

PORTFOLIO

The quality and long life of our mineral assets are the foundations of our global business. We actively manage our asset portfolio to improve its overall competitive position, continuing our trajectory towards products that support a fast growing population and a cleaner, greener, more sustainable world.

Material matters discussed in this section

- ▶ Macro-economic environment
- ▶ Operational and cost performance
- ▶ Meeting our commitments to business stakeholders and society
- ▶ Political and regulatory



HIGHLIGHTS

\$1.2 billion

Underlying EBITDA contribution from Minas-Rio in 2019

Up to 30 Mtpa

Potential long term production from Minas-Rio, once all aspects of the operation have been optimised

~3.2 bn ROM tonnes

Minas-Rio Ore Reserves at 33.5% Fe



Ultrafine feeding of iron ore in concentrate at the Minas-Rio mine site in Minas Gerais, Brazil.

Pillars of value

- Environment
- Socio-political
- Financial

For our KPIs:
See pages 50-51

▶▶ Minas-Rio's low impurities pellet feed is greatly in demand, being ideally suited for a cleaner steelmaking world."

Minas-Rio's remarkable recovery

Minas-Rio mine in Brazil taps into a large scale iron ore deposit, the resource base of which we have steadily extended since acquiring the asset more than a decade ago. Current estimates indicate Ore Reserves of approximately 3.2 billion ROM tonnes at 33.5% Fe⁽¹⁾ – and indications are that this highly prospective area has considerably more potential.

Minas-Rio's final product is around 67% Fe grade content, significantly higher than the industry average, with low levels of contaminants. With growth in population and economic output needing to be met by growth in the supply of steel, Minas-Rio's low impurities pellet feed is greatly in demand, being ideally suited for a cleaner steelmaking world. Furthermore, the value we attract for the product is being enhanced through our Marketing team's expertise, which is focused on ensuring that we are a reliable and competitive provider of customer-specific, tailored products.

Minas-Rio is making a growing contribution to the Group, reflecting not only the strong ramp-up following the restart of operations in December 2018, but also cost efficiencies associated with higher ore recoveries. Our original 2019 production guidance was revised upwards during the year, with total output reaching 23.1 Mt by year end. We have begun work to take production beyond nameplate capacity of 26.5 Mtpa towards a potential 30 Mtpa by optimising all aspects of the operation.

During the suspension of the operation in 2018, when leakages were found in the 529-kilometre pipeline that transports the iron ore to the coast, we took the opportunity to review the whole operation so that, once we were able to restart, we could maximise our production ramp-up while maintaining operational stability.

We carried out a comprehensive internal inspection of the entire pipeline, replacing sections where necessary. We have installed a fibre-optic system with a variety of sensors along critical sections of the pipe to continuously monitor

performance, and have reduced the intervals for future inspections from five to two years. Further refinements were made in ore processing to enhance recoveries. We brought forward equipment and vehicle maintenance, and we retrained our workforce so that they were fully prepared for the resumption of activities.

As part of the spillage clean-up operation and subsequent rehabilitation process, and working with the authorities and our local communities, we continued to supply water to the communities, while simultaneously taking action to prevent ore slurry entering the nearby river. Today, the communities now have two water-supply options and the condition of the watercourse is better than before the spillages occurred. We also worked on rolling out emergency-preparedness plans, such as community-emergency drills and installing warning alarms in households, so that everyone is fully prepared in the unlikely event of another pipeline breach.

It was also a prerequisite for us to put safety first in the raising of the dam crest at the tailings storage facility. This facility uses a downstream construction design and takes the form of an earth-fill embankment dam, built using compacted fill materials, with no tailings used in its construction. Our comprehensive safety management programme for the tailings dam includes routine internal geo-technical inspections, geo-technical instrumentation, instrumentation-data analysis, bathymetric surveys, and audits. The facility also incorporates a new technique, which we developed in-house, that provides real-time information on the amount of water contained, as well as fibre-optic installations that provide real-time monitoring of any strain, deformation and seepage.

In securing the Operating Licence for the tailings dam raise in December 2019, Minas-Rio has achieved yet another major milestone on its journey to become a sustainably profitable, globally cost-competitive producer of high grade iron ore products.

⁽¹⁾ See Ore Reserves and Mineral Resources Report 2019 for full details.

PORTFOLIO CONTINUED

Anglo American’s portfolio of world class mining operations and undeveloped resources – spanning diamonds (through De Beers), copper, platinum group metals, iron ore, coal, nickel and manganese – provides the metals and minerals that enable a cleaner, greener, more sustainable world.

The scale and diversity of the portfolio allow us to leverage our financial resources, technical expertise and supplier relationships towards delivery on our potential, and to the benefit of our customers. The portfolio’s depth and breadth create a measured risk profile and support strong returns through spreading our investments across diverse asset geographies and end markets.

Building strategic advantage

The primary source of competitive advantage in the mining industry is to own high quality, high margin, long life assets of scale, with positions that can be further enhanced if those assets deliver products into structurally attractive markets.

In assessing our asset portfolio, we consider:

- The stand-alone quality of individual assets, including their relative cost position and growth potential
- Our global competitive position within the individual product groups
- The additional value potential generated through our dedicated marketing expertise.

Our product groups

Diamonds

De Beers has a global leadership position in diamonds, producing around a third of the world’s rough diamonds, by value. Within its portfolio, De Beers (Anglo American: 85% interest), in partnership with the Government of the Republic of Botswana, has one of the richest diamond mines, by value, in the world at Jwaneng, and one of the largest resources, in terms of total carats, at Orapa.

De Beers’ major diamond mining assets have large, long life and scalable resources and we are continuing to invest in the existing operations to extend mining activities. The Cut-9 expansion of Jwaneng will increase the depth of the mine to 800 metres to extend the life of the mine; Debmarine Namibia has an additional custom-built diamond mining vessel in construction; and in South Africa, Venetia is transitioning underground, extending the life of mine to 2046.

The lack of significant kimberlite discoveries globally over recent years, combined with the ongoing growth in consumer demand for diamond jewellery in both mature and developing markets, points to good prospects for the diamond business. The addition of the Chidliak Diamond Resource in Canada, and the continued investment in diamond mining support technologies, will enhance De Beers’ portfolio of high quality and high margin assets and the ability of the business to flex production to prevailing demand.

Through its differentiated rough diamond distribution model, which comprises term contract Sightholders, Accredited Buyers and Auction Sales customers, De Beers has a range of insights into its customers’ demand patterns. De Beers seeks to stimulate consumer demand for diamonds through its Forevermark™ and De Beers Jewellers brands and through its participation in the Diamond Producers Association.

Copper

Anglo American has a world class asset position in copper, built around its interests in two of the world’s largest copper mines – Los Bronces (a 50.1% owned operation) and Collahuasi (44% owned joint operation), with Reserve Lives of 35 years and 51 years, respectively. The resource base of these assets underpins our future near-asset growth opportunities, in addition to the tier one Quellaveco project we are developing in Peru – one of the world’s largest untapped copper orebodies, and the polymetallic Sakatti deposit in Finland.

The copper industry is expected to struggle to meet longer term demand growth, including from hybrid and electric vehicles and renewable energy, as declining grades and more challenging physical and environmental conditions, along with tougher licensing and permitting requirements, are expected to limit the industry’s ability to deliver new copper supply.

Platinum Group Metals (PGMs)

Our Platinum Group Metals (PGMs) business (held through an effective 79.4% interest in Anglo American Platinum Limited) is a leading producer of platinum, palladium and the other PGMs. It mines, processes and refines the platinum basket of metals from its high quality resource base, located in one of the biggest PGM deposits – the Bushveld Complex in South Africa. It also has a significant stake in Unki – one of the world’s largest PGM deposits outside of South Africa, on the Great Dyke in Zimbabwe.

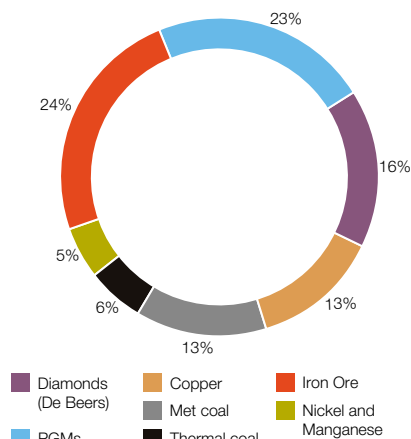
Our flagship mine, Mogalakwena, is the highest margin PGM producer in the industry and, as the only large open-pit PGM mine globally, is at the centre of a more flexible, competitive and lower risk business.

We are continuing to reposition the business around a leaner, best-in-class operating footprint at the Mogalakwena, Amandelbult and Mototolo mines in South Africa, and Unki mine in Zimbabwe, alongside our joint operation interests in the Kroondal and Modikwa mines in South Africa.

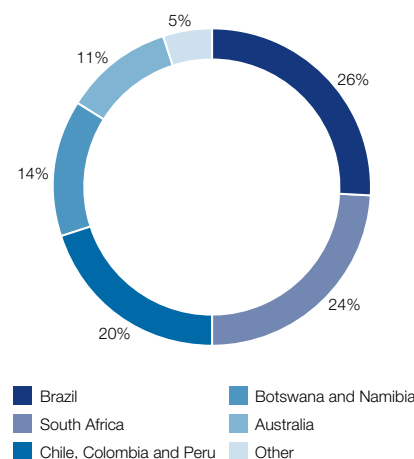
Demand for platinum is forecast to increase over time, given the ongoing trend towards cleaner-emission vehicles, driven by more stringent global emissions legislation.

ASSET QUALITY: DIFFERENTIATED PORTFOLIO

Revenue by product⁽¹⁾



Capital employed by geography⁽²⁾



⁽¹⁾ Revenue by product based on business unit. Excludes sales of products purchased from third parties by our Marketing business.

⁽²⁾ Attributable basis.

Increasing demand from the automotive industry is likely to be augmented by growing opportunities for emerging new applications, including hybrid and hydrogen fuel cell electric vehicles, while emerging countries such as India offer the potential of developing, from a relatively low base, into significant platinum jewellery markets.

We are well positioned to proactively stimulate demand for platinum, including through targeted campaigns in emerging jewellery markets; creating new investment demand for the metal as a store of value; and through direct investment in a number of companies developing new technologies that are expected to drive industrial demand for PGMs.

Iron ore

Anglo American's iron ore operations provide customers with high iron content ore, a large percentage of which is direct-charge product for steelmaking blast furnaces. In South Africa, we have a 69.7% shareholding in Kumba Iron Ore, whose Sishen and Kolomela mines produce high grade and high quality lump ore and also a premium fine ore.

In Brazil, we have developed the Minas-Rio operation (100% ownership), consisting of an open-pit mine and beneficiation plant, which produces a high grade pellet feed product, with low levels of contaminants. The iron ore is transported through a 529-kilometre pipeline to the iron ore handling and shipping facilities at the port of Açú, in which Anglo American has a 50% shareholding.

As steel producers in China and elsewhere face ever-tighter emissions legislation and are seeking ways to make their furnaces cleaner and more efficient, so the demand for higher quality iron ore products increases. The lump iron ore produced from Kumba's operations is in particular demand and commands a premium price, owing to its excellent physical strength and high iron content (64%-65% average Fe content). Minas-Rio's pellet feed product also commands a premium price, as its ultra-low contaminant levels and high iron content (c.67% Fe content) are sought after by steel producers who are seeking to minimise emissions while boosting productivity.

Coal: metallurgical and thermal

Our coal portfolio is geographically diverse, with metallurgical coal assets in Australia, and thermal coal assets in South Africa and Colombia. Since 2012, we have more than halved our thermal coal production footprint.

Metallurgical coal – Australia

We are the world's third largest exporter of metallurgical coal for steelmaking and our operations serve customers throughout Asia, Europe and South America.



Truck operator Ricardo Guerra surveys a section of the future mining area of the Los Bronces Integrated Project.

A win-win project

Los Bronces is located in the Andes, 3,500 metres above sea level, some 65 kilometres north east of Chile's capital, Santiago. It has been mined for more than 150 years and is one of the country's major copper producers, producing 335,000 tonnes of copper in 2019.

But to maintain or increase copper production from current levels, Los Bronces will need access to higher grade ore. So, in July 2019, Anglo American submitted an environmental impact study to the Chilean authorities for the Los Bronces Integrated Project, and has recently started the environmental permitting process.

Los Bronces' location in a region with glaciers means that current and future mining operations must not affect the surface of any protected area or have an impact on nearby glaciers. For the current open-pit mine, our operational continuity plans involve expanding its surface by pushing back the perimeter to access better quality mineral-bearing ore. We are extremely careful to make sure that we have no impact on glaciers, biodiversity areas or other water resources in the region.

Five kilometres away, we are proposing to develop an underground mine to exploit a contiguous deposit. We plan to use an internationally proven mining method of extracting mineral by underground blocks, which are then filled in with mainly rock and around 3% of cement mixture to ensure surface stability.

We have built in environmental considerations from the earliest planning stage to guarantee the project will have no impact on the surface

and no effect on actual water supplies. This underground phase will replace low grade ore from the current open-pit mine with higher grade ore and will utilise the existing processing plant's capacity.

What's more, we will use our current tailings facilities and use similar levels of water and energy as we do today. Currently, 70%-80% of total water used in processing activities is recycled – we plan to upgrade the water-recirculation system to further increase the amount of water we recycle, with no adverse impact on water quality in the region as a result of our operations. At the same time, as part of our FutureSmart Mining™ approach to technology and sustainability, we are integrating enabling technologies in fields such as bulk ore sorting and coarse particle recovery to precisely target the metal and mineral, with less water, energy and waste.

We have spent six years of study, and three years consulting with government, local communities, NGOs and other stakeholders to make sure we can safeguard nearby protected areas and surrounding glaciers, and will not increase freshwater use, or raise traffic levels on local roads – and that the project will have significant and widespread economic and other benefits.

At Anglo American, we believe that mining, which is vital to the Chilean economy, can co-exist with the conservation of the environment and particularly the presence of glaciers, while at the same time making a long-lasting contribution to the development of the surrounding communities and the country as a whole.

PORTFOLIO CONTINUED

Our tier one metallurgical coal assets include the Moranbah North (88% ownership) and Grosvenor (100% ownership) metallurgical coal mines, both located in Queensland. The mines are underground longwall operations and produce hard coking coal. More stringent environmental and safety regulations in China have led to a number of domestic coal mine closures and a requirement for steel producers to run cleaner, larger and more efficient blast furnaces, resulting in increased demand and prices for high quality coking coal, such as that produced by our Australian mines.

Export thermal coal – South Africa

We have refocused our South African coal portfolio to concentrate on export markets, having successfully completed the sale of the majority of our domestic coal mines, more than halving our production footprint since 2012. We supply around 19 million tonnes of thermal coal per year to export markets.

Coal South Africa's export product is derived from three wholly owned and wholly operated mines – Goedehoop, Greenside and Khwezela; Zibulo (73% owned); as well as from Mafube colliery, a 50:50 joint operation.

Our operations route all export coal through the Richards Bay Coal Terminal, in which we hold a 23.2% stake.

Export thermal coal – Colombia

In Colombia, Anglo American, BHP and Glencore each have a one-third shareholding in Cerrejón, one of the country's largest thermal coal exporters.

Nickel and manganese

Nickel

Our Nickel business has the capacity to produce around 45,000 tonnes per year of nickel, whose primary end use is in the global stainless steel industry. Our assets (both 100% owned) are in Brazil, with two ferronickel production sites: Barro Alto and Codemin.

Manganese

We have a 40% shareholding in Samancor joint venture (managed by South32, which holds 60%), with operations based in South Africa and Australia.

Portfolio restructuring in the year

We will continue to refine and upgrade our asset portfolio as a matter of course to ensure that our capital is deployed effectively to generate enhanced and sustainable returns for our shareholders.

Anglo American has transformed the quality and performance of its portfolio since 2012, halving the number of assets while producing more physical product. This transformation has been achieved through extensive

operational self-help and other efficiency work, together with the sale, placing onto care and maintenance, and closure of less attractive assets, resulting in a step-change in our operational performance, profitability and cash flow generation.

Portfolio management

In 2019, the Group commenced, or completed, a number of transactions. We entered into a transaction, expected to complete in 2020, to provide for the equalisation of ownership across our integrated metallurgical coal operations at Moranbah North and Grosvenor through the sale of 12% in Grosvenor mine to the minority shareholders in Moranbah North. The Grosvenor mine uses Moranbah North's coal processing infrastructure, where numerous debottlenecking, expansion and product blending options offer considerable cost, productivity and margin benefits for the integrated operation.

We also completed the two-phased restructuring plan of Atlatsa (PGMs), which entailed, among others, the acquisition of the exploration properties adjacent to Mogalakwena mine.

Namdeb Holdings, a joint operation between the Namibian government and De Beers, announced the sale of Elizabeth Bay in September 2019.

In January 2020, Anglo American announced that an agreement has been reached with the board of Sirius Minerals Plc ('Sirius') on the terms of a recommended cash acquisition for the entire issued and to be issued share capital of Sirius. Anglo American identified Sirius's Woodsmith polyhalite project in North Yorkshire (the 'Project') as being of potential interest given the quality of the underlying asset in terms of scale, resource life, operating cost profile and the nature and quality of its product. The Project has the potential to fit well with our established strategy of focusing on world class assets, particularly in the context of Anglo American's portfolio trajectory towards later-cycle products that support a fast growing global population and a cleaner, greener, more sustainable world. The proposed transaction is subject to regulatory and Sirius shareholder approval.

Anglo American Platinum completed the disposal of its 33% interest in the Bafokeng Rasimone Platinum Mine associate to Royal Bafokeng Resources Proprietary Limited (RBR) in December 2018, for a total consideration of around \$150 million, of which approximately \$110 million was deferred. The outstanding consideration, including accumulated interest, was settled in full by RBR in January 2020.

Projects

Strict value criteria are applied to the assessment of Anglo American's portfolio of future growth options. Where appropriate, we aim to seek partners for the development of major greenfield projects at the right time and for value, and are likely to not commit to the full development of more than one such project at any given time. The Group will continue to maintain optionality to progress with value-accretive projects.

Project execution at Quellaveco is on track, with all key milestones for 2019 achieved on schedule.

The project is expected to deliver first production in 2022, within the \$5.0-\$5.3 billion capital expenditure estimate (100% basis; Anglo American share: \$2.5-\$2.7 billion), with ramp-up in 2023. Quellaveco expects to deliver around 300,000 tonnes per annum of copper equivalent production (on a 100% basis) on average in the first 10 years of operation.

In May 2019, we announced the approval by Debmarmine Namibia, a 50:50 joint operation between De Beers and the Namibian government, for the construction of a new custom-built diamond recovery vessel. At an expected total capital cost of \$0.5 billion (\$0.2 billion attributable to Anglo American), this new vessel will become the seventh in the Debmarmine Namibia fleet. It is expected to begin production in 2022, with the capacity to add 500,000 high quality carats of annual production, a 35% increase above Debmarmine Namibia's current levels.

In July 2019, the Board approved the Aquila project to extend the life of the Capcoal underground hard coking coal operations in Queensland, Australia, by six years, to 2028. At an expected attributable capital cost of \$0.2 billion, Aquila offers a high-margin extension to the mine, with an average annual saleable production of 3.5 Mt (attributable) of premium quality hard coking coal. Development work began in September 2019 and first longwall production is expected in early 2022.

Longer term, the Group has a number of future organic growth options under consideration, including expansions at Collahuasi and Los Bronces copper mines in Chile, the Mogalakwena PGMs complex in South Africa, and the Moranbah/Grosvenor metallurgical coal complex in Australia.

[For more on the progress of our Quellaveco project: See page 63](#)

Discovery

Discovery and Geosciences, including our exploration activities, is consolidated across the Group, covering near-asset and greenfield

discovery, projects, and operations. The integrated function is supporting a greater technical understanding of our world class assets, a strategic advantage that is being applied to maximise realisation of value from them, and to gain significant benefit in both near-asset and greenfield discovery work.

Anglo American was founded on world class mineral discoveries. Building on the Group's strategy and long track record of discovery success, we are implementing a fundamentally revitalised discovery strategy that is shaping a global, diversified, risk-balanced portfolio focused on new discovery search spaces. This effort is enhancing our position as a discoverer of superior-value deposits that have the potential to improve our production profile, over time.

Quality discovery portfolio

We are concentrating on the discovery of mineral deposits in existing and new districts that are capable of delivering sustainable returns on a material scale, and which provide greater diversification and optionality for the business.

We maintain a robust and diverse discovery portfolio, including:

- Near-asset discovery projects: focused on the extensive mineral tenure around Anglo American's existing operations, including those producing copper, PGMs, nickel, diamonds, iron ore and metallurgical coal.
- These have yielded, for example, several discoveries in the Los Bronces district in Chile. Notably, at Los Bronces Underground, discovered in 2006, ongoing drilling over the past five years has yielded an increase in reported Mineral Resources by more than 250% to c.3.9 Bt @ 1.14% TCu (see Ore Reserves and Mineral Resources Report 2019 for full details). In other districts such as Quellaveco (Peru) and Mogalakwena (South Africa), significant new copper and PGM prospects respectively have been identified and are currently being explored and evaluated.
- Greenfield discovery projects: identifying and securing district-scale mineral tenure covering strategic, highly prospective search space in established and frontier settings. The greenfield discovery focus includes copper, diamonds (through De Beers), nickel and PGMs. The Group has active greenfield programmes in Australia, Canada, Greenland, South America (Brazil, Chile, Ecuador, and Peru), Europe (Finland), and southern Africa (Angola, Botswana, Namibia and Zambia).

Innovation and technology are at the heart of a differentiated discovery strategy

By applying leading scientific understanding of how world class mineral systems are formed at all scales, we aim to identify and create material value through discovery in the earth's most prospective ground. A combination of established and novel proprietary technologies is crucial to Anglo American's track record of mineral discoveries in new settings and beneath the cover of overlying material, such as younger rock sequences or desert sands. Innovative discovery technologies employed by Anglo American include the SPECTREM^{PLUS}

airborne geophysical system, and the Low-Temperature Superconducting Quantum Interference Device (LT-SQUID) ground-based geophysical system, both developed through Anglo American-driven collaborations. SPECTREM^{PLUS} collects high-resolution electromagnetic, magnetic, radiometric and gravity information about the sub-surface in a single airborne platform. The LT-SQUID is a highly sensitive magnetometer that is particularly useful for sensing metallic sulphide deposits in complex geological environments that otherwise lack expression at surface.



▶ The Sakatti polymetallic project north of the Arctic Circle in Finland is currently at pre-feasibility stage.

Sakatti – responsible resource development

Sakatti is a wholly owned project, located 150 kilometres north of the Arctic Circle in Finnish Lapland, which we discovered in 2009. It lies on a rich polymetallic deposit containing base metals such as copper, nickel and cobalt, and also platinum, palladium, gold and silver. The high concentrations of these metals, combined with consistency of the deposit's mineralisation, make Sakatti a highly attractive deposit, with significant further exploration potential.

Though still at the pre-feasibility stage, Sakatti has seen substantial progress over the past decade in geological modelling, mineral resource estimation, updating of environmental studies, and an ongoing drilling programme over the asset's 240-kilometre² area.

Given the location of the Sakatti deposit, in a biodiversity-protected area, Anglo American is acutely aware of its responsibility to ensure minimal impact on the environment. We have established partnerships with Flora & Fauna International and Finnish biodiversity experts, as well as local and regional representatives, and continue to engage with NGOs who are concerned about the impact of a mine in such a pristine area, in order to ensure that we are implementing best practice in our biodiversity management approach.

For example, in collaboration with Finnish drilling contractor Oy Kati Ab, we developed a closed-loop drilling system that is designed to operate in an environmentally sensitive environment. The system has substantially reduced waste and water use and thus minimises our overall environmental footprint. And we have decided to build an access tunnel with the entrance five kilometres away from the ore deposit in order to reduce disturbance to the land above ground and the impact on reindeer herders.

We also worked closely with all of our stakeholder groups – residents, land and water rights holders, reindeer herders, environmental groups and recreational users, and municipal authorities and business – to identify the most suitable place to locate the mine's waste storage facilities and processing plant in order to protect the natural resources within the boundaries of the protected area and deliver net positive impact on biodiversity.

As the world shifts to cleaner energy, copper may well have the best fundamentals of any mined commodity for our cleaner, greener, more sustainable world of the future. Sakatti may still have a long way to go before it becomes an operating mine, but we believe it represents another big step, post-Quellaveco, in augmenting Anglo American's impressive copper-volume growth profile.