recovery of personal and property losses and injunctive relief. In addition, government inquiries and investigations relating to the Samarco dam failure have been commenced by numerous agencies of the Brazilian Government and are ongoing, including criminal investigations by the federal and state police, and by federal prosecutors.

Our potential liabilities, if any, resulting from other pending and future claims, lawsuits and enforcement actions relating to the Samarco dam failure, together with the potential cost of implementing remedies sought in the various proceedings, cannot be reliably estimated at this time and therefore a provision has not been recognised and nor has any contingent liability been quantified for these matters. Ultimately, these could have a material adverse impact on BHP's business, competitive position, cash flows, prospects, liquidity and shareholder returns. For more information on the Samarco dam failure, refer to section 1.7.

As at June 2019, Samarco had been named as a defendant in more than 74,000 small claims for moral damages in which people argue their public water service was interrupted for between five and 10 days, and courts have awarded damages, generally ranging from R\$1,000 (approximately US\$260) to R\$10,000 (approximately US\$2,600) per impacted person. BHP Billiton Brasil is a co-defendant in more than 15,500 of these cases. Over 260,000 people have received moral damages related to the temporary suspension of public water supply through settlements reached with Renova.

Criminal charges

On 20 October 2016, the Federal Prosecutors' Office filed criminal charges against BHP Billiton Brasil, Vale and Samarco and certain employees and former employees of BHP Billiton Brasil (Affected Individuals) in the Federal Court of Ponte Nova, Minas Gerais. On 3 March 2017, BHP Billiton Brasil and the Affected Individuals filed their preliminary defences. The Federal Court granted Habeas Corpus petitions in favour of three of the Affected Individuals terminating the charges against those individuals. The Federal Prosecutors' Office appealed two of the decisions. BHP Billiton Brasil rejects outright the charges against the Company and the Affected Individuals and will defend the charges and fully support each of the Affected Individuals in their defence of the charges.

United States class action complaint – shareholders

In February 2016, a putative class action complaint (Complaint) was filed in the U.S. District Court for the Southern District of New York on behalf of purchasers of American Depository Receipts of BHP Group Limited and BHP Group Plc between 25 September 2014 and 30 November 2015 against BHP Group Limited and BHP Group Plc and certain of its current and former executive officers and directors. The Complaint asserted claims under US federal securities laws and indicated that the plaintiff would seek certification to proceed as a class action.

On 6 August 2018, the parties reached an in-principle settlement agreement of US\$50 million to resolve all claims with no admission of liability by the Defendants, subject to Court approval. On 10 April 2019, the District Court made orders granting final approval of the settlement and the settlement became final on 10 May 2019. The majority of the settlement payment was covered by BHP's external insurance arrangements.

United States class action complaint – bondholders

On 14 November 2016, a putative class action complaint (Bondholder Complaint) was filed in the U.S. District Court for the Southern District of New York on behalf of purchasers of Samarco's 10-year bond notes due 2022–2024 between 31 October 2012 and 30 November 2015. The Bondholder Complaint was initially filed against Samarco and the former chief executive officer of Samarco. The Complaint asserted claims under the U.S. federal securities laws and indicated that the plaintiff will seek certification to proceed as a class action.

The Bondholder Complaint was subsequently amended to include BHP Group Limited, BHP Group Plc, BHP Billiton Brasil Ltda, Vale S.A. and officers of Samarco, including four of Vale S.A. and BHP Billiton Brasil Ltda's nominees to the Samarco Board. On 5 April 2017, the Plaintiff discontinued its claims against the individual defendants.

On 7 March 2018, the District Court granted a joint motion from the remaining corporate defendants to dismiss the Bondholder Complaint. A second amended Bondholder Complaint was also dismissed by the Court on 18 July 2019. The Plaintiff has filed a motion, which remains pending before the Court, for reconsideration of that decision or leave to file a third amended complaint.

The amount of damages sought by the putative class is unspecified.

Australian class action complaints

Three separate shareholder class actions were filed in the Federal Court of Australia on behalf of persons who acquired shares in BHP Group Ltd on the Australian Securities Exchange or shares in BHP Group Plc on the London Stock Exchange and Johannesburg Stock Exchange in periods prior to the Samarco dam failure.

Following an appeal to the Full Court of the Federal Court, two of the actions have been consolidated into the one action and the third action is expected to be dismissed.

The amount of damages sought in the consolidated action is unspecified.

United Kingdom group action complaint

BHP Group Plc and BHP Group Ltd are named as defendants in group action claims for damages that have been filed in the courts of England. These claims have been filed on behalf of certain individuals, governments, businesses and communities in Brazil allegedly impacted by the Samarco dam failure.

On 7 August 2019, the BHP parties filed a preliminary application seeking to strike out or stay this action on jurisdictional and other procedural grounds.

The amount of damages sought in this class action is unspecified.

Tax and royalty matters

Transfer pricing dispute – Sales of commodities to BHP Billiton Marketing AG in Singapore

On 19 November 2018, BHP reached an agreement with the Australian Taxation Office (ATO) to settle the transfer pricing dispute relating to its marketing operations in Singapore.

The settlement fully resolves the longstanding dispute between BHP and the ATO for all prior years, being 2003 to 2018, with no admission of tax avoidance by BHP, and provides certainty in relation to the future taxation treatment.

The dispute related to the amount of Australian tax payable as a result of the sale of BHP's Australian commodities to BHP's Singapore marketing business. The ATO had issued amended assessments for A\$661 million primary tax (A\$1,042 million including interest and penalties) for the income years 2003 to 2013.

As part of the settlement, BHP paid a total of approximately A\$529 million in additional taxes for the income years 2003 to 2018. BHP had already paid A\$328 million of this amount to the ATO, following receipt of amended tax assessments and in accordance with the ATO's normal practice.

A further element of the settlement is that BHP Group Limited will increase its ownership of BHP Billiton Marketing AG from 58 per cent to 100 per cent. BHP Billiton Marketing AG is the main company that BHP utilises to conduct its Singapore marketing business. The change in ownership will result in all profits made in Singapore in relation to the Australian assets owned by BHP Group Limited being fully subject to Australian tax.

The change in ownership will provide certainty for BHP and the ATO regarding the Australian taxation treatment of BHP's Singapore marketing business for future years.

BHP's marketing operations will continue to be located in Singapore and remain an important part of BHP's value chain.

Unresolved tax and royalty matters

The Group presently has unresolved tax and royalty matters for which the timing of resolution and potential economic outflow is uncertain. For details of those matters, refer to note 5 'Income and tax expense' in section 5.

6.7 Glossary

6.7.1 Mining, oil and gas-related terms

2D

Two dimensional.

3D

Three dimensional.

AIG

The Australian Institute of Geoscientists.

APEGS

Association of Professional Engineers and Geoscientists of Saskatchewan.

AusIMM

The Australasian Institute of Mining and Metallurgy.

Beneficiation

The process of physically separating ore from waste material prior to subsequent processing of the improved ore.

Brownfield

The development or exploration located inside the area of influence of existing mine operations which can share infrastructure/management.

Butane

A component of natural gas. Where sold separately, is largely butane gas that has been liquefied through pressurisation. One tonne of butane is approximately equivalent to 14,000 cubic feet of gas.

Coal Reserves

Equivalent to Ore Reserves, but specifically concerning coal.

Coal Resources

Equivalent to Mineral Resources, 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 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' (RPO), 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, 2012 Edition).

Condensate

A mixture of hydrocarbons that exist in gaseous form in natural underground reservoirs, but which condense to form a liquid at atmospheric conditions.

Conventional Petroleum Resources

Hydrocarbon accumulations that can be produced by a well drilled into a geologic formation in which the reservoir and fluid characteristics permit the hydrocarbons to readily flow to the wellbore without the use of specialised extraction technologies.

Copper cathode

Electrolytically refined copper that has been deposited on the cathode of an electrolytic bath of acidified copper sulphate solution. The refined copper may also be produced through leaching and electrowinning.

Crude oil

A mixture of hydrocarbons that exist in liquid form in natural underground reservoirs, and remain liquid at atmospheric pressure after being produced at the well head and passing through surface separating facilities.

Cut-off grade

A nominated grade above which an Ore Reserve or Mineral Resource is defined. For example, the lowest grade of mineralised material that qualifies as economic for estimating an Ore Reserve.

Dated Brent

A benchmark price assessment as of a specified date of the spot market value of physical cargoes of North Sea light sweet crude oil.

Electrowinning/electrowon

An electrochemical process in which metal is recovered by dissolving a metal within an electrolyte and plating it onto an electrode.

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.

Ethane

A component of natural gas. Where sold separately, is largely ethane gas that has been liquefied through pressurisation. One tonne of ethane is approximately equivalent to 28,000 cubic feet of gas.

FAusIMM

Fellow of the Australasian Institute of Mining and Metallurgy.

Field

An area consisting of a single reservoir or multiple reservoirs all grouped on or related to the same individual geological structural feature and/or stratigraphic condition. There may be two or more reservoirs in a field that are separated vertically by intervening impervious strata, or laterally by local geologic barriers, or by both. Reservoirs that are associated by being in overlapping or adjacent fields may be treated as a single or common operational field.

The geological terms 'structural feature' and 'stratigraphic condition' are intended to identify localised geological features as opposed to the broader terms of basins, trends, provinces, plays, areas-of-interest, etc. (per SEC Regulation S-X, Rule 4-10).

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.

FPSO (Floating, production, storage and off-take)

A floating vessel used by the offshore oil and gas industry for the processing of hydrocarbons and for storage of oil. An FPSO vessel is designed to receive hydrocarbons produced from nearby platforms or subsea templates, process them and store oil until it can be offloaded onto a tanker.

Grade or Quality

Any physical or chemical measurement of the characteristics of the material of interest in samples or product.

Greenfield

The development or exploration located outside the area of influence of existing mine operations/infrastructure.

Heap leach(ing)

A process used for the recovery of metals such as copper, nickel, uranium and gold from low-grade ores. The crushed material is laid on a slightly sloping, impermeable pad and leached by uniformly trickling (gravity fed) a chemical solution through the beds to ponds. The metals are recovered from the solution.

Hypogene Sulphide

Hypogene mineralisation is formed by fluids at high temperature and pressure derived from magmatic activity. Hypogene sulphide consists predominantly of chalcopyrite.

Indicated Mineral Resources

That part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit (JORC Code, 2012 Edition).

Inferred Mineral Resources

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, 2012 Edition).

Joint Ore Reserves Committee (JORC) Code

A set of minimum standards, recommendations and guidelines for public reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The guidelines are defined by the Australasian Joint Ore Reserves Committee (JORC), which is sponsored by the Australian mining industry and its professional organisations.

Leaching

The process by which a soluble metal can be economically recovered from minerals in ore by dissolution.

LNG (liquefied natural gas)

Consists largely of methane that has been liquefied through chilling and pressurisation. One tonne of LNG is approximately equivalent to 46,000 cubic feet of natural gas.

LOI (loss on ignition)

A measure of the percentage of volatile matter (liquid or gas) contained within a mineral or rock. LOI is determined to calculate loss in mass when subjected to high temperatures.

LPG (liquefied petroleum gas)

Consists of propane and butane and a small amount (less than two per cent) of ethane that has been liquefied through pressurisation. One tonne of LPG is approximately equivalent to 12 barrels of oil.

MAIG

Member of the Australian Institute of Geoscientists.

Marketable Coal Reserves

Represents beneficiated or otherwise enhanced coal product where modifications due to mining, dilution and processing have been considered, must be publicly reported in conjunction with, but not instead of, reports of Coal Reserves. The basis of the predicted yield to achieve Marketable Coal Reserves must be stated (JORC Code, 2012).

MAusIMM

Member of the Australasian Institute of Mining and Metallurgy.

Measured Mineral Resources

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, 2012 Edition).

Metallurgical coal

A broader term than coking coal, which includes all coals used in steelmaking, such as coal used for the pulverised coal injection process.

MGSSA

Member of the Geological Society of South Africa.

Mineral Resources

A concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (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 (JORC Code, 2012 Edition).

Mineralisation

Any single mineral or combination of minerals occurring in a mass, or deposit, of economic interest.

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.

NGL (natural gas liquids)

Consists of propane, butane and ethane – individually or as a mixture.

Nominated production rate

The approved average production rate for the remainder of the life-of-asset plan or five-year plan production rate if significantly different to life-of-asset production rate.

OC (open-cut)

Surface working in which the working area is kept open to the sky.

Ore Reserves

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, 2012 Edition).

PCI

Pulverised coal injection.

P. Eng. PEGNL

Professional Engineer of the Association of Professional Engineers and Geoscientists of Newfoundland and Labrador.

Probable Ore Reserves

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. Consideration of the confidence level of the Modifying Factors is important in conversion of Mineral Resources to Ore Reserves. A Probable Ore Reserve has a lower level of confidence than a Proved Ore Reserve but is of sufficient quality to serve as the basis for a decision on the development of the deposit (JORC Code, 2012 Edition).

Propane

A component of natural gas. Where sold separately, is largely propane gas that has been liquefied through pressurisation. One tonne of propane is approximately equivalent to 19,000 cubic feet of gas.

Proved oil and gas reserves

Those quantities of oil, gas and natural gas liquids, which by analysis of geoscience and engineering data can be estimated with reasonable certainty to be economically producible – from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations – prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation (from SEC Modernization of Oil and Gas Reporting, 2009, 17 CFR Parts 210, 211, 229 and 249).

Proved Ore Reserves

The economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors. A Proved Ore Reserve represents the highest confidence category of reserve estimate and implies a high degree of confidence in geological and grade continuity, and the consideration of the Modifying Factors. The style of mineralisation or other factors could mean that Proved Ore Reserves are not achievable in some deposits (JORC Code, 2012 Edition).

Qualified petroleum reserves and resources evaluator

A qualified petroleum reserves and resources evaluator, as defined in Chapter 19 of the ASX Listing Rules.

Reserve Life

Current stated Ore Reserves estimate divided by the current approved nominated production rate as at the end of the financial year.

ROM (run of mine)

Run of mine product mined in the course of regular mining activities. Tonnes include allowances for diluting materials and for losses that occur when the material is mined.

Solvent extraction

A method of separating one or more metals from a leach solution by treating with a solvent that will extract the required metal, leaving the others. The metal is recovered from the solvent by further treatment.

SP (stockpile)

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.

Spud

Commence drilling of an oil or gas well.

Supergene Sulphide

Supergene is a term used to describe near-surface processes and their products, formed at low temperature and pressure by the activity of descending water. Supergene sulphide is mainly formed of chalcocite and covellite and is amenable to heap leaching.

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.

TLP (tension leg platform)

A vertically moored floating facility for production of oil and gas.

Total Mineral Resources

The sum of Inferred, Indicated and Measured Mineral Resources.

Total Ore Reserves

The sum of Proved and Probable Ore Reserves.

UG (underground)

Below the surface mining activities.

Unconventional Petroleum Resources

Hydrocarbon accumulations that are generally pervasive in nature and may be continuous throughout a large area requiring specialised extraction technologies to produce or recover. Examples include, but are not limited to coalbed methane, basin-centred gas, shale gas, gas hydrates, natural bitumen (tar sands), and oil shale deposits.

Examples of specialised technologies include: dewatering of coalbed methane, massive fracturing programs for shale gas, steam and/or solvents to mobilise bitumen for in situ recovery, and, in some cases, mining activities.

Wet tonnes

Production is usually quoted in terms of wet metric tonnes (wmt). To adjust from wmt to dry metric tonnes (dmt) a factor is applied based on moisture content.

6.7.2 Other terms**AASB (Australian Accounting Standards Board)**

Accounting standards as issued by the Australian Accounting Standards Board.

ADR (American Depository Receipt)

An instrument evidencing American Depository Shares or ADSs, which trades on a stock exchange in the United States.

ADS (American Depository Share)

A share issued under a deposit agreement that has been created to permit US-resident investors to hold shares in non-US companies and trade them on the stock exchanges in the United States.

ADSs are evidenced by American Depository Receipts, or ADRs, which are the instruments that trade on a stock exchange in the United States.

ASIC (Australian Securities and Investments Commission)

The Australian Government agency that enforces laws relating to companies, securities, financial services and credit in order to protect consumers, investors and creditors.

Assets

Assets are a set of one or more geographically proximate operations (including open-cut mines, underground mines, and onshore and offshore oil and gas production and production facilities). Assets include our operated and non-operated assets.

Asset groups

We group our assets into geographic regions in order to provide effective governance and accelerate performance improvement. Minerals assets are grouped under Minerals Australia or Minerals Americas based on their geographic location. Oil, gas and petroleum assets are grouped together as Petroleum.

ASX (Australian Securities Exchange)

ASX is a multi-asset class vertically integrated exchange group that functions as a market operator, clearing house and payments system facilitator. It oversees compliance with its operating rules, promotes standards of corporate governance among Australia's listed companies and helps educate retail investors.

BHP

Both companies in the DLC structure, being BHP Group Limited and BHP Group Plc and their respective subsidiaries.

BHP Group Limited

BHP Group Limited and its subsidiaries.

BHP Group Limited share

A fully paid ordinary share in the capital of BHP Group Limited.

BHP Group Limited shareholders

The holders of BHP Group Limited shares.

BHP Group Limited Special Voting Share

A single voting share issued to facilitate joint voting by shareholders of BHP Group Limited on Joint Electorate Actions.

BHP Group Plc

BHP Group Plc and its subsidiaries.

BHP Group Plc share

A fully paid ordinary share in the capital of BHP Group Plc.

BHP Group Plc shareholders

The holders of BHP Group Plc shares.

BHP Group Plc Special Voting Share

A single voting share issued to facilitate joint voting by shareholders of BHP Group Plc on Joint Electorate Actions.

BHP shareholders

In the context of BHP's financial results, BHP shareholders refers to the holders of shares in BHP Group Limited and BHP Group Plc.

Board

The Board of Directors of BHP.

CQCA

Central Queensland Coal Associates

Commercial

Our Commercial function optimises value creation and minimises costs across our end-to-end supply chain. It is organised around our core value chain activities – Sales and Marketing; Maritime and Supply Chain Excellence; Procurement; and Warehousing Inventory and Logistics and Property – supported by short and long-term market insights, strategy and planning activities, and close partnership with our assets.

Company

BHP Group Limited, BHP Group Plc and their respective subsidiaries.

Continuing operations

Assets/operations/entities that are owned and/or operated by BHP, excluding major assets/operations/entities classified as Discontinued Operations.

Discontinued operations

Major assets/operations/entities that have either been disposed of or are classified as held for sale in accordance with IFRS 5/AASB 5 *Non-current Assets Held for Sale and Discontinued Operations*.

Dividend record date

The date, determined by a company's board of directors, by when an investor must be recorded as an owner of shares in order to qualify for a forthcoming dividend.

DLC Dividend Share

A share to enable a dividend to be paid by BHP Group Plc to BHP Group Limited or by BHP Group Limited to BHP Group Plc (as applicable).

DLC (Dual Listed Company)

BHP's Dual Listed Company structure has two parent companies (BHP Group Limited and BHP Group Plc) operating as a single economic entity as a result of the DLC merger.

DLC merger

The Dual Listed Company merger between BHP Group Limited and BHP Group Plc on 29 June 2001.

ELT (Executive Leadership Team)

The Executive Leadership Team directly reports to the Chief Executive Officer and is responsible for the day-to-day management of BHP and leading the delivery of our strategic objectives.

Executive KMP (Key Management Personnel)

Executive KMP includes the Executive Director (our CEO), the Chief Financial Officer, the President Operations, Minerals Australia, the President Operations, Minerals Americas, and the President Operations, Petroleum. It does not include the Non-Executive Directors (our Board).

Functions

Functions operate along global reporting lines to provide support to all areas of the organisation. Functions have specific accountabilities and deep expertise in areas such as finance, legal, governance, technology, human resources, corporate affairs, health, safety and community.

Gearing ratio

The ratio of net debt to net debt plus net assets.

GHG (Greenhouse gas)

For BHP reporting purposes, these are the aggregate anthropogenic carbon dioxide equivalent emissions of carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆).

Group

BHP Group Limited, BHP Group Plc and their respective subsidiaries.

Henry Hub

A natural gas pipeline located in Erath, Louisiana that serves as the official delivery location for futures contracts on the New York Mercantile Exchange.

HPI (High potential injuries)

High potential injuries (HPI) are recordable injuries and first aid cases where there was the potential for a fatality.

IFRS (International Financial Reporting Standards)

Accounting standards as issued by the International Accounting Standards Board.

KMP (Key Management Personnel)

Persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly.

For BHP, KMP includes the Executive Director (our CEO), the Non-Executive Directors (our Board), as well as the Chief Financial Officer, the President Operations (Minerals Australia), the President Operations (Minerals Americas), and the President Operations (Petroleum).

KPI (Key performance indicator)

Used to measure the performance of the Group, individual businesses and executives in any one year.

LME (London Metal Exchange)

A major futures exchange for the trading of industrial metals.

Minerals Americas

A group of assets located in Brazil, Canada, Chile, Colombia, Peru and the United States (see 'Asset groups') focusing on copper, zinc, iron ore, energy coal and potash.

Minerals Australia

A group of assets located in Australia (see 'Asset groups'). Minerals Australia includes operations in Western Australia, Queensland, New South Wales and South Australia, focusing on iron ore, copper, metallurgical, and energy coal and nickel.

Non-operated asset/Non-operated joint venture (NOJV)

Non-operated assets/non-operated joint ventures include interests in assets that are owned as a joint venture but not operated by BHP. References in this Annual Report to a 'joint venture' are used for convenience to collectively describe assets that are not wholly owned by BHP. Such references are not intended to characterise the legal relationship between the owners of the asset.

Occupational illness

An illness that occurs as a consequence of work-related activities or exposure. It includes acute or chronic illnesses or diseases, which may be caused by inhalation, absorption, ingestion or direct contact.

OMC (Operations Management Committee)

Prior to FY2018, the Operations Management Committee had responsibility for planning, directing and controlling the activities of BHP under the authorities that have been delegated to it by the Board. This included key strategic, investment and operational decisions, and recommendations to the Board.

During FY2018 the OMC was dissolved and the Remuneration Committee re-examined the classification of KMP for FY2018 to determine which persons have the authority and responsibility for planning, directing and controlling the activities of BHP. After due consideration, the Remuneration Committee determined the KMP for FY2018 comprised of all Non-executive Directors (the Board), the Executive Director (the CEO), the Chief Financial Officer, the President Operations, Minerals Australia, the President Operations, Minerals Americas, and the President Operations, Petroleum. The Committee also determined that, effective 1 July 2017, the Chief External Affairs Officer and Chief People Officer roles are no longer considered KMP.

Onshore US

BHP's Petroleum asset in four US shale areas (Eagle Ford, Permian, Haynesville and Fayetteville), where we produce oil, condensate, gas and natural gas liquids.

Operated assets

Operated assets include assets that are wholly owned and operated by BHP and assets that are owned as a joint venture and operated by BHP. References in this Annual Report to a 'joint venture' are used for convenience to collectively describe assets that are not wholly owned by BHP. Such references are not intended to characterise the legal relationship between the owners of the asset.

Operating Model

The Operating Model outlines how BHP is organised, works and measures performance and includes mandatory performance requirements and common systems, processes and planning. The Operating Model has been simplified and BHP is organised by assets, asset groups, Commercial, and functions.

Operations

Open-cut mines, underground mines, onshore and offshore oil and gas production and processing facilities.

Our Requirements

The standards that give effect to the mandatory requirements arising from the BHP Operating Model as approved by the Executive Leadership Team (ELT). They describe the mandatory minimum performance requirements and accountabilities for definitive business obligations, processes, functions and activities across BHP.

Previously called Group Level Documents (GLDs), the *Our Requirements* standards reflect a simpler organisation with the purpose of being more user-friendly and easier to read.

Paris Agreement

The Paris Agreement is an agreement between countries party to the United Nations Framework Convention on Climate Change (UNFCCC) to strengthen efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so.

Petroleum (asset group)

A group of conventional and non-conventional oil and gas assets (see 'Asset groups'). Petroleum's core production operations are located in the US Gulf of Mexico, Australia and Trinidad and Tobago. Petroleum produces crude oil and condensate, gas and natural gas liquids.

Platts

Platts is a global provider of energy, petrochemicals, metals and agriculture information and a premier source of benchmark price assessments for those commodity markets.

Quoted

In the context of American Depository Shares (ADS) and listed investments, the term 'quoted' means 'traded' on the relevant exchange.

Scope 1 Greenhouse gas emissions

Scope 1 greenhouse gas emissions are direct emissions from operations that are owned or controlled by BHP, primarily emissions from fuel consumed by haul trucks at our operated assets, as well as fugitive methane emissions from coal and petroleum production at our operated assets.

Scope 2 Greenhouse gas emissions

Scope 2 greenhouse gas emissions are indirect emissions from the generation of purchased energy consumed by BHP, primarily emissions from electricity we buy from the grid for use at our operated assets.

Scope 3 Greenhouse gas emissions

Scope 3 greenhouse gas emissions are all other indirect emissions (not included in Scope 2) that occur in BHP's value chain, primarily emissions resulting from our customers using the fossil fuel commodities and processing the non-fossil fuel commodities we sell, as well as upstream emissions associated with the extraction, production and transportation of the goods, services, fuels and energy we purchase for use at our operations; emissions resulting from the transportation and distribution of our products; and operational emissions (on an equity basis) from our non-operated joint ventures.

SEC (United States Securities and Exchange Commission)

The US regulatory commission that aims to protect investors, maintain fair, orderly and efficient markets and facilitate capital formation.

Senior manager

An employee who has responsibility for planning, directing or controlling the activities of the entity or a strategically significant part of it. In the Strategic Report, senior manager includes senior leaders and any persons who are directors of any subsidiary company even if they are not senior leaders.

Shareplus

All-employee share purchase plan.

Social investment

Voluntary contributions to support communities through cash donations to community programs and associated administrative costs. BHP's targeted level of contribution is one per cent of pre-tax profit calculated on the average of the previous three years' pre-tax profit as reported.

South32

During FY2015, BHP demerged a selection of our alumina, aluminium, coal, manganese, nickel, silver, lead and zinc assets into a new company – South32 Limited.

Strate

South Africa's Central Securities Depositary for the electronic settlement of financial instruments.

TRIF (Total recordable injury frequency)

The sum of (fatalities + lost-time cases + restricted work cases + medical treatment cases) x 1,000,000 ÷ actual hours worked.

Stated in units of per million hours worked. BHP adopts the US Government Occupational Safety and Health Administration guidelines for the recording and reporting of occupational injury and illnesses. TRIF statistics exclude non-operated assets.

TSR (Total shareholder return)

TSR measures the return delivered to shareholders over a certain period through the movements in share price and dividends paid (which are assumed to be reinvested). It is the measure used to compare BHP's performance to that of other relevant companies under the Long-Term Incentive Plan.

UKLA (United Kingdom Listing Authority)

Term used when the UK Financial Conduct Authority (FCA) acts as the competent authority under Part VI of the UK Financial Services and Markets Act (FSMA).

Underlying attributable profit

Profit/(loss) after taxation attributable to BHP shareholders excluding any exceptional items attributable to BHP shareholders as described in note 3 'Exceptional items' in section 5. Refer to section 1.12 for further information.

Underlying EBIT

Underlying EBITDA, including depreciation, amortisation and impairments. Refer to section 1.12 for further information.

Underlying EBITDA

Earnings before net finance costs, depreciation, amortisation and impairments, taxation expense, Discontinued operations and exceptional items. Refer to section 1.12 for further information.

Unit costs

One of the financial measures BHP uses to monitor the performance of individual assets. Unit costs are calculated as revenue less Underlying EBITDA excluding third party. Conventional petroleum unit costs exclude inventory movements, freight, exploration and development and evaluation expense; WAIO, Queensland Coal and New South Wales Energy Coal unit costs exclude freight and royalties; Escondida unit costs exclude freight and by-product credits.

6.7.3 Terms used in reserves and resources

Ag	P
silver	phosphorous
Al₂O₃	Pc
alumina	phosphorous in concentrate
Anth	PCI
anthracite	pulverised coal injection
Ash	S
inorganic material remaining after combustion	sulphur
Au	SCu
gold	soluble copper
Cu	SiO₂
copper	silica
CV	TCu
calorific value	total copper
Fe	Th
iron	thermal coal
Insol.	U₃O₈
insolubles	uranium oxide
K₂O	VM
potassium oxide	volatile matter
KCl	Yield
potassium chloride	the percentage of material of interest that is extracted during mining and/or processing
LOI	Zn
loss on ignition	zinc
Met	
metallurgical coal	
MgO	
magnesium oxide	
Mo	
molybdenum	
Ni	
nickel	

6.7.4 Units of measure

%	ML
percentage or per cent	megalitre
bbl	mm
barrel (containing 42 US gallons)	millimetre
bbl/d	MMbbl/d
barrels per day	million barrels per day
Bcf	MMboe
billion cubic feet (measured at the pressure bases set by the regulator)	million barrels of oil equivalent
bcm	MMBtu
bank cubic metres	million British thermal units – 1 scf of natural gas equals approximately 1,010 Btu
boe	MMcf/d
barrels of oil equivalent – 6,000 scf of natural gas equals 1 boe	million cubic feet per day
dmt	MMcm/d
dry metric tonne	million cubic metres per day
dmtu	Mscf
dry metric tonne unit	thousand standard cubic feet
g/t	Mt
grams per tonne	million tonnes
ha	Mtpa
hectare	million tonnes per annum
kcal/kg	MW
kilocalories per kilogram	megawatt
kg/tonne or kg/t	oz
kilograms per tonne	ounce
km	ppm
kilometre	parts per million
kt	psi
kilotonnes	pounds per square inch
ktpa	scf
kilotonnes per annum	standard cubic feet
ktpd	t
kilotonnes per day	tonne
kV	TJ
kilovolt	terajoule
lb	TJ/d
pound	terajoules per day
m	tpa
metre	tonnes per annum
Mbbl/d	tpd
thousand barrels per day	tonnes per day
Mcf	t/h
thousand cubic feet (measured at the pressure bases set by the regulator)	tonnes per hour
	wmt
	wet metric tonnes

Section 7

Shareholder information



In this section

- 7.1 History and development
- 7.2 Markets
- 7.3 Organisational structure
- 7.4 Material contracts
- 7.5 Constitution
- 7.6 Share ownership
- 7.7 Dividends
- 7.8 American Depository Receipts fees and charges
- 7.9 Government regulations
- 7.10 Ancillary information for our shareholders

7.1 History and development

BHP Group Limited (formerly BHP Billiton Limited, then BHP Limited and, before that, The Broken Hill Proprietary Company Limited) was incorporated in 1885 and is registered in Australia with ABN 49 004 028 077. BHP Group Plc (formerly BHP Billiton Plc, and before that Billiton Plc) was incorporated in 1996 and is registered in England and Wales with registration number 3196209. Successive predecessor entities to BHP Group Plc have operated since 1860.

We have operated under a Dual Listed Company (DLC) structure since 29 June 2001. Under the DLC structure, the two parent companies, BHP Group Limited and BHP Group Plc, operate as a single economic entity, run by a unified Board and senior executive management team. For more information on the DLC structure, refer to section 7.3.

7.2 Markets

As at the date of this Annual Report, BHP Group Limited has a primary listing on the Australian Securities Exchange (ASX) (ticker BHP) in Australia and BHP Group Plc has a premium listing on the UK Financial Conduct Authority's Official List and its ordinary shares are admitted to trading on the London Stock Exchange (LSE) (ticker BHP). BHP Group Plc also has a secondary listing on the Johannesburg Stock Exchange (JSE) (ticker BHP) in South Africa.

In addition, BHP Group Limited and BHP Group Plc are listed on the New York Stock Exchange (NYSE) in the United States. Trading on the NYSE is via American Depository Receipts (ADRs) evidencing American Depositary Shares (ADSs), with each ADS representing two ordinary shares of BHP Group Limited or BHP Group Plc. Citibank N.A. (Citibank) is the Depository for both ADS programs. BHP Group Limited's ADSs have been listed for trading on the NYSE (ticker BHP) since 28 May 1987 and BHP Group Plc's since 25 June 2003 (ticker BBL).

7.3 Organisational structure

7.3.1 General

BHP consists of the BHP Group Limited and the BHP Group Plc, operating as a single unified economic entity, following the completion of the DLC merger in June 2001 (the DLC merger). For a full list of BHP Group Limited and BHP Group Plc subsidiaries, refer to section 5.2 note 13.

7.3.2 DLC structure

BHP shareholders approved the DLC merger in 2001, which was designed to place ordinary shareholders of both companies in a position where they have economic and voting interests in a single group.

The principles of the BHP DLC structure are reflected in the DLC Structure Sharing Agreement and include the following:

- The two companies must operate as if they are a single unified economic entity, through Boards of Directors that comprise the same individuals and a unified senior executive management team.
- The Directors of both companies will, in addition to their duties to the company concerned, have regard to the interests of the ordinary shareholders in the two companies as if the two companies were a single unified economic entity and, for that purpose, the Directors of each company take into account in the exercise of their powers the interests of the shareholders of the other.

- Certain DLC equalisation principles must be observed. These are designed to ensure that for so long as the Equalisation Ratio between a BHP Group Limited ordinary share and a BHP Group Plc ordinary share is 1:1, the economic and voting interests resulting from holding one BHP Group Limited ordinary share and one BHP Group Plc ordinary share are, so far as practicable, equivalent. For more information, refer to sub-section 'Equalisation of economic and voting rights' below.

Australian Foreign Investment Review Board conditions

The Treasurer of Australia approved the DLC merger subject to certain conditions, the effect of which was to require that, among other things, BHP Group Limited continues to:

- be an Australian company, which is headquartered in Australia;
- ultimately manage and control the companies that conducted the businesses that were conducted by its subsidiaries at the time of the DLC merger for as long as those businesses form part of BHP.

The conditions also require the global headquarters of BHP to be in Australia.

The conditions have effect indefinitely, subject to amendment of the Australian Foreign Acquisitions and Takeovers Act 1975 (FATA) or any revocation or amendment by the Treasurer of Australia. If BHP Group Limited no longer wishes to comply with these conditions, it must obtain the prior approval of the Treasurer. Failure to comply with the conditions results in substantial penalties under the FATA.

Equalisation of economic and voting rights

The economic and voting interests attached to each BHP Group Limited ordinary share relative to each BHP Group Plc ordinary share are determined by a ratio known as the Equalisation Ratio.

The Equalisation Ratio is currently 1:1, meaning one BHP Group Limited ordinary share currently has the same economic and voting interests as one BHP Group Plc ordinary share.

The Equalisation Ratio governs the proportions in which dividends and capital distributions are paid on the ordinary shares in each company relative to the other. Given the current Equalisation Ratio of 1:1, the amount of any cash dividend paid by BHP Group Limited on each BHP Group Limited ordinary share must be matched by an equivalent cash dividend by BHP Group Plc on each BHP Group Plc ordinary share, and vice versa. If one company is prohibited by applicable law or is otherwise unable to pay a matching dividend, the DLC Structure Sharing Agreement requires that BHP Group Limited and BHP Group Plc will, as far as practicable, enter into such transactions with each other as their Boards agree to be necessary or desirable to enable both companies to pay matching dividends at the same time. These transactions may include BHP Group Limited or BHP Group Plc making a payment to the other company or paying a dividend on the DLC Dividend Share held by the other company (or a subsidiary of it). The DLC Dividend Share may be used to ensure that the need to trigger the matching dividend mechanism does not arise. BHP Group Limited issued a DLC Dividend Share on 23 February 2016. No DLC Dividend Share has been issued by BHP Group Plc.



For more information on the DLC Dividend Share, refer to the following 'DLC Dividend Share' section and section 7.5.

7.3.2 DLC Structure continued

The Equalisation Ratio may be adjusted to maintain economic equivalence between an ordinary share in each of the two companies where, broadly speaking (and subject to certain exceptions):

- a distribution or action affecting the amount or nature of issued share capital is proposed by one of BHP Group Limited and BHP Group Plc and that distribution or action would result in the ratio of economic returns on, or voting rights in relation to Joint Electorate Actions (see below) of, a BHP Group Limited ordinary share to a BHP Group Plc ordinary share not being the same, or would benefit the holders of ordinary shares in one company relative to the holders of ordinary shares in the other company;
- no 'matching action' is taken by the other company. A matching action is a distribution or action affecting the amount or nature of issued share capital in relation to the holders of ordinary shares in the other company, which ensures that the economic and voting rights of a BHP Group Limited ordinary share and BHP Group Plc ordinary share are maintained in proportion to the Equalisation Ratio.

For example, an adjustment would be required if there were to be a capital issue or distribution by one company to its ordinary shareholders that does not give equivalent value (before tax) on a per share basis to the ordinary shareholders of the other company and no matching action was undertaken. Since the establishment of the DLC structure in 2001, no adjustment to the Equalisation Ratio has ever been made.

DLC Dividend Share

Each of BHP Group Limited and BHP Group Plc is authorised to issue a DLC Dividend Share to the other company or a wholly owned subsidiary of it. In effect, only that other company or a wholly owned subsidiary of it may be the holder of the share. The share is redeemable.

The holder of the share is entitled to be paid such dividends as the Board may decide to pay on that DLC Dividend Share provided that:

- the amount of the dividend does not exceed the cap mentioned below;
- the Board of the issuing company in good faith considers paying the dividend to be in furtherance of any of the DLC principles, including the principle of BHP Group Limited and BHP Group Plc operating as a single unified economic entity.

The amounts that may be paid as dividends on a DLC Dividend Share are capped. Broadly speaking, the cap is the total amount of the preceding ordinary cash dividend (whether interim or final) paid on BHP Group Limited ordinary shares or BHP Group Plc ordinary shares, whichever is greater. The cap will not apply to any dividend paid on a DLC Dividend Share if the proceeds of that dividend are to be used to pay a special cash dividend on ordinary shares.

A DLC Dividend Share otherwise has limited rights and does not carry a right to vote. DLC Dividend Shares cannot be used to transfer funds outside of BHP as the terms of issue contain structural safeguards to ensure that a DLC Dividend Share may only be used to pay dividends within the Group.



For more information on the rights attaching to and terms of DLC Dividend Shares, refer to section 7.5, the Constitution of BHP Group Limited and the Articles of Association of BHP Group Plc.

Joint Electorate Actions

Under the terms of the DLC agreements, BHP Group Limited and BHP Group Plc have implemented special voting arrangements so that the ordinary shareholders of both companies vote together as a single decision-making body on matters that affect the ordinary shareholders of each company in similar ways. These are referred to as Joint Electorate Actions. For so long as the Equalisation Ratio remains 1:1, each BHP Group Limited ordinary share will effectively have the same voting rights as each BHP Group Plc ordinary share on Joint Electorate Actions.

A Joint Electorate Action requires approval by ordinary resolution (or special resolution if required by statute, regulation, applicable listing rules or other applicable requirements) of BHP Group Limited and BHP Group Plc. In the case of BHP Group Limited, both the BHP Group Limited ordinary shareholders and the holder of the BHP Group Limited Special Voting Share vote as a single class and, in the case of BHP Group Plc, the BHP Group Plc ordinary shareholders and the holder of the BHP Group Plc Special Voting Share vote as a single class.

Class Rights Actions

Matters on which ordinary shareholders of BHP Group Limited may have divergent interests from the ordinary shareholders of BHP Group Plc are referred to as Class Rights Actions. The company wishing to carry out the Class Rights Action requires the prior approval of the ordinary shareholders in the other company voting separately and, where appropriate, the approval of its own ordinary shareholders voting separately. Depending on the type of Class Rights Action undertaken, the approval required is either an ordinary or special resolution of the relevant company.

The Joint Electorate Action and Class Rights Action voting arrangements are secured through the constitutional documents of the two companies, the DLC Structure Sharing Agreement, the BHP Special Voting Shares Deed and rights attaching to a specially created Special Voting Share issued by each company and held in each case by a special voting company. The shares in the special voting companies are held legally and beneficially by Law Debenture Trust Corporation Plc.

Cross guarantees

BHP Group Limited and BHP Group Plc have each executed a Deed Poll Guarantee in favour of the creditors of the other company. Under the Deed Poll Guarantees, each company has guaranteed certain contractual obligations of the other company. This means that creditors entitled to the benefit of the BHP Group Limited Deed Poll Guarantee and the BHP Group Plc Deed Poll Guarantee will, to the extent possible, be placed in the same position as if the relevant debts were owed by both BHP Group Limited and BHP Group Plc on a combined basis.

Restrictions on takeovers of one company only

The BHP Group Limited Constitution and the BHP Group Plc Articles of Association have been drafted to ensure that, except with the consent of the Board, a person cannot gain control of one company without having made an equivalent offer to the ordinary shareholders of both companies on equivalent terms. Sanctions for breach of these provisions would include withholding of dividends, voting restrictions and the compulsory divestment of shares to the extent a shareholder and its associates exceed the relevant threshold.

7.4 Material contracts

DLC structure agreements

BHP Group Limited (then known as BHP Limited) and BHP Group Plc (then known as Billiton Plc) merged by way of a DLC structure on 29 June 2001. To effect the DLC structure, BHP Limited and Billiton Plc (as they were then known) entered into the following contractual agreements:

- BHP Billiton DLC Structure Sharing Agreement
- BHP Billiton Special Voting Shares Deed
- BHP Billiton Limited Deed Poll Guarantee
- BHP Billiton Plc Deed Poll Guarantee



For information on the effect of each of these agreements, refer to section 7.3.

Framework Agreement

On 2 March 2016, BHP Billiton Brasil together with Vale and Samarco, entered into a Framework Agreement with the Federal Government of Brazil, states of Espírito Santo and Minas Gerais and certain other authorities to establish a foundation (Fundação Renova) that will develop and execute environmental and socio-economic programs to remediate and provide compensation for damage caused by the Samarco dam failure. For a description of the terms of the Framework Agreement, refer to section 6.6.

7.5 Constitution

This section sets out a summary of the Constitution of BHP Group Limited and the Articles of Association of BHP Group Plc. Where the term 'BHP' is used in this section, it can mean either BHP Group Limited or BHP Group Plc.

Provisions of the Constitution of BHP Group Limited and the Articles of Association of BHP Group Plc can be amended only where such amendment is approved by special resolution either:

- by approval as a Class Rights Action, where the amendment results in a change to an 'Entrenched Provision'; or
- otherwise, as a Joint Electorate Action.

In 2015, shareholders approved a number of amendments to our constitutional documents to amend the terms of the Equalisation Shares (which were renamed as DLC Dividend Shares) and to facilitate the more streamlined conduct of simultaneous general meetings.



For a description of Joint Electorate Actions and Class Rights Actions, refer to section 7.3.2.

7.5.1 Directors

The Board may exercise all powers of BHP, other than those that are reserved for BHP shareholders to exercise in a general meeting.

7.5.2 Power to issue securities

Under the Constitution and Articles of Association, the Board of Directors has the power to issue any BHP shares or other securities (including redeemable shares) with preferred, deferred or other special rights, obligations or restrictions. The Board may issue shares on any terms it considers appropriate, provided that:

- the issue does not affect any special rights of shareholders;
- if required, the issue is approved by shareholders;
- if the issue is of a class other than ordinary shares, the rights attaching to the class are expressed at the date of issue.

7.5.3 Restrictions on voting by Directors

A Director may not vote in respect of any contract or arrangement or any other proposal in which they have a material personal interest except in certain prescribed circumstances, including (subject to applicable laws) where the material personal interest:

- arises because the Director is a shareholder of BHP and is held in common with the other shareholders of BHP;
- arises in relation to the Director's remuneration as a Director of BHP;
- relates to a contract BHP is proposing to enter into that is subject to approval by the shareholders and will not impose any obligation on BHP if it is not approved by the shareholders;
- arises merely because the Director is a guarantor or has given an indemnity or security for all or part of a loan, or proposed loan, to BHP;
- arises merely because the Director has a right of subrogation in relation to a guarantee or indemnity referred to above;
- relates to a contract that insures, or would insure, the Director against liabilities the Director incurs as an officer of BHP, but only if the contract does not make BHP or a related body corporate the insurer;
- relates to any payment by BHP or a related body corporate in respect of an indemnity permitted by law, or any contract relating to such an indemnity; or
- is in a contract, or proposed contract with, or for the benefit of, or on behalf of, a related body corporate and arises merely because the Director is a director of a related body corporate.

If a Director has a material personal interest and is not entitled to vote on a proposal, they will not be counted in the quorum for any vote on a resolution concerning the material personal interest.

In addition, under the UK Companies Act 2006, a Director has a duty to avoid conflicts of interest between their interests and the interests of the company. The duty is not breached if, among other things, the conflict of interest is authorised by non-interested Directors. The Articles of Association of BHP Group Plc enable the Board to authorise a matter that might otherwise involve a Director breaching their duty to avoid conflicts of interest. An interested Director may not vote or be counted towards a quorum for a resolution authorising a conflict of interest. Where the Board authorises a conflict of interest, the Board may prohibit the relevant Director from voting on any matter relating to the conflict. The Board has adopted procedures to manage these voting restrictions.

7.5.4 Loans by Directors

Any Director may lend money to BHP at interest with or without security or may, for a commission or profit, guarantee the repayment of any money borrowed by BHP and underwrite or guarantee the subscription of shares or securities of BHP or of any corporation in which BHP may be interested without being disqualified as a Director and without being liable to account to BHP for any commission or profit.

7.5.5 Appointment and retirement of Directors

Appointment of Directors

The Constitution and Articles of Association provide that a person may be appointed as a Director of BHP by the existing Directors of BHP or may be elected by the shareholders in a general meeting.

Any person appointed as a Director of BHP by the existing Directors will hold office only until the next general meeting that includes an election of Directors.

A person may be nominated by shareholders as a Director of BHP if:

- a shareholder provides a valid written notice of the nomination;
- the person nominated by the shareholder satisfies candidature for the office and consents in writing to his or her nomination as a Director,

in each case, at least 40 business days before the earlier of the date of the general meeting of BHP Group Plc and the corresponding general meeting of BHP Group Limited. The person nominated as a Director may be elected to the Board by ordinary resolution passed in a general meeting.

Under the Articles of Association, if a person is validly nominated for election as a Director at a general meeting of BHP Group Limited, the Directors of BHP Group Plc must nominate that person as a Director at the corresponding general meeting of BHP Group Plc. An equivalent requirement is included in the Constitution, which requires any person validly nominated for election as a Director of BHP Group Plc to be nominated as a Director of BHP Group Limited.

Retirement of Directors

The Board has a policy consistent with the UK Corporate Governance Code under which all Directors must, if they wish to remain on the Board, seek re-election by shareholders annually. This policy took effect from the 2011 Annual General Meetings (AGMs) and replaced the previous system that required Directors to submit themselves to shareholders for re-election at least every three years.

A Director may be removed by BHP in accordance with applicable law and must vacate his or her office as a Director in certain circumstances set out in the Constitution and Articles of Association. There is no requirement for a Director to retire on reaching a certain age.

7.5.6 Rights attaching to shares

Dividend rights

Under English law, dividends on shares may only be paid out of profits available for distribution. Under Australian law, dividends on shares may be paid only if the company's assets exceed its liabilities immediately before the dividend is determined and the excess is sufficient for payment of the dividend, the payment of the dividend is fair and reasonable to the company's shareholders as a whole and the payment of the dividend does not materially prejudice the company's ability to pay its creditors.

The Constitution and Articles of Association provide that payment of any dividend may be made in any manner, by any means and in any currency determined by the Board.

All unclaimed dividends may be invested or otherwise used by the Board for the benefit of whichever of BHP Group Limited or BHP Group Plc determined that dividend, until claimed or, in the case of BHP Group Limited, otherwise disposed of according to law. BHP Group Limited is governed by the Victorian unclaimed monies legislation, which requires BHP Group Limited to pay to the State Revenue Office any unclaimed dividend payments of A\$20 or more that have remained unclaimed for over 12 months.

In the case of BHP Group Plc, any dividend unclaimed after a period of 12 years from the date the dividend was determined or became due for payment will be forfeited and returned to BHP Group Plc.

Voting rights

Voting at any general meeting of BHP shareholders can, in the first instance, be conducted by a show of hands unless a poll is demanded in accordance with the Constitution or Articles of Association (as applicable) or is otherwise required (as outlined below).

Generally, matters considered by shareholders at an AGM of BHP Group Limited or BHP Group Plc constitute Joint Electorate Actions or Class Rights Actions and must be decided on a poll and in the manner described under the headings 'Joint Electorate Actions' and 'Class Rights Actions' in section 7.3.2. This means that, in practice, most items of business at AGMs are decided by way of a poll.

In addition, at any general meeting a resolution, other than a procedural resolution, put to the vote of the meeting on which the holder of the relevant BHP Special Voting Share is entitled to vote must be decided on a poll.

For the purposes of determining which shareholders are entitled to attend or vote at a meeting of BHP Group Plc or BHP Group Limited, and how many votes such shareholder may cast, the Notice of Meeting will specify when a shareholder must be entered on the Register of Shareholders in order to have the right to attend or vote at the meeting. The specified time must be not more than 48 hours before the time of the meeting.

Shareholders who wish to appoint a proxy to attend, vote or speak at a meeting of BHP Group Plc or BHP Group Limited (as appropriate) on their behalf must deposit the relevant form appointing a proxy so that it is received by that company not less than 48 hours before the time of the meeting.

Rights to share in BHP Group Limited's profits

The rights attached to the ordinary shares of BHP Group Limited, as regards the participation in the profits available for distribution, are as follows:

- The holders of any preference shares will be entitled, in priority to any payment of dividend to the holders of any other class of shares, to a preferred right to participate as regards dividends up to but not beyond a specified amount in distribution.
- Subject to the special rights attaching to any preference shares, but in priority to any payment of dividends on all other classes of shares, the holder of the DLC Dividend Share (if any) will be entitled to be paid such non-cumulative dividends as the Board may, subject to the cap referred to in section 7.3 and the DLC Dividend Share being held by BHP Group Plc or a wholly owned member of its group, decide to pay on that DLC Dividend Share.
- Any surplus remaining after payment of the distributions above will be payable to the holders of BHP Group Limited ordinary shares and the BHP Group Limited Special Voting Share in equal amounts per share.

Rights to share in BHP Group Plc's profits

The rights attached to the ordinary shares of BHP Group Plc, in relation to the participation in the profits available for distribution, are as follows:

- The holders of the cumulative preference shares will be entitled, in priority to any payment of dividend to the holders of any other class of shares, to be paid a fixed cumulative preferential dividend (Preferential Dividend) at a rate of 5.5 per cent per annum, to be paid annually in arrears on 31 July in each year or, if any such date will be a Saturday, Sunday or public holiday in England, on the first business day following such date in each year. Payments of Preferential Dividends will be made to holders on the register at any date selected by the Directors up to 42 days prior to the relevant fixed dividend date.
- Subject to the rights attaching to the cumulative preference shares, but in priority to any payment of dividends on all other classes of shares, the holder of the BHP Group Plc Special Voting Share will be entitled to be paid a fixed dividend of US\$0.01 per annum, payable annually in arrears on 31 July.
- Subject to the rights attaching to the cumulative preference shares and the BHP Group Plc Special Voting Share, but in priority to any payment of dividends on all other classes of shares, the holder of the DLC Dividend Share will be entitled to be paid such non-cumulative dividends as the Board may, subject to the cap referred to in section 7.3 of this Annual Report and the DLC Dividend Share being held by BHP Group Limited or a wholly owned member of its group, decide to pay on that DLC Dividend Share.
- Any surplus remaining after payment of the distributions above will be payable to the holders of the BHP Group Plc ordinary shares in equal amounts per BHP Group Plc ordinary share.

DLC Dividend Share

As set out in section 7.3.2, each of BHP Group Limited and BHP Group Plc is authorised to issue a DLC Dividend Share to the other company or a wholly owned subsidiary of it.

The dividend rights attaching to a DLC Dividend Share are described above and in section 7.3. The DLC Dividend Share issued by BHP Group Limited (BHP Group Limited DLC Dividend Share) and the DLC Dividend Share that may be issued by BHP Group Plc (BHP Group Plc DLC Dividend Share) have no voting rights and, as set out in section 7.5.7 below, very limited rights to a return of capital on a winding-up. A DLC Dividend Share may be redeemed at any time, and must be redeemed if a person other than:

- in the case of the BHP Group Limited DLC Dividend Share, BHP Group Plc or a wholly owned member of its group;
- in the case of the BHP Group Plc DLC Dividend Share, BHP Group Limited or a wholly owned member of its group, becomes the beneficial owner of the DLC Dividend Share.

7.5.7 Rights on return of assets on liquidation

Under the DLC structure, special provisions designed to ensure that, as far as practicable, the holders of ordinary shares in BHP Group Limited and holders of ordinary shares in BHP Group Plc are treated equitably having regard to the Equalisation Ratio, which would apply in the event of an insolvency of either or both companies.

On a return of assets on liquidation of BHP Group Limited, the assets of BHP Group Limited remaining available for distribution among shareholders after the payment of all prior ranking amounts owed to all creditors and holders of preference shares, and to all prior ranking statutory entitlements, are to be applied subject to the special provisions referred to above in paying to the holders of the BHP Group Limited Special Voting Share and the DLC Dividend Share of an amount of up to A\$2.00 on each such share, on an equal priority with any amount paid to the holders of BHP Group Limited ordinary shares, and any surplus remaining is to be applied in making payments solely to the holders of BHP Group Limited ordinary shares in accordance with their entitlements.

On a return of assets on liquidation of BHP Group Plc, subject to the payment of all amounts payable under the special provisions referred to earlier, prior ranking amounts owed to the creditors of BHP Group Plc and to all prior ranking statutory entitlements, the assets of BHP Group Plc to be distributed on a winding-up are to be distributed to the holders of shares in the following order of priority:

- To the holders of the cumulative preference shares, the repayment of a sum equal to the nominal capital paid up or credited as paid up on the cumulative preference shares held by them and any accrued Preferential Dividend, whether or not such dividend has been earned or declared, calculated up to the date of commencement of the winding-up.
- To the holders of the BHP Group Plc ordinary shares and to the holders of the BHP Group Plc Special Voting Share and the DLC Dividend Share, the payment out of surplus, if any, remaining after the distribution above of an equal amount for each BHP Group Plc ordinary share, the BHP Group Plc Special Voting Share and the DLC Dividend Share subject to a maximum in the case of the BHP Group Plc Special Voting Share and the DLC Dividend Share of the nominal capital paid up on such shares.

7.5.8 Redemption of preference shares

If BHP Group Limited at any time proposes to create and issue any preference shares, the terms of the preference shares may give either or both BHP Group Limited and the holder the right to redeem the preference shares.

The preference shares terms may also give the holder the right to convert the preference shares into ordinary shares.

Under the Constitution, the preference shares must give the holders:

- the right (on redemption and on a winding-up) to payment in cash in priority to any other class of shares of (i) the amount paid or agreed to be considered as paid on each of the preference shares; and (ii) the amount, if any, equal to the aggregate of any dividends accrued but unpaid and of any arrears of dividends;
- the right, in priority to any payment of dividend on any other class of shares, to the preferential dividend.

There is no equivalent provision in the Articles of Association of BHP Group Plc, although as noted in section 7.5.2, BHP can issue preference shares that are subject to a right of redemption on terms the Board considers appropriate.

7.5.9 Capital calls

Subject to the terms on which any shares may have been issued, the Board may make calls on the shareholders in respect of all monies unpaid on their shares. BHP has a lien on every partly paid share for all amounts payable in respect of that share. Each shareholder is liable to pay the amount of each call in the manner, at the time and at the place specified by the Board (subject to receiving at least 14 days' notice specifying the time and place for payment). A call is considered to have been made at the time when the resolution of the Board authorising the call was passed.

7.5.10 Borrowing powers

Subject to relevant law, the Directors may exercise all powers of BHP to borrow money, and to mortgage or charge its undertaking, property, assets (both present and future) and all uncalled capital or any part or parts thereof and to issue debentures and other securities, whether outright or as collateral security for any debt, liability or obligation of BHP or of any third party.

Rights attached to any class of shares issued by either BHP Group Limited or BHP Group Plc can only be varied (whether as a Joint Electorate Action or a Class Rights Action) where such variation is approved by:

- the company that issued the relevant shares, as a special resolution;
- the holders of the issued shares of the affected class, either by a special resolution passed at a separate meeting of the holders of the issued shares of the class affected, or with the written consent of members with at least 75 per cent of the votes of that class.

7.5.11 Conditions governing general meetings

The Board may, and must on requisition in accordance with applicable laws, call a general meeting of the shareholders at the time and place or places and in the manner determined by the Board. No shareholder may convene a general meeting of BHP except where entitled under law to do so. Any Director may convene a general meeting whenever the Director thinks fit. General meetings can also be cancelled, postponed or adjourned, where permitted by law or the Constitution or Articles of Association. Notice of a general meeting must be given to each shareholder entitled to vote at the meeting and such notice of meeting must be given in the form and manner in which the Board thinks fit. Five shareholders of the relevant company present in person or by proxy constitute a quorum for a meeting. A shareholder who is entitled to attend and cast a vote at a general meeting of BHP may appoint a person as a proxy to attend and vote for the shareholder in accordance with applicable law. All provisions relating to general meetings apply with any necessary modifications to any special meeting of any class of shareholders that may be held.

7.5.12 Limitations of rights to own securities

There are no limitations under the Constitution or the Articles of Association restricting the right to own BHP shares other than restrictions that reflect the takeovers codes under relevant Australian and English law. In addition, the Australian Foreign Acquisitions and Takeovers Act 1975 imposes a number of conditions that restrict foreign ownership of Australian-based companies.



For information on share control limits imposed by the Constitution and the Articles of Association, as well as relevant laws, refer to sections 7.9 and 7.3.2.

7.5.13 Documents on display

Documents filed by BHP Group Limited on the Australian Securities Exchange (ASX) are available at asx.com.au and documents filed on the London Stock Exchange (LSE) by BHP Group Plc are available at morningstar.co.uk/uk/NSM. Documents filed on the ASX, or on the LSE are not incorporated by reference into this Annual Report. The documents referred to in this Annual Report as being available on our website, bhp.com, are not incorporated by reference and do not form part of this Annual Report.

BHP Group Limited and BHP Group Plc both file Annual Reports and other reports and information with the US Securities and Exchange Commission (SEC). These filings are available on the SEC website at sec.gov.

7.6 Share ownership

Share capital

The details of the share capital for both BHP Group Limited and BHP Group Plc are presented in note 15 ‘Share capital’ in section 5 and remain current as at 23 August 2019.

Major shareholders

The tables in section 3.3.20 and the information set out in section 4.18 present information pertaining to the shares in BHP Group Limited and BHP Group Plc held by Directors and members of the Key Management Personnel (KMP).

Neither BHP Group Limited nor BHP Group Plc is directly or indirectly controlled by another corporation or by any government. Other than as described in section 7.3.2, no major shareholder possesses voting rights that differ from those attaching to all of BHP Group Limited and BHP Group Plc’s voting securities.

Substantial shareholders in BHP Group Limited

The following table shows holdings of 5 per cent or more of voting rights in BHP Group Limited’s shares as notified to BHP Group Limited under the Australian Corporations Act 2001, Section 671B as at 30 June 2019.⁽¹⁾

Title of class	Identity of person or group	Date of last notice			Percentage of total voting rights ⁽²⁾		
		Date received	Date of change	Number owned	2019	2018	2017
Ordinary shares	BlackRock Group	19 December 2016	15 December 2016	160,784,672	5.46%	5.00%	5.00%

(1) No changes in the holdings of 5 per cent or more of the voting rights in BHP Group Limited’s shares have been notified to BHP Group Limited between 1 July 2019 and 23 August 2019.

(2) The percentages quoted are based on the total voting rights conferred by ordinary shares in BHP Group Limited as at 23 August 2019 of 2,945,851,394.

Substantial shareholders in BHP Group Plc

The following table shows holdings of 3 per cent or more of voting rights conferred by BHP Group Plc’s ordinary shares as notified to BHP Group Plc under the UK Disclosure and Transparency Rule 5 as at 30 June 2019.⁽¹⁾

Title of class	Identity of person or group	Date of last notice			Percentage of total voting rights ⁽²⁾		
		Date received	Date of change	Number owned	2019	2018	2017
Ordinary shares	Aberdeen Asset Managers Limited	8 October 2015	7 October 2015	103,108,283	4.88%	4.88%	4.88%
Ordinary shares	BlackRock, Inc.	3 December 2009	1 December 2009	213,014,043	10.08%	10.08%	10.08%
Ordinary shares	Elliott Capital Advisors, L.P. ⁽³⁾	3 February 2018	1 February 2018	115,183,724	5.45%	5.45%	5.04%
Ordinary shares	Norges Bank	20 February 2019	19 February 2019	64,753,649	3.07%	-	-

(1) No changes in the holdings of 3 per cent or more of the voting rights in BHP Group Plc’s shares notified to BHP Group Plc between 1 July 2019 and 23 August 2019.

(2) The percentages quoted are based on the total voting rights conferred by ordinary shares in BHP Group Plc as at 23 August 2019 of 2,112,071,796.

(3) Holding is made up of 4.65 per cent ordinary shares and 0.80 per cent by financial instruments.

Twenty largest shareholders as at 23 August 2019 (as named on the Register of Shareholders)⁽¹⁾

BHP Group Limited	Number of fully paid shares	% of issued capital
1. HSBC Custody Nominees (Australia) Limited	696,525,894	23.64
2. J P Morgan Nominees Australia Pty Limited	505,431,943	17.16
3. Citicorp Nominees Pty Ltd	149,846,097	5.09
4. Citicorp Nominees Pty Limited <Citibank NY ADR DEP A/C>	149,653,998	5.08
5. National Nominees Limited	102,921,248	3.49
6. BNP Paribas Nominees Pty Ltd <Agency Lending DRP A/C>	70,188,694	2.38
7. BNP Paribas Noms Pty Ltd <DRP>	28,029,996	0.95
8. Citicorp Nominees Pty Limited <Colonial First State INV A/C>	27,997,279	0.95
9. HSBC Custody Nominees (Australia) Limited <NT-Commonwealth Super Corp A/C>	20,238,305	0.69
10. Computershare Nominees CI Ltd <ASX Shareplus Control A/C>	15,248,848	0.52
11. Australian Foundation Investment Company Limited	13,413,159	0.46
12. AMP Life Limited	8,320,146	0.28
13. HSBC Custody Nominees (Australia) Limited <Euroclear Bank SA NV A/C>	8,101,034	0.27
14. Argo Investments Limited	7,406,304	0.25
15. HSBC Custody Nominees (Australia) Limited	7,402,439	0.25
16. HSBC Custody Nominees (Australia) Limited-GSCO ECA	6,456,673	0.22
17. Netwealth Investments Limited <Wrap Services A/C>	5,144,844	0.17
18. Solium Nominees (Australia) Pty Ltd <VSA A/C>	5,057,527	0.17
19. Milton Corporation Limited	4,288,921	0.15
20. HSBC Custody Nominees (Australia) Limited – A/C 2	3,832,347	0.13
	1,835,505,696	62.31

BHP Group Plc	Number of fully paid shares	% of issued capital
1. PLC Nominees (Proprietary) Limited ⁽²⁾	283,125,532	13.41
2. State Street Nominees Limited <OM02>	142,600,568	6.75
3. National City Nominees Limited	113,078,903	5.35
4. Chase Nominees Limited	103,013,309	4.88
5. The Bank of New York (Nominees) Limited	87,150,571	4.13
6. Vidacos Nominees Limited <13559>	65,613,350	3.11
7. State Street Nominees Limited <OM04>	49,448,257	2.34
8. Nortrust Nominees Limited	42,734,802	2.02
9. Government Employees Pension Fund – PIC	36,172,491	1.71
10. Chase Nominees Limited <BBHLEND>	34,378,755	1.63
11. Hanover Nominees Limited <UBS03>	32,924,725	1.56
12. Hanover Nominees Limited <JPM17>	32,305,273	1.53
13. State Street Nominees Limited <OD64>	29,947,828	1.42
14. Vidacos Nominees Limited <CLRLUX2>	29,876,776	1.41
15. Industrial Development Corporation of South Africa	23,537,693	1.11
16. HSBC Global Custody Nominee (UK) Limited <357206>	23,041,488	1.09
17. Lynchwood Nominees Limited <2006420>	22,504,189	1.07
18. Chase Nominees Limited <ELUCIT>	20,748,128	0.98
19. Nutracos Nominees Limited <781221>	19,541,800	0.93
20. Nortrust Nominees Limited <SLEND>	19,389,241	0.92
	1,211,133,679	57.35

(1) Many of the 20 largest shareholders shown for BHP Group Limited and BHP Group Plc hold shares as a nominee or custodian. In accordance with the reporting requirements, the tables reflect the legal ownership of shares and not the details of the underlying beneficial holders.

(2) The largest holder on the South African register of BHP Group Plc is the State nominee in which the majority of shares in South Africa (including some of the shareholders included in this list) are held in dematerialised form.

US share ownership as at 23 August 2019

	BHP Group Limited				BHP Group Plc			
	Number of shareholders	%	Number of shares	%	Number of shareholders	%	Number of shares	%
Classification of holder								
Registered holders of voting securities	1,569	0.31	3,849,670	0.13	77	0.52	97,751	0.01
ADR holders	1,541	0.30	148,315,626 ⁽¹⁾	5.03	191	1.30	113,078,902 ⁽²⁾	5.35

(1) These shares translate to 74,157,813ADRs.

(2) These shares translate to 56,539,451ADRs.

Geographical distribution of shareholders and shareholdings as at 23 August 2019

	BHP Group Limited				BHP Group Plc			
	Number of shareholders	%	Number of shares	%	Number of shareholders	%	Number of shares	%
Registered address								
Australia	494,756	96.60	2,889,109,284	98.07	1,529	10.38	2,027,134	0.09
New Zealand	9,506	1.86	21,786,810	0.74	31	0.21	48,586	0.01
United Kingdom	2,613	0.51	7,083,145	0.24	9,968	67.68	1,807,028,803	85.55
United States	1,569	0.31	3,849,670	0.13	77	0.52	97,751	0.01
South Africa	112	0.02	242,427	0.01	2,038	13.84	300,017,550	14.20
Other	3,637	0.70	23,780,058	0.81	1,086	7.37	2,851,972	0.14
Total	512,193	100.00	2,945,851,394	100.00	14,729	100.00	2,112,071,796	100.00

Distribution of shareholdings by size as at 23 August 2019

	BHP Group Limited				BHP Group Plc			
	Number of shareholders	%	Number of shares ⁽¹⁾	%	Number of shareholders	%	Number of shares ⁽¹⁾	%
Size of holding								
1 – 500 ⁽²⁾	224,117	43.76	49,924,453	1.69	7,805	52.99	1,602,338	0.08
501 – 1,000	98,935	19.32	75,872,633	2.58	2,545	17.28	1,871,715	0.09
1,001 – 5,000	148,391	28.97	332,264,482	11.28	2,549	17.31	5,137,813	0.24
5,001 – 10,000	23,896	4.67	168,844,054	5.73	363	2.46	2,580,765	0.12
10,001 – 25,000	12,663	2.47	190,344,546	6.46	353	2.40	5,769,986	0.27
25,001 – 50,000	2,750	0.54	93,470,093	3.17	221	1.50	8,117,167	0.38
50,001 – 100,000	929	0.18	63,488,321	2.17	211	1.43	15,473,078	0.73
100,001 – 250,000	373	0.07	52,823,350	1.79	242	1.64	38,955,495	1.85
250,001 – 500,000	77	0.01	26,239,996	0.89	122	0.83	44,406,501	2.10
500,001 – 1,000,000	19	0.00	13,634,490	0.46	113	0.77	82,536,133	3.91
1,000,001 and over	43	0.01	1,878,944,976	63.78	205	1.39	1,905,620,805	90.23
Total	512,193	100.00	2,945,851,394	100.00	14,729	100.00	2,112,071,796	100.00

(1) One ordinary share entitles the holder to one vote.

(2) The number of BHP Group Limited shareholders holding less than a marketable parcel (A\$500) based on the market price of A\$35.42 as at 23 August 2019 was 5,712.

	BHP Group Limited				BHP Group Plc			
	Number of shareholders	%	Number of shares	%	Number of shareholders	%	Number of shares	%
Classification of holder								
Corporate	147,355	28.77	2,122,333,644	72.04	5,421	36.80	2,103,437,640	99.59
Private	364,838	71.23	823,517,750	27.96	9,308	63.20	8,634,156	0.41
Total	512,193	100.00	2,945,851,394	100.00	14,729	100.00	2,112,071,796	100.00

7.7 Dividends

Policy

The Group adopted a dividend policy in February 2016 that provides for a minimum 50 per cent payout of Underlying attributable profit at every reporting period. For information on Underlying attributable profit for FY2019, refer to section 1.12.1.

The Board will assess, at every reporting period, the ability to pay amounts additional to the minimum payment, in accordance with the Capital Allocation Framework, as described in section 1.4.3.

In FY2019, we determined our dividends and other distributions in US dollars as it is our main functional currency. BHP Group Limited paid its dividends in Australian dollars, UK pounds sterling, New Zealand dollars and US dollars. BHP Group Plc paid its dividends in UK pounds sterling (or US dollars, if elected) to shareholders registered on its principal register in the United Kingdom and in South African rand to shareholders registered on its branch register in South Africa.

Currency conversions were based on the foreign currency exchange rates on the dividend reinvestment election date, except for the conversion into South African rand, which takes place one week before the record date. Aligning the currency conversion date with the dividend reinvestment election date (for all currencies except the conversion into South African rand) enables a high level of certainty around the currency required to pay the dividend. This helps to reduce the Group's exposure to movements in exchange rates since the number of shares on which dividends are payable (and the elected currency) is final at close of business on the dividend reinvestment election date. BHP paid a special dividend in FY2019 where the dividend reinvestment plan was not offered to shareholders, currency conversions were based on the foreign currency exchange rates on the record date, except for the conversion into South African rand, which took place a week before the record date.

Aligning the final date to receive currency elections (currency election date) with the dividend reinvestment election date further simplifies the process.

Payments

BHP Group Limited shareholders may currently have their cash dividends paid directly into their bank account in Australian dollars, UK pounds sterling, New Zealand dollars or US dollars, provided they have submitted direct credit details and if required, a valid currency election nominating a financial institution to the BHP Share Registrar in Australia no later than close of business on the dividend reinvestment election date. BHP Group Limited shareholders who do not provide their direct credit details will receive dividend payments by way of a cheque in Australian dollars.

BHP Group Plc shareholders on the UK register who wish to receive their dividends in US dollars must complete the appropriate election form and return it to the BHP Share Registrar in the United Kingdom no later than close of business on the dividend reinvestment election date. BHP Group Plc shareholders may have their cash dividends paid directly into a bank or building society by completing a dividend mandate form, which is available from the BHP Share Registrar in the United Kingdom or South Africa.

Dividend reinvestment plan

BHP offers a dividend reinvestment plan to registered shareholders, which provides the opportunity to use cash dividends to purchase BHP shares in the market.

7.8 American Depository Receipts fees and charges

We have American Depository Receipts (ADR) programs for BHP Group Limited and BHP Group Plc.

Depository fees

Citibank serves as the depositary bank for both of our ADR programs. ADR holders agree to the terms in the deposit agreement filed with the SEC for depositing ADSs or surrendering the ADSs for cancellation and for certain services as provided by Citibank. Holders are required to pay all fees for general depositary services provided by Citibank in each of our ADR programs, as set forth in the tables below.

Standard depository fees:

Depository service	Fee payable by the ADR holders
Issuance of ADSs upon deposit of shares	Up to US\$5.00 per 100 ADSs (or fraction thereof) issued
Delivery of Deposited Securities against surrender of ADSs	Up to US\$5.00 per 100 ADSs (or fraction thereof) surrendered
Distribution of Cash Distributions	No fee

Corporate actions depository fees:

Depository service	Fee payable by the ADR holders
Cash Distributions (i.e. sale of rights, other entitlements, return of capital)	Up to US\$2.00 per 100 ADSs (or fraction thereof) held
Distribution of ADSs pursuant to exercise of rights to purchase additional ADSs. Excludes stock dividends and stock splits	Up to US\$5.00 per 100 ADSs (or fraction thereof) held
Distribution of securities other than ADSs or rights to purchase additional ADSs (i.e. spin-off shares)	Up to US\$5.00 per 100 ADSs (or fraction thereof) held
Distribution of ADSs pursuant to an ADR ratio change in which shares are not distributed	No fee

Fees payable by the Depositary to the Issuer

Citibank has provided BHP net reimbursement of US\$1.5 million in FY2019 for ADR program-related expenses for both of BHP's ADR programs (FY2018 US\$1.5 million). ADR program-related expenses include legal and accounting fees, listing fees, expenses related to investor relations in the United States, fees payable to service providers for the distribution of material to ADR holders, expenses of Citibank as administrator of the ADS Direct Plan and expenses to remain in compliance with applicable laws.

Citibank has further agreed to waive other ADR program-related expenses for FY2019, amounting to less than US\$0.03 million, which are associated with the administration of the ADR programs (FY2018 less than US\$0.03 million).

Our ADR programs trade on the NYSE under the stock tickers BHP and BBL for the BHP Group Limited and BHP Group Plc programs, respectively. As of 23 August 2019, there were 74,157,813 ADRs on issue and outstanding in the BHP Group Limited ADR program and 56,539,451 ADRs on issue and outstanding in the BHP Group Plc ADR program. Both of the ADR programs have a 2:1 ordinary shares to ADR ratio.

7.9 Government regulations

Our assets are subject to a broad range of laws and regulations imposed by governments and regulatory bodies. These regulations touch all aspects of our assets, including how we extract, process and explore for minerals, oil and natural gas and how we conduct our business, including regulations governing matters such as environmental protection, land rehabilitation, occupational health and safety, the rights and interests of Indigenous peoples, competition, foreign investment, export, marketing of minerals, oil and natural gas and taxes.

The ability to extract minerals, oil and natural gas is fundamental to BHP. In most jurisdictions, the rights to extract mineral or petroleum deposits are owned by the government. We obtain the right to access the land and extract the product by entering into licences or leases with the government that owns the mineral, oil or natural gas deposit. The terms of the lease or licence, including the time period of the lease or licence, vary depending on the laws of the relevant government or terms negotiated with the relevant government. Generally, we own the product we extract and we are required to pay royalties or similar taxes to the government.

Related to our ability to extract is our ability to process the extracted minerals, oil or natural gas. Again, we rely on governments to grant the rights necessary to transport and treat the extracted material to prepare it for sale.

The rights to explore for minerals, oil and natural gas are granted to us by the government that owns the natural resources we wish to explore. Usually, the right to explore carries with it the obligation to spend a defined amount of money on the exploration, or to undertake particular exploration activities.

In certain jurisdictions where we have assets, such as Trinidad and Tobago, a production sharing contract (PSC) governs the relationship between the government and companies concerning how much of the oil and gas extracted from the country each will receive. In PSCs, the government awards rights for the execution of exploration, development and production activities to the company. The company bears the financial risk of the initiative and explores, develops and ultimately produces the field as required. When successful, the company is permitted to use the money from a certain set percentage of produced oil and gas to recover its capital and operational expenditures, known as 'cost oil'. The remaining production is known as 'profit oil' and is split between the government and the company at a rate determined by the government and set out in the PSC.

Environmental protection, mine closure and land rehabilitation, and occupational health and safety are principally regulated by governments and to a lesser degree, if applicable, by leases. These obligations often require us to make substantial expenditures to minimise or remediate the environmental impact of our assets and to ensure the safety of our employees and contractors. Regulations setting emissions standards for fuels used to power vehicles and equipment at our assets and the modes of transport used in our supply chains can also have a substantial impact, both directly and indirectly, on the markets for these products, with flow-on impacts on our costs. For more information on these types of obligations, refer to section 1.10.

From time-to-time, certain trade sanctions are adopted by the United Nations (UN) Security Council and/or various governments, including in the United Kingdom, the United States, the European Union (EU) and Australia against certain countries, entities or individuals, that may restrict our ability to sell extracted minerals, oil or natural gas and/or our ability to purchase goods or services.

Disclosure of Iran-related activities pursuant to section 13(r) of the US Securities Exchange Act of 1934

Section 13(r) of the US Securities Exchange Act of 1934, as amended (the Exchange Act) requires an issuer to disclose in its annual reports whether it or any of its affiliates knowingly engaged in certain activities, transactions or dealings relating to Iran. If applicable, disclosure is required even where the activities, transactions or dealings are conducted outside the United States by non-U.S. persons in compliance with applicable law, and whether or not the activities are sanctionable under U.S. law. Provided in this section is certain information concerning activities of certain affiliates of BHP that took place in FY2019. BHP believes that these activities are not sanctionable either as being outside the scope of U.S. sanctions, or within the scope of a specific licence issued by the U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC).

On 30 November 2018, BHP Billiton Petroleum Great Britain Ltd (BHP GB), a wholly owned subsidiary of BHP, and its co-venturers in the Bruce and Keith gas and oil fields offshore United Kingdom (BP Exploration Operating Company (BP), Marubeni Oil & Gas (UK) Limited (Marubeni) and Total E&P UK Limited (Total)) completed the sale of their interests in the Bruce and Keith gas and oil fields to Serica Energy (UK) Limited (Serica) (the Bruce and Keith Transaction). BHP divested its entire licence interests in Bruce and Keith but retained the obligation to fund decommissioning in accordance with its previous licence interest.

The transfer of licence interests and retention of decommissioning liabilities for the Bruce and Keith co-venturers in the respective gas and oil fields is described below:

	Bruce			Keith		
	Pre sale interest %	Post sale licence interest %	Post-sale decom. interest	Pre sale interest %	Post sale licence interest %	Post-sale decom. interest
BP	37%	1%	37%	34.83%	1%	34.83%
Total	43.25%	1%	43.25%	25%	1%	25%
BHP GB	16%	0%	16%	31.83%	0%	31.83%
Marubeni	3.65%	0%	0%	8.33%	0%	0%
Serica	0%	98%	3.65%	0%	98%	8.33%

While the sale closed on 30 November 2018, it was effective in economic terms as of 1 January 2018. BHP received initial cash consideration from Serica, and will subsequently receive (1) a share of pre-tax net cash flow attributable to its historic interest in the Bruce and Keith gas and oil fields of 60 per cent during December 2018, 50 per cent in 2019 and 40 per cent in each of 2020 and 2021 under a Net Cash Flow Sharing Deed, and (2) a share of projected decommissioning costs up to a specified cap.

The Bruce platform provides transportation and processing services to the nearby Rhum gas field pursuant to a contract between the Bruce owners and Rhum owners (the Bruce-Rhum Agreement). At the same time as the Bruce and Keith Transaction, Serica acquired from BP its 50 per cent interest and operatorship of the Rhum gas field. The Rhum gas field is now owned by a 50:50 unincorporated joint venture arrangement between Serica and Iranian Oil Company (UK) Limited (IOC). IOC is an indirect subsidiary of the National Iranian Oil Company (NIOC), which is a corporation owned by the Government of Iran.

OFAC issued license No. IA-2018-352294-2 (the OFAC Licence) authorising BP, Serica and all U.S. persons and U.S.-owned or -controlled foreign entities identified in the licence application to provide goods, services, and support for the operation, maintenance, and production of the Rhum gas field, and goods, services and support to the Bruce platform for a period from 2 November 2018 through 31 October 2019. OFAC also provided an assurance that non-U.S. companies would not be subject to U.S. sanctions for supporting these Rhum activities.

BHP continues to monitor developments concerning U.S. sanctions with respect to Iran to maintain compliance with applicable sanctions laws and requirements. Although BHP has no ongoing direct dealings with any Iranian party, because BHP will receive ongoing consideration from Serica related to the sale of its interest in the Bruce-Rhum Agreement, BHP has included this disclosure.

BHP has recognised the following transactions in FY2019 related to the Bruce-Rhum Agreement:

- (i) for the period from 1 July 2018 to 30 November 2018, BHP recognised US\$5.5 million in cost recovery under the terms of the Bruce-Rhum Agreement, which was booked as a reduction in operating expenses for the Bruce gas field;
- (ii) for the period from 1 January 2018 to 30 November 2018, BHP paid US\$4.6 million from the Bruce-Rhum Agreement to Serica as part of a completion payment under the sale and purchase agreement governing the Bruce and Keith Transaction;
- (iii) for the period 1 December 2018 to 30 June 2019, BHP received US\$2.1 million from Serica under the Net Cash Flow Sharing Deed.

Uranium production in Australia

To mine, process, transport and sell uranium from within Australia, we are required to hold possession and export permissions, which are also subject to regulation by the Australian Government or bodies that report to the Australian Government.

To possess nuclear material, such as uranium, in Australia, a Permit to Possess Nuclear Materials (Possession Permit) must be held pursuant to the Australian Nuclear Non-Proliferation (Safeguards) Act 1987 (Non-Proliferation Act). A Possession Permit is issued by the Australian Safeguards and Non-Proliferation Office, an office established under the Non-Proliferation Act, which administers Australia's domestic nuclear safeguards requirements and reports to the Australian Government.

To export uranium from Australia, a Permit to Export Natural Uranium (Export Permit) must be held pursuant to the Australian Customs (Prohibited Exports) Regulations 1958. The Export Permit is issued by the Minister with responsibility for Resources and Energy.

A special permit to transport nuclear material is required under the Non-Proliferation Act by a party that transports nuclear material from one specified location to another specified location. As we engage service providers to transport uranium, each of those service providers is required to hold a permit to transport nuclear material issued by the Australian Safeguards and Non-Proliferation Office.

Exchange controls and shareholding limits

BHP Group Plc

There are no laws or regulations currently in force in the United Kingdom that restrict the export or import of capital or the payment of dividends to non-resident holders of BHP Group Plc's shares, although the Group does operate in some other jurisdictions where the payment of dividends could be affected by exchange control approvals.

From time-to-time, certain sanctions are adopted by the UN Security Council and/or various governments, including in the United Kingdom, the United States, the EU and Australia against certain countries, entities or individuals that may restrict the export or import of capital or the remittance of dividends to certain non-resident holders of BHP Group Plc's shares.

There are no restrictions under BHP Group Plc's Articles of Association or (subject to the effect of any sanctions) under English law that limit the right of non-resident or foreign owners to hold or vote BHP Group Plc's shares.

There are certain restrictions on shareholding levels under BHP Group Plc's Articles of Association described below.

BHP Group Limited

Under current Australian legislation, the payment of any dividends, interest or other payments by BHP Group Limited to non-resident holders of BHP Group Limited's shares is not restricted by exchange controls or other limitations, except that, in certain circumstances, BHP Group Limited may be required to withhold Australian taxes.

From time-to-time, certain sanctions are adopted by the UN Security Council and/or various governments, including in the United Kingdom, the United States, the EU and Australia. Those sanctions prohibit or, in some cases, impose certain approval and reporting requirements on transactions involving sanctioned countries, entities and individuals and/or assets controlled or owned by them. Certain transfers into or out of Australia of amounts greater than A\$10,000 in any currency may also be subject to reporting requirements.

The Australian Foreign Acquisitions and Takeovers Act 1975 (the FATA) restricts certain acquisitions of interests in shares in Australian companies, including BHP Group Limited. Generally, under the FATA, the prior approval of the Australian Treasurer must be obtained for proposals by a foreign person (either alone or together with its associates) to acquire 20 per cent or more of the voting power or issued shares in an Australian company. Any acquisition by a foreign government investor of the voting power or issued shares in an Australia company will require the prior approval of the Australian Treasurer to be obtained.

The FATA also empowers the Treasurer to make certain orders prohibiting acquisitions by foreign persons in Australian companies, including BHP Group Limited (and requiring divestiture if the acquisition has occurred) where the Treasurer considers the acquisition to be contrary to the national interest. Such orders may also be made in respect of acquisitions by foreign persons where two or more foreign persons (and their associates) in aggregate already control 40 per cent or more of the issued shares or voting power in an Australian company, including BHP Group Limited.

The restrictions in the FATA on share acquisitions in BHP Group Limited described above apply equally to share acquisitions in BHP Group Plc because BHP Group Limited and BHP Group Plc are dual listed entities.

There are certain other statutory restrictions and restrictions under BHP Group Limited's Constitution and BHP Group Plc's Articles of Association that apply generally to acquisitions of shares in BHP Group Limited and BHP Group Plc (i.e. the restrictions are not targeted at foreign persons only). These include restrictions on a person (and associates) breaching a voting power threshold of:

- above 20 per cent in relation to BHP Group Limited on a 'stand-alone' basis (i.e. calculated as if there were no Special Voting Share and only counting BHP Group Limited's ordinary shares);
- 30 per cent of BHP Group Plc. This is the threshold for a mandatory offer under Rule 9 of the UK takeover code and this threshold applies to all voting rights of BHP Group Plc (therefore including voting rights attached to the BHP Group Plc Special Voting Share);
- 30 per cent in relation to BHP Group Plc on a 'stand-alone' basis (i.e. calculated as if there were no Special Voting Share and only counting BHP Group Plc's ordinary shares);
- above 20 per cent in relation to BHP Group Plc, calculated having regard to all the voting power on a joint electorate basis (i.e. calculated on the aggregate of BHP Group Limited's and BHP Group Plc's ordinary shares).

Under BHP Group Limited's Constitution and BHP Group Plc's Articles of Association, sanctions for breach of any of these thresholds, other than by means of certain 'permitted acquisitions', include withholding of dividends, voting restrictions and compulsory divestment of shares to the extent a shareholder and its associates exceed the relevant threshold.

Except for the restrictions under the FATA, there are no limitations, either under Australian law or under the Constitution of BHP Group Limited, on the right of non-residents to hold or vote BHP Group Limited ordinary shares.

7.10 Ancillary information for our shareholders

This Annual Report provides the detailed financial data and information on BHP's performance required to comply with the reporting regimes in Australia, the United Kingdom and the United States.

Shareholders of BHP Group Limited and BHP Group Plc will receive a copy of the Annual Report if they have requested a copy. ADR holders may view all documents online at bhp.com or opt to receive a hard copy by accessing citibank.ar.wilink.com or calling Citibank Shareholder Services during normal business hours using the details listed on the inside back cover of this Annual Report.

Change of shareholder details and enquiries

Shareholders wishing to contact BHP on any matter relating to their shares or ADR holdings are invited to telephone the appropriate office of the BHP Share Registrar or Transfer Office listed on the inside back cover of this Annual Report.

Any change in shareholding details should be notified by the shareholder to the relevant Registrar in a timely manner.

Shareholders can also access their current shareholding details and change many of those details online at bhp.com. The website requires shareholders to quote their Shareholder Reference Number (SRN) or Holder Identification Number (HIN) in order to access this information.

Alternative access to the Annual Report

We offer an alternative for all shareholders who wish to be advised of the availability of the Annual Report through our website via an email notification. By providing an email address through our website, shareholders will be notified by email when the Annual Report has been released. Shareholders will also receive notification of other major BHP announcements by email. Shareholders requiring further information or wishing to make use of this service should visit our website, bhp.com.

ADR holders wishing to receive a hard copy of the Annual Report 2019 can do so by accessing citibank.ar.wilink.com or calling Citibank Shareholder Services during normal business hours. ADR holders may also contact the adviser that administers their investments. Holders of BHP Group Plc shares dematerialised into Strate should liaise directly with their Central Securities Depository Participant (CSDP) or broker.

Key dates for shareholders

The following table sets out future dates in the next financial and calendar year of interest to our shareholders. If there are any changes to these dates, all relevant stock exchanges (see section 7.2) will be notified.

Date	Event
25 September 2019	Final dividend payment date
17 October 2019	BHP Group Plc Annual General Meeting in London Venue: The QEII Centre Broad Sanctuary Westminster London SW1P 3EE United Kingdom Time: 11.00 am (local time) Details of the business of the meeting are contained in the separate Notice of Meeting
7 November 2019	BHP Group Limited Annual General Meeting in Sydney Venue: International Convention Centre (ICC) 14 Darling Drive Sydney New South Wales Australia Time: 10.00am (local time) Details of the business of the meeting are contained in the separate Notice of Meeting
18 February 2020	Interim results announced
6 March 2020	Interim dividend record date
24 March 2020	Interim dividend payment date

Corporate directory

BHP Registered Offices

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Group General Counsel & Company Secretary

Caroline Cox

BHP Corporate Centres

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Share Registrars and Transfer Offices

Australia

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Computershare Investor Services
Pty Limited
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Email enquiries: investorcentre.com/bhp

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and Transfer Secretary
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Telephone +27 11 373 0033
Facsimile +27 11 688 5217
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Holders of shares dematerialised into Strate
should contact their CSDP or stockbroker.

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Website: citi.com/dr

How to access information on BHP

BHP produces a range of publications, which are available online at bhp.com. If you are a shareholder, you can also elect to receive a paper copy of the Annual Report through one of the Share Registrars listed above.

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