Annual Report 2022

GLENCORE

Energising today Advancing tomorrow

Energising today:
As the world moves towards a low-carbon economy, we are focused on supporting the energy needs of today whilst investing in our transition metals portfolio.

Read more about our energy business: **Page 8**

Advancing tomorrow:
The world of tomorrow will look very different, with new sources of energy and ever greater levels of connectivity. The metals we produce, source and market will support the global ambition to decarbonise.

Our Purpose

Responsibly sourcing the commodities that advance everyday life.

Explore this Annual Report, Climate Report 2022 and Basis of Reporting online at: **glencore.com/publications**

Please refer to the end of this document for an important notice concerning this report, including forward-looking statements.

◊ Alternative performance measures
Adjusted measures referred to as alternative performance measures (APMs) which are not defined or specified under the requirements of International Financial Reporting Standards; refer to APMs section on page 260 for definitions, explanation of use and reconciliations and note 2 of the financial statements for reconciliation of Adjusted EBIT/EBITDA.

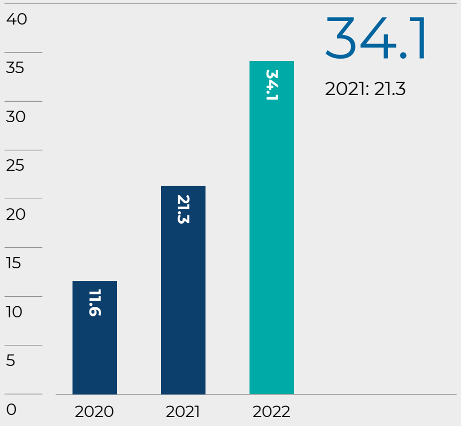
Δ Selected ESG information
Selected Environmental, Social and Governance (ESG) metrics (Selected Information) in this report has been subject to independent limited assurance under ISAE 3000 (Revised) by Deloitte LLP. The Selected Information is identified by the Δ symbol. The scope and limitations of Deloitte LLP's assurance are set out in their report on page 281. Please also see the Basis of Reporting online at glencore.com/publications.

'Glencore's emissions' or 'our emissions' means CO_2e emissions from our industrial assets (including Scope 1, 2, and 3) which is defined by reference to operational control save for certain emissions relating to our equity share in certain independently managed joint ventures, as set out in the *Climate Report 2022* and in the *Basis of Reporting 2022*. Where we refer to our aim and/or efforts to achieve 'net zero emissions' we are referring to a net zero ambition in relation to our emissions. The basis for our approach is set out in the *2022 Climate Report*. To assist the reader's understanding of climate-related terms contained in this Annual Report, reference can be made to the glossary included in our *2022 Climate Report*. The Climate Report and our Basis of reporting on selected ESG KPIs 2022, which provides information about the definitions and underlying processes applied for the collection and verification of specific Environmental, Social and Governance (ESG) metrics *(Basis of Reporting 2022)* are available at *glencore.com/publications*.

Performance highlights 2022

Financial highlights

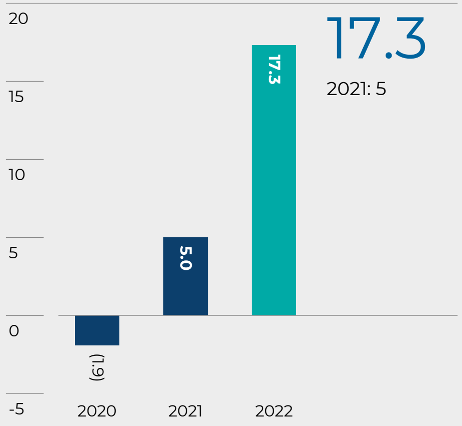
Adjusted EBITDA◊
(US$ billion)



34.1

2021: 21.3

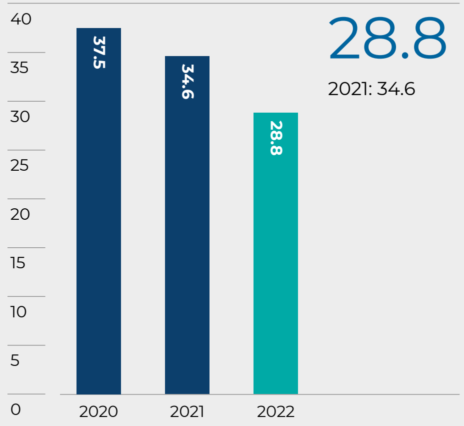
Net income/(loss) attributable to equity holders (US$ billion)



17.3

2021: 5

Total borrowings
(US$ billion)



28.8

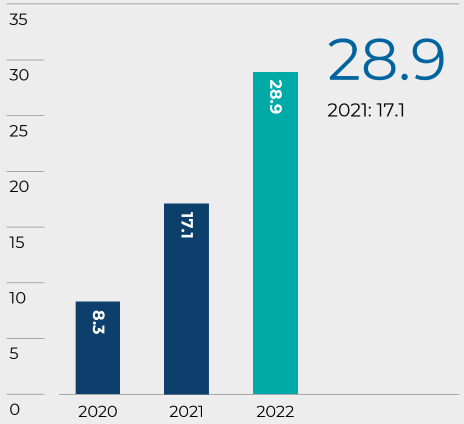
2021: 34.6

"The unprecedented developments in global commodity markets in 2022 confirmed the strength of our diversified business model across Industrial and Marketing, delivering another year of record earnings. Focusing on metals and energy products has proved itself."

Gary Nagle
Chief Executive Officer

Financial review
Page 66

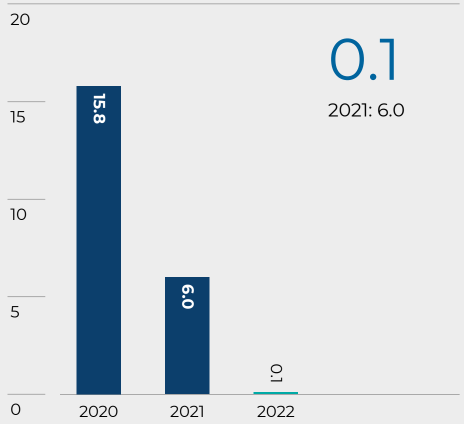
Funds from operations (FFO)◊
(US$ billion)



28.9

2021: 17.1

Net debt◊
(US$ billion)



0.1

2021: 6.0

Sustainability highlights

CO_2e Scope 1 and 2 market-based
(Million tonnes)

28.0Δ

2021: 27.4 (restated)

CO_2e Scope 3
(Million tonnes)

342

2021: 365 (restated)

Targeted reductions in our Scope 1, 2 and 3 emissions on a restated 2019 baseline

50%

by 2035 (versus restated 2019 baseline)

Lost time injury frequency rate
per million hours worked

0.84Δ

2021: 0.82

Total recordable injury frequency rate
per million hours worked

2.2Δ

2021: 2.4

Sustainability
Page 43

At a glance

Our Purpose

Responsibly sourcing the commodities that advance everyday life

…influences our strategic priorities

Responsible and ethical production and supply

Our core Values are embedded in everything we do. We are committed to operating ethically, responsibly, and to contributing to socio-economic development in the countries where we operate.

Responsible portfolio management

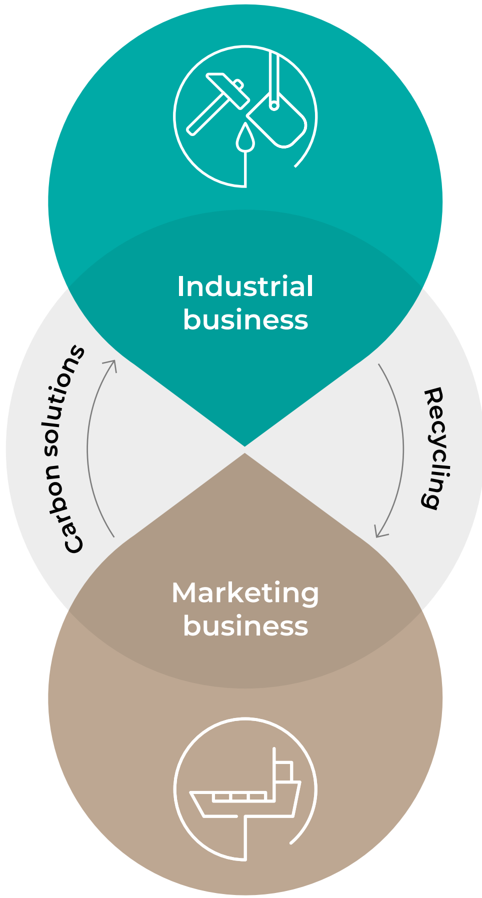
We will prioritise investment in metals that support the decarbonisation of energy usage as well as help meet demand for metals needed in everyday life. We will also reduce our coal production in line with our various climate action commitments.

Responsible product use

A low-carbon future requires responsibly produced low-carbon metals. We will seek opportunities to increase the proportion of low-carbon metals we can supply to customers from our own operations and through our extensive Marketing activities.

Read more about our strategy on **page 18**

…which we deliver through our business model



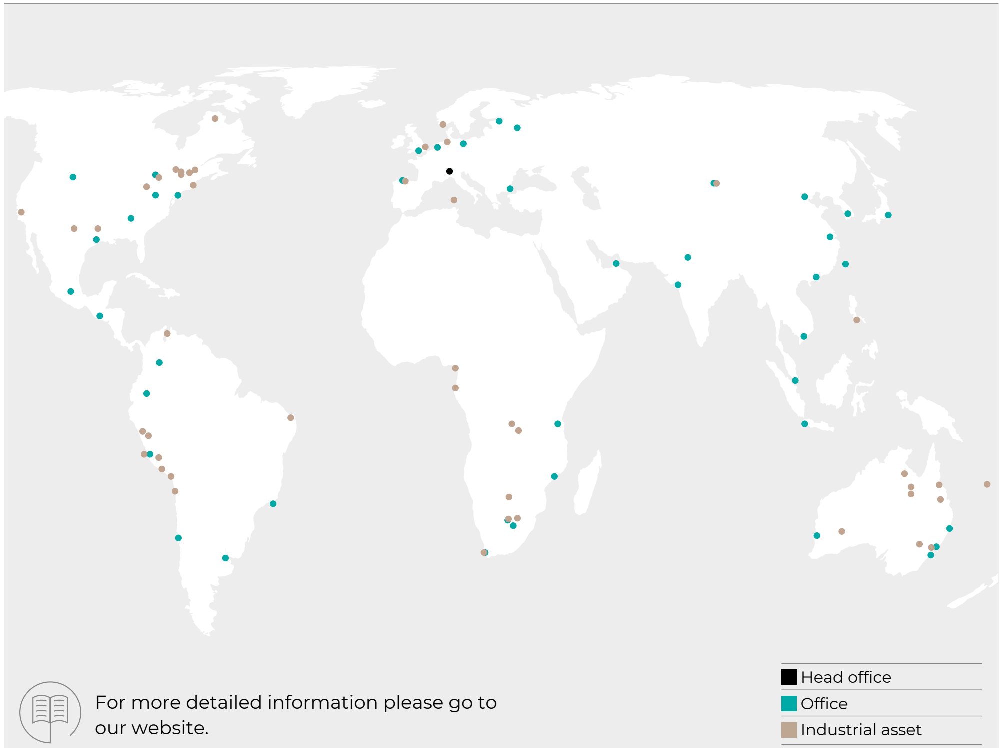
Read more about our business model on **page 14**

…while engaging with our stakeholders and creating value

Read more about our stakeholders in 'Section 172' on **page 61**

At a glance *continued*

Our global operations



For more detailed information please go to our website.

One of the world's largest natural resource companies

6 continents

35 countries

c140k employees and contractors

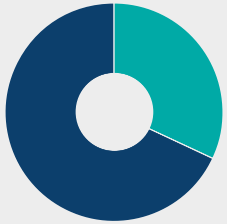
>40 offices

...delivered through two business segments

Industrial activities

Our Industrial business spans the metals and energy markets, producing multiple commodities from over 60 industrial assets

Adjusted EBITDA◊ Industrial 2022



Metal	32%
Energy	68%

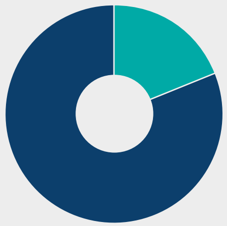
$27.3bn

2021: $17.1bn

Marketing activities

We move commodities from where they are plentiful to where they are needed

Adjusted EBIT◊ Marketing 2022



Metal	19%
Energy	81%

$6.4bn

2021: $3.7bn

...supported by our Values

Safety
We never compromise on safety. We look out for one another and stop work if it's not safe

Responsibility
We take responsibility for our actions. We talk and listen to others to understand what they expect from us. We work to improve our commercial, social and environmental performance

Simplicity
We work efficiently and focus on what's important. We avoid unnecessary complexity and look for simple, pragmatic solutions

Integrity
We have the courage to do what's right, even when it's hard. We do what we say and treat each other fairly and with respect

Openness
We're honest and straightforward when we communicate. We push ourselves to improve by sharing information and encouraging dialogue and feedback

Entrepreneurialism
We encourage new ideas and quickly adapt to change. We're always looking for new opportunities to create value and find better and safer ways of working

Chairman's introduction

A significant year for Glencore, both in terms of governance and results

Kalidas Madhavpeddi
Chairman

Dear Shareholders

2022 was a significant year for Glencore, both in terms of governance and results, as we continue to support the transition to a low-carbon economy, while also meeting the need for universal access to reliable energy.

Financial performance
I am pleased to report on a record financial year for the Company. Additionally, the Company's portfolio rationalisation continued under the leadership of our CEO Gary Nagle and his management team. The CEO's report (page 5) and the Financial review (page 66) provide details on our remarkable performance last year.

Climate strategy
The Board remains committed to the Company's progress in implementing our climate strategy. Alongside this Annual Report, we are today publishing our *Climate Report*, which provides an update on our progress against our *Climate Action Transition Plan, Pathway to Net Zero*, published in 2020. Previously, we had published this in December to coincide with our Investor Presentation but, in consultation with shareholders, we have concluded that we are better able to provide a clear, consistent and concise picture by publishing the two reports concurrently so that they both include relevant data and are aligned. As per last year, our progress report will be put to an advisory vote of shareholders at the 2023 AGM in May.

Investigations
We entered into resolutions with authorities in the United States, United Kingdom and Brazil in relation to the investigations which started in 2018 concerning historical bribery and market manipulation, and reached an agreement with the Democratic Republic of Congo (DRC) over past conduct. We have been subject to a number of claims arising from these resolutions or their subject matter, mainly from affected companies or countries or from investors, some of which we have resolved and others which are at an early stage and will continue for some time (for further details on these matters see page 226). These claims all reinforce the importance of ensuring that the Company is a responsible and ethical operator wherever we work.

Over the last number of years, we have invested heavily to improve our Ethics and Compliance programme and are committed to learning from our past failures. Pursuant to the resolutions with the US Department of Justice, independent compliance monitors are to be appointed and we look forward to working with them co-operatively and constructively as they review our Ethics and Compliance programme to ensure that they can report on a strong and effective programme as the conclusion of their work. We continue to cooperate with the Swiss and Dutch authorities with regard to their ongoing investigations.

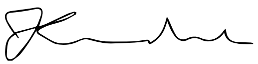
Health and Safety
Safeguarding the health and safety of our people remains a core priority for the Company. The report from our HSEC Committee (see page 117) sets out the extensive work carried out last year in this area including overseeing the implementation and performance of our "SafeWork 2.0" programme that was launched in 2021 as an update to our existing SafeWork programme. We have seen improvements in some of the metrics but sadly we are humbled in having to report no improvement for last year with regard to tragic occupational fatalities, which remained at four across our business. As our training and processes continue to improve and become embedded across all of our operations, we believe we will move closer to our ambition to prevent all fatalities, occupational diseases and injuries at work.

Tailings storage facilities (TSFs) remain an important area of focus. We have already spent $130 million on our major upgrade programmes with a further spend of over $500 million planned for the next three years. We will be reporting on our conformance with the Global Industry Standard for Tailings Management (GISTM) for all our very high and extreme consequence facilities later this year and all the other lower consequence facilities by August 2025. We have also continued to improve our framework concerning the management of our TSFs including advancements in governance, training, monitoring and assurance, with further work planned as we progress to conformance with the GISTM.

Reporting suite
Last year we published our first Ethics and Compliance report, providing a comprehensive account of the structure and operation of our Ethics and Compliance programme across the Group. This complements our existing suite of documents, including our *Sustainability Report*, Payments to Governments Report and Modern Slavery Statement, which together with this report and our *Climate Report* reflect our commitment to transparency and provide detailed information about our business.
See further at *glencore.com/publications*.

In all of these areas there remains work to do.

We look forward to making progress in 2023 in challenging and supporting our strong management team as the Company looks to capitalise on the opportunities presented by the future.



Kalidas Madhavpeddi,
Chairman

Operating responsibly and ethically, while creating sustainable long-term value

Gary Nagle
Chief Executive Officer

The global pandemic, recovery from it and years of underinvestment, followed by conflict in Europe, exposed pre-existing vulnerabilities in energy security and supply chains, underpinning the generally high and volatile 2022 commodity price environment, which enabled the Group to generate record profitability for the year.

Weather and logistics constraints, high energy costs, project delays, and community and employee protest campaigns, meant 2022 was a year of supply challenges. Against such a backdrop, notwithstanding the progressive tightening of monetary conditions and declining consumer sentiment in many key markets over the second half of the year, together with stalling industrial activity in Europe and China's zero-Covid policy, physical commodity markets remained generally healthy, with prices well supported.

In copper, mined supply underperformed initial projections by c.1.3 million tonnes (c.6%). Good electrification demand for copper largely offset weakness in other sectors, supporting annual average prices just 6% below 2021's average. Aluminium and zinc markets also experienced meaningful supply cuts with high energy prices forcing smelter curtailments, keeping both markets tight and inventories at low levels. In nickel, solid demand for the more limited high-quality material buoyed LME-grade prices, despite the expansion of low-grade production and weak stainless markets.

Russia's invasion of Ukraine generated one of the largest dislocations in global energy markets in recent history. Most relevant to Glencore were the large coal price moves, where both high energy (NEWC) and low energy (API5) thermal coal markets jumped to record levels in 2022, with average prices up 163% and 112%, respectively. The legacy of general sector underinvestment, along with high rates of mine disruption in Australia, Indonesia and Colombia, left supply unable to easily respond to the stronger demand brought on by the rapid changes in Europe's energy mix.

2022 Financial scorecard

The unprecedented 2022 developments in global energy markets were material drivers for both our Marketing and Industrial businesses, lifting Group Adjusted EBITDA to $34.1 billion, up $12.8 billion over the period. Net income before significant items increased $9.8 billion to $18.9 billion, while significant items, reflecting various impairments recorded and a gain on the acquisition of Cerrejón, reduced Net income attributable to equity holders to $17.3 billion.

Marketing posted another record performance, with Adjusted EBIT of $6.4 billion, up 73% year on year, driven primarily by our energy departments, successfully navigating the extreme market imbalances, volatility and dislocations across crude oil, LNG, refined products, coal and logistics infrastructure. Metals Marketing Adjusted EBIT of $1.6 billion was 34% below 2021, reflecting more subdued market conditions in the second half, amid rising interest rates, recession fears and the effects of China's zero-Covid policy.

Industrial Adjusted EBITDA increased by $10.2 billion to $27.3 billion for the period, benefiting primarily from record prices for our key coal benchmarks, amplified by the incremental contribution from the two-thirds of Cerrejón, acquired in January 2022, that Glencore did not previously own. Excluding this transaction, on a like-for-like basis, our consolidated coal production actually declined by almost 9 million tonnes (7%), primarily due to abnormally wet weather. Coal Adjusted EBITDA increased by $12.7 billion to $17.9 billion, while strong oil and gas markets also supported our oil E&P assets, with Adjusted EBITDA rising by $552 million to $781 million.

Earnings from our metals Industrial business declined by $2.7 billion, largely reflecting higher costs, primarily energy-driven, and areas of lower production across the portfolio. Reduced copper and zinc volumes incorporate the base effect of asset sales (notably Ernest Henry and South American zinc assets), Kamoto Copper Company's geotechnical constraints, and end-of-life variability / declines at particular Mount Isa and Kazzinc mines.

Aligned with the record Adjusted EBITDA results, particularly in Marketing, our net working capital significantly increased during the period, reflecting materially higher energy prices and elevated

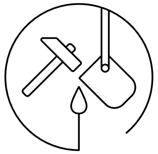
Chief Executive Officer's review *continued*

commodity market volatilities. Marketing accounted for some $5 billion of net working capital investment (unchanged from H1 2022) across three key categories: a) $0.7 billion net increase in physical forward commodity related contracts (which are not margined), b) $1.9 billion net increase in trade receivables / payables, whereby we previously obtained higher than average payment terms from various Russian suppliers, along with a specific slow-moving exposure expected to be settled in 2023 and c) $2.4 billion net increase in net margin calls paid, in excess of derivative fair values. The various commodity exchanges significantly increased their initial margining requirements during the period, resulting in the posting of an additional $2.2 billion from $1.9 billion to $4.1 billion. This additional investment in working capital should be considered in the context of the $3.8 billion increase in Energy Marketing Adjusted EBIT to $5.2 billion.

Accounting for this working capital build and, after effecting $7.1 billion of Glencore shareholder distributions and buybacks during 2022, significant surplus cash was generated during the year, which reduced Net funding and Net debt to $27.5 billion and $0.1 billion, respectively, from the prior period levels of $30.8 billion and $6.0 billion, allowing for further 'top-up' returns under our shareholder returns framework.

Shareholder returns

Reflecting our strong financial performance, we significantly increased shareholder returns in 2022. Our framework of managing Net debt around a $10 billion cap, with deleveraging, after the base distribution periodically returned to shareholders, allowed us to announce c.$8.5 billion of returns, up from $2.8 billion in 2021.



Year-end net debt◊

$0.1bn

Announced returns to shareholders

$7.1bn

in 2023

These returns comprised a $3.4 billion base distribution in respect of 2021 cash flows, along with $5.1 billion of top-up returns, encompassing a c.$1.5 billion cash element and $3.6 billion cumulative share buybacks for completion in February 2023.

For 2023, basis 2022 cash flows, we are recommending to shareholders a $0.40 per share (c.$5.1 billion) base distribution, made up of $1 billion from Marketing cash flows and 25% ($4.1 billion) of Industrial attributable cash flows.

Our 'Top-up' capital returns allocation framework generates an additional c.$2 billion for return, applied in the form of an incremental c.$0.5 billion cash distribution ($0.04 per share) and $1.5 billion of further share buybacks. Payment of the aggregate cash distribution of $0.44 per share will be effected 50% in each of June 2023 and September 2023.

Our climate ambition

During the year we engaged extensively on progress with our Climate Action Transition Plan, *Pathway to Net Zero*. Our shareholders continue to reinforce that climate strategy is an important area of focus. There was broad support for our climate strategy, recognising the importance of maintaining a strategy that remains resilient to the risks and opportunities of the evolving energy transition, and encouragement to continue our focus on progressing towards our ambition of achieving net zero emissions by the end of 2050.

A limited number of shareholders looked for opportunities to accelerate our Scope 1, 2 and 3 CO_2e emissions reduction target (50% reduction by the end of 2035 against a restated 2019 baseline), while some raised the prospects for incremental growth in our coal production. However, the overwhelming majority of shareholders reiterated their support for our current responsibly managed coal decline strategy and associated targets.

We remain committed to our 2026 and 2035 CO_2e emission reduction targets of 15% and 50%, respectively on a restated 2019 baseline. During the period 2019 to the end of 2035, our planning includes the closure of at least 12 coal mines across our global coal portfolio.

We have continued to make meaningful progress in the identification of carbon abatement opportunities across the portfolio and significantly expanded our Marginal Abatement Cost Curve (MACC) to include more than 14 million tonnes of potential Scope 1 and 2 abatement initiatives.

Chief Executive Officer's review *continued*

These potential initiatives range from renewable power purchases and on-site renewable power generation, through to energy storage systems, operational efficiency initiatives and electrification.

Our carbon abatement initiatives have also advanced. Our Carbon, Transport and Storage Company (CTSCo) environmental impact study has progressed to public consultation.

In addition, we took steps to grow our global recycling footprint and advance circularity of critical minerals through new partnerships and investments to expand our recycling capabilities.

We believe our holistic approach to managing our industrial emissions footprint sets us apart from our peers. Our strategy of responsibly depleting our coal portfolio over time reflects our belief that the energy transition will be non-linear through time and geography, with the responsible decline of our coal portfolio meeting critical energy needs through this evolution.

We look forward to continuing engagement with our stakeholders as we progress the implementation of our strategy and respond to the global challenges of climate change and the energy transition.

Responsible and ethical production and supply

The safety and security of our workforce and communities living around our industrial assets are a priority in all our operational activities. Our ambition is to prevent fatalities, occupational diseases and injuries wherever we operate. It is with sadness that we recorded the loss of four lives in work-related accidents at Glencore's managed operations in 2022. We believe that consistent application and reinforcement of our SafeWork framework, through strong, visible leadership, can drive and deliver the safety culture and operating discipline we are looking for, and get our people home safe.

Glencore resolved the previously disclosed investigations by authorities in the United States, the United Kingdom and Brazil during the period. These investigations into past activities in certain Group businesses related to bribery, and separate US investigations related to market manipulation. We acknowledge the misconduct identified in these investigations and have cooperated with the authorities. This type of behaviour has no place in the Glencore of today, and the Board, management team and I are very clear about the culture that we want and our commitment to be a responsible and ethical operator wherever we work.

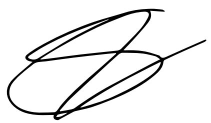
Glencore continues to cooperate with the previously disclosed and ongoing investigation by the Office of the Attorney General of Switzerland into Glencore International AG for failure to have the organisational measures in place to prevent alleged corruption and an investigation of similar scope by the Dutch Public Prosecution Service. The timing and outcome of these investigations remain uncertain.

Outlook

High inflation rates and associated tighter monetary conditions present some risk to the economic outlook in 2023. China's reopening, however, together with a continued global focus on energy security and decarbonisation / electrification, mean that demand for many of our commodities is likely to remain healthy, while supply constraints persist and inventories remain relatively low.

Recent government policies, such as the US Inflation Reduction Act and the EU's proposed Green Deal Industrial Plan, demonstrate the growing need for critical raw materials through to the end of the decade and beyond, necessitating fresh investment into both primary supply and recycling.

The strength of our diversified business model across Industrial and Marketing, focusing on metals and energy, has proved itself adept in a range of market conditions, giving us a solid foundation to successfully navigate shorter-term challenges that may arise, as well as meet the resource needs of the future. I would like to thank all our employees for their efforts and tremendous contribution during the challenging, but very successful, 2022. As always, we remain focused on operating responsibly and ethically and creating sustainable long-term value for all our stakeholders.



Gary Nagle,
Chief Executive Officer

The Strategic Report was approved by the Board and signed on its behalf by Gary Nagle

Energising today

As the world moves towards a low-carbon economy, we are focused on supporting the energy needs of today while investing in our transition metals portfolio.

Energising today *continued*

The world currently depends on fossil fuels (coal, natural gas and oil) for its primary energy demand. Scenarios based on current and announced policies indicate fossil fuels will continue to be an important part of the global energy mix for years to come, while the adoption of alternate energy sources progresses. Presently around 80% of total energy supply comes from oil, coal and natural gas according to the International Energy Agency (IEA).

The pandemic, recovery from it during 2021, and years of sector underinvestment, followed by conflict in Europe, exposed pre-existing vulnerabilities in global energy security and supply chains, underpinning the generally high and volatile 2022 commodity environment. Supply could not easily respond, as described in the Marketing section on page 73, and coal prices moved higher.

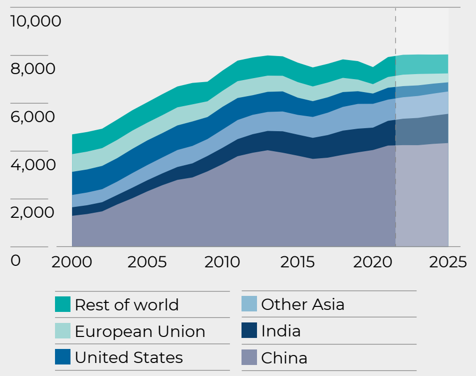
Glencore is a large producer and supplier of the energy products needed to ensure energy security and availability in the near and medium term. Coal is an important part of our Industrial commodity portfolio and we also market crude oil, oil products and natural gas. Our Marketing business moves resources from where they are plentiful to where they are needed.

The world currently consumes around 7 billion tonnes per year of thermal coal, the majority of which is used in the countries where it is extracted.

Currently sized around 1 billion tonnes per year, the global seaborne thermal coal market is an important balancing mechanism supporting energy security. Glencore provides most of its consolidated thermal coal production into this market.

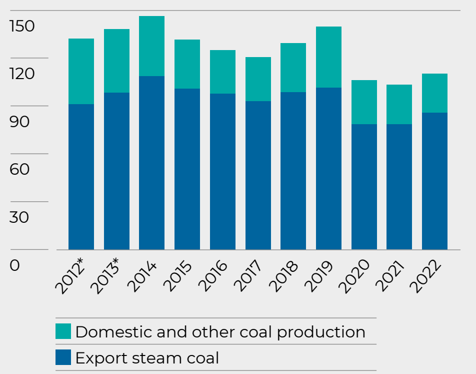
Around 85 million tonnes of thermal coal per year from our industrial assets in Australia, Colombia and South Africa (from around 110 million tonnes of total coal production) is exported to countries where coal continues to play an important role in power generation, given fixed infrastructure already in place, security of supply and affordability. The remainder of the coal we produce is used in the manufacture of steel internationally or domestic power generation in Australia and South Africa. We believe coal's share of primary energy demand will decline over time, but for many countries it continues to drive economic and social development. Our energy portfolio, including coal, helps provide the products needed to meet the energy and development needs of today. We support the global climate change goals outlined in the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, and UNFCCC's recognition of the critical importance of sustainable economic development and its acknowledgement that measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each country and

Global coal consumption, 2000–2025



Source : IEA

Glencore consolidated coal production



* Pro-forma Glencore/Xstrata

integrated with national development programmes. We support the principle of equity set out in the Paris Agreement and acknowledge the common but differentiated responsibilities and capabilities of domestic economies (particularly those of emerging markets and developing economies) in the pursuit of climate objectives. We draw from this principle that the global response to climate change should pursue twin objectives: limiting temperatures in line with the goals of the Paris Agreement, and supporting the United Nations Sustainable Development Goals, including sustained, inclusive and sustainable economic growth, and universal access to clean, affordable energy. For more information on our Climate Action Transition Plan, Pathway to Net Zero, see page 6 of our *2022 Climate Report*.

We are committed to responsibly managing the decline of our coal portfolio in line with our targets to reduce Scope 1, 2 and 3 emissions by 15% and 50% by the end of 2026 and 2035, respectively, on a restated 2019 baseline.

During the period 2019 to 2035, our planning includes the closure of at least 12 coal mines across our global coal portfolio. As mines reach end of life, we will rehabilitate these properties in a responsible manner.

We believe the depletion of our coal portfolio is consistent with the world's reducing coal needs as it embraces other forms of energy production.

Advancing tomorrow

The world of tomorrow will look very different, with new sources of energy and ever greater levels of connectivity. The metals we produce, source and market will support the global ambition to decarbonise.

Advancing tomorrow *continued*

Next to our portfolio of energy products, Glencore is a major producer, recycler and marketer of the transition metals and solutions that support the journey to net zero emissions such as copper, cobalt, nickel and zinc.

As the world shifts from fossil fuels to other sources of energy and governments and consumers continue to embrace renewable energy, energy storage, electric vehicles and other decarbonising technologies, demand for the refined metals that enable these transitions is expected to keep growing.

We anticipate that the energy transition will be non-linear across time and geography. The global transition from fossil fuels to battery power will require metals such as copper, nickel, cobalt, vanadium and zinc. Our large-scale, low-cost transition metals portfolio is well positioned to provide the commodities important to the decarbonisation of the global economy.

Across our business, we are prioritising investment in metals that support the low-carbon transition. These commodities will need to be available in large amounts in order for the transition to progress. The cumulative copper deficit by 2030 could be as much as 50Mt, illustrating the opportunity for Glencore's copper business.

Primary mining sources are likely to be insufficient to supply that demand. Progressing and delivering the goals of the Paris Agreement require significantly increased consumption of both primary and secondary metals and minerals.

Glencore's presence at key stages of the value chains for both new and recycled commodities – production, refining, recycling, sourcing, marketing and distribution – points to our contribution to the energy transition necessary for global decarbonisation.

We have a growing recycling business, which extracts metals from spent electric batteries and end-of-life electronics, which we see expanding and as an important part of the transition to a low-carbon economy.

Our industrial asset portfolio includes large, long-life and low-carbon advantaged commodities. We are focusing our portfolio on larger, higher-margin, longer-life assets essential to the transition to a low-carbon economy.

We are a leading producer of key transition metals, including copper, cobalt, nickel, zinc and vanadium.

Our low-carbon advantaged commodities, geographies and recycling capability supply our Marketing business with the products that our customers increasingly need.

Establishing a circular economy requires a global commitment driven by government policy and supported by consumer behaviour. At the same time, the challenge of meeting the increasing energy needs of a growing global population, while drastically reducing the world's emissions, will require the continued production of primary metals for the products and energy supply needed to respond to changes in population and growth of developing economies, as well as deliver the energy transition needed to achieve a low-carbon economy.

Advancing tomorrow *continued*

The journey of nickel

Nickel is part of our everyday lives, and a metal that we will increasingly need for a sustainable future. It is all around us, from the utensils we use in our kitchens to the bridges that connect our cities and the batteries of electric vehicles that will help to enable a low-carbon future. Yet many people do not notice its presence because it is a ‘hidden’ metal.

At Glencore’s Integrated Nickel Operations (INO) across Canada and Norway, the journey of nickel sees the metal travel from deep within the permafrost of northern Quebec, through Sudbury, Ontario, on to Kristiansand in Norway, and from there to customers around the world.

But nickel’s journey is also symbolic; from a metal traditionally used to manufacture stainless steel, to one that is now regarded as critical for the transition to a low-carbon economy. And through its virtually endless recyclability, it is also driving the transformation to a truly circular economy.

Our role

Glencore is a leading producer and marketer of nickel, with operations not just in Canada and Europe, but also in Australia and New Caledonia in the South Pacific. In 2022, we produced 107kt of own sourced nickel. We produce some of the world’s purest nickel, and we are also one of the largest recyclers and processors of complex secondary nickel feeds, including batteries.

Our Marketing business deals in nickel metal as well as concentrates, intermediates and ferronickel and our customers include a broad base of industrial consumers, in sectors such as automotive and power generation.

Unique properties

Nickel is mainly used to make stainless steel because it adds strength and corrosion resistance to the steel. Other valuable properties include its ability to be disinfected, its electrical and magnetic properties, and its strength at both high and low temperatures.

Its ability to handle high temperatures means that it features in specialty steels and superalloys, used for example in jet engines, while today’s personal electronics depend on nickel to connect their chips and processors with just the right amount of power.

Nickel in the future

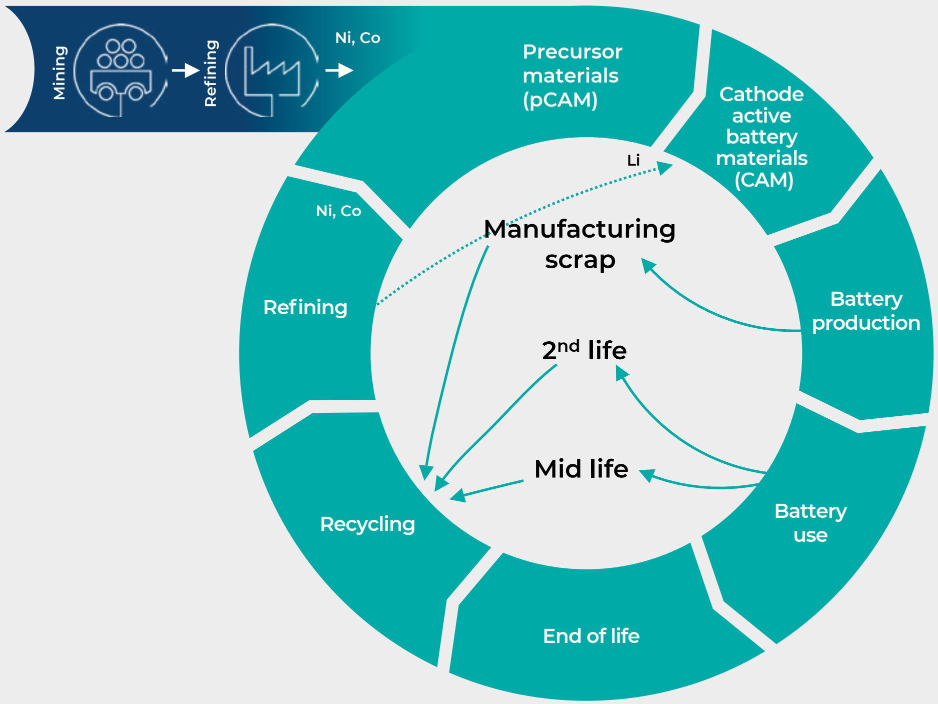
More than anything else though, it is because of nickel’s use in clean energy and mobility technologies that its role in our lives is expected to grow.

To provide wind power, for instance, nickel is required not just in the stainless steel alloys that are used to manufacture wind turbines, but to increase the strength and toughness of low alloy steels. Similarly, stainless steel is used to make the turbines of hydro-electric power systems due to the anti-corrosive properties of the nickel ‘hidden’ inside.

Nickel is also a major component of electric vehicle batteries. The metal serves to deliver higher energy density, resulting in greater storage capacity. With nickel-containing lithium-ion batteries set to power electric vehicles for the foreseeable future, and many millions of such vehicles set to hit the roads in the coming decades, the demand for nickel is forecast to soar.

Hear more about the journey of nickel from our team: **glencore.com/media-and-insights/insights/2022-02-the-journey-of-nickel**

As a producer / marketer of metals used in battery production we are seeking to accelerate circularity of critical minerals



Glencore is one of the world’s largest recyclers of end-of-life electronics, and a major recycler of complex secondary copper, nickel, cobalt, gold, silver, platinum and palladium bearing feeds.

Our significant portfolio of smelting and refining assets is designed to handle a wide range of complex feeds, allowing us to process recyclable materials.

In 2022, our copper and e-waste recycling business recovered approximately 30.5kt Cu, 107koz Au, 1.35Moz Ag, 13koz Pd and 4koz Pt and our nickel recycling business recovered approximately 6.2kt Ni, 1.5kt Co and 1.2kt Cu.

Recycling towards a circular economy

Growing our global recycling footprint in our core and new markets – 2022 progress

Recovering transition metals from end-of-life electronics and batteries

To aid global decarbonisation to take place, the world should increasingly move to a circular economy, that is one where economic activity is decoupled from the consumption of finite resources through eliminating waste by recirculating products and materials.

Our recycling business has grown organically, within different industrial assets, marketing teams and commodity lines. While experimental in the early days, today our recycling business has evolved from a side activity to an important function for Glencore.

As one of the world's largest recyclers of end-of-life electronics and a major recycler of complex secondary copper, nickel, cobalt, gold, silver, platinum and palladium bearing feeds, we play an important role in the circular economy, giving a second life to these commodities. By recycling metals, we contribute to the circular economy, diverting materials from landfill and helping to reduce environmental impacts.

In the 1980s, our Horne Smelter in Canada became one of the first smelters in the world to pioneer the recovery of copper and precious metals from discarded electronics.

Our Integrated Nickel Operations (INO) in Sudbury, Canada began recycling in 1990. Initially, the facility processed super-alloy scrap from the aerospace sector. Today, it processes secondary feed including nickel and cobalt bearing end-of-life materials, production scrap and recycle streams.

Redefining waste as a resource

Electronic-scrap (e-scrap) is one of the fastest-growing waste categories in the world, driven by both growing demand and shorter life cycles for items such as cell phones and tablets. And through the growth of the EV market, with more gigafactories being built, the need to recycle those batteries will continue to accelerate.

Part of the challenge is thinking of end-of-life products not as waste but as a resource. At Glencore, we see these post-consumer materials as a valuable resource that should help supply the increasing demand for vital transition metals in support of transforming the energy supply chain and the world's net zero ambition.

The barriers to entry are mitigated by Glencore's existing smelters and refineries, which can accept a portion of recycled feed alongside primary metal. We want to be the stewards of these materials throughout their lifetimes.

Designing for circularity

Circularity starts with the design and engineering of the products we use every day. It is essential to start building recyclability into those products. Together with our partners, we helped establish the World Economic Forum's Circular Electronics Partnership – the first private sector alliance for circular electronics. This partnership allows us as a smelter and a refiner to speak directly to an electrical OEM. These two parties might otherwise have little reason to connect as we sit at opposite ends of a linear supply chain. Now, we are sitting next to each other and are having conversations on how to design for circularity.

In such ways, we can bring transition metals back to our platform, recycle them and make them available again for reuse. And not just after their first life, second life or the third life, but multiple times over. Our in-house processing capacity provides the infrastructure to help bring the circular economy to life.

Hear from our team how recycling critical metals is supporting the world in moving towards a circular economy.
glencore.com/what-we-do/recycling

2022 progress towards global recycling

Britannia Refined Metals

We are working to repurpose parts of Britannia Refined Metals (BRM) and adding a new recycling stream. We are building a sampling plant for e-scrap derived from domestic e-waste collection and recycling.

BRM will continue its lead refining and alloying operations, including supplying high-quality lead to European sea cable manufacturers for cables connecting offshore wind farms to the mainland.

LOHUM

Five-year offtake for c.10,000t battery metals from LOHUM's recycling business in India.

Li-Cycle

Long-term partnership allowing Glencore to help OEMs close the battery loop in key regions of the world, from sourcing and processing of scrap and black mass at Li-Cycle Spokes and Hubs, to subsequent marketing and offtake of lithium-ion battery products.

ACE Green Recycling

Fifteen-year 100% offtake agreement from ACE Green Recycling's planned facilities in the USA, India and Thailand, for recycled lead as well as key battery metal end products from recycled lithium-ion batteries.

Our business model

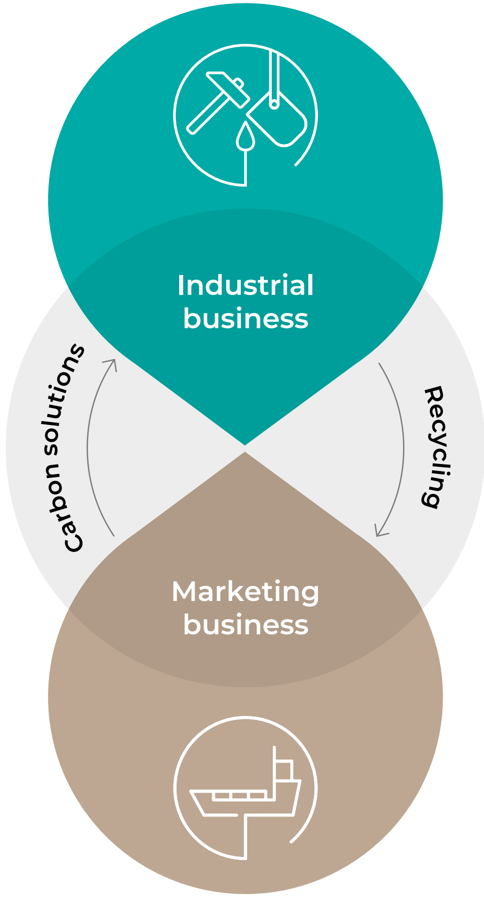
Inputs and resources into our business model:

Assets and natural resources
- Many long-life and high-quality industrial assets
- Value over volume approach
- Embedded network and knowledge in Marketing activities

Our people and partners
- Established long-term relationships with customers and suppliers
- c.140,000 employees and contractors globally

Financial discipline
- Capital deployed in disciplined manner
- Marketing hedges a significant majority of its price risk
- Marketing profitability driven by volume-based economies of scale, value-added services and arbitrage opportunities

Unique market knowledge
- Finding value at many stages in the commodity chain



Outputs and impact on key stakeholders:

Investors
$34.1bn

2022 Adjusted EBITDA◊

$24.0bn

Equity free cash flow (FFO◊ less net purchases of property, plant and equipment and dividends to minorities)

Our people
7%

Reduction in total recordable injury frequency rate

Payments to governments
$12.0bnΔ

Industrial business
Our Industrial business spans the metals and energy markets, producing multiple commodities from over 60 industrial assets

Industrial business activities
Exploration, acquisition and development
We focus mainly on brownfield opportunities, cost control and synergies.

Extraction and production
We diversify our product offering and have wide geographical presence.

Processing and refining
We optimise end products to suit a wider customer base.

Marketing business
We move commodities from where they are plentiful to where they are needed

Marketing business activities
Logistics and delivery
We fulfil customer orders and take advantage of demand and supply imbalances, aided by the scale of our network.

Blending and optimisation
We offer a wide range of product specifications, seeking to meet customer-specific requirements and provide a high-quality service.

Investment case

1

Our markets

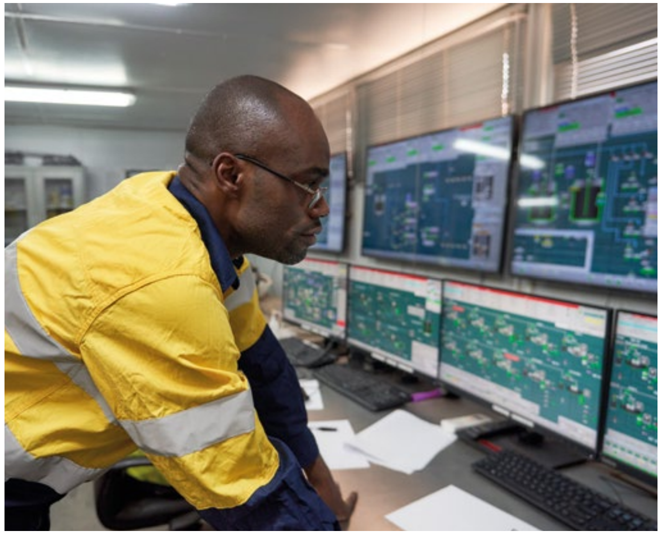
- Underinvested, destocked with strong demand growth
- Easily accessible high-quality critical mineral resources increasingly scarce
- Vital for urbanisation, electrification of mobility and decarbonisation of energy
- Supply very challenged to meet future demand needs

2

Our business

- Unique position in producing, recycling, sourcing, marketing and distributing the commodities that enable the transition
- Portfolio of energy and critical minerals necessary to meet the needs of today and tomorrow
- 50% CO_2e emissions reduction target for our Scope 1, 2 and 3 emissions by the end of 2035 with net zero ambition by the end of 2050, with a supportive policy environment[1]
- Significant pipeline of future critical mineral growth options

3



Our strength

- Flexible business model that adapts quickly to changing conditions and is well-positioned for the future
- Experienced management team
- Relentless focus on maximising value creation
- Highly cash generative through the cycle – illustrative 2023 FCF of c.$10.6 billion at February 2023 spot prices

1. Significant global technological evolution and advancements, and coordinated government policies, including incentives to drive accelerated uptake of lower carbon and decarbonisation technologies, and market-based regulations governing industrial practices that drive a competitive, least cost emissions reduction approach, much of which is not within our direct control or ability to materially influence but is critical to our ability to achieve our net zero emissions ambition by the end of 2050.

Our market drivers

We are dependent upon the supply, demand and pricing for our commodities.

Key market drivers

Net zero emissions by the end of 2050

Efforts to limit global temperature rises will impact fossil fuel demand

- Momentum to decarbonise the global economy has accelerated as nations increasingly coordinate efforts aimed at reducing greenhouse gas emissions, including IEA's target of net zero emissions by the end of 2050
- The Paris Agreement aims to hold the increase of global average temperatures to well below 2°C above pre-industrial levels and to pursue efforts to limit temperature increase to 1.5°C above pre-industrial levels

Future commodity supply

Timing within the economic cycle is very important when bringing new mine supply to market

- The pro-cyclical nature of mining investment means that new mines are usually approved when commodity prices are higher
- Given the long development time frames required to bring new mine supply online, the timing as to when this supply becomes available in the economic cycle is difficult to predict and it could become available at low points in the economic cycle, creating excess supply in the market

Demand for the commodities we produce

Decarbonisation demand, population growth and industrialisation of developing economies has an impact on commodity demand

- The industrialisation and urbanisation of developing economies over almost two decades has driven significant growth in commodity demand
- China's rapid growth over this period now means that it accounts for up to half of global demand for many commodities
- Looking forward, the world is forecast to add 1.7 billion people by 2050, with much of this growth in highly populous industrialising economies
- All potential decarbonisation pathways require significantly more non-fossil fuel commodities

Emerging drivers

Substitution

Higher commodity prices and resource scarcity increase the likelihood of material substitution

- Widespread adoption of renewable energy sources as a means of decarbonising energy supply will create significant new demand for the current key enabling commodities, including copper, nickel and cobalt
- The quantum of potential new demand is generally of a size that is large relative to the current annual production and known defined global resources of that commodity

Our market drivers *continued*

	Net zero emissions by the end of 2050	Future commodity supply	Demand for the commodities we produce	Substitution
Impact on our industry	• This transition is likely to increase the cost for fossil fuels, impose levies for emissions, increase costs for monitoring and reporting and reduce demand • Third parties, including potential or actual investors, have introduced and may introduce further policies materially adverse to Glencore due to our interests in fossil fuels, particularly coal • Technological advances are making renewable energy sources more competitive with fossil fuels, which is likely to increase renewable energy's market share over the longer run	• Over-investment creates over-supply and, with it, potentially prolonged periods of low commodity prices • Although commodity prices have increased from the lows seen in early 2020, the experience of the last economic cycles has increased investor pressure on companies to be more cautious about investing in new supply • Balancing a finite declining resource base along with heightened country and operational risks with the need to grow to meet expected future demand is an inherent challenge for companies in the resource sector	• Current levels of industrialisation and urbanisation suggest, in isolation, that demand growth rates for commodities could be lower in the future • In the short to medium term, inflation, economic instability related to the Russia / Ukraine war and a drag on growth in China could constrain or reverse commodity demand growth • Accelerated shift in energy demand from fossil fuel sources to electrification, and continued population growth, particularly in Africa and South East Asia, could generate additional demand for commodities	• Revenue and earnings of substantial parts of our Industrial asset activities, and to a lesser extent, our Marketing activities, are dependent on prevailing commodity prices • Under a rapid decarbonisation scenario, a significant increase in demand for the commodities that currently underpin renewable technologies is likely to result in significantly higher prices for those commodities • Higher sustained commodity prices will increase the risk of accelerating efforts to either reduce the quantity of material needed for a certain application or substitute an alternative that provides similar performance at a lower price. For example, demand for cobalt could fall if newer battery technologies provide similar results with less or no cobalt content
How we are responding	• We recognise our responsibility to contribute to the global effort to achieve the goals of the Paris Agreement by decarbonising our own operational footprint • We believe that our contribution should take a holistic approach and have considered our commitment through the lens of our emissions • Against a restated 2019 baseline, we are committed to reduce our Scope 1, 2 and 3 emissions 15% by the end of 2026, 50% by the end of 2035 and we have an ambition of net zero emissions by the end of 2050, with a supportive policy environment	• Our disciplined approach to capital allocation seeks to reflect market supply and demand dynamics • Given the unpredictability of costs, risks and timing of large-scale greenfield projects, we prefer to add supply via targeted capital efficient / lower risk brownfield expansions when required. We may also look to develop a suitably de-risked greenfield project if we believe that there is strong enough demand and bringing on that supply will not oversupply the market • With the expectation that growth drivers in the global economy will become weighted towards decarbonisation spending, in addition to the commodities needed for everyday life, our large-scale metals portfolio is well placed to benefit from this transition	• Energy transition commodities such as copper, nickel, cobalt, zinc and vanadium could become substantially more important given their role in the technologies / infrastructure that underpin low or no carbon energy sources • We are a leading producer of metals that enable low-carbon and carbon-neutral technologies • We are prioritising capex towards transition commodities, including our South American copper assets and projects, our African copper / cobalt operations, Kazakhstan polymetallic investments and our Canadian INO nickel life extension projects • All energy demand decarbonisation pathways will require the type of enabling commodities that Glencore produces	• Diversification of our portfolio of commodities, currencies, assets and liabilities is likely to mitigate the financial impact of a negative demand shift in the event of substitution of a particular commodity • Our market research teams continue to assess the underlying demand for our commodities as well as the new materials that could impact current renewable technology solutions

Our strategy for a sustainable future

Aligned with our Purpose, our portfolio contributes to the transition to a low-carbon economy, while supporting society's energy needs as it progresses through the transition.

Our Purpose
Responsibly sourcing the commodities that advance everyday life.

Strategic objective
To be a leader in enabling decarbonisation of energy usage and help meet continued demand for the metals needed in everyday life while responsibly supporting the energy needs of today.

Strategic Priorities

Responsible and ethical production and supply

Our core Values are embedded in everything we do. We are committed to operating ethically, responsibly, and to contributing to socio-economic development in the countries where we operate.

We will continue to focus on reducing the emissions of our operations and will allocate financial returns towards fulfilment of our business strategy.

Our commitment is delivered through our operational excellence, health and safety and ethics and compliance programmes, advancing our environmental performance, respecting human rights and by developing, maintaining and strengthening our relationships with all of our stakeholders.

Read more on page 19

Responsible portfolio management

We will prioritise investment in metals that support the decarbonisation of energy usage as well as help meet demand for metals needed in everyday life. We will also reduce our coal production in line with our various climate action commitments and the electrification and decarbonisation of energy systems.

Our capital allocation supports this strategy through the optimal balance of debt and equity, distributions to shareholders and business reinvestment in transition commodities and value-accretive Scope 1 and 2 abatement opportunities that help achieve our emissions reduction targets and ambition.

Read more on page 20

Responsible product use

A low-carbon future requires responsibly produced low-carbon metals. We will seek opportunities to increase the proportion of transition metals we can supply to customers from our own Industrial operations and through our extensive Marketing activities. Supporting this, we are scaling up our power and carbon trading teams to help provide carbon solutions for commodity supply chains as these markets evolve and mature.

We will participate in global efforts to improve abatement technologies and availability, as well as resource use efficiency by contributing to the circular economy.

Read more on page 21

Our strategy for a sustainable future *continued*

Responsible and ethical production and supply

Performance in 2022

Operational performance

Overall, 2022 production volumes were in line with our revised guidance from October 2022, with final quarter sequential production increases delivered across most of our key commodities, including copper, zinc, nickel and coal. During the year, however, we saw a mixed overall production performance. Copper and zinc volumes reflect the base effect of asset sales (notably Ernest Henry and Bolivia), Katanga's geotechnical constraints and supply chain headwinds in Kazakhstan. Nickel volumes benefitted from operating two lines at Koniambo for the majority of the year, partially offset by Canadian industrial action. Overall coal volumes rose during the year with the acquisition, in January 2022, of the balance of Cerrejón that we did not already own, however, on a like-for-like basis, consolidated production actually declined by almost 9 million tonnes (7%), primarily due to abnormally wet weather.

Safety

We require an effective safety management system at each industrial asset to ensure the integrity of plant and equipment, structures, processes and protective systems, as well as the monitoring and review of critical controls. Regrettably, there were four$^{\Delta}$ fatalities during the year.

Our ambition is to become a leader in safety and create a workplace free from fatalities and injuries.

Our Total Recordable Injury Frequency Rate (TRIFR) decreased by 7% compared to 2021, while the Lost Time Injury Frequency Rate (LTIFR) increased by 2% to 0.84$^{\Delta}$ per million hours worked.

Climate change

We recognise our responsibility to contribute to the global effort to achieve the goals of the Paris Agreement by decarbonising our emissions footprint and responsibly managing the depletion of our fossil fuels portfolio.

Against a restated 2019 baseline, we have set ourselves the target of reducing our Scope 1, 2 and 3 emissions in the short term by 15% by the end of 2026, and in the medium term by 50% by the end of 2035. Post-2035, our ambition is to achieve, with a supportive policy environment, net zero emissions by the end of 2050.

Community engagement

Our community development programmes are an integral part of our community and stakeholder engagement strategies. In 2022, we spent around $90 million on these support programmes (2021: $67 million). The increase reflects the resumption of activities following suspension during Covid-related lockdowns, the inclusion of Cerrejón's social investment spend and a humanitarian contribution for Ukraine.

Priorities going forward

Operational excellence

We continue to focus on operational efficiencies and improvements to optimise operating costs and margins.

Sustainability

We continue to implement activities that promote integration of sustainability throughout our business to support our commitment to continuously improve our standards of health, safety, environmental and social performance and human rights performance.

Managing emissions

We are working with global specialists and draw on local expertise within our operational teams to identify value-accretive abatement opportunities to further reduce our emissions.

In 2022, we again almost doubled the volume of NPV positive abatement opportunities and are working to identify additional MACC initiatives to close the remaining gap on meeting our medium-term target and net zero ambition.

Under all credible scenarios, fossil fuels (coal, gas and oil) will continue to be a part of the global energy mix for many years to come. We will responsibly steward the decline of our coal business as it supports society's energy needs through the energy transition.

Ethics and transparency

We are committed to operating transparently, responsibly and ethically and meeting or exceeding applicable laws. We resolved the investigations by the US, UK and Brazilian authorities and continue to work to resolve the outstanding Swiss/Dutch investigations. We are looking forward to working constructively with the monitors that are to be appointed pursuant to our Department of Justice (DOJ) resolutions.

KPIs

- Value for our shareholders – Adjusted EBIT / EBITDA, Net income attributable to equity holders
- Safe and healthy workplace – fatalities, FFR, TRIFR, LTIFR and occupational disease cases
- Environmental performance – our emissions, meeting our commitments on climate change
- Long-term value for communities – community investment spend

Key Performance Indicators: **page 22**
Financial review: **page 66**
Sustainability: **page 43**

Principal risks

- Health, safety and environment
- Low-carbon economy transition
- Community relations and human rights

Risk management: **page 89**

TRIFR

2.2$^{\Delta}$

Down 7%

LTIFR

0.84$^{\Delta}$

Up 2%

Responsible portfolio management

Performance in 2022

Conservatively positioned

The capital structure and credit profile is managed around a $10 billion Net debt cap, with sustainable deleveraging (after base distribution) below the cap periodically returned to shareholders via special distributions / buybacks as appropriate.

The Net debt cap may be flexed temporarily up to $16 billion for M&A opportunities, subject to accelerated deleveraging to reposition Net debt back to optimal levels.

Year-end Net debt was $0.1 billion. After taking account of committed debt-like outflows in 2023, this allows for $7.1 billion of shareholder returns to restore the $10 billion optimal level.

Bonds

No bonds were issued during the year. Maturities are managed around a cap of c.$3 billion in any one year.

Reinvestment

Our net 2022 cash capital expenditure of $4.5 billion was weighted towards transition commodities with $781 million expansionary capital invested in our metals business, including the INO life extension projects (nickel), Collahuasi (copper) desalination infrastructure and the Zhairem zinc project.

Credit rating

The Group's credit ratings are currently Baa1 (positive outlook) from Moody's and BBB+ (positive outlook) from Standard & Poor's.

Credit facility

During the year, the short-term portion of the Group's $11.2 billion committed syndicated revolving credit facilities was refinanced. Committed available liquidity was $13.0 billion at year end.

Priorities going forward

Balance sheet

We are committed to maintaining a strong balance sheet capable of supporting our strategy.

Investment grade ratings

We will prioritise preservation of a robust capital structure and business portfolio, reflecting our commitment to maintaining a minimum strong BBB/Baa investment grade rating.

Our optimal Net debt target around a $10 billion cap provides significant current rating headroom, with Net debt/Adjusted EBITDA levels comfortable at <1x.

Reinvestment

We will prioritise investment in transition commodities and value-accretive Scope 1 and 2 abatement opportunities that help achieve our emissions targets and ambition.

December 2022 net debt◊

$0.1bn

2021: $6.0bn

Committed available liquidity

$13.0bn

2021: $10.3bn

KPIs

- Returns to shareholders – Funds from operations, Net funding and Net debt and annual capital returns / distributions
- Value for our shareholders – Adjusted EBIT / EBITDA, Net income attributable to equity holders

Key Performance Indicators: **page 22**
Financial review: **page 66**

Principal risks

- Supply, demand and prices of commodities
- Currency exchange (FX) rates
- Liquidity
- Counterparty credit and performance

Risk management: **page 89**

Responsible product use

Performance in 2022

Collaborating with our value chains

As a vertically integrated industrial and marketing business, we are leveraging our own carbon reduction efforts and market expertise to meet the increasing needs for attestable low-carbon products.

Power and carbon trading

Our growing carbon and power trading team has a presence in London, Singapore, Australia and China with a global remit. During the year, they evaluated the Group's industrial asset footprint with a focus on those jurisdictions with the highest carbon emissions. The team has an advisory role supporting delivery of Glencore's MACC and is also involved in the Group's compliance with various carbon tax reporting requirements. The team is actively trading carbon and power, enhancing liquidity and forward hedging capacity across these markets.

Strategic partnerships

Recognising the need for strategic partnerships between raw material and battery supply chain producers, in 2022 we signed a number of long-term supply agreements to help accelerate the circularity of critical minerals.

These include:

- Li-Cycle: Long-term partnership allowing Glencore to help close the battery loop in key regions of the world, through sourcing and processing of scrap and black mass at Li-Cycle Spokes and Hubs, and marketing and offtake of lithium-ion battery end products from Li-Cycle sites;
- ACE Green Recycling: 15-year 100% offtake agreement from ACE Green Recycling's planned facilities in the USA, India and Thailand, for recycled lead as well as key battery metal end products from recycled lithium-ion batteries; and
- LOHUM: Five-year offtake for c.10,000t battery metals from LOHUM's recycling business in India.

Priorities going forward

Partnerships

Working with our customers and supply chain to enable greater use of low-carbon metals and support progress towards technological solutions.

Abatement

Supporting uptake and integration of abatement – an essential contributor to achieving low or net zero carbon objectives.

Circular economy

Leveraging our value chain to expand the volumes of recyclable commodities for processing through our global network of metallurgical assets.

Responsible sourcing

Pursuing strategic long-term agreements to provide a reliable supply of responsibly produced commodities essential to the low-carbon economy.

KPIs

- Returns to shareholders – Funds from operations, Net funding and Net debt and annual capital returns / distributions
- Value for our shareholders – Adjusted EBIT / EBITDA, Net income attributable to equity holders

Key Performance Indicators: **page 22**
Financial review: **page 66**

Principal risks

- Geopolitical, permits and licence to operate
- Laws and enforcement
- Operational delivery

Risk management: **page 89**

Key performance indicators

Our financial and non-financial key performance indicators (KPIs) provide a measure of our performance against the key drivers of our strategy.

Strategic priorities

- Responsible and ethical production and supply
- Responsible portfolio management
- Responsible product use

Non-financial key performance indicators

Safety: number of fatalities

Four[Δ]

Link to strategy

2021: Four

Approach

We take a proactive, preventative approach towards health and safety. We require an effective safety management system at each industrial asset to ensure the integrity of plant and equipment, structures, processes and protective systems, as well as the monitoring and review of critical controls.

We believe that every work-related incident, illness and injury is preventable and we are committed to providing a safe workplace.

2022 Performance

With deep regret, we recorded four[Δ] work-related (occupational) fatalities at our operations in 2022 (2021: four). The incidents were unconnected. Each one has been thoroughly investigated by an independent internal team with root cause analysis and recommendations for improvement shared with senior management. We believe that consistent application of our SafeWork initiative, through strong, visible leadership, can drive a culture of safe operating discipline and get our people home safe.

The 2022 fatality frequency rate, the total number of fatalities from incidents and occupational diseases per 1 million man-hours worked, was 0.013 (2021: 0.014).

Scope 1, 2 and 3 emissions

(million tonnes CO_2e)

370

Link to strategy

2021: 392 (restated)

Approach

We have set ourselves the target of reducing our Scope 1, 2 and 3 emissions in the short term by 15% by the end of 2026, and in the medium term by 50% by the end of 2035, both on a restated 2019 baseline. Post 2035, our ambition is to achieve, with a supportive policy environment, net zero emissions by the end of 2050.

2022 Performance

During 2022, our operational footprint, or the Scope 1 and Scope 2 market-based emissions of the industrial assets within our operational control, were 28.0[Δ] million tonnes CO_2e. This represents a 2% increase from the 27.4 million tonnes recorded in 2021 (restated) and is largely attributable to increased production from our Koniambo nickel and ferroalloys smelters.

Our Scope 3 emissions in 2022 were 342 million tonnes CO_2e, compared to 365 million tonnes CO_2e in 2021, restated from 254 million tonnes. The decrease was principally due to a 6% reduction in Glencore's operationally controlled saleable coal volumes, driven by severe weather impacting production at our Australian coal assets and community blockades at Cerrejón.

We remain committed to managing our operations to deliver our emissions reduction targets.

Community investment

(US$ million)

90

Link to strategy

2021: 67

Approach

Community investments are our contributions to, and financial support of, the broader communities in the regions where we operate.

Funds are committed to support initiatives that benefit communities and local sustainable development. We also make in-kind contributions, such as equipment and management. We support programmes for community development, enterprise and job creation, health, education and the environment.

2022 Performance

In 2022, we spent around $90 million on community development programmes (2021: $67 million). The increase reflects the resumption of activities following suspension during Covid-related lockdowns, the inclusion of Cerrejón's social investment spend and a humanitarian contribution for Ukraine.

Key performance indicators *continued*

Financial key performance indicators

Adjusted EBITDA◊
(US$ billion)

34.1

Link to strategy

2021: 21.3

Policy
Adjusted EBIT / EBITDA provide insight into our overall business performance (a combination of cost management, seizing market opportunities and growth), and are the corresponding flow drivers towards our objective of achieving industry-leading returns.

Adjusted EBIT is the net result of revenue less cost of goods sold and selling and administrative expenses, plus share of income from associates and joint ventures, dividend income and the attributable share of Adjusted EBIT of relevant material associates and joint ventures, which are accounted for internally by means of proportionate consolidation, excluding significant items.

Adjusted EBITDA consists of Adjusted EBIT plus depreciation and amortisation, including the related Proportionate adjustments.

2022 Performance
Adjusted EBITDA was a record $34.1 billion, as dislocations in global energy markets were material financial drivers for both our Marketing and Industrial businesses. Significant inflationary pressure on input costs was outweighed by substantially higher energy (primarily coal) revenues.

Net debt◊
(US$ billion)

0.1

Link to strategy

2021: 6.0

Policy
Net funding / Net debt demonstrates how our debt is being managed and is an important factor in ensuring we maintain an investment grade rating status and a competitive cost of capital.

Net funding is defined as total current and non-current borrowings less cash and cash equivalents and related Proportionate adjustments. Net debt is defined as Net funding less readily marketable inventories and related Proportionate adjustments.

The relationship of Net debt to Adjusted EBITDA is an indication of our financial flexibility and strength.

2022 Performance
Net funding at 31 December 2022 decreased by $3.3 billion to $27.5 billion, while Net debt decreased by $5.9 billion to $0.1 billion.

Net debt is being managed around a $10 billion cap, with deleveraging below such level periodically returned to shareholders. 2022 saw $8.5 billion of shareholder returns.

After taking account of committed debt-like outflows in 2023, the year-end debt allows for $7.1 billion of shareholder returns to already be announced for 2023, structured as c.$5.6 billion of cash distributions and a $1.5 billion share buyback.

Funds from operations (FFO)◊
(US$ billion)

28.9

Link to strategy

2021: 17.1

Definition
Funds from operations (FFO) is a measure that reflects our ability to generate cash for investment, debt servicing and distributions to shareholders.

It comprises cash provided by operating activities before working capital changes, less tax and net interest payments plus dividends received and related Proportionate adjustments, as appropriate.

2022 Performance
FFO was up $11.9 billion on 2021, driven by the strong Adjusted EBITDA. Cash taxes totalled $5.9 billion, though the timing of tax payments in various jurisdictions means that we expect further outflows in 2023, in respect of 2022 earnings. Net interest payments were $0.2 billion higher year over year as base floating rates increased.

Net income attributable to equity holders
(US$ billion)

17.3

Link to strategy

2021: 5.0

Definition
Net income attributable to equity shareholders is a measure of our ability to generate shareholder returns.

2022 Performance
Net income attributable to equity holders before significant items was $18.9 billion, equivalent to $1.44 per share.

Significant items totalled $1.6 billion and principally comprised impairment charges of $3.3 billion, offset by the accounting gains on the Cerrejón and Ernest Henry transactions.

Net income attributable to equity holders was $17.3 billion in 2022, equivalent to $1.33 per share.

TCFD

Supporting the transition to a low-carbon economy

As one of the world's largest diversified natural resource companies, we have a key role to play in supporting the global transition to a low-carbon economy.

Pathway to net zero

In late 2020, we published our climate change strategy, Pathway to Net Zero. This sets out our approach to delivering our climate-related targets and longer-term ambition of achieving net zero emissions. In 2021, we further increased our medium-term target from a 40% to a 50% reduction of our emissions by the end of 2035 on a 2019 baseline and introduced a short-term target of a 15% reduction of our emissions by the end of 2026 on a 2019 baseline.

These publications are available on our website at: **glencore.com/publications**

The Task Force on Climate-related Financial Disclosures (TCFD) was established by the Financial Stability Board to improve reporting of climate-related risks and opportunities. We recognise that disclosures on our climate-related risks and opportunities support our shareholders to make long-term investment decisions. As such, we have structured our annual report's climate disclosures according to the TCFD recommendations since 2017, taking steps each year to provide greater granularity of content.

We believe that the disclosures in this section of the Annual Report are consistent with the four recommendations and 11 recommended disclosures of the TCFD, having taken into account the TCFD's Guidance for All Sectors and Supplemental Guidance for Non-Financial Groups.

TCFD *continued*

Our position on climate change

We take a holistic approach to carbon reduction, recognising that a meaningful contribution to addressing climate change is only possible through our Scope 1, 2 and 3 emissions reductions.

We are committed to responsibly managing the decline of our energy portfolio in line with our Scope 1, 2 and 3 emissions reduction targets, a 15% reduction by the end of 2026 and a 50% reduction by the end of 2035 against a 2019 restated baseline (see the *About this report* section of our *2022 Climate Report*), with a longer-term ambition of achieving net zero emissions by the end of 2050. Our targets and ambition cover our emissions as set out in the *Boundaries and scope* section of our *2022 Climate Report*. We chose to adopt an absolute reduction metric as this delivers a specified reduction in our emissions.

In setting our targets and ambition, we took into consideration the goals of the UNFCCC and the aims of the Paris Agreement (Article 2, UNFCCC; and Article 2, Paris Agreement).

We also recognise that to achieve our long-term ambition there is a need for significant global technological evolution and advancement, and coordinated and supportive government policies, including incentives to drive accelerated uptake of low carbon and decarbonisation technologies, and market-based regulations governing industrial practices that drive a competitive, least cost emissions reduction approach, most of which are not within our direct control or ability to materially influence. For that reason, we have expressed it as an ambition rather than a target, as is more appropriate for activities and actions deemed within our direct control.

We are working actively towards achieving our targets and ambition, and have established seven actions with which we are aiming to do so.

We have linked our capital allocation strategy for our industrial assets to the achievement of our short- and medium-term climate targets and our ambition of achieving net zero emissions by the end of 2050.

Our seven actions to Net Zero

1. Managing our operational footprint
2. Reducing our Scope 3 emissions
3. Allocating capital to prioritise transition metals
4. Collaborating with our value chain
5. Supporting uptake and integration of abatement
6. Utilising technology to improve resource use efficiency
7. Transparent approach

Responsible decline of our coal portfolio

In 2022, the IPCC presented its sixth assessment report (AR6) and the IEA updated its NZE scenario to take into account the actions taken globally in the intervening period from their prior reports and updated data availability reflecting the status of global energy demand and emissions[1]. The IEA scenarios show coal's use in advanced economies declining more rapidly, while the rate of coal use decline in developing economies, particularly in the Asia Pacific, is considerably slower.

However, as illustrated by the IEA's WEO 2022 scenarios in the charts, each of the energy and climate scenarios show a continued role for abated thermal coal for electricity generation in 2050, with the rate of decline subject to the scale of investment into renewable energy supplies. The IPCC's AR6 C1 scenario shows all primary energy from coal in 2050 is abated, while the IEA NZE scenario shows thermal coal use for power generation is all abated from 2040 and unabated coal will only be used in industrial processes by 2050.

Moreover, continued geopolitical uncertainty has heightened energy security vulnerabilities and, while some jurisdictions are seeking to accelerate renewables uptake, the associated short- to medium-term impacts may delay the pace of the nonlinear transition away from fossil fuels in certain other regions.

We are committed to managing a decline of our coal business to meet our targets and thereby pursue the twin objectives that we draw from the Paris Agreement. We have not committed to doing so in line with a particular scenario or pathway, due to the uncertainty inherent in global efforts to progress toward the energy transition.

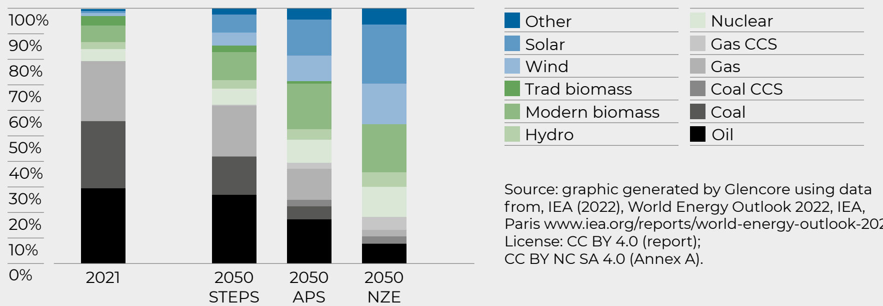
Scenarios are not forecasts of future demand and therefore the scenarios developed by the IPCC and IEA are among several inputs into our climate strategy and are not in-and-of themselves determinative of our strategy.

For instance, if the world is unable to deliver sufficient renewable energy and CCS capacity within the relevant timeframe, we foresee a potential role for unabated thermal coal for electricity generation beyond 2040.

Therefore, and in support of our strategy of a managed decline of our global coal portfolio, we are developing our own approach to abatement beyond 2040, which may include using offsets, as well as CCS. We acknowledge that this does not directly align with the IEA Net Zero 2040 phase-out of unabated thermal coal for electricity generation.

If and while there is demand for coal, and it is economic to do so, we plan to continue to operate our mines to the end of their economic life and in accordance with our climate commitments, which include not exceeding our 150 million tonnes per annum consolidated production cap.

World energy supply



Source: graphic generated by Glencore using data from, IEA (2022), World Energy Outlook 2022, IEA, Paris www.iea.org/reports/world-energy-outlook-2022, License: CC BY 4.0 (report); CC BY NC SA 4.0 (Annex A).

1. IPCC, 2022: Summary for Policymakers. In: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. IEA, World Energy Outlook 2022 IEA Paris: www.iea.org/reports/world-energy-outlook-2022, License: CC BY 4.0 (report); CC BY NC SA 4.0 (Annex A).

TCFD *continued*

Governance of climate-related risks and opportunities

TCFD Recommendation: Disclose the organisation's governance around climate-related risks and opportunities.

Recommended Disclosures:

a. Describe the board's oversight of climate-related risks and opportunities.

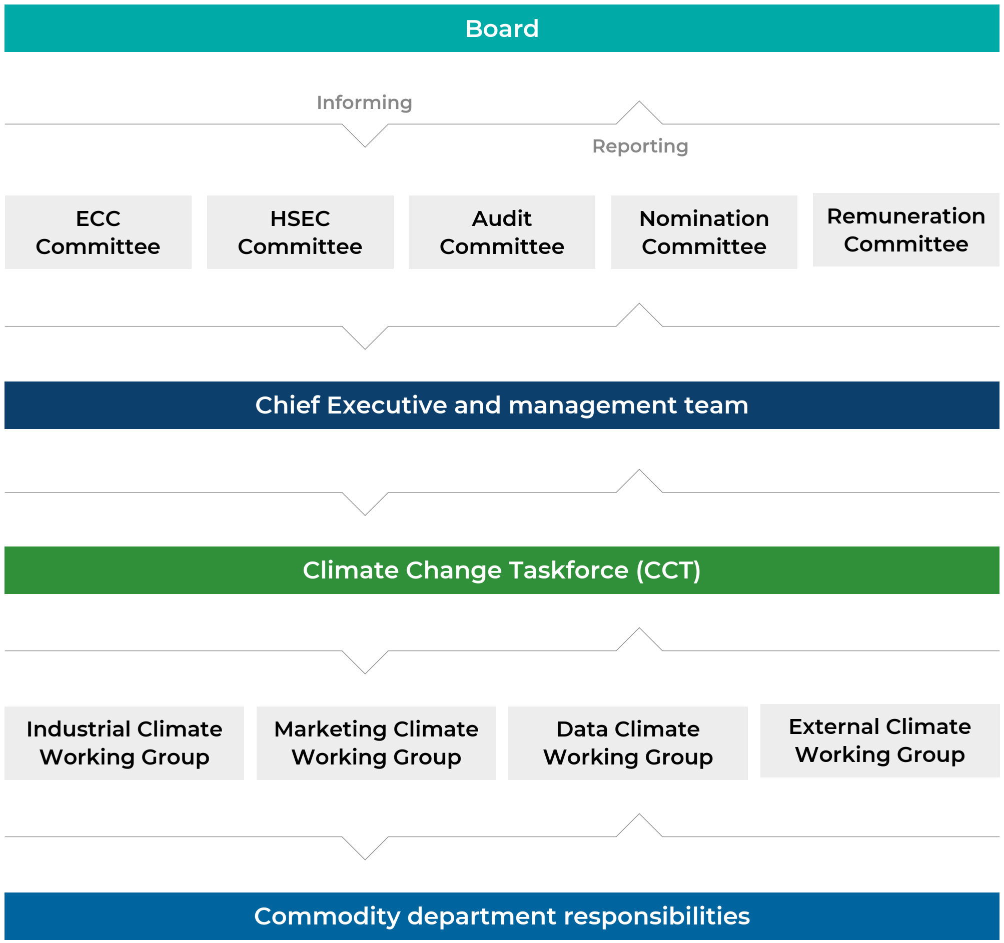
b. Describe management's role in assessing and managing climate-related risks and opportunities.

Our Board is responsible for oversight of overall performance and strategic direction, including with respect to climate change, and considers climate-related issues when reviewing and guiding major acquisitions and disposals, overall risk management, capital expenditure and budgeting and other strategic matters.

The Board is responsible for overseeing the Group's climate strategy and progress against Glencore's climate commitments. Implementation of our climate strategy is led by the management team via our Climate Change Taskforce (CCT). Progress on this topic is a standing item on the Board agenda, and is discussed in Board meetings at least twice yearly, including in relation to the Group's progress against its goals and targets for addressing climate-related issues.

Further information on the role of the Board is set out in the Corporate governance report, available on page 108. For further details on each level of governance on climate-related risks and opportunities, refer to pages 27-29.

Overview of governance of climate-related risks and opportunities and key activities during 2022



TCFD *continued*

Glencore Board

During 2022, the Board undertook the following climate-related activities:

- oversaw the Group's climate strategy and Glencore's response to climate-related risks and opportunities that affect our business;
- monitored progress against Glencore's climate strategy, including our Scope 1, 2 and 3 emissions performance, and the ongoing development of our Group marginal abatement cost curve (MACC);
- approved our annual climate planning and delivery progress and our four-year climate action plan framework that identifies opportunities to decarbonise our operational footprint;
- considered climate-related issues, with information provided by management, when it reviewed strategic decisions relating to major capital expenditures; and
- through the Chair and CEO, consulted with shareholders on climate-related matters;
- provided our shareholders at our 2022 AGM with their second advisory vote on the progress against our rolling three-year climate action transition plan
- received feedback from the shareholder consultation following the results of the vote, and discussed and approved the steps taken to respond to the feedback;
- reviewed climate-related disclosures in the 2021 reporting suite and other external engagement;
- participated in annual internal training on climate change, including on duties as directors, legal risks, external expectations and evolving climate issues. The training also emphasised the importance of effective integration of climate change into the Group's risk management processes and related Board oversight; and
- received details on emerging trends relating to climate-related litigation and 'greenwashing' allegations.

Informing

Reporting

The Board delegates specific health, safety, environment, community and human rights (HSEC&HR) topics to specific Board Committees:

Ethics, Compliance and Culture (ECC) Committee

- Met four times during 2022.
- Reviewed our stakeholder engagement, including on climate-related matters.
- Considered the significant matters on which the Group has made political representation and our use of lobbyists and the conduct and positions of our industry organisations during 2022 on material issues, in line with our Political Engagement policy – *glencore.com/who-we-are/policies/political-engagement-policy*

Read more on **page 116**

Health, Safety, Environment, Community (HSEC) Committee

- Met four times during 2022.
- Oversaw the communication, implementation and evaluation of HSEC&HR policies, including those that address climate change.
- Oversaw the quality and integrity of any reporting to external stakeholders on HSEC&HR matters.
- Oversaw the delivery of climate-related performance, including relating to emissions and energy consumption at our industrial assets.

Read more on **page 117**

Audit Committee

- Met four times during 2022.
- Reviewed the Group's financial risk management, including those financial risks relating to climate change.
- Oversaw the Group's financial statements and reports, including climate-change related
- financial disclosures.

Read more on **page 114**

Nomination Committee

- Met four times during 2022.
- Evaluated the balance of skills, knowledge and experience of Board members in respect of climate change.

Read more on **page 118**

Remuneration Committee

- Met three times during 2022.
- Supported the delivery of our climate strategy through the inclusion of climate-linked metrics and targets within performance-related pay for Glencore's CEO.

Read more on **page 119**

Informing

Reporting

Chief Executive and management team

TCFD *continued*

Chief Executive and management team

The CEO is the named executive for driving the climate strategy within the Board and has responsibility for implementing the decisions of the Board and its Committees, as well as leading Glencore's operating performance and day-to-day management.

The CEO, CFO, Head of Industrial Assets and General Counsel lead our management team and are supported by the heads of each marketing and industrial department and the heads of corporate functions.

The CEO is Chair of the CCT, which is responsible for overseeing the climate strategy (developed in conjunction with the Board) and progress against Glencore's climate commitments. He also has oversight of the CCT's four working groups and provides support and information to the Board for making strategic decisions, including those relating to capital allocation and portfolio management.

The CEO's scorecard for annual variable compensation includes 30% relating to HSEC matters, of which half is for safety performance and half for progress towards our short- and medium-term absolute emission reduction targets.

For 2022, three climate-related KPIs were set: (1) adopting a rolling four-year Climate Action Plan with a MACC that supports the achievement of the 2026 emissions reduction target; (2) activities approved in budget to support achievement of the 2026 emissions reduction target, specifically 265 ktpa of CO_2 abatement from operational activities in the 2023 budget; and (3) providing stakeholders with attestable and comprehensive reporting of our Scope 1, 2 and Scope 3 emissions, through the development of a draft Emissions and Energy Reporting Procedure that sets out the applicable definitions and standards required to achieve our net zero ambitions.

Senior managers from core Group corporate functions, as well as our industrial and marketing teams, participate in the four working groups that support the work of the CCT. This facilitates the provision of climate-related information relevant to a particular commodity or function, which the CCT then consolidates into a Group-wide approach.

Climate-related topics are addressed regularly by our Head of Industrial Assets with Industrial Leads. Topics may include opportunities to reduce our emissions through operating efficiencies and emission reduction schemes, as well as approaches to advocacy on climate-related matters such as carbon pricing.

Data collected by each industrial asset is consolidated to provide a commodity department's emissions. Each year, during our industrial asset planning and budget cycles, each Industrial Lead presents the department's emissions with accompanying workstreams and action plans to manage, mitigate and minimise emissions.

Informing

Reporting

Climate Change Taskforce (CCT)

TCFD *continued*

Climate Change Taskforce (CCT)

- Met three times during 2022

The CCT is accountable to the Board and is led by the CEO. Its other members include the CFO, Head of Industrial Assets and General Counsel, as well as representatives from key corporate functions including investor relations, finance and sustainable development.

The CCT has responsibility and oversight for, and oversight of, the work streams and coordination of workflow for the delivery of Glencore's climate strategy and commitments, including activities relating to:

– decarbonisation of industrial activities;
– internal reporting standard development and data quality and consistency review;
– capital allocation and portfolio management;
– macroeconomic assessments including Group carbon pricing; and
– external engagement, communication and advocacy.

The CCT has four working groups to drive the delivery of our emissions reduction targets and net zero ambition. It is through these working groups that we assess initiatives to reduce our emissions, identify and leverage carbon marketing opportunities, design and implement systems to support complete, accurate and attestable reporting and monitor external trends, while coordinating and overseeing advocacy and communication efforts.

These working groups also play an important role in helping management to be informed about and monitor climate-related issues through their upwards reporting.

The CCT is supported by a management-level ESG Committee, which provides guidance on Glencore's ESG programmes and approves Group ESG policies, standards and procedures, including those relating to climate - see page 58 for further details.

Informing

Reporting

Industrial Climate Working Group

- Climate change risk assessment
- Energy and emissions reduction
- Life of asset planning and budgeting

Marketing Climate Working Group

- Group data validation and reporting procedure
- Research, innovation and governance
- Data model definition and integration
- Market execution

Data Climate Working Group

- Group data reporting procedures and standards
- Carbon pricing and modelling
- Carbon accounting

External Climate Working Group

- Monitoring emerging climate topics
- External advocacy
- Legal
- Disclosures

Informing

Reporting

Commodity department responsibilities

During 2022, the commodity departments undertook the following activities:

- established additional roles and responsibilities within their organisational structures for incorporating actions supporting the decarbonisation of our industrial assets into our standard business planning and operational delivery processes;
- participated in the Industrial and Marketing Climate Working Groups to increase knowledge sharing and enable acceleration of the adoption of decarbonisation action Group-wide;
- continued to work on the decarbonisation of their industrial assets through identifying carbon abatement opportunities that are inputs for the Group MACC;
- collaborated with industry organisations to strengthen the understanding of a commodity's emissions through developing life cycle analysis; and
- identified environmental products and power supply opportunities that support a more efficient approach to carbon and energy markets and our Scope 2 emissions reduction.

TCFD *continued*

Strategy

TCFD Recommendation: Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's business, strategy and financial planning where such information is material.

Recommended Disclosure:
a. Describe the climate-related risks and opportunities that the organisation has identified over the short, medium, and long term.

When developing Glencore's climate strategy, we considered climate-related risks and opportunities across three time horizons:

- short term (to the end of 2026): the first six years following the publication of our climate strategy at the end of 2020, which aligns with business and financial plans developed to deliver our 2026 target;
- medium term (to the end of 2035): the mid-way point between 2020 and 2050, being the date of our 2035 target; and
- long term (to the end of and beyond 2050): our longer-term ambition is to achieve, with a supportive policy environment, net zero emissions by the end of 2050.

TCFD categorises climate-related transition risks as policy and legal, market, reputation, technology and physical. It also refers to climate-related acute and chronic physical risks and opportunities. Risks in each of these categories have been identified using a risk management process that our assets are required to follow.

These are covered on the following pages.

We are actively participating in reviews that support the development of the recommendations for the Taskforce on Nature-related Financial Disclosures (TNFD). In addition, we have also incorporated various draft elements, such as the TNFD's Locate, Evaluate, Assess, Prepare (LEAP) risk process into our environmental governance framework for implementation at our industrial assets.

A description of the process used to identify the climate-related risks and opportunities that could have a material financial impact on the Group is described in more detail on page 38.

TCFD *continued*

We have identified the following risks and opportunities as having the potential to impact the Group:

Policy and legal

Affected commodity / process / region
- All producing commodities
- Industrial and marketing activities
- Africa, Australia, Canada, Europe, Kazakhstan, New Caledonia, South America

Time horizon
Short and medium term

Risks and opportunities
Our ability to operate or develop industrial assets can be affected by regulatory and policy developments, such as carbon and corporate taxes, project approvals (or lack thereof or delays to project approvals), emissions caps or limits on emissions intensity, energy regulation, carbon trading and use of carbon offsets. In addition, changing regulations and the uncertainties associated with project approvals may increase operating costs and reduce profitability, impacting operational viability and future investments.

There are increasing moves to introduce carbon import taxes, such as the European Union's Carbon Border Adjustment Mechanism. These have the potential to affect our products' export markets and trade flows. We also anticipate evolving regulation relating to energy intensity reduction for industrial emitters as countries put in place measures to meet their nationally determined contributions (NDCs).

Pricing carbon, either through direct taxes, emission trading schemes, or leakage avoidance mechanisms (such as border taxes) may create additional costs through the value chain, as well as provide opportunities to promote low-carbon products. Variations in carbon pricing mechanisms between multiple jurisdictions can affect both the cost and the importation of our products.

There is the potential for legal risks during project approval processes, as well as the financial impacts of approvals uncertainties.

There has been a significant increase in litigation (including class actions), in which climate change and its impacts are a contributing or key consideration, including administrative law cases, human rights claims, tortious cases and claims brought by investors. In particular, a number of lawsuits have been brought against companies with fossil fuel operations in various jurisdictions seeking damages related to climate change. A number of regulators have also increased their scrutiny of companies' actions in respect of climate change, including through investigating claims related to inaccurate or misleading disclosure ('greenwashing').

Mitigation measures
We track and respond to regulatory and technology developments, as well as customer demand. We anticipate increased demand for our products that have lower embedded carbon content. We also recognise the potential for financial impacts arising from uncertainties in project approval processes and seek to mitigate these impacts where possible. We are working internally and with relevant industry organisations on developing life cycle analyses to aid the calculation of our specific commodities' emissions[1]. We play an active and constructive role in public policy development on carbon and energy issues, both directly and through participation in industry organisations. Through developing life cycle analysis tailored to our commodities and production processes, we identify optimisation potential, carbon reduction opportunities and energy efficiencies within our operations. We expect that technology will in time enable us to enhance reporting of our emissions throughout our value chain and to work with our stakeholders to reduce emissions.

We operate successfully in multiple jurisdictions that have direct and indirect carbon pricing or regulations. During 2022, we used actual carbon prices, and carbon prices consistent with the IEA's NZE 2021 scenario (as the scenario available at the time of our planning process) to assess the likelihood and impact of rising carbon prices[2].

We have identified some parts of our business that would likely experience financial stress in a high carbon price environment. However, our analysis of the impact of carbon pricing on operational costs has found that our business overall is likely to remain resilient. We consider local regulation and carbon price sensitivities as part of our ongoing business planning for existing industrial assets and new investments.

We recognise the potential for financial impacts arising from global ambitions seeking to drive quicker decarbonisation. Further information is available in Note 1 to the financial statements.

We have assessed that increasing demand for our transition metals commodities is likely to drive higher prices for those products in turn offsetting increases to processing costs arising from the implementation of carbon pricing instruments.

We seek to correct inaccurate or misinformation that we identify in the public domain and reiterate our position on key issues related to our climate change strategy and in relation to our corporate reputation.

1. Measure of the exclusive total amount of emissions of CO_2 that is directly and indirectly caused by an activity or accumulated over the life stages of a product (IPCC, 2018: Annex I: Glossary (Matthews, J.B.R. (ed.)). In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.
2. There are two main types of carbon pricing: emissions trading systems (ETS) and carbon taxes. An ETS, sometimes referred to as a cap-and-trade system, caps the total level of greenhouse gas emissions and allows those industries with low emissions to sell their extra allowances to larger emitters. By creating supply and demand for emissions allowances, an ETS establishes a market price for greenhouse gas emissions. A carbon tax directly sets a price on carbon by defining a tax rate on greenhouse gas emissions or, more commonly, on the carbon content of fossil fuels. It is different from an ETS in that the emission reduction outcome of a carbon tax is not pre-defined but the carbon price is. (World Bank Pricing Carbon available at www.worldbank.org/en/programs/pricing-carbon).

TCFD *continued*

Market

Affected commodity / process / region
- Coal, copper, cobalt, lead, nickel, vanadium, zinc
- Smelting, refining, marketing
- Africa, Australia, Canada, Europe, Kazakhstan, New Caledonia, South America

Time horizon
Medium and long term

Risks and opportunities
In response to the ongoing decarbonisation of global energy supply and electrification of key sectors, including mobility and its associated infrastructure, we expect demand to grow rapidly for renewable energy technologies, and the metals and minerals required to build them.

Population and economic growth are driving increasing commodity demand. Changes in commodity use from emerging technologies, adoption of renewable energy generation and policy changes may affect demand for our products, both positively and negatively.

The global coal market is dynamic and subject to the changing geopolitical and energy landscape. Over time, coal's share of primary energy demand will decline.

We are a significant energy consumer. Energy is a key input and cost to our business as well as being a material source of our carbon emissions. Governments may impose taxes or levies on procured energy sources, limit supplies or introduce required purchasing or generation of renewable energy. The introduction of carbon taxes and/or clean fuel standards may result in increased operating costs for our industrial assets.

Increasing demand and higher commodity prices can drive substitution and market dislocations of products.

Mitigation measures
As one of the largest diversified natural resource companies in the world, we can support the delivery of climate goals by producing, recycling, marketing and supplying the metals and minerals that are essential to the transition to a low-carbon economy.

Our approach strives to ensure that we identify, understand and monitor our emissions and climate change issues, to meet international best practice standards, ensure regulatory compliance and meet our commitments that support the goals of the Paris Agreement (Article 2).

We remain committed to reducing coal production in accordance with our emission reduction targets and ambition.

As the global patchwork of energy and climate change regulation evolves, we closely monitor international and national developments and their potential to impact our industrial assets.

We consider energy costs and our emissions in our annual business planning processes. Commodity departments provide energy and emission forecasts for the forward planning period and provide details of projects that may reduce emissions, including identifying and developing renewable energy generation opportunities. Our business model is well placed to supply low-carbon and renewable fuel solutions to our industrial assets through the supplier network of our energy marketing business.

Our assessment of potential mitigation and abatement projects forms the basis of our internal MACC. We utilise our MACC to act on cost-ranked emission reduction opportunities to mitigate high carbon prices and are pursuing lower emission sources in our businesses.

As a vertically integrated extractive and marketing business, we can seek to leverage our own carbon reduction efforts and market expertise to support the increasing needs for attestable low-carbon products. Our marketing segment's carbon strategy is expected to create additional value over time as markets and demand for carbon solutions in the commodity supply chain evolve.

Reputation

Affected commodity / process / region
- All commodities
- Industrial and marketing activities
- Global

Time horizon
Short and medium term

Risks and opportunities
Negative stakeholder perception around the role of the extractive sector may arise from its contribution to climate change or environmental and social impacts associated with resource exploitation. This, in turn, may impact the development or maintenance of our industrial assets due to restrictions in operating permits, licences, or similar authorisations.

These issues may impact our access to capital or insurance, resulting in increased costs of finance and/or divestment of our shares and bonds, as banks and other financial institutions discontinue working with companies involved in fossil fuels.

Mitigation measures
We engage with a broad range of stakeholders on diverse topics, including climate change and related areas of concern. Our engagement with our local communities and those directly affected by our operations aims to be transparent and honest. Where we identify differing opinions, we look for opportunities to find constructive solutions.

By maintaining strong relationships with our lenders and service providers, and investment grade credit ratings, we continue to have a broad range of sources from which to access funds. We regularly review our banks and other institutions' climate change-related policies and any evolution to applicable restrictions.

TCFD *continued*

Technology

Affected commodity / process / region
- Transition metals, coal (vis-à-vis blue hydrogen)
- Marketing
- Global

Time horizon
Medium and long term

Risks and opportunities
Development of new technologies and lower costs for nascent industries may either drive increased demand for our commodities or result in substitution and lower demand. It may also provide opportunities to address our Scope 1, 2 and/or 3 emissions.

Mitigation measures
Increased adoption of renewable energy sources as a means of decarbonising energy supply is expected to create significant new demand for the current key enabling commodities, including copper, nickel and cobalt, which we are investing in.

Ongoing tracking of low emission technologies and products and their expected commercial availability and comparing it against our Scope 1 and 2 emission reduction plans.

We are investing in emission reduction projects and initiatives, focusing on both our industrial operations and the use of our industrial products, as well as supporting low-emission coal technology projects and greenhouse gas (GHG)-related studies to address Scope 3 emissions and we are supportive of technology such as CCS.

Physical – acute and chronic

Affected commodity/process/region
- Coal, copper, nickel, zinc
- Industrial activities
- Africa, Australia, Canada, Kazakhstan, New Caledonia, South America

Time horizon
Short, medium and long term

Risks and opportunities
We have identified extreme weather events such as floods, hurricanes, and droughts, as well as changes in rainfall patterns, temperature and storm frequency as risks that can affect our industrial assets' operating processes, including costs and capacity. Availability of water for our industrial assets and nearby communities may be impacted by changes in climate, resulting in increased risk of flood at some industrial assets, and increased aridity in others. We report on our industrial assets' exposure to water-related risks on our water microsite.

The risk of an increase in frequency and severity of weather events such as floods and rainfall can impact the infrastructure at our industrial assets, particularly our tailings storage facilities, which may overflow as a result of extreme storms. We report on our tailings storage facilities on our website.

Mitigation measures
Our Energy & Climate Change Standard, TSF Management Standard and Environment Standard require our industrial assets to develop baselines and undertake annual risk assessments in these areas as described in more detail below. Our TSF and Environment Standards, supported by our Water Management Guideline, require our assets to assess climate-related risks, particularly in respect of changing weather patterns.

Our TSF Management Standard requires all our TSFs to be designed to the requirements set out by the Canadian Dam Association (CDA). We chose to benchmark against the CDA because it requires TSFs to be designed to higher flood frequency than may be required by local regulations in the jurisdictions in which we operate, and as such supports more climate-resilient design of our TSFs. For instance, we have upgraded the design of the spillways at some of our Peruvian operations to store and pass more water, thereby making them more resilient in the event of rapid extreme rainfall.

We conduct various reviews of our TSFs, including third party assurance and regular satellite monitoring, and these reviews include consideration of the impact of extreme weather events. We are working on providing detailed disclosures for our TSFs in accordance with the requirements of the Global Industry Standard on Tailings Management (GISTM) in line with the deadline set by the ICMM in August 2023.

Our Environment Standard requires our industrial assets to establish water baseline assessments and to evaluate both the asset and catchment context. This evaluation includes considering aspects relating to sustainable and healthy ecosystem functioning and the needs of other stakeholders within the catchment, such as nearby farmers and communities. Our Environment Standard also requires our industrial assets to consider climate-related risks and opportunities using climatic modelling provided by the IPCC when assessing water-related risks, assessing current and future projected climatic variability within the catchment area and the impact on shared water resources, water quality and supply, and operational requirements. Industrial assets then develop a catchment context-based water management plan and where risks are identified – primarily related to extreme flooding or increased droughts – industrial assets are required to undertake relevant engineering works, including, for instance, berms and spillways, as well as an assessment of planned production and water-related impacts.

TCFD *continued*

Recommended Disclosure:
b. Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.

The world requires a global transformation of energy, industrial and land-use systems to mitigate the risks and deliver on the opportunities arising from climate change. We believe this transition is a key part of the global response to managing energy security and responding to the increasing risks posed by climate change.

Our response to climate-related risks and opportunities is to prioritise our investment in transition metals, while managing the responsible decline of our coal portfolio. Our business model covers the production, recycling, sourcing, marketing and distribution of the commodities needed by our suppliers and customers to decarbonise, while simultaneously reducing our own emissions.

We have responded to the opportunities arising from the energy transition by focusing our portfolio on larger, higher-margin, longer-life assets that are important to the transition. Our commodities, geographies and recycling capability supply our Marketing business with the products that our customers increasingly need.

We have identified seven core actions to support us in meeting our short- and medium-term targets of a 15% and 50% reduction of our emissions by the end 2026 and 2035, respectively, on a restated 2019 baseline, as well as our longer-term ambition of achieving net zero emissions by the end of 2050. We intend to pursue these actions while continuing with the mitigation activities described on pages 31-34.

Further details on our progress against these seven core actions are set out in our *2022 Climate Report*.

When we developed our own Climate Action Transition Plan, *Pathway to Net Zero*, given the global nature of our business, we did not consider, any jurisdiction-specific commitments to net zero economies, however we considered carefully the goals of the UNFCCC and the aims of the Paris Agreement (as described on page 25).

We aim to achieve net zero emissions through seven core actions:

Managing our footprint

Footprint
Managing our operational footprint
Reducing our Scope 1 and 2 emissions

Reduction
Reducing our Scope 3 emissions
Our commitment to a direct reduction of our Scope 3 emissions in particular through responsible closure of assets in our energy portfolio will contribute to reducing global emissions

Capital
Allocating capital to prioritise transition metals
Investing in the metals that the world needs

Contributing to global decarbonisation

Partnership
Collaborating with our value chain
Working in partnership with our customers and supply chains to enable greater use of low-carbon metals and support progress towards technological solutions to address climate change

Abatement
Supporting uptake and integration of abatement
Abatement is an essential contributor to achieving low - or net zero carbon objectives

Technology
Utilising technology to improve resource use efficiency
Contributing to the circular economy

Transparency
Transparent approach
Reporting on our progress and performance

TCFD *continued*

Impacts of climate-related risks and opportunities on our financial planning

We seek to align our material capital expenditure and investments with the goals of the Paris Agreement (Article 2) and our emissions targets and ambition.

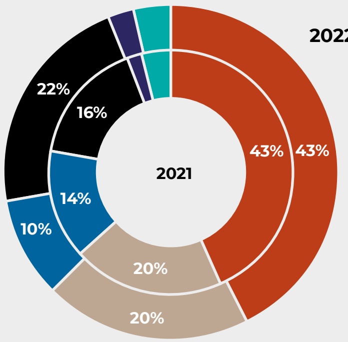
As a major producer of the commodities that underpin the current battery chemistry and infrastructure growth initiatives that are expected and required to power electric vehicles and energy storage systems, our capital expenditure (currently and into the future) is heavily weighted towards energy transition metals, including various South American copper projects, African copper and cobalt, Kazakhstan polymetallic investments and nickel projects in Canada.

Our current and forecast capital expenditure aligns with our climate targets, reflecting our commitment to prioritise the development of our portfolio's transition metals. Running down our industrial energy portfolio will contribute to a reduction of our emissions. Going forward, we intend to continue to allocate capital to operate and to deplete our upstream energy industrial assets in a manner that is consistent with our Values and our climate strategy. More specifically, this comprises the intended cessation of mining at at least twelve coal mines between 2019 and the end of 2035, along with an associated decrease in the capital expenditure required by the energy portfolio.

In 2022, our total capital expenditure on industrial assets was $4.8 billion (2021: $4.4 billion), of which, 43% was for our copper and cobalt, 20% for zinc and 10% for nickel, with the following key projects:

- development of Collahuasi copper joint venture's desalination and water transportation project;
- ongoing mine development work at South American and African copper industrial assets; and
- major new mine developments at Sudbury INO and Raglan nickel mines in Canada.

Industrial capex◊ weighting



2022

Copper	43%	Coal	22%
Zinc	20%	Oil	3%
Nickel	10%	Others	3%

$1.2 billion (25%) of our 2022 industrial capital expenditure related to energy industrial assets (2021: $819 million). Some $355 million of this related to mining fleet replacements, which are expected to be more energy-efficient than the previous generation of equipment (2021: $265 million).

The consolidation of Cerrejón, our Colombian coal business, from January 2022 grossed up the associated capital expenditure to 100% (previously 33%). Cerrejón had a slow start to 2021 as it recovered from Covid shutdown and industrial action, which resulted in a significantly higher capital expenditure year on year ($169 million in 2022 versus $90 million in 2021, on a 100% basis).

The increase also includes the necessary rebuild and upgrade costs at the Astron refinery in Cape Town following a major incident in 2020 (total Astron capital expenditure of $103 million in 2022, versus $43 million in 2021). Investments made during the refinery's rebuild and upgrade enable the processing of lower sulphur crudes and delivery into the growing, very low sulphur fuel oils market. The refinery is on track for compliance with South Africa's Clean Fuels II legislation, which comes into force in 2027.

We anticipate that our Group capital expenditure in 2023-2025 will increase to $5.6 billion per year, with $1.1 billion per year allocated to expansionary activity in our metals portfolio, $3.2 billion per year dedicated to sustaining our metals assets, and $1.3 billion per year supporting the continued operation of our energy portfolio in line with our climate commitments. Some meaningful level of capital expenditure relating to Scope 1 and 2 emissions reduction initiatives and opportunities has been included in our sustaining capital expenditure plans.

Our key expansionary projects in our metals portfolio over this period build on ongoing work and include:

- Copper: Collahuasi desalination/4th line/5th mill; Mutanda ramp-up; Horne emissions reduction project;
- Zinc: Zhairem (Kazzinc);
- Nickel: Raglan Phase 2 and Onaping Depth projects;
- Recycling: Sampling plant for e-scrap at BRM; and
- Metals exploration: Extensive campaigns planned in Kazakhstan, Canada and Australia.

As with all anticipated capital expenditure, we expect to keep this under review to allow for flexibility to address other climate-related risks and opportunities that may emerge.

Responding to carbon pricing

We operate successfully in multiple jurisdictions that have direct and indirect carbon pricing or regulation. We take a systematic approach to local regulation and carbon price sensitivities as part of our ongoing business planning for existing industrial assets, and new investments.

We use actual carbon prices where they exist and assess the sensitivity of industrial assets to possible future carbon prices in order to assess the potential impacts on investment decisions arising from carbon pricing regulation. We expect the rising cost of carbon will increase operating costs, increasing the cost of production, which, in turn, would ordinarily be passed on to consumers. For our sensitivity analysis during 2022, we applied the carbon prices shown in the table below, which were consistent with the IEA's 2021 NZE scenario, which was the scenario available at the time:

Carbon price – US$/t	Advanced economies	Emerging markets	Developing economies
2022	As legislated		
2025	80	40	5
2030	130	90	15
2035	180	140	25
2040	200	160	35

Applying these carbon prices to some of our commodities shows marginal supply costs (90th percentile) increasing by some 10% to over 60%, depending on the commodity.

For further information on our plans for transitioning to a low-carbon economy, see **pages 25 and 38-42**

TCFD *continued*

Recommended Disclosure:
c. Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

We initially considered the resilience of our portfolio against the scenarios and pathways that we set out in our *Climate Report 2020: Pathway to Net Zero*.

No single pathway can define how individual economies and the world will transition. These scenarios were chosen because they describe a range of potential outcomes dependent on the rate at which transition policies are implemented. It should be noted that scenarios are not forecasts of future demand, and therefore are not in-and-of themselves determinative of our strategy.

The IEA updated their scenarios in their latest publication World Energy Outlook (WEO) 2022. The latest scenarios account for the changes in the global energy system since 2020 and recognise the need for an accelerated decline in global emissions, albeit from a higher starting point.

The IEA did not report an updated Sustainable Development Scenario (SDS), but instead presented the Announced Pledges Scenario (APS), which reflects the IEA's assessment of policy announcements made in the lead-up to COP27 in Egypt. The IEA acknowledges these pledges are yet to be fully supported by legislation and funding, but has assumed all pledges will be met in full and on time. The APS is assessed as being aligned with a 1.7°C rise in global temperatures by 2100 and is, therefore, less ambitious than the SDS.

The WEO 2022 Net Zero Emissions (NZE) Scenario shows emissions remaining higher than in its 2020 NZE 2050 Scenario, until 2036 when the emissions paths cross. In the latest NZE Scenario, Carbon Capture, Utilisation and Storage (CCUS) and carbon removal technologies are required for 7.5 gigatonnes of CO_2 in 2050 versus 8 gigatonnes in its 2020 NZE 2050 Scenario.

Glencore's scenarios remain relevant, but recognising the significant evolution of this landscape since 2020 and in line with TCFD guidance that they be reviewed periodically, we are planning to review and update our scenarios during 2023 as part of our climate strategic review.

In 2022, we continued to consider the resilience of our business strategy, taking into consideration our climate-related scenarios with relevant updates for carbon pricing and coal demand and pricing reflected in the updated IEA World Energy Outlook publications, and our conclusion is that our business overall remains resilient.

Page 37 sets out how we believe our strategies in relation to various areas of our business may be affected in each scenario. We intend to keep this analysis under review as we update our climate scenarios in 2023, including considering how our strategies might change to address potential risks and opportunities as well as the potential impact on financial performance and position.

Pages 35 and 37 discuss the potential impact of climate-related issues on financial performance and financial position.

Glencore's scenarios are:

- **Current Pathway:** Adopting the IEA's Stated Policies Scenario (STEPS), which considers long-term energy and climate targets only to the extent that they are backed up by specific policies and measures. The Current Pathway has been assessed as being consistent with global temperatures rising on average by 2.5°C by the end of the century.
- **Rapid Transition:** Adopting the IEA's Sustainable Development Scenario (SDS). The SDS is based on the same economic outlook as STEPS but works backwards from climate, clean air and energy access goals, examining what actions would be necessary to achieve those goals. This requires accelerated adoption of renewables delivering global net zero emissions in 2070 and limiting the rise of global temperatures to 1.5°C by the end of the century.
- **Radical Transformation:** Adopting the IEA's Net Zero Emissions by 2050 Scenario (NZE2050), which the IEA states, "sets out what additional measures would be required over the next ten years to put the world on track for net zero emissions by mid-century. Achieving this goal would involve a significant further acceleration in the deployment of clean energy technologies together with wide-ranging behavioural changes." This Radical Transformation would place the world on a pathway consistent with delivering global net zero emissions in 2050 and limiting the rise of global temperatures to 1.5°C by the end of the century.

In addition, as set out at page 115, management, under the oversight of the Audit Committee, considered whether the carrying value of goodwill, industrial assets, physical trade positions and material loans and advances may be impaired as a result of, amongst other things, the impact of climate change. In relation to coal, there continues to be particular focus around price outlook and climate change-related risks.

For more detail see note 1 to the financial statements and paragraph 5.3 of the independent auditors' report.

These publications are available on our website at: **glencore.com/publications**

TCFD *continued*

Results of scenario testing:		
Commodity business and outlook	Scenarios as set out in *Climate Report 2020: Pathway to Net Zero*	
	Current Pathway	**Rapid Transition and Radical Transformation**
Copper (17% of 2022 Adjusted EBITDA) Outlook: positive	Growth in renewables power generation capacity, electric vehicle sales and associated infrastructure to underpin our forecast 15% increase in copper demand by 2025 on 2019 levels. The Current Pathway is projected to increase copper demand by 45% by 2035 and 95% by 2050.	The required greater acceleration in investments to decarbonise economies under the Rapid Transition and Radical Transformation could further drive copper demand and support rises of 50% and 100% on 2019 levels in 2035 and 2050, respectively.
Ferroalloys (2%) Outlook: neutral	In South Africa, rising electricity prices and carbon taxes will exacerbate the pressure currently felt in ferrochrome smelting. Continuing demand for chrome will support the ongoing operation of ferrochrome mines in South Africa.	The accelerated adoption of renewable technologies such as solar and wind power generation, which depend on chrome and vanadium, amongst other metals, for the generation, transmission and storage of low-carbon energy underpins demand growth for our ferroalloys business, balanced by pressures on ferrochrome smelting in South Africa.
Nickel (4%) Outlook: positive	Nickel's use in batteries, EVs and energy storage systems will result in its demand rising in the Current Pathway to 130% of 2019 levels by 2025. By 2035, the scenario requires 135% more nickel and by 2050, cobalt displacement leads to increases in nickel demand of 250% above 2019 levels.	The adoption of policies needed for the Rapid Transition and Radical Transformation could drive a 200% increase in demand growth by 2035 on 2019 levels and a continued growth to 270% by 2050.
Zinc (4%) Outlook: positive	The electrification, industrialisation and urbanisation of developing economies supports demand growth for zinc, due to its anti-corrosive properties and use as an alloy in materials used in automobiles, electrical components and household fixtures. This leads to zinc demand rising to 106% of 2019 levels by 2025. By 2035, the Current Pathway requires 20% more zinc, and by 2050 demand reaches 145% of 2019 levels.	The major transformation of the global energy system necessary to achieve the goals of the Paris Agreement is supported by zinc's use in offshore wind-energy generating facilities. These scenarios show zinc demand growing to 150% of 2019 levels by 2035 and to 200% by 2050.
Coal (53%) Outlook: neutral to negative	Up to 2030, the Current Pathway sees coal demand growth in Asia offsetting further declines in the Atlantic markets and demand exceeding supply capacity in the absence of substantial investment to mine extensions.	Policies supporting the Rapid Transition and Radical Transformation will lead to significant coal demand decline over the longer term. The ongoing use of existing coal power generation facilities will require negative carbon technologies, including Carbon Capture, Utilisation and Storage and Direct Air Capture to achieve net zero emissions and limit global temperature increases. Sensitivity analysis of the carrying values of our coal assets to such scenarios is presented in note 1 to the financial statements.
Marketing (20%) Outlook: neutral to positive	Marketing remains core to our business model, differentiating Glencore from its mining peers. Marketing and trading margins are expected to adapt with climate initiatives. The agility of our Marketing business enables it to adapt to changing circumstances and benefit from various trading and arbitrage opportunities that will inevitably arise as economies transition at different rates. Our Marketing business will continue to expand into new areas, as already evidenced with the addition of LNG, carbon and power trading into our portfolio.	Under any scenario, our Marketing business is well-positioned to support the responsible sourcing and delivery of products needed for the low-carbon economy. Goodwill of circa $1.7 billion has been allocated to the Coal Marketing business. Sensitivity analysis of this balance to lower valuation multiples is presented in note 1 to the financial statements.

TCFD *continued*

Risk management

TCFD Recommendation: Disclose how the organisation identifies, assesses and manages climate-related risks.

Recommended Disclosure:
a. Describe the organisation's processes for identifying and assessing climate-related risks.

Our risk management framework, comprising our Enterprise Risk Management Policy and Enterprise Risk Management Standard, requires our industrial assets and departments to conduct regular risk assessments against the Group Risk Taxonomy, including in relation to climate-related risks. Industrial assets' risk registers inform departmental risk registers and subsequently are assessed for inclusion in the group-wide risk register.

Through this process, risks are assessed and prioritised for relevance and impact on financial and operational performance at different organisational levels. Risks with the highest Potential Maximum Consequence at industrial and departmental level are generally included in the Group Risk Register. The Potential Maximum Consequence is determined applying the Group Enterprise Risk Matrix which considers consequences across multiple consequence categories, including environmental impact, human rights considerations, financial consequences, and image and reputation of the Group. The threshold for the most material financial consequence is an impact of more than $500 million on operating profit, more than $200 million on property damage and more than $1 billion on asset value.

While climate risks are included in the Group Risk Taxonomy and are subject of standalone assessments, including in relation to existing and emerging regulatory requirements related to climate change, the complex and multidimensional nature of climate change necessitates that it be considered when assessing a number of topics. In particular, the following Standards require climate-related issues to be considered as part of the risk assessment process:

- Environment
- Water
- Tailings Storage Facilities
- Biodiversity

Risks identified by the industrial assets and departments are reviewed on a quarterly basis by our Head of Industrial Assets as part of quarterly business reviews. These include a review of the Group Risk Register and the actions taken to manage these risks.

The Group's approach to risk management (including the identification and management of climate-related risks) is set out in the Risk management section on page 89.

Recommended Disclosure:
b. Describe the organisation's processes for managing climate-related risks.

One of our principal controls for managing risks at a Group level is to develop a Group Standard, which sets expectations of performance for a particular topic, and forms the basis of internal and external assurance. Our Group standards require our industrial assets to identify and assess impacts and risks, including those related to climate where relevant, to develop appropriate responses, and to monitor and report on progress in order to manage those risks. Climate-related risks are prioritised, and materiality determinations are made, in line with the Group Risk Register process.

For climate-related impacts and risks, responses may include relevant engineering works, optimisation of operational processes and review of asset infrastructure design and maintenance. Where relevant, such as in the case of water-related risks, our industrial assets are required to assess the risks to other stakeholders, and to incorporate stakeholder-related considerations in the response measures to assist with decision-making in relation to mitigating, transferring, accepting or controlling climate-related risks.

Looking ahead, we are developing internal guidance and a knowledge base to support our industrial assets in using consistent climatic models, and all available climate data related to the operations and the surrounding areas.

For further information on our approach to managing risks, including climate-related risks, across the Group, see page 89.

Recommended Disclosure:
c. Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.

We take a consistent approach to risk management throughout our business through a structured process that establishes a common methodology for identifying, assessing, managing and monitoring material risks, including climate-related risks. We assess climate, operational and financial risks holistically. As such, the identification, assessment and management of climate-related risks is fully integrated into the Group's overall risk management structure.

In particular, we require our industrial commodity departments to annually update their climate change risk assessments. The assessment considers climate-related risks and opportunities relevant to each commodity department's operations, environment and communities, and recognises the broader value chain of their operational activities. The commodity departments utilise a bottom-up approach, which considers regulatory risks (both existing and emerging), including carbon taxes, project approval considerations, impact on licence to operate, and physical risks, such as flooding, droughts and extreme weather events.

The risks are assessed and characterised in accordance with the Group's Enterprise Risk Matrix and consider the period until 2035 (or the end of an industrial asset's life cycle). Climate-related risks with a high rating, and any associated risk treatment actions, are prioritised and feed into our annual Life of Asset planning, Budget, and HSEC Strategy processes.

Our Group approach for climate change risk assessment encourages the use of the World Bank's Climate Change Knowledge Portal to support the assessment of physical risks to each of our operating jurisdictions of material impacts from weather-related events in the period to 2035. This year's risk assessments found no fundamental changes to the risks identified for the industrial assets that we have assessed as being most at risk.

TCFD *continued*

Metrics & targets

TCFD Recommendation: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

Recommended Disclosure:
a. Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.

Our portfolio profile provides the flexibility to decarbonise our emissions footprint. We currently focus on our emissions as our key metric to measure and manage our climate-related risks and opportunities.

We divide CO_2e emissions reporting into three different scopes, in line with the Greenhouse Gas Protocol, and measure both the direct and indirect emissions generated by the activities of our industrial assets where we have operational control (see the *About this report* section of our *2022 Climate Report* for further information), as well as emissions resulting from activities within our industrial value chain:

- Scope 1 emissions (measured in CO_2e) includes emissions from reductants used in our metallurgical smelters along with emissions from the combustion of diesel and other fossil fuels directly by our industrial assets. It also includes the CO_2e of methane emissions from the coal and oil operations under our operational control, which accounts for around 18% of our Scope 1 emissions.
- Scope 2 emissions (measured in CO_2e) are our indirect emissions from the generation of electricity, heat, cooling, or steam purchased and consumed by industrial assets under our operational control. Calculating Scope 2 emissions requires a method for allocating GHG emissions from energy generation to the end consumers of a given grid. Two methods are used: the location-based method reflects the average emissions intensity of grids on which energy consumption physically occurs, while the market-based method reflects emissions emitted by the generators from which the industrial asset contractually purchases electricity bundled with emissions abatement certificates (EACs), or unbundled electricity with EACs on their own, and for which a specific emissions factor is known. The location-based method emphasises the connection between collective consumer demand for electricity and the emissions resulting from local electricity production. As sources of electricity generation on most grids evolve to become more sustainable, we expect location-based emissions to gradually decrease over time. However, this process is unlikely to move fast enough for us to meet our emissions reduction targets. To deliver on our climate commitments, it is likely necessary to proactively purchase or finance renewable energy in the markets in which we operate. Scope 2 emissions reductions resulting from these proactive choices are only accounted for in the market-based method. While the market-based approach is expected to be our primary Scope 2 method, for transparency and comparability, we will continue to report separate figures using both Scope 2 methodologies, as recommended by the GHG Protocol.
- Scope 3 emissions (measured in CO_2e) are our indirect emissions across our industrial assets' value chain. These include our emissions from upstream supply chains, downstream customer use of our product, third-party logistics and transportation and emissions resulting from joint ventures that we do not operate.

In addition to measuring CO_2 emissions as the key metric for our targets and ambition, we also consider a range of financial and operational metrics when assessing climate-related risks and opportunities in line with our strategy. These are set out below, with corresponding pages for further information:

Reducing Scope 3 emissions:

- Reserves and resources (see 2022 Reserves and Resources)
- Production (see Industrial Business Review in this Annual Report and 2022 Production Report)
- Global coal consumption 2000-2025 (See Energising today; Advancing tomorrow section of Strategic Report in this Annual Report)
- Impairment testing (see note 1 to the Annual Financial Statements)

Prioritising capital allocation to transition metals:

- 2023-2025 guidance (see 2022 Preliminary Results Presentation)
- Capital expenditure by segment (see note 2 to the Annual Financial Statements)

Physical risks:

- Water Risk Register (*see glencore.com/sustainability/esg-a-z/water-management*)

Remuneration:

- Directors' Remuneration Report, page 137

We track and report on a number of other metrics relating to energy, land use and waste management (see annual Glencore ESG Data Book, which can be found at *glencore.com/publications*), but we do not currently consider these metrics material for the purposes of assessing our climate-related risks and opportunities. We plan to reassess the metrics we use to measure climate risk and opportunities as part of our climate strategy review in 2023.

Information on how we approach carbon pricing is on page 35. Details on how performance metrics on climate-related issues are incorporated into remuneration policies are available in the Directors' Remuneration Report and on page 28.

Recommended Disclosure:
b. Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.

During 2022, our operational footprint, or our Scope 1 and Scope 2 market-based emissions, were 28.0$^{\Delta}$ million tonnes CO_2e. This represents a 2% increase from the 27.4 million tonnes recorded in 2021 (restated) and is largely attributable to increased production from our Koniambo nickel and ferroalloys smelters. Our 2022 Scope 1 and Scope 2 market-based emissions represent a reduction of 10% compared to the restated 2019 baseline year (31.2 million tonnes CO_2e).

Our Scope 1 emissions (direct emissions) were 16.6$^{\Delta}$ million tonnes CO_2e in 2022. This figure includes emissions from reductants used in our metallurgical smelters along with emissions from the combustion of diesel and other fossil fuels directly by our industrial assets. It also includes the CO_2e of methane emissions from the coal and oil

TCFD *continued*

operations under our operational control, which accounts for around 18% of our Scope 1 emissions. Our 2022 Scope 1 emissions represent a 4% increase on the 15.9 million tonnes recorded in 2021 (restated) and are mainly the result of on-site coal fired power generation linked to increased nickel production at Koniambo. Our 2022 Scope 1 reported emissions represent a reduction of 13% compared to the restated 2019 baseline year (19.0 million tonnes).

Our Scope 2 market-based emissions (indirect emissions from the generation of electricity purchased and consumed by our industrial assets) were 11.4^Δ million tonnes CO_2e in 2022. This is unchanged from our 2021 Scope 2 market-based emissions; however, the 2022 figure includes an increase in emissions from purchased electricity linked to higher production at our ferroalloys' smelters in South Africa, which was offset by the delivery of purchased electricity emissions abatement initiatives at other industrial assets within the portfolio. Our 2022 Scope 2 market-based emissions represent a reduction of 6% compared to the restated 2019 baseline year (12.2 million tonnes).

The total energy use by our industrial assets, was 193PJ^Δ in 2022 (2021 restated: 186PJ). Renewable energy sources delivered 12.3% of our industrial energy needs (2021 restated: 13.7%). The primary renewable energy sources are the low-carbon, hydropower electricity suppliers to our operations in eastern Canada and the DRC.

Since setting our emission reduction targets in 2019, we have experienced significant, largely Covid-related volatility in production profile, resulting in an emission reduction profile that is non-linear. While our reported Scope 1 and 2 market-based emissions declined 19% in 2020, this was followed by an increase of 9% in 2021 and 2% in 2022, resulting in a cumulative reduction of 10%. Our transition metals businesses include energy intensive smelting operations and, as a result, our annual metal production volumes will be a major driver of annual Scope 1 and Scope 2 emissions.

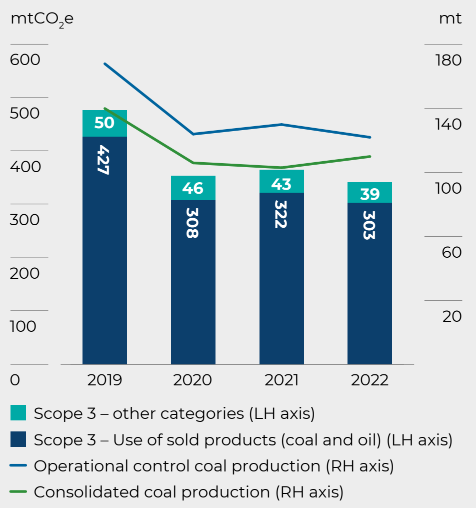
Looking ahead, we anticipate continuing to realise abatement opportunities identified in the MACC, recognising that some of the more impactful abatement opportunities in our action plans have multi-year delivery timelines, especially where they involve establishing renewable energy additionality.

Our Scope 3 emissions in 2022 was 342 million tonnes CO_2e, compared to 365 million tonnes CO_2e in 2021, restated from 254 million tonnes. The decrease was principally due to a 6% reduction in Glencore's operationally controlled saleable coal volumes, the result of severe weather impacting production at our Australian coal assets and community blockades at Cerrejón. As per guidance provided in our 2022 results presentation, consolidated coal production included in our production reporting in 2022, was 110Mt and is guided at 110 +/-5Mt for 2023.

In 2022, emissions resulting from our customers' usage of the fossil fuels produced by our industrial assets totalled 303^Δ million tonnes CO_2e (2021: 322 million tonnes CO_2e, restated), representing around 90%* of our Scope 3 emissions.

* Excludes emissions related to production from independently managed Hunter Valley Operations, Hlagisa and Wonderfontein, which are reported in category 15 (investments).

Scope 3 emissions vs coal production



Reducing our Scope 1 and 2 emissions

Our MACC enables an assessment of viable and economic abatement opportunities across our industrial assets, with respect to potential scale and economics. We undertake a uniform approach to MACCs at a commodity department level. This delivers a Group-wide aggregation of key decarbonisation opportunities and actions, which in turn supports a holistic approach to reviewing the pipeline of initiatives from concept to execution stages. Industrial asset-level data is incorporated into our annual planning cycles, supporting the assessment and triggering of investment decisions, including in relation to consideration of carbon price scenarios in these opportunities.

Our MACC continues to evolve and identify emissions reduction opportunities across our portfolio. When practically and commercially viable, implementation of abatement opportunities is pursued. For example, this may include anticipating when increases to carbon prices and/or technological advancement at scale make the use of biofuels more attractive than diesel, or when the building of renewable power installations can sensibly replace purchasing grid-generated power.

In 2022, we continued to refine our MACCs, considering both short-term (2026) and medium-term (2035) horizons. We have already implemented projects identified by the MACC process (e.g., renewable PPAs) and will continue to progressively implement projects as the engineering and planning processes are completed.

TCFD *continued*

Further, through understanding the impact of key climate scenarios' range of carbon prices on our industrial assets' cost curves and emission profiles, we are better-placed to identify where and when to make investments in abatement opportunities, targeting value-accretive investments. In this manner, we aim to incorporate climate change considerations into our business strategy rather than considering emissions reduction as a standalone work stream.

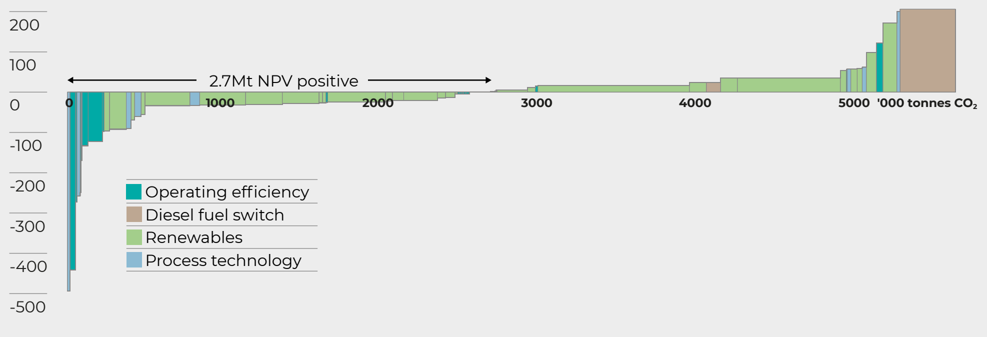
Our 2026 MACC indicates that we are well-positioned with an inventory of operational footprint decarbonisation opportunities to support the delivery of our short-term emissions reduction target of 15% by the end of 2026.

Our 2035 MACC identifies the potential abatement opportunities required to support the achievement of our medium-term target of a 50% emissions reduction by the end of 2035.

The MACCs show a large potential inventory of value accretive or near-value neutral decarbonisation opportunities for potential delivery by 2026. Some of these initiatives are at a concept level, while others have progressed to an advanced engineering phase. All the identified initiatives are required to go through a robust development and evaluation process to assess viability. This inventory demonstrates commercially advantageous decarbonisation opportunities, resulting from the differentiation of our industrial asset base by commodities and geographies.

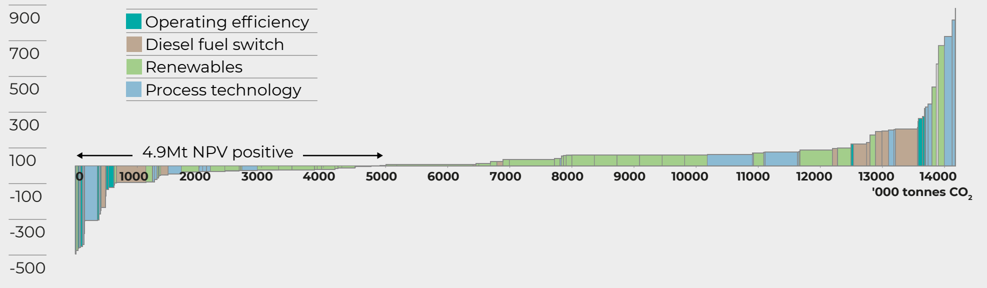
Group-level MACC for year 2026

US$/t CO_2e



Group-level MACC for year 2035

US$/t CO_2e



A MACC presents the costs or savings expected from different opportunities, alongside the potential volume of emissions that could be reduced if implemented. MACCs measure and compare the financial cost and abatement (reduction) benefit of individual actions based on $/t$CO_2e$.

A MACC shows each opportunity is an action, presented as a box above or below a horizontal axis. The boxes above the horizontal axis indicate there is a cost to that action – the higher the box, the higher the cost. Boxes below the horizontal axis indicate a saving from that action – the lower the box, the greater the saving. The MACC enables comparison between actions and annualised costs or savings. The width of the box indicates the action's potential volume of reduction per year, expressed as tCO_2e.

The curve shape is created by ordering the actions from lowest cost to the left, to highest cost on the right.

Reducing our Scope 3 emissions

Our Scope 3 emissions are our indirect emissions across our industrial assets' value chain. They include our emissions from upstream supply chains, downstream customer use of our products, third-party logistics and transportation, and emissions associated with joint ventures that we do not operate. We aim to address these emissions by making changes to our product production and our portfolio, recognising that for value chain abatement to be just, reduction and mitigation strategies must consider the broader social, economic, and environmental impacts of the global transition to net zero.

For Glencore, our Scope 3 emissions represent around 90% of our emissions, and including a reduction in our Scope 3 emissions is essential for making a meaningful contribution to reducing global emissions.

During 2022, we worked on our draft Emissions and Energy Reporting Procedure (see *Reporting on Scope 3 emissions* in our *2022 Climate Report*), which will support clearer, comprehensive and verifiable climate disclosure in response to the proliferation of voluntary and mandatory emission reporting requirements. During 2023, we plan to engage with stakeholders on the draft procedure and then apply its methodology for FY2023 onwards.

We are working with various industry organisations to develop life cycle analyses for our products through building detailed carbon footprints. Further details are available in our *2022 Climate Report*.

TCFD *continued*

Recommended Disclosure:

c. Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

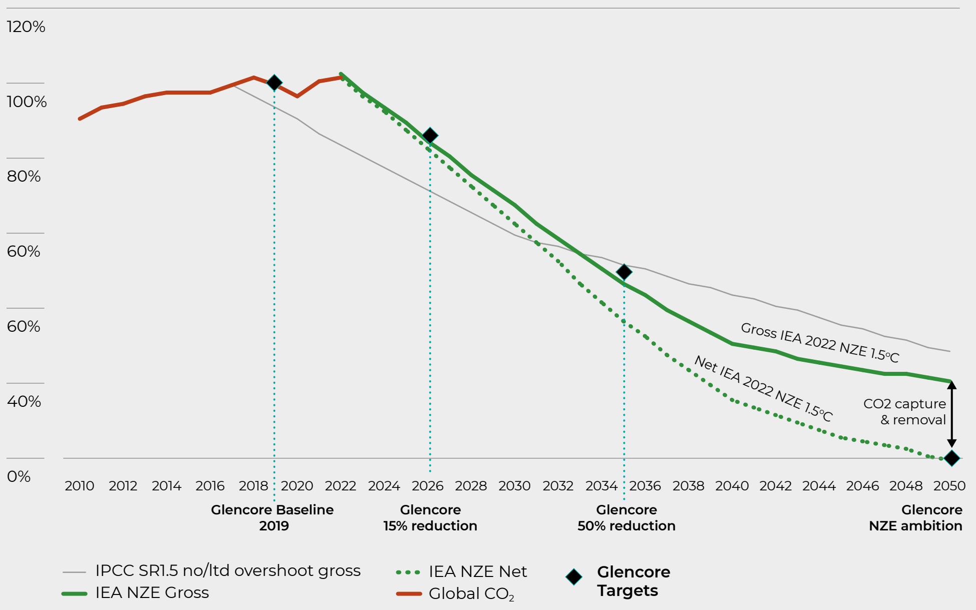
In late 2020, we published our Climate Action Transition Plan, *Pathway to Net Zero*. This set out our approach to delivering our climate-related targets and our ambition to achieve, with a supportive policy environment, net zero emissions by the end of 2050.

In setting our targets and ambition, we took into consideration the goals of the UNFCCC and the aims of the Paris Agreement. Our targets and ambition cover our emissions, as set out in the Boundaries and scope section of our *2022 Climate Report*. We chose to adopt an absolute reduction metric as this will enable us to demonstrate a specified reduction in our emissions.

- **Short-term target**: 15% reduction in CO_2e emissions from a restated 2019 baseline, (as set out in the *About this report* section of our *2022 Climate Report*), by the end of 2026
- **Medium-term target**: 50% reduction in CO_2e emissions against a restated 2019 baseline by the end of 2035
- **Long-term ambition**: to achieve, with a supportive policy environment, net zero emissions by the end of 2050

The graphic illustrates the percentage changes in global CO_2e emissions from fossil fuel use since 2010 and through 2022, based on data reported by the IEA. As illustrated, our 2026, 15% emissions reduction target coincides with the IEA's NZE gross pathway. Our 2035 target of 50% emissions reduction approximates the 53% reduction (versus 2019) estimated by the IEA's NZE gross emissions pathway.

Change in fossil fuel CO_2 emissions versus 2019



The below table summarises our emissions performance for 2019 to 2022:

Indicator	2019	2020	2021	2022	Change 2022 v 2019
Scope 1 – Direct emissions (Mt CO_2e)	19.0	15.2	15.9	16.6Δ	-12.7%
Scope 2 – Indirect emissions – Market based (Mt CO_2e)	12.2	10.0	11.4	11.4Δ	-6.1%
Scope 3[1] – Indirect emissions (Mt CO_2e)	476.7	354.2	364.7	342.1	-28.2%
Total (Mt CO_2e)	**507.9**	**379.5**	**392.0**	**370.1**	**-27.1%**

Note 1: Sum of Scope 3 emissions reported in the following categories: 1 (2022: 0.7Mt), 3c (1.0Mt Δ), 4 (2.3Mt), 10 (18.9Mt), 11 (303.3Mt Δ), 15 (15.6Mt) and 17 (0.2Mt).

Restating our 2019 baseline emissions

As anticipated in our previous climate reports, we are making a number of restatements to our 2019 baseline. Our emission reduction targets and ambition remain unchanged in the context of these restatements.

We have restated our 2019 baseline to reflect industrial asset portfolio changes from acquisitions and divestments (as recommended by the GHG Protocol). We have also taken the opportunity to make some changes to the scope of the reporting of our Scope 3 emissions, categories 10 and 11, resulting in the inclusion of Scope 3 emissions from coal production volumes under our operational control, and to reflect an updated approach to our emission factors sources and our enhanced market-based emissions intensity methodology.

For further information, please refer to the *2022 Climate Report* and our Basis of Reporting 2022 at: **glencore.com/publications**

We track and report on a number of other metrics relating to energy, water, land use and waste management, but we do not currently consider these metrics material for the purposes of assessing our climate-related risks and opportunities. We plan to reassess the metrics we use to measure climate risk and opportunities as part of our climate strategy review in 2023.

Sustainability

We take our responsibilities to our people, to society and to the environment seriously, and align our activities and internal HSEC&HR governance with relevant international standards.

Our approach

Our Group sustainability framework has four core pillars (health, safety, environment, and social performance and human rights – HSEC&HR) and supports the delivery of the Group's three strategic priorities. Each pillar has clearly defined policies and strategic imperatives, objectives, priority areas and targets. We review our approach annually to assess whether it continues to fulfil the needs of our business and our stakeholders.

Through our HSEC&HR governance, policies, standards, procedures, and guidelines, we establish and implement ethical and consistent business practices and standards. These support our commitment to be a responsible and ethical operator and our aspiration to maintain our reputation for doing things the right way.

Our Group policies support the delivery of our Values and Code of Conduct, which together detail the behaviour and performance expectations for all employees working at our offices and industrial assets where we have operational control. Our assets tailor their implementation of Group policies to reflect local cultures, regional challenges and to leverage opportunities while meeting the expectations established by the policies.

Our HSEC&HR policies, such as our Environmental Policy, Heath and Safety Policy, or Social Performance Policy, can be consulted, in different languages, via our website at *glencore.com/who-we-are/policies*.

Sustainability framework

Our strategy for a sustainable future

1. **Responsible and ethical production and supply**
2. **Responsible portfolio management**
3. **Responsible product use**

Values

Safety | Integrity | Responsibility | Openness | Simplicity | Entrepreneurialism

Code of Conduct

Four core pillars of our sustainability framework

Health
Become a leader in protecting and improving the wellness of our people and communities

Safety
Become a leader in safety and create a workplace free from fatalities and injuries

Environment
Become a leader in environmental performance

Social performance and human rights
Foster socio-economic resilient communities and respect human rights where we operate

Group HSEC&HR governance

Policies, standards, procedures, guidelines

Metrics, reporting and assurance

Board HSEC Committee
has oversight and ultimate responsibility. It receives regular updates and has oversight of how our business is performing across all our internally defined, sustainability-related material risk areas.

Material topics
- Internal and external materiality assessment process to identify material topics.
- Material topics are the focus of our sustainability strategy review and reporting.
- Operational activities focus on addressing and progressing the material topics.

Sustainability *continued*

Governance

Through our HSEC&HR governance, policies, standards, procedures and guidelines, we establish and implement ethical and consistent business practices and standards. These support our commitment to be a responsible and ethical operator and our aspiration to maintain our reputation for doing things the right way.

Governance of our sustainability framework rests with the Board's HSEC Committee, which sets the strategic direction for our sustainability activities and oversees the development and implementation of our HSEC&HR programmes.

Oversight and ultimate responsibility for our sustainability framework as well as its implementation across the Group rests with our senior management, including the CEO, and heads of our corporate functions and commodity departments. They take a hands-on approach to monitoring and managing sustainability activities around the Group.

Further details on our sustainability framework, our approach to its implementation and its performance and ambitions, are available in our sustainability-related publications. These include a Sustainability Report published annually with reference to the requirements of the Global Reporting Initiative (GRI), as well as the following publications:

- Sustainability Summary
- Climate Report
- Payments to Governments Report
- Modern Slavery Statement
- ESG A-Z section on our website
- Water and tailings storage facilities microsites

Our sustainability communications are available on our website:
glencore.com/publications

Engaging with our stakeholders

We engage with relevant stakeholder groups to build meaningful relationships and understand their expectations and aspirations. Further information on our stakeholder engagement activities will be available in our 2022 Sustainability Report that will be released in early May this year.

External commitments

We participate in a wide range of external initiatives, supporting our commitment to ongoing improvements to our approach and performance across sustainability topics. Our engagement varies from reporting on our progress to taking a role in driving strategic change.

We are signatories to the United Nations Global Compact (UNGC), aligning our strategies and operations with its principles, which cover human rights, labour, environment and anti-corruption. We recognise the UNGC's Sustainable Development Goals (SDGs) and their systematic global approach to society's overall development. We believe that we can play a role in supporting our host governments to meet the SDGs.

We are committed to upholding the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work, the UN Universal Declaration of Human Rights, and the UN Guiding Principles on Business and Human Rights.

We are members of the Plenary of the Voluntary Principles on Security and Human Rights.

We have been a member of the ICMM since 2014. We endorse its Mining Principles, are active in its working groups and are preparing to report against its Performance Expectations in 2023.

We strongly support transparency in the redistribution and reinvestment of the payments we make to local and national governments. We are active participants, both in our operating countries and at a global level, in the Extractive Industries Transparency Initiative (EITI). We comply with the EU Accounting and Transparency Directives, and, in line with those provisions, we publish an annual Payments to Governments Report, detailing the material payments we make by country and project.

As part of our commitment to responsible product stewardship, we follow the UN's globally harmonised system for classification and labelling of chemicals (GHS), the EU's REACH regulations on the registration, evaluation, authorisation and restriction of chemicals, and the London Bullion Market Association Responsible Gold guidance. Where appropriate, we participate in the REACH consortia related to the materials we produce; these include the consortia for zinc, cobalt, cadmium, sulphuric acid, lead and precious metals.

Our responsible sourcing strategy considers production, sourcing of metals and minerals and procuring goods and services. Our Responsible Sourcing Policy and our Supplier Code of Conduct form the basis of our risk-based supply chain due diligence programme and are aligned with the Organisation for Economic Cooperation and Development's (OECD) Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict Affected and High Risk Areas (CAHRAs) 3rd Editions (OECD Due Diligence Guidance).

Risk management and assurance

Our management of HSEC&HR-related risks aligns with Glencore's approach to the identification, assessment and mitigation of risk. Our industrial assets use the risk framework to identify hazards, including those with potentially major or catastrophic consequences, and to develop plans to address and eliminate, or mitigate, the related risks. For each of the identified catastrophic hazards we have implemented a standardised approach to identifying and understanding their causes and controls.

Our internal HSEC audit programme primarily focuses on our systematic management of the catastrophic hazards and their controls. Internal and external senior subject matter experts participate in this programme.

Multi-disciplinary assessments allow us to audit complex issues from a range of viewpoints for a more robust appraisal. We use these assessments to review operations and activities with different risk factors, such as underground operations, open pit mines and metal processing plants.

The HSEC Committee reviews the results of all the audits, together with their key findings, observations and good practice.

Materiality assessment

Every two years, we undertake a sustainability-related materiality assessment that considers input from within our business and from other stakeholders. We use this assessment to inform our HSEC&HR strategic overview and our sustainability-related disclosures and publications. This assessment identifies topics that are material to our development, performance and current position as well as for our future prospects.

During 2022, we undertook an extensive, third party led, materiality assessment with internal and external stakeholders to validate whether our current material topics continue to be appropriate and to identify emerging issues.

The findings of the assessment showed that for our external stakeholders, climate-related risks and opportunities, and integrity and transparency were the highest source of risk and concern. Responsible sourcing is a growing area of interest, particularly in relation to our Marketing business, including supplier due diligence and compliance with sanctions.

Our internal stakeholders identified catastrophic hazards, integrity and transparency, and health and safety as key areas of concern. Our people was ranked in the middle, with the associated topics of diversity, talent attraction and retention being identified as important.

Consolidating the internal and external stakeholders' prioritisation has resulted in the topics listed in the table opposite being identified as material during 2023 and 2024.

Updated topic	Public disclosures								
	Annual Report	Sustainability Report	Modern Slavery Statement	Payments to Governments Report	Climate Report	Ethics & Compliance Report	Annual VPs Report	Water Microsite	TSF Microsite
Climate Change	◒	●	○	○	●	○	○	○	○
Water	◒	●	○	○	○	○	○	●	○
Land Management	◒	●	○	○	○	○	○	○	○
Biodiversity	◒	●	○	○	○	○	○	○	○
Diversity, Equity & Inclusion	◒	●	◒	○	○	○	○	○	○
Social Performance	◒	●	●	○	○	○	○	○	○
Catastrophic Hazards (incl. Tailings Dam Management)	◒	●	○	○	○	○	○	○	●
Occupational Health	◒	◒	○	○	○	○	○	○	○
Workforce Safety	◒	●	○	○	○	○	○	○	○
Ethics & Compliance	●	○	○	○	○	●	○	○	○
Transparency	●	○	○	●	○	●	○	○	○
Responsible Sourcing	◒	●	●	○	○	○	○	○	○
Human Rights	◒	●	●	○	○	○	●	○	○
Indigenous People	◒	●	●	○	○	○	●	○	○
Just Transition (emerging topic)	○	◒	○	○	◒	○	○	○	○

● Detailed information available ◒ High-level information available ○ No information available

Read more on these topics here:

Catastrophic hazards: **glencore.com/sustainability/esg-a-z/catastrophic-hazard-management**

Workforce safety: **glencore.com/sustainability/esg-a-z/safety**

Ethics & compliance: **glencore.com/sustainability/ethics-and-compliance**

Transparency: **glencore.com/who-we-are/transparency**

Climate change: **glencore.com/sustainability/esg-a-z/climate-change**

Water communications: **glencore.com/sustainability/esg-a-z/water-management**

Land management: **glencore.com/sustainability/esg-a-z/land-management**

Biodiversity: **glencore.com/sustainability/esg-a-z/land-management#biodiversity**

Diversity: **glencore.com/sustainability/esg-a-z/our-people#diversity**

Responsible sourcing: **glencore.com/sustainability/esg-a-z/responsible-sourcing-and-supply**

Human rights: **glencore.com/sustainability/esg-a-z/human-rights**

Indigenous people: **glencore.com/sustainability/esg-a-z/communities#indigenous**

Occupational health: **glencore.com/sustainability/esg-a-z/health**

Sustainability *continued*

Meeting our targets

The development in 2021 of a new policy architecture, which included revised and new policies and standards, strengthened our governance for overseeing the achievement of our Group targets. During 2022, we rolled out these enhanced policies and standards Group-wide through a series of workshops and training programmes. Both the HSEC&HR corporate team and commodity departments review progress on a monthly and quarterly basis, depending on the target.

Group targets	2022 progress
Risk management and governance	
Implement a proactive risk-based approach to prevent HSEC&HR incidents.	
Compliance with Global Industry Standard for Tailings Management (GISTM) for 'Very High' and 'Extreme' consequence by 5 August 2023 (all others by 5 August 2025).	We continue to implement the requirements of the GISTM.
Health	
Year-on-year reduction in the number of new occupational disease cases (excluding new cases from legacy exposures).	In 2022 we recorded 97 new occupational disease cases (2021: 109 cases).
Safety	
No work-related (occupational) fatalities[1, 2].	It is with deep sadness that we recorded the loss of four$^{\Delta}$ lives at our industrial assets during 2022.
Environment	
15% reduction in our Scope 1, 2 and 3 emissions by the end of 2026 against a restated 2019 baseline.	During 2022, we recorded 27.0$^{\Delta}$ Mt of Scope 1 and 2 location-based emissions (2021 restated: 26.3 Mt) and 28.0$^{\Delta}$ Mt Scope 1 and 2 market-based emissions (2021 restated: 27.4 Mt). This increase is largely attributable to increased production from our Koniambo nickel and ferroalloys smelters.
50% reduction in our Scope 1, 2 and 3 emissions by the end of 2035 against a restated 2019 baseline.	
Our ambition of achieving net zero emissions for our Scope 1, 2 and 3 by the end of 2050.	
By 2023, all industrial assets located in water-stressed regions[3] to finalise the assessment of their material water-related risks, setting local targets and implementing actions to reduce impacts and improve performance.	We are in the process of finalising the assessment of material water-related risks for our industrial assets located in water-stressed regions, setting local targets, and implementing actions to reduce impacts and improve performance by the end of 2023.
No major or catastrophic[4] environmental incidents.	We recorded no major or catastrophic environmental impacts$^{\Delta}$.
Social performance and human rights	
Do not cause or contribute to incidents resulting in severe[5] human rights impacts.	We did not cause or contribute to incidents resulting in severe human rights impacts.

1. Work-related (occupational fatalities).
2. Refer to the *Basis of Reporting 2022* for how fatalities are recorded.
3. Water-stressed regions are defined as having a medium to extremely high or arid and low water-use baseline, as per the World Resources Institute definitions.
4. For environment, major or catastrophic incidents refers to incidents causing both widespread irreversible and reversible environmental impact to ecosystems, habitat or species.
5. Severe is the equivalent of Catastrophic and Major on Glencore's incident classification scale. For human rights, a Catastrophic incident is one with a gross human rights violation or grave systemic human rights impacts and a Major incident involves an isolated grave or serious systemic abuse of human rights.

Sustainability *continued*

Delivering our strategic priorities

The Group's three strategic priorities underpin our approach to sustainability and drive the integration of sustainability into all our business activities.

Our approach to managing our material topics supports the delivery of these strategic priorities.

Responsible and ethical production and supply

Catastrophic hazard management

We define catastrophic events as those with low probability but severe consequences that could cause widespread loss of life or significant environmental harm or result in major reputational or financial damage. We are committed to eliminating catastrophic incidents at our industrial assets.

We recognise the exceptional nature of such events and have developed specific programmes to actively identify, monitor and mitigate catastrophic hazards within our business. We review our catastrophic risks to understand whether they are adequately controlled. We require our industrial assets to put in place appropriate management and mitigation measures.

Our HSEC audit programme focuses on catastrophic hazards and critical control management, using both internal and external expert assessors. It gives particular attention to identifying catastrophic hazards, their critical controls and management plans, as well as the effectiveness of verification and reporting processes. The Board receives and reviews all assurance findings.

Managing our tailings storage facilities (TSFs)

Tailings, the fine waste materials left over after the processing of ore, are stored in TSFs. In recent years, a small number of high-profile TSF failures at the operations of large mining companies have resulted in catastrophic consequences.

We have a robust governance process in respect of our TSFs and we monitor them for integrity and structural stability. Flooding and seismic activity are the main natural phenomena that may affect TSFs. Our industrial assets evaluate natural phenomena and incorporate these considerations into their TSF designs where relevant. In addition, our TSFs undergo regular external inspections.

We continue to manage closed TSFs responsibly post-closure. We regularly inspect our facilities and external experts conduct independent inspections and reviews.

Further information on our approach to tailings management is available on our website *glencore.com/sustainability/tailings*. It provides an overview of our approach towards managing our TSFs and includes details on each of our TSFs.

Performance during 2022

We target zero major or catastrophic incidents, which we achieved during 2022.

Safety and health

In line with Glencore's Values, our first priority in the workplace is to protect the safety, health and wellbeing of all our people. We take a proactive, preventative approach towards health and safety. We believe that all fatalities, injuries and occupational diseases are preventable. Through strong safety leadership, we can create and maintain safe workplaces for all our people. Most of our industrial assets have been fatality-free for many years.

We require an effective safety management system at each industrial asset to ensure the integrity of plant and equipment, structures, processes and protective systems, as well as the monitoring and review of critical controls.

SafeWork is Glencore's approach to eliminating fatalities. SafeWork is built on a set of minimum expectations and mandatory Fatal Hazard Protocols, Life-Saving Behaviours and safety tools. These must be fully implemented by our industrial assets. We believe consistent application of SafeWork through strong, visible leadership drives a culture of safe operating discipline and will get our people home safe.

We regard reporting of high potential risk incidents (HPRIs) as a supportive part of our strategy to prevent repeat incidents and, as such, we do not target a reduction in this metric. HPRIs allow the identification of activities that need prioritising to advance our learning and improve safety performance.

Our occupational health management strategy addresses the health risks facing our workforce, their families and the communities inside and outside our gates. We use a variety of on-site programmes to manage occupational diseases and exposure to health hazards; we extend many of these health programmes to our host communities, to combat regional health problems and promote healthy lifestyles.

Performance during 2022

We are saddened to report the loss[1] of four$^{\Delta}$ lives at our operations during 2022, the same number as in 2021. All loss of life is unacceptable, and we are determined to eliminate fatalities across our business.

During the year, our total recordable injury frequency rate[2] (TRIFR) was lower than in the previous year at 2.2$^{\Delta}$ (2021: 2.4) while our lost time injury frequency rate[3,4] (LTIFR) increased to 0.84$^{\Delta}$ (2021: 0.82).

In 2022, our HPRIs rose to 464 (2021: 385). The majority of HPRIs related to mobile equipment and working at height and nearly 90% resulted in no injuries.

We recorded a decrease in the number of new cases of occupational disease, 97 cases (2021: 109).

1. Work-related (occupational) fatalities.
2. The total recordable injury frequency rate (TRIFR) is the sum of fatalities, lost time injuries (LTIs), restricted work injuries (RWIs) and medical treatment injuries (MTIs) per million hours worked. The metric represents all injuries that require medical treatment beyond first aid.
3. Lost time injuries (LTIs) are recorded when an employee or contractor is unable to work following an incident. We record lost days as beginning on the first rostered day that the worker is absent after the day of the injury. The day of the injury is not included. LTIs do not include restricted work injuries (RWIs) and fatalities.
4. The lost time injury frequency rate (LTIFR) is the total number of LTIs recorded per million hours worked.

Sustainability *continued*

Water

Water is an essential resource for many of our industrial activities. Some of our industrial assets are in areas with high to extremely high water baseline stress and share access to water with other local water users. Other industrial assets manage surplus water that may involve dewatering activities and flood protection measures. Regardless of their location, our industrial assets are required to undertake detailed assessments of their local environmental conditions across their operational lifecycle, in order to develop water management strategies that maximise the efficient and sustainable use of this important natural resource.

We recognise access to safe and clean water and sanitation as a salient human right. We seek to fully understand and minimise our operational water footprint and manage our activities in a way that protects our shared water resources. We are committed to ensuring that good water management is in place at our industrial assets and require them to undertake detailed assessments, target setting, monitoring and implementation of corrective actions. Our industrial assets are required to consult their host communities and other relevant local water users to understand local priorities and to collaborate on sustainable solutions.

Performance during 2022

In 2022, we withdrew 1,078$^{\Delta}$ million m^3 of water (2021: 1,026 million m^3). The increase is primarily related to the incorporation of Cerrejón as well as a number of industrial assets reporting a higher amount of precipitation.

Our total water withdrawal includes about 40 million m^3 moved from one site to another through dedicated sharing networks that were installed to increase our overall water efficiency.

Land stewardship

We are committed to managing our land in a productive and sustainable manner ensuring proactive stewardship of our landholdings, including those that have not undergone industrial activity. We align our approach to cultural heritage and archaeologically sensitive locations on our landholdings with local regulatory requirements and international best practice. We respect legally designated areas and commit to neither mine nor explore in World Heritage Sites.

We require our industrial assets to implement land stewardship management systems, including progressive land rehabilitation targets setting tied to life of asset planning, that includes standard elements such as an environmental policy, data collection and monitoring, adaptive management, and continuous improvement.

Biodiversity

Mining activities directly impact the surrounding ecosystem throughout their lifecycle. We are committed to identifying and addressing the potential impacts of our business of ecosystems services and achieving no net loss of biodiversity through the application of mitigation hierarchy.

We require our industrial assets to establish a robust environmental and socio-economic knowledge base and to develop risk-based biodiversity action plans and site-level biodiversity targets to drive progress in this critical area.

Our industrial assets' land stewardship and biodiversity management plans can include measures for preliminary clearing works, habitat relocation, flora and fauna conservation, invasive species control and fire and grazing management.

We require that our industrial assets ensure, that where possible, these plans support the continuation or enhancement of land practices, including grazing and other agricultural activities.

As an ICMM member, we commit not to conduct any exploration, drilling or mining in World Heritage areas and International Union for Conservation of Nature (IUCN) category I-IV protected areas ('no-go' areas), and not to put the integrity of such properties at risk. Our industrial assets work to avoid the loss of any IUCN Red List threatened species.

Rehabilitation

A core component of our operations' lifecycle is progressive rehabilitation. Where active operations have ceased, we review opportunities for restoration in the previously operated areas. Progressive rehabilitation has many benefits, including reducing an operation's footprint, improving the visual appeal of the landscape and reducing dust, erosion and sedimentation, as well as improving conditions for local communities and future land users.

To support progressive rehabilitation, our industrial assets may excavate and reserve topsoil and overburden from areas prior to development.

Closure management

Unlike many other industrial uses of the land, mining has a finite life and transitions to post-mining land use at the end of its operational lifecycle. We require our industrial assets to have a closure plan that could be initiated at any time whether on planned life of asset closure or for an earlier 'unplanned' or temporary closure. The plans must include financial provision and, where possible, progressive rehabilitation, to support a responsible exit. Our industrial assets regularly review their closure plans to ensure they remain fit for purpose and align with the asset's lifecycle.

We require that the closure plans align with good practice, such as the ICMM's Integrated Mine Closure Good Practice Guide. Our industrial assets are required to consult with local communities on the development of their closure plans and monitor the societal risks and opportunities associated with closure.

Glencore has acquired, through mergers and acquisitions, older mines and legacy operations. We have a specialised management process for these legacy operations, which supports the identification and implementation of appropriate monitoring and responsible restoration.

Performance during 2022

During the year, we progressed the implementation of the new Environmental, Energy, Climate Change and Closure Planning Standards and associated guidelines and procedures.

Sustainability *continued*

Responsible portfolio management

Climate change

We support the global climate change goals outlined in the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement to limit the rise in global temperature to well below 2°C by the second half of this century.

As one of the world's largest diversified natural resource companies, Glencore has a key role to play in enabling the global transition to a low-carbon economy.

Our focus remains on our emissions footprint, including our Scope 3 emissions, which is critical in order to achieve the goals of the Paris Agreement. We have developed our capital allocation strategy having regard to our climate commitments.

We have commenced developing Just Transition principles that are aligned with our company Values and a risk and opportunity assessment to help us design a framework with the flexibility for locally appropriate action. We are also developing guidance to support our industrial assets in planning and identifying potential levers to mitigate risks or enhance the benefits of the energy transition for our affected stakeholders. Further information is available in our *2022 Climate Report*.

Further information on our approach to climate change and our performance during 2022 is available in the TCFD section on page 24 and our *2022 Climate Report*.

Human rights

We recognise that we have the potential to impact human rights directly through our operations, or through our relationships with joint ventures, contractors and suppliers. We are committed to respecting human rights and actively support our employees, business partners and others to understand and meet this commitment.

We uphold the dignity, fundamental freedoms and human rights of our people, communities and others potentially affected by our activities.

We seek to align with relevant international standards to understand, control and mitigate our impacts. Our policies and practices align with the Universal Declaration of Human Rights, the United Nations (UN) Guiding Principles, the UN Global Compact and International Labour Organization's core conventions and we articulate these in our Code of Conduct and Group Human Rights Policy. In addition, we operate in accordance with the Voluntary Principles on Security and Human Rights, and International Finance Corporation's Standard 5 on Involuntary Resettlement.

We respect the rights, interests and aspirations of Indigenous Peoples and acknowledge their right to maintain their culture, identity, traditions and customs and operate in accordance with the ICMM Position Statement on Indigenous Peoples and Mining.

Our industrial assets are required to conduct regular human rights training for their workforces, with a focus on those employees in positions exposed to human rights concerns, such as security. This covers general human rights awareness during day-to-day activities for our wider workforce, as well as focused training on the Voluntary Principles on Security and Human Rights for our security employees and contractors.

Enabling complaints and grievance processes

All our industrial assets are required to have in place local complaints and grievance processes designed to be legitimate, accessible, predictable, equitable, transparent, rights compatible and in line with the United Nations Guiding Principles' effectiveness criteria. These processes encourage people to raise concerns in a manner that respects the rights of the complainant. Where people have complaints or grievances, we aim to investigate and resolve them at the local level. Industrial assets are required to investigate and record all complaints.

We do not allow any form of punishment, discipline or retaliatory action to be taken against people for speaking up or cooperating with an investigation.

Indigenous Peoples

Some of our industrial assets are located on or near the traditional territories of Indigenous Peoples. Our approach aligns with the ICMM Position Statement on Indigenous People and Mining, which requires mining projects located on lands traditionally owned by or under customary use of Indigenous Peoples to respect Indigenous Peoples' rights, interests, special connections to lands and waters, and perspectives.

ICMM Members must adopt and apply engagement and consultation processes that ensure the meaningful participation of Indigenous communities in decision making, through a process consistent with their traditional decision-making processes. We seek, through good faith negotiation, to reach agreements with Indigenous Peoples who maintain an interest in or connection to the land on which we operate, formalising engagement processes and sustainable benefits.

Performance during 2022

We did not cause or contribute to incidents resulting in severe human rights impacts.

Responsible citizenship

Our activities can make a significant contribution to the national, regional and local economies through the production and marketing of commodities that provide the basic building blocks for development. We provide employment and training, business partner opportunities, tax and royalty payments to governments that help provide essential services, socio-economic, development and environmental stewardship.

We aim to minimise adverse impacts from our activities and to build partnerships to support sustainable development and growth.

Stakeholder engagement

Through meaningful stakeholder engagement and integration of social performance into our core business, we support the advancement of the mutual interests of our host communities, broader society and our industrial assets. With activities ranging from exploration to mines and mineral processing facilities to industrial assets in closure, we are present in a hugely diverse range of geographies and cultures around the world. Some of our industrial assets operate in challenging socio-political contexts and we remain committed to working with others to help find and implement solutions to social issues and to build resilient and peaceful communities.

Sustainability *continued*

We work hard to get to know our local communities and identify the individuals, groups or organisations with an interest in our business or who are affected by it. We require our industrial assets to implement a range of engagement activities designed to be relevant and appropriate for different stakeholders, including vulnerable groups, with access to local level complaints and grievance processes (see Human rights).

Community investment

In addition to our employment, local procurement and taxes, royalties and other levies, we seek to make a positive contribution to the social and economic development of our host communities and society more broadly through our community investment programmes.

Our strategic objective is to support initiatives that build resilient communities and regions by reducing dependency on our operations. This is challenging when the immediate, short-term needs in many of our communities are high. Our aim is to focus our efforts on developing programmes that contribute to longer-term social objectives through activities such as enterprise and job creation, education, health and wellbeing and capacity building.

Our socio-economic development activities are founded on the resources, needs and plans identified at a local or regional level and are informed by relevant data gathering and community engagement.

Performance during 2022

In 2022, we spent around $90 million on community development programmes (2021: $67 million). The increase reflects the resumption of activities following suspension during Covid-related lockdowns, the inclusion of Cerrejón's social investment spend and a humanitarian contribution for Ukraine.

Responsible product use

Responsible sourcing and supply

Our responsible sourcing strategy considers the production and sourcing of metals and minerals and procurement of goods and services. An integral part of our responsible sourcing approach is supply chain due diligence for our metals and minerals supply chain.

For our suppliers of metals and minerals, we conduct due diligence in accordance with the five-step approach framework defined in Annex I of the OECD Due Diligence Guidance.

Our risk assessment and management strategy identifies and assesses risks, including those relating to CAHRAs. We take a collaborative risk management and mitigation approach to the identified human rights risks within our supply chain.

As part of our system of controls and transparency for metals and minerals, we have an online platform that manages due diligence-related information, supplier assessment, collection and retention.

Our responsible sourcing team engages with internal stakeholders to increase awareness on the responsible sourcing of metals and minerals.

Performance overview 2022

During the year, we launched a new Group Responsible Sourcing Policy and rebranded and strengthened our Supplier Standards which was launched as the Glencore Supplier Code of Conduct. It explains our requirements and expectations for our suppliers and how we require that they work with us. The Policy sets out our commitment to undertake due diligence on our suppliers and to address identified risks. In addition, we launched a Responsible Sourcing Standard which seeks to operationalise the commitments made in the Responsible Sourcing Policy and Supplier Code of Conduct.

In 2022, Glencore did not produce or process any 'conflict minerals' originating from the conflict areas as defined under the Dodd-Frank Act (tin, tungsten, tantalum and gold from the DRC and adjoining countries). In addition, we undertake due diligence, aligned with the OECD's Due Diligence Guidance, on the products we market to ensure these products are responsibly sourced.

Our Sustainability homepage:
glencore.com/sustainability

Our people

Our Values of safety, integrity, responsibility, openness, simplicity and entrepreneurialism guide us in everything we do. Our 140,000 employees and contractors collectively work to deliver our strategy of enabling decarbonisation, whilst meeting demands for metals needed in everyday life and the energy needs of today. We are proud of the inclusive and diverse workforce that makes up our organisation today as we truly believe our people are our greatest asset.

Through our Group Human Resources Policies and Standards we create and maintain a workplace characterised by equality of opportunity, freedom of association, high performance and integrity. These Policies and Standards support our commitment to being a responsible and ethical operator and assist us in delivering our strategic priorities. Governance of our Group Human Resources Policies and Standards rests with the Board's ECC Committee. Responsibility for delivery and implementation rests with our senior management, including the CEO and heads of corporate functions and commodity departments. Each commodity department has appropriately resourced Human Resources teams in offices, assets and in some cases regions, charged with the day-to-day delivery of Human Resources services in line with the Group Human Resources Policies and Standards.

We continue to make investments in the Human Resources area including programmes and technologies designed to improve the performance of our people and our business. A number of our departments and assets have well established and mature Human Resources functions and strategies but all departments have continued to invest to lift Human Resources capability and create a greater ownership and expectation for the Human Resources agenda.

Setting minimum expectations across our business and ensuring compliance to these requirements

Over the past few years, we have been on a policy framework journey. We started in 2020 with a comprehensive review of our entire Group Policy Framework, which resulted in the issue of two Human Resources Policies, our Diversity and Inclusion Policy and Equality of Opportunity Policy. In 2021 we defined and rolled out a set of detailed Human Resources Standards which set out the specific requirements we expect our businesses to conform to across a range of Human Resources topics, while also respecting their autonomy and independence. Throughout 2022, we have worked on designing and implementing an assurance process against these Standards. The Human Resources Assurance Programme ensures that our businesses are fulfilling their commitment to our Standards and can evidence their compliance with the requirements. A number of our businesses have strong Human Resources practices and are already in compliance with these requirements. The Standards allow us to ensure consistent application across all of our industrial assets.

During the year, we assured our operations for compliance against the ICMM Performance Expectations, specifically, respecting human rights and the interests, cultures, customs and values of employees and communities affected by our activities. The detailed assurance work covered the following topics: fair working hours, pay and benefits as well as the rights and interests of women and diversity in the workplace.

In 2022 we have continued to work on creating a feedback culture that enhances our existing high-performance standards, with a clear and consistent focus on our Values and leadership behaviours. We have enhanced our existing approach to behavioural reviews, which includes a self-assessment component, for our most senior leaders. The behavioural review has a clear link with our incentive structure, sending a clear message to our employees regarding the behaviours we value as an organisation.

Our people *continued*

Employee relations and wellbeing

There have been a number of published reports into unacceptable sexual harassment in the mining industry. We are committed to providing an inclusive environment free from harmful behaviours where employees are encouraged to speak up and raise concerns if they witness or experience unacceptable conduct in our business. No form of violence or harassment will be tolerated in the workplace.

Whilst our People Survey data indicates very little difference between the workplace experiences of men and women, we are working hard to ensure standards of behaviour are clear and that people are held accountable for their behaviour. Additionally, we have also developed various Group-wide documents to support the management and prevention of harmful behaviours. Our newly developed Group Anti-Harassment Standard provides our commodity departments with a set of minimum requirements for the management and prevention of harmful behaviours in the workplace. We have adapted our whistleblowing process to include mechanisms to provide employees with a greater level of psychological support including the ability to seek help prior to the commencement of formal investigations and processes to ensure employees are fit to participate in the investigative process. This Standard coupled with specific guidance on the facilities and management of residential camps are designed to ensure that our businesses have the tools to ensure we prevent harmful behaviours including harassment and sexual harassment and create an inclusive environment for all workers.

In addition, we have recently revised our Group Discipline Standard to include a requirement for clear disciplinary procedures that are consistently applied across the organisation. In the Standard, we require corporate involvement and oversight of alleged material breaches of Glencore's Code, policies or the law. This oversight will allow us to maintain appropriate globally consistent approaches to both investigations and the imposition of discipline.

Our Astron Energy business in South Africa recently held 11 company-wide workshops on bullying and sexual harassment. The content of the workshops included identifying bullying and harassment in the workplace, the role employees can play in preventing these behaviours and details on the new policy documents rolled out in the business in response to the New Code of Good Practice in South Africa.

Raising awareness of the importance of mental health continues to be a focus area for the business. We encourage a culture of openness and dialogue on mental health to work towards eliminating the stigma. We plan to progress our efforts in 2023 by addressing psychosocial hazards in the workplace using a risk management approach to further support better workplace mental health as stipulated in our new Anti-Harassment Standard.

Our Coal Australia business recently commenced a psychosocial baseline risk assessment to ensure they have a comprehensive understanding of their health hazards. Partnering with International SOS and Affinity Health at Work, the risk assessment includes an analysis of documentation, stakeholder interviews and focus group workshops. Subsequently, an anonymous Company-wide survey has been developed in collaboration with an organisational psychologist, to understand employees' views on harmful behaviours across this area of our business.

An important part of being a responsible operator is treating workers fairly and engaging in collective bargaining in good faith. We are committed to participating in bargaining processes by considering the proposals of bargaining representatives and advancing propositions in response. The current macro environment, including rising inflation and high energy costs, brings challenges globally for a company like ours and we have faced some industrial action as a result.

In 2022 we have had four strikes across our operations lasting longer than a week. Around 70% of our workforce is unionised and we believe we have strong relationships with the unions within our operations.

Inclusion

How we all behave

The behaviours we consistently and intentionally demonstrate to create a collaborative culture that values our differences, encourages our people to be themselves and enables them to participate and contribute to their full potential.

Diversity

Who we all are

The collection of unique visible characteristics that make each of us different including, but not limited to, sexual orientation, education, age, ethnicity, cultural background, family status, experience and beliefs.

Equity

How we all succeed

The actions necessary to ensure fair treatment and access to opportunities, resources, programmes and practices for all, especially those who are under-represented or have been historically disadvantaged, such that they can participate fully, regardless of their identity.

Advancement

How we all grow

The removing of barriers that might prevent any person or group of people from developing to their full potential. Different steps may be required to facilitate growth opportunities for under-represented groups.

Local

Where it all happens

There is no 'one size fits all'. Building a more inclusive work environment and removing barriers requires that we set some global priorities and a framework that is customised locally and implemented according to the local context.

Our people *continued*

Creating an inclusive, diverse and equitable organisation

During 2022 we have continued to embed our Diversity and Inclusion framework, IDEAL, and have recruited a Head of DEI to coordinate our efforts globally. Gender Diversity Dashboards have been established and key metrics have been set for all businesses, with actions and updates being reviewed regularly. The dashboard provides a high-level overview of the progress made by each department in key areas relating to gender diversity:

- setting of targets;
- implementation of training (unconscious bias, inclusive behaviours, etc.);
- actions aimed at increasing the recruitment of women;
- on succession plans for key roles;
- implementation of competitive parental leave policies and flexible working arrangements; and
- review of gender pay equity.

To cater for the diversified nature of our Company, our businesses have been given the authority to determine targets that are realistic, achievable and appropriate to their context. All commodity departments have integrated governance of the IDEAL initiatives within established oversight frameworks and metrics; progress of initiatives will be regularly reviewed moving forward.

We have focused throughout the year on increasing the female representation in senior management across our business by using strategies such as widening the talent pool for recruitment and identifying female high potentials across the business. As part of the IDEAL initiatives, the Zinc department has collated the profiles of its top 300 women leaders, across all geographies and functions. This is being used to implement a specific talent management cycle across the portfolio, designed to identify, implement and track development opportunities for our female leadership.

Our Coal business in South Africa has seen a year-on-year increase in the representation of females in their overall population with the current percentage at 27%. Their medium-term goal of 30% is supported by a range of initiatives such as female peer mentoring and targeted work on increasing female recruitment in key roles.

Our Ferroalloys business has seen an increase in the percentage of women hires this year due to the implementation of remote and flexible work policies and the creation of a New Talent Management Ecosystem. The Women in Mining central committee is driving business-wide initiatives to increase female representation in the workforce.

Our Nickel department has seen an overall increase in their female representation at senior management level from 8% to 13% in the last year due to specific initiatives such as succession planning, identifying high potentials, on-site mentoring programmes for women and a senior leadership development programme.

At Group level, we have reviewed our leadership and governance structures and, whilst we do not operate a traditional and fixed executive committee structure, we have simplified our reporting lines and governance arrangements internally over the last few years. Through this process, we have classified our most senior employees into Group leadership roles, for those that operate across departments and commodities, and departmental leadership, whose focus is on a particular commodity or set of commodities. Within these groups our male / female gender diversity split stands at 71% / 29%; which is still short of our FTSE Women Leaders Review targets but evidence our commitment reflecting further progress over the last year.

Our people *continued*

Diversity

Oil and gas

Our Oil and Gas department is committed to increasing female representation in their senior management group. One of the key initiatives the Marketing department has focused on is increasing the number of female applicants to their Commercial Graduate Programme. In 2022, the programme has seen a greater than 130% increase in female applicants for this year's intake compared to the figures for 2021 and an overall increase in applicants by 83%. This female talent pipeline is aimed at developing women into commercial positions and increasing the female representation at a senior level across the department.

Zinc – Indigenous Employment Programme – McArthur River

McArthur River, in the Northern Territory in Australia, was recently awarded Large Employer of the Year at the 2022 NT Training Awards. The award recognises McArthur River's efforts to develop multiple employment pathways including traineeships, apprenticeships and cadetship programmes, as well as its Indigenous Employment Programme. The Indigenous Employment Pathway's Programme provides local opportunities, including relevant experience and job-readiness skills to Indigenous Australians who live in or have a connection to the areas in the Northern Territory, Queensland and the Upper Hunter areas of New South Wales. Over 40% of the programme's applicants in 2022 were female.

Cerrejón – Equipares Certification Silver Seal

In December 2022, Cerrejón, our coal mine in Colombia, received the Equipares Labour Equity Silver Seal Certification, awarded by the Ministry of Labor and the United Nations Development Program (UNDP) for their commitment to equity. Cerrejón is the only operational mining company in the country with a female president, with 37% of its Executive Committee made up of women. There are approximately 1,200 females and more than 200 members of diverse ethnic communities in its operations across the total workforce.

Our people *continued*

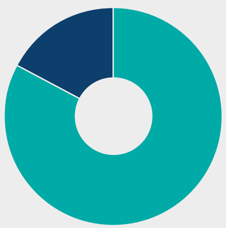
Workforce gender diversity

We recognise and are focused on increasing gender diversity within the business but face structural and societal challenges in some jurisdictions and therefore our work is focused on initiatives to drive sustainable progress. We anticipate that our diversity programme efforts will yield positive results over time and are seeing progress in many assets.

The Cerrejón acquisition added approximately 12,000 employees and contractors to our overall headcount. Women make up 10% of the Cerrejón workforce, which was impactful on overall diversity: on a like-for-like basis, our gender diversity score would have risen from 17% to 18%.

Cerrejón has a positive gender diversity story with 17% of management roles held by women, and is working on various initiatives for bringing more women into the workforce; currently women make up 46% of its total apprentice intake as it focuses on progressing its gender diversity strategy.

Diversity of employees globally

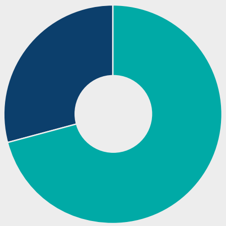


Workforce composition and development

The majority of our employees work on mine and smelter sites and are employed through full-time employment contracts with contractors representing approximately 40% of our workforce. In Africa, our major employment hubs are in South Africa and the DRC. In Asia, the majority of our people work in our operations in Kazakhstan.

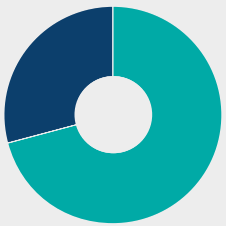
Employee turnover in continuing operations is 9%, with statistically insignificant differences between the retention rates for men and women.

Diversity of senior management



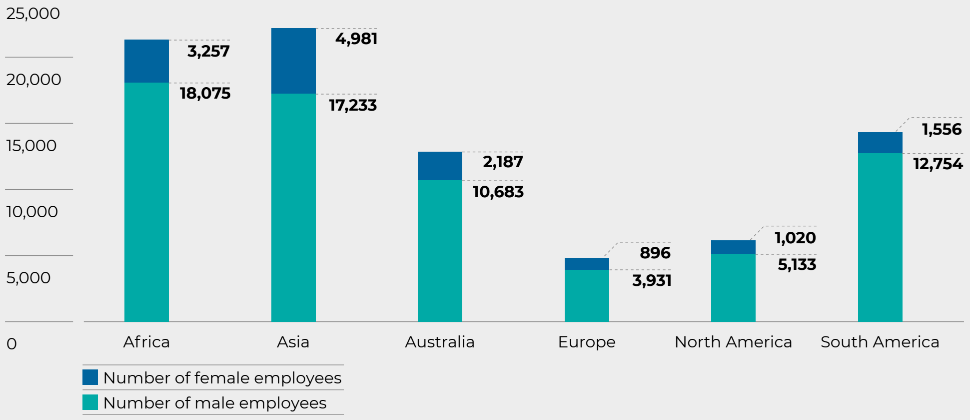
The Company tracks and reports on progress on Senior Management Diversity by following the FTSE Women Leaders Review methodology.

Diversity of managerial employees globally



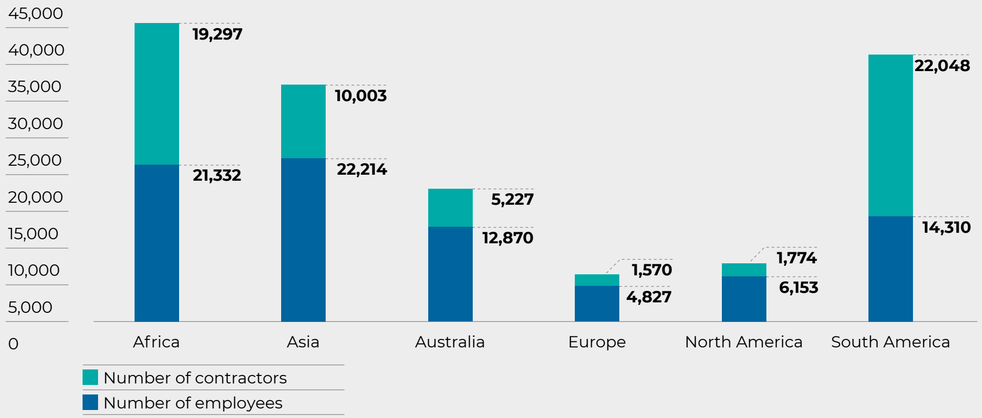
Gender balance of employees

Male: 67,809 Female: 13,897



Employment type

Employees: 81,706 Contractors: 59,919



Our people *continued*

Listening to our employees

To drive continuous improvement, we regularly seek our people's opinions. One of our ways to achieve this is by deploying our People Survey, which we conducted for a third time in 2022. The People Survey enables us to build a picture of how extensively our Code and Values are lived. The survey measures the engagement levels of our workforce as well as core elements to our business such as the physical safety of our employees, views on ethics and compliance, and fair and respectful treatment. This year our People Survey was distributed to a much wider audience with 82,000 employees invited to take part, an increase of 153% compared with 2020. We increased the scope of participants by including the permanent non-networked populations across our industrial assets. We had a response rate of 66%, which was strong for a survey of this nature and was an increase from 61% in 2020.

We measure employee engagement through an engagement score, which is then benchmarked across our businesses, against an external high-performance benchmark and against large-scale industrial businesses. Our scores were positive this year with an employee engagement score of 77% compared to external benchmarks of 78%.

Following the completion of this year's People Survey, we have implemented a comprehensive global tracking system to support the action plans that we are putting in place to address the feedback received from our employees. These specific action plans are based on the survey results and aim to turn these insights into tools to sustain employee performance and ensure the achievement of business priorities. We currently have 203 actions that have been captured across our assets as a result of the findings in the survey. The data-driven findings are given high priority by senior management and discussed at Board level.

77%

Value and culture score

83%

of surveyed employees intend to stay with the Company for the next 12 months

83%

of surveyed employees state they work in a safe environment

82%

of surveyed employees state they are proud to work at Glencore

Skills, capabilities and recruitment

Maintaining a strong pipeline of talent to our operations remains an area of significant focus for our businesses. Many of our businesses have targeted recruitment programmes aimed at school leavers and graduates and training and education programmes to equip people with the operational skills they need to be effective in our business. Covid and the current macro environment have resulted in skills shortages in many jurisdictions and as a result we have faced operational challenges in recruiting for specialist roles. In each of these businesses, there has been significant investment in recruitment and attraction in order to fill vacancies.

Our Ulan Coal mine in New South Wales has created a mentorship programme, undertaken a recruitment drive and invested in printed media to strengthen its recruitment campaigns. Hail Creek Open Cut mine in Queensland has focused on a New to Industry Campaign, opened assessment centres in conjunction with supplementary labour providers and created promotional social media content as part of its attraction and retention strategy.

Our Kazzinc operations have created an education programme for children of employees, allowing them to obtain high-demand professional qualifications. They have also created the Mobile Student programme whereby they enrol students from educational institutions of neighbouring regions, enabling Kazzinc to build and develop a wider pipeline for future talent.

Glencore Technology, our technology development company in Brisbane, has expanded its Women and Girls in Science Programme. This eight-month initiative offers women and girls from around the world, who want to grow a science career, the opportunity to be mentored by our senior professionals.

As well as investment in our emerging talent pipeline we have been focusing throughout 2022 on enhancing the skills and capabilities of our existing workforce. The Zinc department has delivered the International Leadership Programme to a cohort of current and emerging senior leaders. The programme brings together people from across the Zinc portfolio, industrial processes and functions, and supports three languages (English, Spanish and Russian). The focus of the programme is to promote cross-geography, cross-process interaction and to develop the competency of leaders in driving performance, culture and engagement. In addition to a range of innovative developmental activities and coaching, the participants experience and undertake deep experiential learning in areas of ESG strategy and diversity and inclusion.

To further enhance the development of our existing workforce, Glencore Alloys and Coal South Africa have collaborated and partnered with the University of the Witwatersrand Business School to deliver the Senior Leaders Development (SLD) Programme. The Programme targets employees who are at a General Manager/direct report to a General Manager role and employees identified as succession candidates into these roles. With a strong focus on personal leadership and coaching development, the Programme aims to assist with a candidate's transition into senior leadership and strengthen their contribution towards achieving organisational excellence.

Ethics and compliance

We are committed to operating responsibly and ethically wherever we operate and understand that we can only remain a business partner of choice by upholding this commitment.

Our approach

We have taken significant steps to develop and implement a comprehensive, best in-class Ethics and Compliance Programme (our Programme). This section contains an overview of our Programme, an introduction of its key elements and how we manage some of our main compliance risks.

You can access more detailed information about our Programme in our *Ethics and Compliance Report* published on our website, which sets out the efforts that have gone into building our Programme, raising awareness of it, monitoring it, and continuously maintaining and improving it, to ensure it is fully embedded into our business globally.

There are also further ethics and compliance materials available on our website: **glencore.com/sustainability/ethics-and-compliance**

Key elements of our Programme

Together with other functions, ensuring an appropriate system for discipline and incentives

Coordinating objective and consistent internal investigations, whilst maintaining confidentiality and protecting against retaliation

Providing safe channels to raise concerns regarding potential misconduct including our Group Raising Concerns Programme

Assessing the effectiveness of Programme implementation and identifying opportunities for improvement

Identifying, recording and evaluating compliance risks and controls

Establishing approaches and requirements to mitigate compliance risks and reflect ethical legal expectations and requirements

Training and raising awareness on ethics and compliance risks

Providing advice and guidance to employees on ethics and compliance matters

Ethics and compliance *continued*

Our scope

Our employees, directors and officers, as well as contractors under Glencore's direct supervision, working for a Glencore office or industrial asset directly or indirectly controlled or operated by Glencore plc worldwide, must comply with our Code, policies and our Programme as well as applicable laws and regulations, regardless of location. Our Supplier Code of Conduct sets out the expectations we have for all our suppliers, including expectations regarding ethical business practices. We assert our influence over joint ventures we don't control to encourage them to act in a manner consistent with our Values and Code.

Board and management oversight and support

Our Board of Directors plays a critical role in overseeing and assessing our culture of ethics and compliance, and ensuring policies, practices and behaviour are consistent with our Values. Our Board has established a separate Ethics, Compliance and Culture (ECC) Committee, which is responsible for overseeing our Programme and approving key ethics, compliance and culture-related matters within the Group. The ECC Committee receives quarterly updates on our Programme's implementation, including compliance risks and how they are managed, and on compliance resources. The Board separately receives quarterly updates on whistleblowing and investigation processes, and material investigations.

Our Board oversight is supported and augmented by oversight from management-level committees, including the Environmental, Social and Governance Committee (the ESG Committee), the Business Approval Committee (BAC) and the Raising Concerns and Investigations Committee (the RCIC).

The ESG Committee, comprises Glencore's CEO, CFO, Head of Industrial Assets, General Counsel, Head of Compliance, Head of Human Resources, Head of HSEC and Human Rights, and Head of Sustainability. It also includes senior members of management representing marketing and industrial assets across different commodities. The ESG committee reviews and considers the various ESG issues, programmes and projects implemented across the Group. It also reviews and approves Group policies, standards, procedures, systems and controls relevant for the corporate functions.

The BAC, a sub-committee of the ESG, comprises Glencore's CEO, CFO, General Counsel, Head of Sustainable Development and, where applicable, Heads of Department and Corporate Functions. It determines and sets guidance and criteria, and reviews business relationships, transactions and counterparties that may give rise to ethical or reputational concerns.

The RCIC comprises Glencore's CEO, CFO, General Counsel, Head of Industrial Assets, Head of Human Resources and Head of Compliance. The RCIC oversees the operation of our Raising Concerns Programme and the conduct of investigations, ensuring recommendations and sanctions are applied consistently across the Group.

Group compliance function structure

Our Group Compliance team is comprised of our full-time Corporate and Regional teams.

The Corporate Compliance team is responsible for designing, monitoring and continuously improving our Programme.

The Regional Compliance teams are responsible for implementation of the Programme across regions and commodities. They provide guidance to the business and support our Local Compliance Officers and the network of Compliance Coordinators.

Our Programme

Risk assessments

In order to ensure our Programme is appropriately designed, tailored to our business and that resources are adequately allocated, we identify, record and evaluate compliance risks faced by our business.

We achieve this by performing an annual Group Compliance risk assessment, to identify, record and assess compliance risks relevant to the entire Group.

In addition, these risks are assessed at appropriate intervals within each office and industrial asset across the Group. These local risk assessments help us understand and document the specific compliance risks faced by each of our businesses, as well as identify and assess the controls in place to mitigate those risks, as well as identify further controls that may be required.

These risk assessments also form the basis for drafting and updating Group policies, standards, procedures and guidelines, as well as determining our training programme and compliance team resourcing needs.

Group policy framework

Our Group policy framework encompasses our Values, Code of Conduct and a suite of policies, standards, procedures and guidelines on various compliance matters and risks, with a strong emphasis on key risks such as corruption, sanctions, money laundering and market abuse.

This framework reflects our commitment to uphold ethical business practices and to meet, or exceed, applicable laws and external requirements.

Employees can access these documents in up to 11 languages, through various channels. Our offices and industrial assets are responsible for implementing Group documents in their domains and developing and implementing local procedures, consistent with Group policies and standards, but adapted for local risks and requirements.

Anti-corruption and bribery

Our Anti-Corruption and Bribery Policy is clear: the offering, providing, authorising, requesting or receiving of bribes is unacceptable, and we do not engage in corruption or bribery, including facilitation payments. We assess corruption risk within our businesses and work to address these risks through policies, standards, procedures and guidelines on various topics. These cover our approach to:

- Political contributions
- Political engagement
- Sponsorships, charitable contributions and community investments
- Gifts and entertainment
- Interactions with public officials

Ethics and compliance *continued*

Sanctions and trade controls

Our Sanctions Policy sets out our commitment to complying with all applicable sanctions, and we adhere to United States, European Union, United Nations and Swiss sanctions throughout our business, whether we are legally required to do so or not. We do not participate in transactions designed or intended to evade or facilitate a breach of applicable sanctions, and we do not conduct business in, or involving any, embargoed territory or sanctions targets. We do not conduct business that would violate any applicable trade controls or anti-boycott laws, and we do not engage in any sanctionable activity that could result in the designation of Glencore as a sanctions target. We also do not conduct business with sectorally sanctioned entities, which is prohibited by sanctions.

To manage our sanctions risk exposure and ensure compliance, we implement controls and processes. These include screening and conducting due diligence on our counterparties and vessels using a risk-based approach to determine whether they are a sanctions target, subject to sectoral sanctions or otherwise attract sanctions risk.

Anti-money laundering and anti-tax evasion

Our Anti-Money Laundering Policy sets out our approach to ensuring that we comply with all applicable laws and regulations to prevent money laundering and the facilitation of tax evasion, and appropriately manage the related risks. We do not tolerate tax evasion of any kind and we do not knowingly or wilfully facilitate tax evasion. We implement a number of controls and processes to manage these risks.

Market conduct

Our Market Conduct Policy sets out our approach to how we comply with market conduct rules specifically relating to market manipulation, insider dealing and unlawful disclosure of inside information. We are committed to complying with all applicable laws, regulations and rules applying to Glencore's activities and behaviour in the physical and commodity derivative or related financial markets.

Our business partners

We work with a range of business partners and expect them to share our commitment to ethical business practices. Business partners include our suppliers, customers, joint ventures (JVs), JV partners, service providers and other counterparties. We have a comprehensive framework for managing the key risks associated with our business partners. Through this framework, we seek to comply with applicable laws (including anti-corruption and bribery, sanctions, anti-money laundering and anti-tax evasion) and to manage the reputational risks that can arise from engaging with business partners.

We ensure that our Programme is implemented at all JVs that we control or operate. For JVs which we do not control or operate, we seek to influence our JV partners to adopt our commitment to responsible business practices and implement appropriate compliance programmes.

In respect of mergers, acquisitions and disposals, we conduct thorough pre-transaction due diligence. We incorporate acquired or merged entities which we control or operate into our Programme.

Training and awareness

Training supports employees in building the awareness, the knowledge, skills and mindset needed to understand and behave in line with our Values, policies and the law. It is key to establishing a connection with our employees and to motivating ethical and compliant behaviour. We have a comprehensive approach, which includes the right planning, the right expertise and the right delivery to the right audience at the right time. While training is a critical component of our Programme, regular awareness-raising and communication are equally important. We therefore supplement our compliance training with various awareness initiatives, communications and activities throughout the year.

Monitoring

We continuously monitor and test the implementation of our Programme in order to determine its effectiveness, and that it is operationalised and embedded into business operations. These monitoring activities also enable us to identify opportunities for improvement that help develop and evolve our Programme and respond to changes in our business, the environments we operate in and applicable laws and regulations.

We have implemented a number of systems across the Group to ensure that we consistently manage, track and report on our compliance data. This includes data relating to risk assessment, training and policies and gives us an overall picture of the risks in each of our offices and industrial assets and the status of implementation of our Programme. We also use data analytics to monitor key business systems using a range of Key Risk Indicators (KRIs) trigger alerts and metrics.

Speaking openly and raising concerns

We are committed to creating a culture where everyone feels free to speak about concerns in a secure and confidential way. We do not tolerate retaliation against anyone who speaks openly about conduct they believe is unethical, illegal or not in line with our Code and policies, even if the concern is not substantiated.

We have a comprehensive suite of documents which establish a framework for managing concerns, including our Whistleblowing Policy. This policy encourages employees to report concerns, explains the process for reporting, escalating, investigating and remedying concerns, and makes clear that retaliation is absolutely prohibited, regardless of whether the reported concern is ultimately substantiated.

Concerns can be raised locally, or reported via our Raising Concerns programme, our corporate whistleblowing programme, managed in Switzerland. It allows whistleblowers to raise concerns anonymously in any of 15 languages.

Resolutions and ongoing investigations

Glencore has been subject to a number of investigations over the last few years. Glencore has taken all of these investigations very seriously and our response to the investigations has been overseen by our Investigations Committee, comprised of Non-Executive Directors, led by our Chairman. We have sought to cooperate extensively with the various authorities investigating Glencore in order to resolve these investigations as expeditiously as

Ethics and compliance *continued*

possible, while also seeking to learn from these investigations in order to support the continuous improvement of our Programme.

In 2022, Glencore announced a number of resolutions of certain long-standing investigations by authorities in the United States, the United Kingdom and Brazil into past practices at certain Group businesses. Separately, in December 2022, Glencore reached an agreement with the Democratic Republic of Congo (DRC) covering past conduct.

Glencore continues to cooperate with a previously disclosed and ongoing investigation by the Office of the Attorney General of Switzerland (OAG) into Glencore International AG for failure to have the organisational measures in place to prevent alleged corruption, and an investigation of similar scope by the Dutch Public Prosecution Service. The timing and outcome of these investigations remain uncertain.

For further information, please see the public announcements on our website: **glencore.com/investigations**

Monitorship

Under the terms of our resolutions with the DOJ, we have agreed to the appointment of independent compliance monitors to assess and monitor the Company's compliance with the resolutions and evaluate the effectiveness of our compliance programme and internal controls. The DOJ acknowledged the enhancements we have made to our Programme, but required the appointment of the monitors because the enhancements to the Programme are new and have not been fully implemented or tested.

We look forward to working constructively with the monitors and assessing how we can continuously improve our Programme. We have been actively communicating with our employees, through town halls and intranet updates, regarding the upcoming monitorship and the need for constructive collaboration.

We will, in our future Ethics and Compliance Reports, look to report on the work of the monitors, including summarising the work that they have done and relevant recommendations.

Section 172 Statement and stakeholder engagement

The UK Corporate Governance Code (the Code) requires the Board to understand the views of the Company's key stakeholders and report how their interests and the matters set out in section 172 of the UK Companies Act 2006 have been considered in Board discussions and decision making. The Board considers the interests of a range of stakeholders in its discussions, decision making and development of strategy, and considers the impact of decision making on the long-term success of the Group.

During the year, the Directors consider that they have acted in a way and have made decisions that would most likely promote the success of the Group for the benefit of its members as a whole, with particular regard for:

- the likely consequences of any decision in the long term: see Strategy on pages 18 to 21, and Risk management from pages 89 to 103;
- the interests of the Group's employees: see Our people section on pages 51 to 56, ECC Committee report on page 116, and Directors' Remuneration Report on pages 119 to 136;
- the need to foster the Company's business relationships with suppliers, customers and others: refer to next pages where we provide further details on stakeholder engagement;
- the impact of the Company's operations on the community and environment: see our Sustainability section on pages 43 to 60 and our Sustainability Report (to be released in early May 2023), TCFD section from page 24 and Risk management section on pages 89 to 103;
- the desirability of the Company maintaining a reputation for high standards of business conduct: see our Ethics and compliance section on pages 57 to 60, our Ethics and Compliance Report (2022 report to be released in April 2023), TCFD section from page 24, Sustainability section on page 43 to 60 and Sustainability Report, and discussion of risks around permitting, licence to operate, and laws and enforcement on pages 97 to 98; and
- the need to act fairly between members of the Company: the Corporate governance section, from page 104, outlines the material ways in which the Board and management interact with and communicate to shareholders.

When discharging their duty under Section 172, the Directors have focused on mapping out the Company's key stakeholder groups and reviewing our level of engagement with them. We operate assets in 35 countries and have around 140,000 employees and contractors. Engaging and responding to our stakeholder groups, regardless of their location or opinion, is fundamental to how we operate. In addition to direct Board engagement, engagement by management at different levels of the Group with stakeholders, with appropriate feedback and reporting to the Board, enables the Board to understand the perspectives of our stakeholders and consider the likely consequences of decisions in the long term.

To enable and ensure stakeholder considerations are reflected in our decision making, the Board:

- oversees a strategy than can achieve lasting success and generate sustainable returns for business, whilst maintaining our licence to operate;
- has standing agenda items at Board and Committee meetings that take into account our different stakeholder groups' interests;
- remains focused on its stakeholder awareness and strengthening its understanding of the broad range of views expressed by Glencore's stakeholders; and
- holds management to account on their commitments, particularly in relation to matters which are of significant interest to our stakeholders such as climate, local communities, health and safety and ethics and compliance, thereby also ensuring that management are acting in accordance with our Purpose and Values.

The competing interests of diverse stakeholder groups are integral to the Board's decision making. The Board engages in transparent and, we believe, constructive stakeholder engagement and consultation before making difficult decisions. The Board challenges management's approach to understanding, evaluating and, where necessary, mitigating adverse impacts on particular stakeholder groups.

Further details on key topics considered and principal decisions taken by the Board in the year are detailed on page 111.

Reflecting stakeholder views in our Board decision making

As a global resources business, we recognise that robust, respectful and two-way relationships with stakeholders are essential for our social licence to operate.

Commitment to recycling

Glencore has been a participant in the recycling business for over 30 years, centred at the Horne and Sudbury smelters in Canada. The demand for recycled metals has increased significantly and has been heightened given constraints on supply and the lower environmental footprint of secondary versus primary material. The Board is supportive of growing this segment significantly and has approved the necessary investments to form the commercial relationships which will help position the Company appropriately within this growth area of strategic importance.

More information on our Recycling business is available on page 13 and on our website at *glencore.com/what-we-do/recycling*.

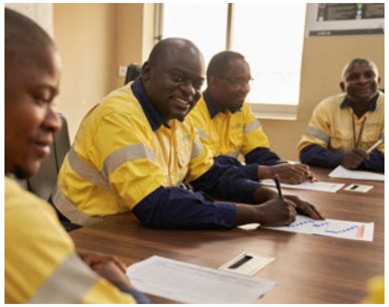
Shareholder returns

Providing shareholders with appropriate shareholder returns is an important part of our approach to capital allocation. During 2022, the Company paid a total of $0.37 per share: $0.26 approved by shareholders at the AGM on 28 April 2022; and $0.11 per share approved by the Board on 3 August 2022 following an interim review of the Company's financial position. Combined with our $3.6 billion cumulative share buyback programmes announced in February and August, total returns to shareholders exceeded $7.3 billion in 2022.

The Board regularly reviews the balance sheet position and, following record financial performance last year, has recommended a distribution of $0.44 per share for 2023, basis 2022 cash flows, together with a new $1.5 billion buyback programme (c.$0.12/share).

Our commitment to responsible sourcing

We expect our suppliers to share our commitment to ethical, safe and responsible business practices in line with our Purpose and Values. Where feasible, we leverage our business relationships to promote dialogue with other stakeholders to advance these commitments and industry best practice. Responsible sourcing is our commitment to take into account social, ethical and environmental considerations with regards to our products and supply chains and when managing our relationships with suppliers. We uphold these commitments through our policies, standards, and processes, including our Responsible Sourcing Policy and Supplier Code of Conduct and these documents have been approved and endorsed by the Board through the HSEC Committee.



Workforce engagement

Our Directors engage with the workforce directly via site visits and focus groups and indirectly by receiving results and informing action planning in relation to employee surveys. The Directors gained valuable insight into Company culture and issues that are important to the workforce, including diversity, training and development, safety, and the transition to green energy. Feedback was discussed at the ECC Committee meetings and fed back to the Board and senior management and follow-up actions were recommended. A particular focus for Directors during 2022 has been diversity and inclusion and the Board has been supportive of the strategy and creation of a taskforce in relation to this topic underpinned by the IDEAL framework further outlined in the Our people section on pages 51 to 56.

Climate

Our Board is responsible for oversight of overall performance and strategic direction, including with respect to climate change, and considers climate-related issues when reviewing and guiding major acquisitions and disposals, overall risk management, capital expenditure and budgeting, setting the Group's performance objectives and other strategic matters. During 2022, these included key abatement initiatives, such as power purchase agreements and renewable energy opportunities – see pages 24 - 42.

Following our 2022 AGM, we undertook a consultation with shareholders, after which the Board approved to take various actions, including to enhance disclosures regarding our planning and progress around the execution of our climate strategy and provide more detail on our Board and management governance of climate matters.

Section 172 Statement and stakeholder engagement *continued*

The following are examples of key decisions that the Board discussed and approved during 2022.

Key topic / decision	Board discussion	Stakeholder considerations and impacts
Resolution of investigations	• The Investigations Committee of the Board oversaw the Company's response to the investigation by the US, UK and Brazilian authorities, in which the Company cooperated with the authorities with the aim of reaching appropriate resolutions • Consequences ensuing from the resolutions, including the appointment of monitors • The impact of the resolutions on all its stakeholders, internally and externally	• The Board considered how to resolve the investigations in a responsible manner, which demonstrated Glencore's commitment to being a responsible and ethical company. • The Board considered the importance of being able to resolve these investigations in as a coordinated manner as possible so as to mitigate the impact on stakeholders and allow the company to focus on the Company's future • The Board considered the impact of the resolutions on the Company's reputation and relationship with stakeholders, including Governments, civil society and business partners and how best to communicate on the resolution to address the concerns of those stakeholders
Approach on Russian business	• No new trading business in respect of Russian-origin commodities would be approved unless directed by the relevant government authorities. • Glencore determined to continue to honour obligations under pre-existing contracts, subject to meeting all applicable sanctions in accordance with our Sanctions Policy and where it is feasible and safe to perform these contracts.	• Importance to all stakeholders of the Company acting responsibly in the light of Russia's invasion of Ukraine • Legal and ethical responsibilities to our customers and suppliers • Heightened business and reputational risks associated with Russia
Amendments to the Group's VaR limits	• Active monitoring of the Group's risk appetite and related VaR limits over a period of unprecedented levels of volatility in commodity markets (see page 91)	• Robust balance sheet and risk limits are important to many stakeholder groups, including equity and debt holders and relevant regulatory bodies • The Board considered variations to the VaR limit in context of the strong business opportunities available, and the still relatively small weighting relative to total equity • The Board concluded that the incremental risks in expanded and/or temporarily waived VaR limits were commensurate with the potential benefits
Top-up shareholder returns	• Half-year financial results allowed for "top-up" returns of $4.5bn • This notionally reset the Group's net debt to $10bn, the level we have determined to be optimal	• Returns to shareholders were considered in the light of commitments to other stakeholders, in particular debt holders and tax authorities • The Board considered the impact of shareholder returns on the Group's liquidity needs in the short to medium term • The Board also considered the Group's financial leverage in the longer term • The Board concluded that the shareholder returns were appropriate in light of the Group's other financial commitments

Section 172 Statement and stakeholder engagement *continued*

The following pages outline our key stakeholder groups, how we interact with them and how the Board considers their interests and opinions during its discussions and decision-making processes. The column 'Why they are important to the Company' outlines why these stakeholders play an important role in the Company's pursuit of success, implying how events negatively affecting these relationships can be detrimental to the Company.

Stakeholder	Why they are important to the Company	What is important to the stakeholder	How the Group maintains engagement	How the Board takes account of these interests
Our people	The success of our business would not be possible without the dedication of our workforce	• Health, safety and wellbeing • Training, compensation and career opportunities • Company culture and reputation • Industrial relations	• Intranet, emails, newsletter updates • Posters and leaflets • Town hall meetings and forums • Pre-shift 'toolbox' talks • Employee surveys • Webinars • Raising Concerns platform and other whistleblowing channels	• Workforce engagement by designated Non-Executive Directors • Regular updates from the Group Head of Human Resources • Regular updates on progress and actions on the Raising Concerns programme and material investigations by the General Counsel • Results of employee surveys
Communities	Mutually beneficial relationships with communities are crucial to maintaining our social licence in the regions in which we operate	• Local employment and procurement opportunities • Health, safety and wellbeing of workers • Operational impacts • Socio-economic development projects • Environmental management • Tailings storage facilities • Potential site closure • Security and its engagement with civil society • Artisanal and small-scale mining (ASM)	• Community liaison teams • Various meeting formats to reflect local expectations • Radio and television broadcasts • Social media channels and industrial assets' websites • Industrial asset-specific publications	• Group HSEC&HR provides the Board HSEC Committee with regular updates on Glencore's impact on the communities living around its operations and other relevant matters relating to the communities, such as the security situation and the levels of artisanal and small-scale mining • Industrial asset management provide details of community considerations as input into Directors' discussions on operational matters
Investors, financial analysts and the media	Our strategy and long-term success depend on the support of our investors. Financial analysts and the media are important in ensuring investors have equal access to quality information	• Financial and operational performance • Climate change • Compliance with laws and regulations • Company culture and reputation • Tailings storage management • Transparent payments to governments • Health, safety and human rights • Industrial relations	• Regular calls, one-on-one meetings and group events / presentations • Corporate Affairs teams regularly speak to media at global, national and local levels • Site visits • Webinars and online Q&A sessions • Annual Report, Climate Change Report, Sustainability Report, Modern Slavery Statement, Ethics and Compliance Report, Payments to Governments Report and other reports and presentations • AGM • Website, social media channels, media releases, and regulatory announcements	• Results meetings • AGM • Meetings with shareholders, analysts and key media • Group Investor Relations provide analysts' reports and investor feedback • Following major announcements, Group Corporate Communications provides feedback to the Board

Section 172 Statement and stakeholder engagement *continued*

Stakeholder	Why they are important to the Company	What is important to the stakeholder	How the Group maintains engagement	How the Board takes account of these interests
Governments and regulators	Governments and regulators provide the legal and policy framework that supports our businesses and ensures that our communities and people are protected	• Tax and royalty payments • Compliance with laws and regulations • Local employment and procurement • Operational environmental management, including tailings storage • Climate change • Socio-economic development projects • Transparency and human rights • Public health • Security	• Provide information and updates on key topics, either directly or as part of industry associations • Participation in multi-stakeholder organisations, initiatives and roundtables, such as the Voluntary Principles on Security and Human Rights, the OECD and the Extractive Industries Transparency Initiative (EITI) • Direct engagement with national, regional and local government on key topics • Site visits • Public reporting	• Reports on material regulatory issues and emerging legislation to the Board • Reports on material engagement with governments and regulators
Suppliers and customers	Well-established relationships with suppliers and customers are essential to the long-term viability of our business model	• Responsible sourcing and supply • Transparency in the supply chain • Procurement spend • Human rights • Compliance with laws and regulations • Competitive pricing • Performance	• Regular meetings and updates • Customer site visits • Participation in commodity-specific responsible sourcing initiatives • Local procurement initiatives	• Oversight of the implementation of the Responsible Sourcing Policy • Discussions as to relationships with and comments from suppliers and customers
Unions	Unions represent our workforce in a number of regions and our workforce is critical to our success	• Health, safety and wellbeing • Negotiation of workplace agreements • Industrial relations	• Regular meetings with industrial asset management • Union participation in asset safety committees	• Periodic updates from the Group Head of Human Resources and Head of Industrial Assets on material workforce issues
NGOs and civil society groups	Maintaining effective engagement with NGOs supports our efforts to operate responsibly and ethically	• Human rights • Tailings storage facilities • Social incidents • Public health • Operational and environmental management • Socio-economic development projects • Transparency in payments to governments • Security and its engagement with civil society • Compliance with laws and regulations	• Direct engagement with global and local NGOs and civil society groups • Sustainability reporting, including Sustainability Report, Modern Slavery Statement and Payments to Government Report • Social media channels and corporate website • External forums and organisations, such as the Voluntary Principles on Security and Human Rights, the OECD and the EITI	• Group Sustainable Development provides regular updates on the opinions and activities of NGOs and civil society groups • Regular discussions on major issues of concern to NGOs and civil society groups and engagement with them

Financial and operational review

Financial results

Towards the end of 2021, energy prices were already at elevated levels, on account of supply underinvestment and tighter product availability, as many parts of the world were recovering from Covid. Moving into 2022, the impact of these price developments on manufactured goods and consumer inputs more broadly translated into increasingly higher inflation being reported in many key economies, providing the impetus for interest rate hikes and an overall monetary tightening cycle. The US Federal Reserve started raising rates in March 2022.

The Russia / Ukraine war, commencing in February, with its associated sanctions regimes, intensified supply-side shocks in energy, agricultural products and commodities trading markets in general. Material trade flows needed to adjust for the now non-availability of Russian material into many of its traditional routes and/or flows through Russia itself. Furthermore, many western companies meaningfully withdrew from legal Russian trade (self-sanctioning) as ESG risk became increasingly unacceptable. In this environment, commodity prices and volatility, particularly in the energy sector, surged in the first half.

Our business overall benefitted greatly from our strategic exposure to energy, via our industrial coal portfolio and oil marketing business (both liquids and LNG).

In this environment, direct commodity price-related input costs rose, such as diesel fuel, with production unit costs generally also increasing on account of:

- indirect inflationary pressure on goods and services (particularly energy-related flow-through impacts on explosives, chemicals, reagents and OEM spare parts);
- competition for skilled employees and contractors, reflecting some residual Covid restrictions impacting labour mobility;
- government revenue-linked royalties; and
- supply chain pressures, including their secondary effects on shipping and handling costs, as trade flows adjusted in response to the war.

Chinese domestic policies were a further material macro force in 2022. In particular, its commitment to zero-Covid dampened industrial and consumer demand, with a resulting drag on metals prices in the June-August period, with prices broadly stable over the balance of the year.

Average year-over-year price increases for coal (Newc), and Brent crude were 163% and 39%, respectively. Metals moved in different directions: zinc and nickel increased on average, while copper and ferrochrome declined modestly. Although average cobalt metal prices were higher year-over-year, lower payabilities resulted in hydroxide realised prices being broadly compatible with 2021. Owing mainly to such higher overall prices, offset somewhat by the higher costs noted above, Adjusted EBITDA was a record of $34,060 million and Adjusted EBIT was $26,657 million in 2022, compared to $21,323 million and $14,495 million in 2021, respectively. Overall production was mixed year-over-year, reflecting portfolio disposals (Ernest Henry (copper / gold) and South American zinc assets), end of mine life volume impacts / variability (Kazzinc, Mount Isa) and geotechnical processing challenges at Katanga, offset by additional contribution (via partner stake purchases) from Cerrejón. Adjusted EBITDA mining margins were 36% (2021: 45%) in our metal operations and 66% (2021: 47%) in our energy operations. See page 82.

Combining the various factors above, income attributable to equity holders was a record $17,320 million (2021: $4,974 million), after recognising various significant items (particularly in our metals' industrial assets where cost inflation had the largest impact) as discussed below. EPS increased from $0.38 per share to $1.33 per share.

Market conditions

Selected average commodity prices

	Spot 31 Dec 2022	Spot 31 Dec 2021	**Average 2022**	Average 2021	Change in average %
S&P GSCI Industrial Metals Index	**451**	499	**480**	457	5
S&P GSCI Energy Index	**288**	252	**334**	230	45
LME (cash) copper price ($/t)	**8,365**	9,741	**8,805**	9,320	(6)
LME (cash) zinc price ($/t)	**3,003**	3,590	**3,475**	3,005	16
LME (cash) lead price ($/t)	**2,337**	2,338	**2,147**	2,202	(2)
LME (cash) nickel price ($/t)	**29,886**	20,881	**25,623**	18,474	39
Gold price ($/oz)	**1,824**	1,829	**1,802**	1,799	–
Silver price ($/oz)	**24**	23	**22**	25	(12)
Metal Bulletin cobalt standard grade, in-warehouse Rotterdam ($/lb)	**19**	34	**30**	24	25
Ferro-chrome 50% Cr import, CIF main Chinese ports, contained Cr (¢/lb)	**100**	114	**106**	113	(6)
Iron ore (Platts 62% CFR North China) price ($/DMT)	**112**	113	**113**	156	(28)
Coal API4 ($/t)	**185**	126	**271**	125	117
Coal Newcastle (6,000) ($/t)	**399**	166	**360**	137	163
Oil price – Brent ($/bbl)	**86**	78	**99**	71	39

Currency table

	Spot 31 Dec 2022	Spot 31 Dec 2021	**Average 2022**	Average 2021	Change in average %
AUD : USD	**0.68**	0.72	**0.69**	0.75	(8)
USD : CAD	**1.36**	1.26	**1.30**	1.25	4
EUR : USD	**1.08**	1.14	**1.05**	1.18	(11)
GBP : USD	**1.20**	1.35	**1.23**	1.37	(10)
USD : CHF	**0.92**	0.91	**0.95**	0.91	4
USD : KZT	**463**	435	**461**	427	8
USD : ZAR	**17.04**	15.94	**16.37**	14.79	11

Financial and operational review *continued*

Adjusted EBITDA/EBIT◊

Adjusted EBITDA by business segment is as follows:

	2022			2021			
US$ million	**Marketing activities**	**Industrial activities**	**Adjusted EBITDA**	Marketing activities	Industrial activities	Adjusted EBITDA	Change %
Metals and minerals	1,694	9,274	10,968	2,588	12,017	14,605	(25)
Energy products	5,558	18,590	24,148	1,829	5,603	7,432	225
Corporate and other[1]	(457)	(599)	(1,056)	(194)	(520)	(714)	48
Total	**6,795**	**27,265**	**34,060**	**4,223**	**17,100**	**21,323**	**60**

Adjusted EBIT by business segment is as follows:

	2022			2021			
US$ million	**Marketing activities**	**Industrial activities**	**Adjusted EBIT**	Marketing activities	Industrial activities	Adjusted EBIT	Change %
Metals and minerals	1,640	5,082	6,722	2,494	8,128	10,622	(37)
Energy products	5,199	15,850	21,049	1,395	3,252	4,647	353
Corporate and other[1]	(457)	(657)	(1,114)	(194)	(580)	(774)	44
Total	**6,382**	**20,275**	**26,657**	**3,695**	**10,800**	**14,495**	**84**

1. Corporate and other Marketing activities includes $494 million (2021: $473 million) of Glencore's equity accounted share of Viterra.

Marketing activities

Marketing delivered record results, successfully navigating the elevated levels of market volatility, disruption, rapidly and materially changing underlying commodity flows, and a constant reassessment of forward-looking supply and demand scenarios, particularly relating to energy markets, as noted above. Marketing Adjusted EBITDA and EBIT increased, respectively, over prior year, by 61% to $6,795 million and by 73% to $6,382 million, driven by our oil and gas department, as it capitalised on the extreme energy market imbalances, volatility and dislocations across crude oil, LNG, refined products and logistics infrastructure. Metals and minerals Adjusted EBIT was down 34% over 2021, due to the more challenging market conditions prevailing for much of 2022, reflecting global recessionary fears and a Chinese economy impacted by lockdown restrictions.

In 2022, agricultural markets also saw elevated prices and volatility, such that Viterra reported an EBITDA and Net income of $2.0 billion and $1.0 billion, respectively. Our 50% share of earnings (captured within Corporate and other) was $494 million (post-interest and tax) compared to $473 million in the prior year. Viterra's recently completed Gavilon acquisition (primarily US market presence) provides further benefits of scale and synergy opportunities.

Industrial activities

Industrial Adjusted EBITDA increased by 59% to $27,265 million (Adjusted EBIT was $20,275 million, compared to $10,800 million in 2021). As noted above, the increase was primarily driven by stronger average year-over-year commodity prices, particularly related to our coal operations and the additional contribution from the increased ownership in Cerrejón. Metals Industrial EBITDA was down 23% to $9,274 million compared to prior year, where other than in relation to lower prices (e.g. copper) the largest contributors were:

- African copper – EBITDA down $0.6 billion compared to 2021, as a result of significant geotechnical and other operating challenges impacting Katanga during the year, resulting in a decrease of 44kt of copper production; and
- Australian zinc – EBITDA down $0.5 billion compared to 2021, owing to inflationary cost pressures, lower zinc volumes and grades as Lady Loretta approaches end of mine life, challenging copper operating conditions and various NRV non-cash inventory-related valuation adjustments.

Financial and operational review *continued*

Significant items

Significant items are items of income and expense, which, due to their nature and variable financial impact or the expected infrequency of the events giving rise to them, are separated for internal reporting, and analysis of Glencore's results, to aid in providing an understanding and comparative basis of the underlying financial performance.

In 2022, Glencore recognised a net expense, after tax and non-controlling interests, of $1,562 million (2021: $4,151 million) in significant items comprised of:

- expenses of $9 million (2021: $11 million) relating to Glencore's share of significant expenses recognised directly by our associates;
- gain on acquisitions and disposals of non-current assets of $1,287 million (2021: loss of $607 million) primarily related to the gains recognised on the acquisition of the remaining 66.67% interest in Cerrejón ($1,029 million) and the disposal of Ernest Henry ($512 million);
- other income/(expense) – net expense of $911 million (2021: $1,947 million) see note 5;
- balance primarily comprises:
  - $106 million (2021: gains of $64 million) of mark-to-market losses on equity investments / derivative positions accounted for as held for trading, including the commodity price linked deferred consideration related to the sale of Mototolo in 2018 and the ARM Coal non-discretionary dividend obligation;
  - $349 million net loss (2021: $187 million) of net foreign exchange losses, whereby 2022 primarily relates to realised foreign currency losses recycled from other comprehensive income recognised in respect of an intragroup restructuring;
  - $302 million (2021: $1,640 million) relating to various legal matters and related costs (legal, expert and compliance), including in respect of the government investigations (see notes 23 and 31); and
  - $370 million (2021: $177 million), comprising movements in restoration, rehabilitation and decommissioning estimates relating to sites that are no longer operational.
- impairments of $3,337 million (2021: $1,838 million), see note 7. The corresponding net impact, after income taxes and non-controlling interests, was $2,341 million (2021: $1,137 million). The 2022 charge primarily relates to Mt. Isa Copper ($656 million), Mt. Isa Zinc ($455 million), Zhairem ($185 million) and Koniambo ($227 million), due to significant changes to key macro estimates, heavily influenced by the Russian / Ukrainian war, and operational challenges in certain areas, Mopani advance ($422 million) and outstanding VAT claims in the DRC of $632 million. The 2021 impairment related primarily to Koniambo ($1,170 million), HG Storage ($331 million), outstanding VAT claims ($151 million) and net $98 million reversal of impairments of certain loans and physical advances; and
- income tax expense of $199 million (2021: credit of $137 million) – see income taxes below.

Earnings

A summary of the differences between reported Adjusted EBIT and income attributable to equity holders, including significant items, is set out in the following table:

US$ million	**2022**	2021
Adjusted EBIT◊	26,657	14,495
Net finance and income tax expense in relevant material associates and joint ventures[1]	(710)	(1,207)
Proportionate adjustment Volcan[1]	62	179
Net finance costs	(1,336)	(1,140)
Income tax expense[2]	(6,169)	(3,163)
Non-controlling interests	378	(39)
Income attributable to equity holders of the Parent pre-significant items◊	**18,882**	**9,125**
Earnings per share (Basic) pre-significant items (US$)[3]◊	1.44	0.69
Significant items◊		
Share of associates' significant items[4]	(9)	(11)
Movement in unrealised inter-segment profit elimination[5]	1,176	(549)
Gain / (loss) on acquisitions and disposals of non-current assets[6]	1,287	(607)
Other expense – net[7]	(911)	(1,947)
Impairments[8]	(3,337)	(1,838)
Income tax (expense) / credit[2]	(199)	137
Non-controlling interests' share of significant items[9]	431	664
Total significant items	**(1,562)**	**(4,151)**
Income attributable to equity holders of the Parent	**17,320**	**4,974**
Earnings per share (Basic) (US$)[3]	1.33	0.38

1. Refer to note 2 of the financial statements and to APMs section for reconciliations.
2. Refer to other reconciliations section for the allocation of the total income tax expense between pre-significant and significant items.
3. Based on weighted average number of shares, refer to note 18 of the financial statements.
4. Recognised within share of income from associates and joint ventures, see note 2 of the financial statements.
5. Recognised within cost of goods sold, see note 2 of the financial statements.
6. Refer to note 4 of the financial statements and to APMs section for reconciliations.
7. Recognised within other income / (expense) – net, see note 5 of the financial statements and to APMs section for reconciliations.
8. Refer to note 7 of the financial statements and to APMs section for reconciliations.
9. Recognised within non-controlling interests, refer to APMs section.

Financial and operational review *continued*

Net finance costs

Net finance costs were $1,336 million during 2022, a 17% increase compared to $1,140 million in the comparable reporting period. Interest expense for 2022 was $1,771 million, up 31% over 2021 due to higher average floating base rates (mainly SOFR). Interest income was $435 million compared to $208 million in the prior year, also due to the higher average floating base rates. See note 6.

Income taxes

An income tax expense of $6,368 million was recognised during 2022, compared to an expense of $3,026 million in 2021. The effective tax rate is 27.8%, however, when adjusting for significant items (primarily impairments, foreign exchange adjustments and tax losses not recognised), the effective tax rate increases to 28.1% (33.5% in 2021).

Statement of financial position

Current and non-current assets

Total assets were $132,583 million as at 31 December 2022, compared to $127,510 million as at 31 December 2021. Current assets increased from $57,776 million to $69,223 million, due primarily to an increase in receivables, including margin calls paid in respect of the Group's hedging activities, on account of higher energy commodity prices at year end relative to the prior year and higher inventories, in part reflecting slower sales into China amid Covid lockdowns and shipping bottlenecks and delays in respect of realignment of trade flows post the Ukraine war. Non-current assets decreased from $69,734 million to $63,360 million, primarily due to capital expenditure over the period being below depreciation and amortisation expense, $1,986 million of impairments to property, plant and equipment, $2,440 million of asset values reclassified to held for sale and mark-to-market losses recognised on other investments (see below and notes 7, 16 and 11).

Current and non-current liabilities

Total liabilities were $87,364 million as at 31 December 2022, compared to $90,593 million as at 31 December 2021. Current liabilities increased from $49,459 million to $53,420 million, primarily due to an increase in income tax payable of $2,875 million, reflecting the aggregate catch-up cash flow timing impact of final settlement of 2022 income taxes due in 2023 (e.g. final Australian 2022 income taxes are due on 1 June 2023) and an increase in current borrowings (see note 21). Non-current liabilities decreased from $41,134 million to $33,944 million, primarily due to a decrease of non-current borrowings (see note 21).

Movements relating to current and non-current borrowings are set out below in the net funding and net debt movement reconciliation and in note 21.

Equity

Total equity was $45,219 million as at 31 December 2022, compared to $36,917 million as at 31 December 2021, the movements being primarily the income for the year of $16,511 million, including non-controlling interests and a decrease in other comprehensive income noted below, offset by shareholder distributions and buybacks ($7,097 million) concluded during the year.

Other comprehensive income / (loss)

A loss of $788 million was recognised during 2022, compared to an income of $42 million in 2021, primarily relating to net mark-to-market losses of $1,124 million (2021: $52 million) with respect to various minority investments, comprising mainly our holdings in EN+ and Rosneft (see note 11), and exchange losses on translation of foreign operations of $307 million (2021: $87 million), primarily our South African ZAR-denominated subsidiaries, offset by foreign exchange losses recycled to the statement of comprehensive income of $481 million (2021: $Nil) and net defined benefit plan remeasurements of $231 million (2021: $223 million).

Financial and operational review *continued*

Cash flow and net funding / debt

The reconciliation in the table below is the method by which management reviews movements in net funding and net debt and comprises key movements in cash and any significant non-cash items.

Net funding as at 31 December 2022 decreased by $3.3 billion to $27,500 million and net debt (net funding less readily marketable inventories) decreased by $6.0 billion to $75 million, as funds from operations of $28,938 million significantly exceeded the $4,543 million of net capital expenditure, $7,539 million of distribution to shareholders, non-controlling interests and purchase of own shares and, respectively, $5,149 million and $8,334 million in inventory and net other working capital outflows.

The latter primarily includes a $1.1 billion reduction in deferred income, $0.9 billion paid during the period towards settlement of the various legal investigations (see note 21), a $0.5 billion reduction in other provisions (mainly remuneration and rehabilitation related), a $1.9 billion net increase in trade receivables / payables (see notes 14 and 25), a $0.7 billion net increase in physical forward commodity related contracts (see note 29), and a $2.4 billion net increase in net margin calls paid, in excess of the movement in current financial assets / liabilities (our derivative commodity related contracts / hedging instruments, excluding physical forwards) (see notes 14 and 25), whereby the various commodity exchanges significantly increased their initial margining requirements during the period, resulting in the posting of an additional $2.2 billion from $1.9 billion to $4.1 billion. The latter three categories, aggregating to some $5 billion, substantially relate to our Energy Marketing activities (oil, gas and coal), whereby the additional investment in working capital should be considered in the context of a 273% increase in Energy Marketing EBIT from $1.4 billion to $5.2 billion.

The non-RMI inventory balance increased by $2.5 billion over the year, including the $1.2 billion inter-segment profit-in-stock elimination adjustment (see note 2), whereby a positive corresponding cash flow effect is reported within ‘cash generated by operating activities’ above. The remaining variance primarily comprises Astron oil refinery ($0.3 billion), as we initiated its restart in Q4 2022, requiring parallel crude and product stocks to be held for a period of time, the build-up of additional inventory capacity at African copper ($0.2 billion) to assist with processing complexities and supply chain challenges, as well as higher Kazzinc inventories ($0.2 billion), owing to supply chain challenges resulting from the Russian / Ukraine war.

Business and investment acquisitions and disposals

Net inflows from business and investment disposals / acquisitions were $737 million over the year, compared to $370 million in 2021. The net inflow mainly comprises the proceeds from the sale of Ernest Henry for $584 million (see note 26). The net inflow in 2021 comprises mainly the proceeds from the sale of Chemoil Terminals (oil storage facilities in the US) for $248 million (see note 26). In May, Glencore subscribed for $200 million of convertible debt in Li-Cycle, a lithium-ion battery recycler in North America (see note 12).

Cash flow and net funding / debt

Net funding

US$ million	31.12.2022	31.12.2021
Total borrowings as per financial statements	28,777	34,641
Proportionate adjustment – net funding[1]	646	(563)
Cash and cash equivalents	(1,923)	(3,241)
Net funding◊	**27,500**	**30,837**

1. Refer to APMs section for definition and reconciliations.

Cash and non-cash movements in net funding

US$ million	2022	2021
Cash generated by operating activities before working capital changes, interest and tax	32,915	16,725
Proportionate adjustment – Adjusted EBITDA[1]	2,402	3,619
Non-cash adjustments included within EBITDA	35	–
Net interest paid[1]	(1,069)	(853)
Tax paid[1]	(5,904)	(2,676)
Dividends received from associates[1]	559	242
Funds from operations◊	**28,938**	**17,057**
Net movement in inventories[2]	(5,149)	(5,689)
Net other working capital changes[2]	(8,334)	400
Increase in long-term advances and loans[2]	(200)	–
Acquisition and disposal of subsidiaries – net[2]	609	252
Purchase and sale of investments – net[2]	128	108
Purchase and sale of property, plant and equipment – net[2]	(4,543)	(3,802)
Margin payments in respect of financing related hedging activities	(1,824)	(970)
Proceeds received on acquisition of non-controlling interests in subsidiaries	–	10
Distributions paid and transactions of own shares – net	(7,539)	(3,024)
Cash movement in net funding	**2,086**	**4,342**
Net funding acquired in business combinations	(20)	–
Change in lease obligations	(379)	(915)
Foreign currency revaluation of borrowings and other non-cash items	1,650	1,164
Total movement in net funding	**3,337**	**4,591**
Net funding◊, beginning of the year	(30,837)	(35,428)
Net funding◊, end of year	**(27,500)**	**(30,837)**
Less: Readily marketable inventories[2]	27,425	24,795
Net debt◊, end of year	**(75)**	**(6,042)**

1. Refer to APMs section for definition and reconciliations.
2. Refer to Other reconciliations section.

Financial and operational review *continued*

Liquidity and funding activities

In March 2022 (effective May 2022), Glencore refinanced its short-term revolving credit facility (RCF). As at 31 December 2022, the overall RCF facilities comprise:

- a $6,535 million one-year revolving credit facility with a one-year borrower's term-out option (to May 2024);
- a $450 million medium-term revolving credit facility (to May 2025); and
- a $4,200 million medium-term revolving credit facility (to May 2026).

As in previous years, these committed unsecured facilities contain no financial covenants, no rating triggers, no material adverse change clauses and no external factor clauses.

As at 31 December 2022, Glencore had available committed liquidity amounting to $13.0 billion (31 December 2021: $10.3 billion).

Credit ratings

In light of the Group's extensive funding activities, maintaining investment grade credit rating status is a financial priority. The Group's credit ratings are currently Baa1 (positive outlook) from Moody's and BBB+ (positive outlook) from Standard & Poor's. Glencore's publicly stated objective, as part of its overall financial policy package, is to seek and maintain a minimum of strong Baa / BBB credit ratings from Moody's and Standard & Poor's, respectively. In support thereof, Glencore targets a maximum 2x Net debt / Adjusted EBITDA ratio through the cycle, augmented by a Net debt cap of c.$10 billion.

Distributions

In accordance with the Company's shareholder return policy, the Directors have recommended a 2022 financial year base cash distribution of $0.40 per share amounting to $5.1 billion, accounting for own shares held as at 10 February 2022. In addition, the Directors have recommended a 'top-up' cash distribution of $0.04 per share amounting to some $0.5 billion, whereby payment of the aggregate distribution of $0.44 per share will be effected as a $0.22 per share distribution in June 2023 and a $0.22 per share distribution in September 2023 (in accordance with the Company's announcement of the 2023 Distribution timetable made on 15 February 2023). The Company also commenced in February a buyback of its own shares to the value of up to $1.5 billion, with intended completion by the time of the Group's interim results announcement in August 2023.

The cash distribution is to be effected as a reduction of the capital contribution reserves of the Company. As such, this distribution would be exempt from Swiss withholding tax. As at 31 December 2022, Glencore plc had CHF 18 billion of such capital contribution reserves in its statutory accounts. The distribution is subject to shareholders' approval at Glencore's AGM on 26 May 2023.

The distribution is ordinarily paid in US dollars. Shareholders on the Jersey register may elect to receive the distribution in sterling, euros or Swiss francs, the exchange rates of which will be determined by reference to the rates applicable to the US dollar at the time. Shareholders on the Johannesburg register will receive their distribution in South African rand. Further details on distribution payments, together with currency election and distribution mandate forms, are available from the Group's website (*glencore.com*) or from the Company's Registrars.

Non-financial information statement

We aim to comply with the Non-Financial Reporting Directive requirements from sections 414CA and 414CB of the UK Companies Act 2006. The table below sets out where relevant information is located in this report.

Our policies: **www.glencore.com/who-we-are/policies**

Reporting requirements	Policies	Reference in 2022 annual report
1. Environmental Matters	• Environmental Policy • Code of Conduct • Tailing Storage Facility Policy • Supplier Code of Conduct • Responsible Sourcing Policy	• TCFD, page 24 • Sustainability, page 43 • Risk management, page 89
2. Employees	• Code of Conduct • SafeWork programme • Environmental Policy • Health and Safety Policy • Equality of Opportunity Policy • Diversity and Inclusion Policy • Whistleblowing Policy	• Our people, page 51 • Ethics and Compliance, page 57 • Risk management, page 89 • HSEC Committee Report, page 11 • Climate related risks, page 26
3. Human Rights	• Human Rights Policy • Annual Modern Slavery Statement • Code of Conduct	• Sustainability, page 43 • Risk management, page 89
4. Social Matters	• Code of Conduct • Social Performance Policy • Supplier Code of Conduct • Responsible Sourcing Policy	• Sustainability, page 43 • Our people, page 51 • Risk management, page 89
5. Anti-corruption and anti-bribery	• Code of Conduct • Anti-money Laundering Policy • Competition Law Policy • Conflict of Interest Policy • Fraud Policy • Information Governance Policy • Market Conduct Policy • Sanctions Policy • Whistleblowing Policy • Inside Information and Securities Dealing Policy	• Ethics and Compliance, page 57 • Risk management, page 89
6. Business model		• Our business model, page 14
7. Principal Risk and Uncertainties	• Enterprise Risk Management Policy	• Risk management, page 89
8. Non-financial key performance indicators		• Key Performance Indicators, page 22

Basis of presentation

The financial information in the Financial and Operational Review is presented on a segmental measurement basis, including all references to revenue (see note 2) and has been prepared on the basis as outlined in note 1 of the financial statements, with the exception of the accounting treatment applied to relevant material associates and joint ventures for which Glencore's attributable share of revenues and expenses are presented. In addition, the Peruvian listed Volcan, while a subsidiary of the Group, is accounted for using the equity method for internal reporting and analysis due to the relatively low economic interest (23%) held by the Group.

The Group's results are presented on an 'adjusted' basis, using alternative performance measures (APMs) which are not defined or specified under the requirements of IFRS, but are derived from the financial statements, prepared in accordance with IFRS, reflecting how Glencore's management assesses the performance of the Group. The APMs are provided in addition to IFRS measures to aid in the comparability of information between reporting periods and segments and to aid in the understanding of the activities taking place across the Group by adjusting for significant items and by aggregating or disaggregating (notably in the case of relevant material associates and joint ventures accounted for on an equity basis) certain IFRS measures. APMs are also used to approximate the underlying operating cash flow generation of the operations (Adjusted EBITDA). Significant items (see reconciliation below) are items of income and expense, which, due to their nature and variable financial impact or the expected infrequency of the events giving rise to them, are separated for internal reporting and analysis of Glencore's results, to aid in providing an understanding and comparative basis of the underlying financial performance.

APMs used by Glencore may not be comparable with similarly titled measures and disclosures by other companies. APMs have limitations as an analytical tool, and a user of the financial statements should not consider these measures in isolation from, or as a substitute for, analysis of the Group's results of operations; and they may not be indicative of the Group's historical operating results, nor are they meant to be a projection or forecast of its future results.

Alternative performance measures are denoted by the symbol ◊ and are further defined and reconciled to the underlying IFRS measures in the APMs section on page 260.

Our Marketing business

We responsibly source the commodities that advance everyday life – this means moving them from where they are plentiful to where they are needed.

Market insight and customer understanding

Our global scale and presence in more than 60 commodities across 35 countries gives us extensive market knowledge and insight to help us fully understand the needs of our customers.

Anticipating supply and demand

Our strategy seeks to maximise value through our integrated Marketing and Industrial businesses working side-by-side to give us presence across the entire supply chain, delivering in-depth knowledge of physical market supply and demand dynamics and an ability to rapidly adjust to market conditions.

Creating opportunities

The significant scale of both our own production and the volumes secured from third parties allows us to create margin opportunities from our ability to supply the exact commodities the market needs through processing and/or blending and optimisation of qualities.

Generating returns

We generate returns as a fee-like income from distribution of physical commodities and arbitrage opportunities. Our use of hedging instruments results in profitability being largely determined by these activities rather than by absolute price movements.

Arbitrage opportunities

Many of the physical commodity markets in which we operate are fragmented or periodically volatile. This can result in arbitrage: price discrepancies between the prices for the same commodities in different geographic locations or time periods. Other factors with arbitrage opportunities include freight and product quality.

Product arbitrage

Disparity

Pricing differences between blends, grades or types of commodity, taking into account processing and substitution costs.

Execution

Ensure optionality with commodity supply contracts, and look to lock-in profitable price differentials through blending, processing or end-product substitution.

Geographic arbitrage

Disparity

Different prices for the same product in different geographic regions, taking into account transportation and transaction costs.

Execution

Leverage global relationships and production, processing and logistical capabilities to source product in one location and deliver in another.

Time arbitrage

Disparity

Different prices for a commodity depending on whether delivery is immediate or at a future date, taking into account storage and financing costs.

Execution

Book 'carry trades' that benefit from competitive sources of storage, insurance and financing.

Marketing activities

Highlights

Marketing Adjusted EBIT of $6,382 million was 73% higher than in 2021, having successfully navigated the extraordinary supply-side shocks in global energy and agricultural markets stemming from the Russia / Ukraine war and demand uncertainty related to mainly ex-China rising inflation and tightening monetary conditions, in conjunction with China's commitment to its zero-Covid policy over much of 2022.

The Russian invasion of Ukraine in February 2022 led to significant upheaval, uncertainty and ultimately realignment of global trade flows, most notably in the energy complex. Already challenged oil and gas markets responded accordingly, with prices (absolute and in relation to quality and location differentials) reaching multi-year highs or records in many cases, before easing over Q4 in the face of the relatively mild weather start to winter, with high gas inventory levels having been built up. European coal imports were materially higher during the year, reflecting substitution for gas, at the same time as supply was limited by an Indonesian export ban earlier in the year and weather disruptions in Australia, South Africa and Colombia.

Against this challenging and elevated risk backdrop, as evidenced by our Value at Risk analysis discussed in note 27, Adjusted EBIT from the energy products business was $5,199 million, a near four-fold increase over the prior year.

Metals and minerals Adjusted EBIT decreased by 34% to $1,640 million, reflecting the weak Chinese construction, manufacturing and consumer spending activity levels noted below, as well as, in % terms, the strong 2021 contribution.

Viterra (reported within corporate and other) contributed $494 million on an attributable, after-tax basis, matching 2021's record performance.

Financial overview

US$ million	**Metals and minerals**	**Energy products**	**Corporate and other[1]**	**2022**	Metals and minerals	Energy products	Corporate and other[1]	2021
Revenue	**77,382**	**137,720**	**–**	**215,102**	71,318	106,265	–	177,583
Adjusted EBITDA◊	**1,694**	**5,558**	**(457)**	**6,795**	2,588	1,829	(194)	4,223
Adjusted EBIT◊	**1,640**	**5,199**	**(457)**	**6,382**	2,494	1,395	(194)	3,695
Adjusted EBITDA margin	**2.2%**	**4.0%**	**n.m.**	**3.2%**	3.6%	1.7%	n.m.	2.4%

1. Corporate and other Marketing activities includes $494 million (2021: $473 million) of Glencore's equity accounted share of Viterra.

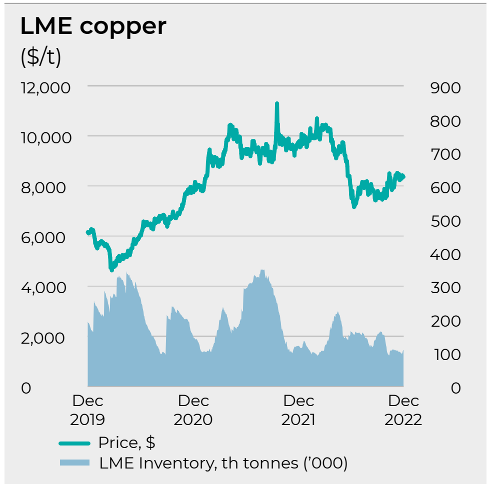
Selected Marketing volumes sold

	Units	**2022**	2021	Change %
Copper metal and concentrates[1]	mt	**3.6**	3.1	16
Zinc metal and concentrates[1]	mt	**2.4**	2.7	(11)
Lead metal and concentrates[1]	mt	**0.8**	1.1	(27)
Gold	moz	**1.9**	1.8	6
Silver	moz	**69.0**	65.5	5
Nickel	kt	**263**	202	30
Ferroalloys (incl. agency)	mt	**8.4**	9.3	(10)
Alumina/aluminium	mt	**10.0**	8.9	12
Iron ore	mt	**71.0**	49.9	42
Thermal coal[2]	mt	**78.4**	67.7	16
Metallurgical coal[2]	mt	**2.5**	4.6	(46)
Crude oil	mbbl	**535**	706	(24)
Oil products	mbbl	**544**	704	(23)

1. Estimated metal unit contained.
2. Includes agency volumes.

Marketing activities *continued*

Copper

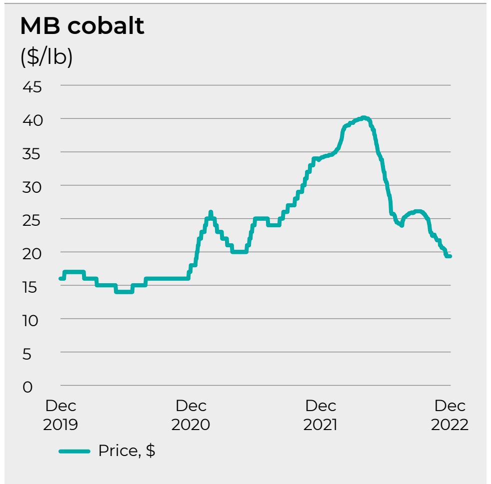


Having started the year marginally below $10,000/t, the continuation of supportive financial conditions, low level of refined inventories and limited mine supply growth buoyed copper prices in early 2022, with the LME three-month copper price reaching $10,845/t in March. The negative impact of declining sentiment emerged in April, with concerns related to tightening monetary policies, Covid outbreaks in China and the impact of the war in Ukraine, leading to progressive US dollar appreciation and speculative positions moving net-short, with prices drifting below $8,000/t through Q3 and early Q4. Improving copper consumption in China, following various accommodative monetary policy measures taken to stabilise the domestic economy, resulted in global refined inventories declining to their lowest level in more than 15 years during Q4 and spot cathode premiums reaching record levels. Copper prices ended the reporting period modestly below $8,500/t.

Spot smelter treatment and refining charges, paid by mines to smelters, continued to move higher during the year, reaching levels last seen in 2018, as increases in mine supply allowed concentrate supply chains to replenish stocks.

Looking forward, we expect mine supply growth to be constrained by ageing assets, a diminished project pipeline and geopolitical conditions, with new projects likely to experience delays. In the near term, global demand sentiment will be dependent on the outlook for fiscal tightening measures, and improving industrial activity and recovery in the construction sector in China. In the longer term, demand growth will be driven by population growth and rising living standards in emerging economies, supported by climate change policies and action expected to be a key driver for copper growth sectors, given their crucial role in accelerating the clean energy transition, from renewable power generation and distribution, to energy storage and electric vehicles (EVs).

Cobalt



Cobalt commenced the year in a strong position, with growing EV demand supplemented by post-Covid recovery in key metal sectors including aerospace. Metal priced at $33.50/lb in early January, reaching a high of $39.75/lb in late April. Meanwhile hydroxide payables maintained levels in the high 80%s, reflecting robust aggregate lithium-ion battery demand.

Fundamentals deteriorated progressively from Q2, with China's protracted Covid lockdowns and global recessionary concerns. The Chinese consumer goods sector exhibited the largest cobalt demand contraction, with mobile phone sales seeing double-digit year-on-year declines. Meanwhile cobalt production growth remained robust, fuelling an oversupply.

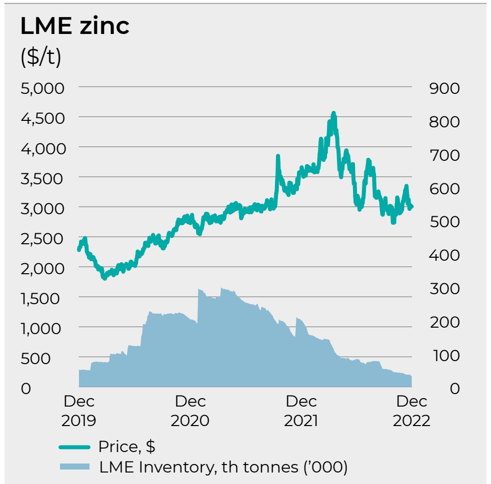
Metal prices declined progressively during the year to the low $20/lb levels, while hydroxide payables drifted to low 60% levels. By year end, cobalt metal dropped to $18.75/lb, down 44% versus the end of 2021. Hydroxide payables dipped below 60%, resulting in a hydroxide price down 63% versus end of 2021.

EV segment demand exhibited robust growth in 2022, and the trend of strong cobalt demand from EVs looks set to continue. This sector is now well established in China and Europe, while the North American market continues to emerge as a major EV growth region, accelerated by supportive policies including the Inflation Reduction Act which have induced a wave of EV supply chain investments.

Within the EV sector, the average cobalt required per kWh continues to diminish, however, strong cobalt demand remains underpinned by the rate of EV sales growth, and while it may take some time, given current excess inventory levels, cobalt fundamentals are expected to improve, also once China begins its recovery phase, which should see a turnaround in consumer goods battery demand.

Marketing activities *continued*

Zinc



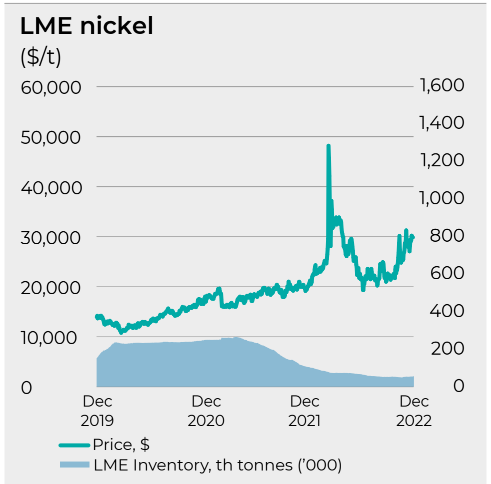
Physical indicators, such as metal premiums increasing to c.$700/t in the US and c.$500/t in the EU, backwardated spreads and visible metal exchange inventories reaching the lowest level in more than three decades, signalled tight market conditions in 2022. The average zinc price increased by 16% YoY from $3,005/t in 2021 to $3,485/t in 2022.

On the supply side, both mined and refined metal production underperformed initial expectations and prior year. Delays in project ramp-ups, operational issues and soaring production costs affected mine (c.-1.0% YoY) and metal (c.-3% YoY) supply. European zinc smelters, accounting for c.30% of ex-China zinc metal production, were the most affected by the high energy price environment resulting in extended periods of production shutdowns or curtailments. Zinc mine and metal supply are expected to recover in 2023, although the risk of continued disruptions remains high.

Ex-China demand for zinc was healthy in H1, with orders reducing in H2, due to US/EU recession fears, rising interest rates and power-related demand destruction in Europe. China's zinc demand materially decreased in 2022, as the country's economic activity suffered from property industry slowdown and the effects of the zero-Covid policy. This resulted in China being a net exporter of zinc metal in 2022 for the first time in decades, with such flows helping to balance the RoW zinc metal markets. We expect China to return to importing metal in 2023, as consumption recovers with China's reopening after the reversal of zero-Covid.

In the lead market, the 2022 average price declined by 2% YoY to $2,153/t due to demand weakness, despite visible metal exchange inventories down by 60% YoY (LME and ShFE combined). News of lead smelter disruptions in Q4, as well as lead's inclusion in the Bloomberg Commodity Index (BCOM) resulted in an end-of-year price uptick, ending the year at $2,337/t.

Nickel



While all base metal prices were volatile following the start of the war in Ukraine, the disruption to the nickel market was truly exceptional. The LME market was suspended in March 2022 having briefly reached $100,000/t. Since its restoration, liquidity in the nickel contract has remained particularly thin, with increased price volatility. The LME has committed to implement a number of measures in an attempt to restore confidence in the Nickel contract exchange.

Following a sharp rebound in 2021, primary nickel demand saw more modest growth of 4% in 2022 as core manufacturing demand for stainless steel dropped in all regions, offset by growth in batteries and alloys. Chinese stainless steel production, accounting for more than half of global nickel demand, was down on the prior year, impacted by its zero-Covid policy. In other regions, notably Europe, the energy crisis and weak end-use demand weighed on metal consumption. Nickel demand from alloys and specialty steels was supported by the recovery of the oil & gas and aerospace sectors while EV sales continued to increase.

While the supply of LME grade nickel remains tight, a significant excess of non-LME grade units has incentivised the conversion of these units into nickel matte and nickel sulphate, both eligible for the battery segment and feedstock for LME grade production.

Marketing activities *continued*

Ferroalloys

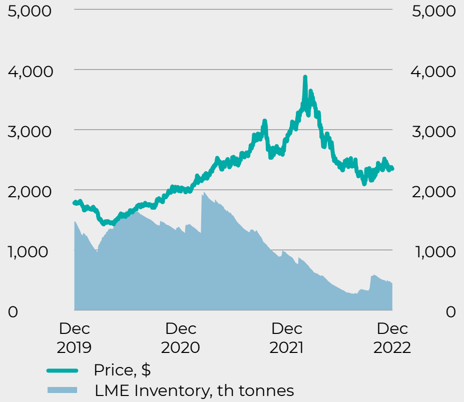
MB ferrochrome
($/lb)

Input cost increases were largely passed through to the market, notwithstanding lower demand due to reduced stainless steel production. Limited chrome ore supply growth in South Africa, coupled with inland and portside logistics constraints, resulted in chrome ore exports remaining flat year-on-year.

Vanadium demand was overall stable as the aerospace sector began to recover to pre-pandemic levels, offsetting steel sector reductions. Geopolitical supply concerns regarding Russian vanadium also contributed to price increases.

Aluminium

LME aluminium
($/t)



The aluminium market experienced a highly volatile 2022. After rallying in Q1, peaking at an all-time high of $4,074/t in March on the back of tightening supply and margining issues, the LME three-month contract retreated by 49% to $2,081/t by the end of September. Covid-19 lockdowns and a weak construction sector in China, as well as high inflation and rising interest rates in the West, led to a deteriorating demand outlook. Despite most regions showing deficits, the weight of macro factors and US dollar strength kept the prices subdued for the rest of the year, finishing at $2,350/t.

Premiums in Europe and the Americas reached all-time highs in H1, basis supply-side logistical challenges, before retracing, due to the weaker macroeconomic backdrop. The Midwest Premium closed the year at 22c/lb, while the CIF Main Japanese Port Spot Premium decreased from $170/t in May to $75/t at year end.

The alumina market followed a similar pattern in 2022, peaking at $530/t in March before retracing to c.$370/t by the end of H1. With China's significant addition of new refining capacity and power-related aluminium curtailments, the import window was closed for much of H2 2022. Together with similar curtailments amongst European aluminium smelters, and with new alumina production from Indonesia and Jamalco (restart), alumina prices fell further in H2 2022, trading mainly between $310/t to $330/t.

Marketing activities *continued*

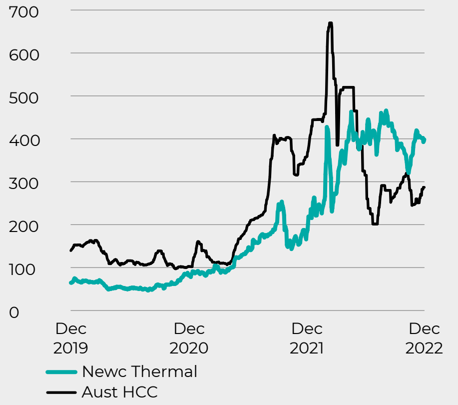
Iron ore

Platts iron ore
($/t)

The iron ore market was impacted by geopolitical uncertainty and slow economic growth, particularly in China. Other than a short-term supply impact due to the Ukraine war and changes in Indian export duties, for most of the year iron ore was oversupplied. Ex-China, inflation and broader recessionary caution undermined steel demand, while in China, zero-Covid policy put pressure on industrial activities, including the construction sector. As a result, many steelmakers' margins were breakeven to negative, with low-grade ore often then preferred, where cost-cutting was the main theme. However, with China lifting its zero-Covid policy in December, Chinese mills have actively sought to restock in preparation for the upcoming spring.

Coal

FOB coal price
($/t)



Coal supply disruptions, particularly from Indonesia, Australia and Colombia, and increased coal demand into Europe and India contributed to coal supply shortfalls in 2022, which, correlating with the significantly higher global gas prices, resulted in record average 2022 prices for GCNewc ($363/t), API4 ($272/t) and API2 ($292/t), up 163%, 117% and 148%, respectively, from their 2021 averages.

While demand for seaborne thermal coal was down c.2% in Pacific markets, largely due to Chinese domestic production growth, the global seaborne thermal coal market grew by c.2% in 2022, as European demand increased by c.30Mt.

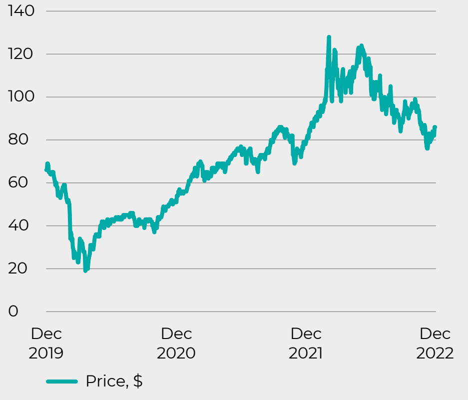
Australian thermal coal exports declined c.20Mt YoY, primarily due to reduced Newcastle coal exports, which together with lower Colombian volumes, contributed to a substantial reduction in the supply of higher energy, low ash coals into the seaborne market. Indonesian exports recovered after an export ban during Q1, with YoY total volumes increasing by c.29Mt, with growth primarily coming from coals with energy content below 4000kcal/kg NAR.

Global production of blast furnace pig iron, the main driver of coking coal and PCI demand fell by c.3% YoY as a combination of high energy prices and weaker steel demand curtailed European and Asian blast furnaces. This lower demand for metallurgical coals was offset by reduced supply from Australia due to weather and a swing of PCI coals into thermal markets, as the latter were pricing higher for much of 2022. Premium HCC prices averaged $364/t during 2022, 63% above the $224/t average in 2021.

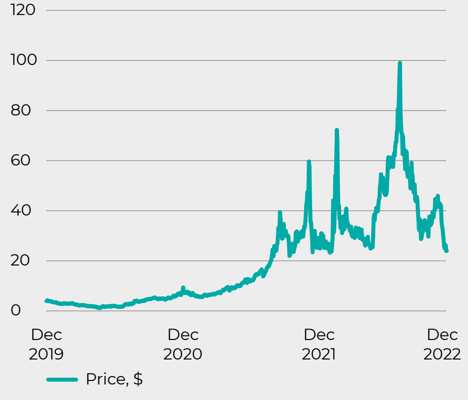
Marketing activities *continued*

Oil

Brent crude oil
($/bbl)



TTF natural gas futures
($/MMBtu)



Russia's invasion of Ukraine resulted in the biggest dislocation in global energy markets in recent history. Oil prices had seen a steady recovery post-pandemic driven by demand recovery and low inventory levels. The impact of the invasion resulted in a supply shock, with Brent reaching a multi-year high of $127/bbl in March. Brent oil prices remained volatile in the $100-120/bbl range for the remainder of H1 as the market struggled to rebalance the unprecedented structural changes to oil markets, particularly in Europe. During H2, oil prices weakened considerably driven by a deteriorating macroeconomic outlook and resilient oil supply. Weaker demand from China due to extended lockdowns contributed to lower demand with Brent ending the year at $86/bbl.

Gas markets, already tight given low storage levels heading into the European 2021/22 winter, were even more disrupted by the Ukraine invasion, resulting in a surge in gas prices with the European TTF natural gas benchmark price reaching a peak of $99/mmbtu (31 December 2021: $23/mmbtu). The elevated European gas prices drove large flows of LNG into Europe to meet demand following curtailed pipeline flows of Russian natural gas. Milder temperatures drove weaker demand in H2, which together with near-full storage levels, saw gas prices recede, whereby the TTF price closed the year around starting year levels.

Refined product markets were impacted by the Ukraine invasion, supply interruptions from US and European refinery outages and by reduced exports from China in Q2-Q3. Global refined product balances tightened amidst sustained stock draws, resulting in historically low levels of product inventories worldwide. Refined oil product cracks, in particular transportation fuels, surged to historical highs during the first half of 2022. Diesel cracks remained strong throughout most of the year, however gasoline cracks weakened substantially in H2, due to a combination of lower than expected demand during peak driving season (especially in the US), an excess supply of non-refinery gasoline blendstocks and a surge in Chinese exports in Q4.

In shipping, long-standing trade patterns were materially disrupted by the invasion of Ukraine, increasing demand for longer haul routes, sending overall freight rates significantly higher. Tonnage availability remained tight throughout most of the year.

Our Industrial business

We are a major producer of commodities that support the energy and mobility transition, including copper, cobalt, nickel and zinc, while our high-quality coal provides competitively priced and reliable energy.

Metals and minerals mining margin◊

36%

2021: 45%

Higher energy input costs across the board, together with some operation-specific challenges

Energy products margin◊

66%

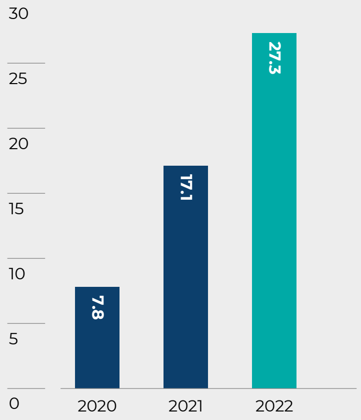
2021: 47%

Significantly higher prices across the energy complex as noted in the Marketing section

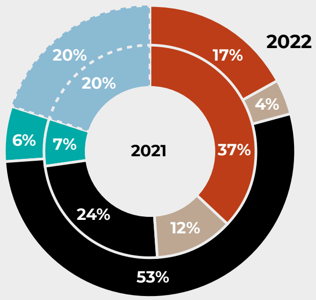
Production and financial highlights

(own sourced)

Industrial activities Adjusted EBITDA◊ (US$ billion)



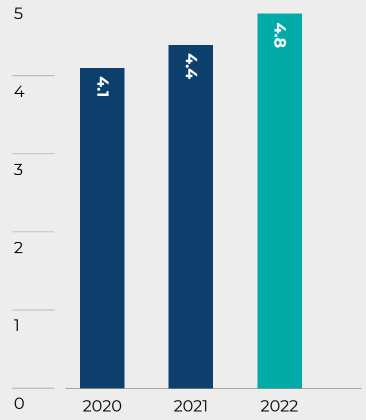
Adjusted EBITDA◊ weighting



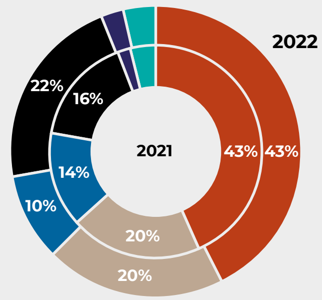
2022

Copper	17%	Other industrial activities	7%
Zinc	4%	Marketing	20%
Coal	53%		

Industrial activities capex◊ (US$ billion)



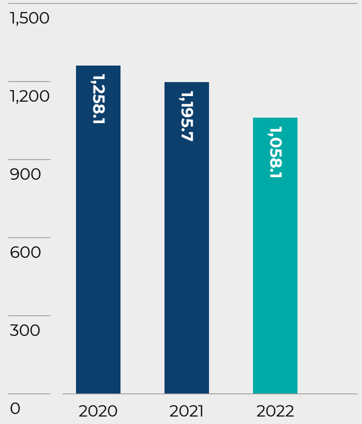
Industrial capex◊ weighting



2022

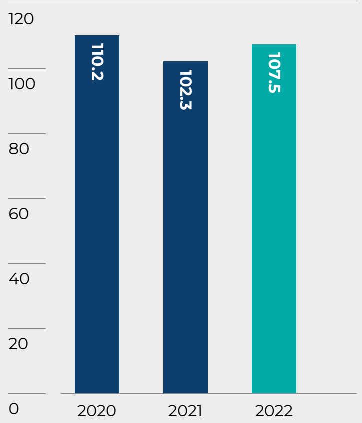
Copper	43%	Coal	22%
Zinc	20%	Oil	3%
Nickel	10%	Others	3%

Copper (kt)



Zinc (kt)

Nickel (kt)



Coal (mt)

Industrial activities

Highlights

Industrial Adjusted EBITDA increased by 59% to a record $27,265 million compared to $17,100 million in 2021. The increase substantially comprises the higher coal Adjusted EBITDA (a more than three-fold increase over prior year), on account of the much stronger coal prices over the year, including the incremental contribution of the two-thirds of Cerrejón, acquired in January 2022, that Glencore did not previously own.

Adjusted EBITDA contribution from metals and minerals assets was $9,274 million, down 23% compared to the prior year. Our business saw overall production volume reductions including in relation to portfolio disposals (Ernest Henry (copper / gold) and South American zinc assets); end of mine life volume impacts / variability (Kazzinc, Mount Isa); mining sequencing during the period (Collahuasi, Antapaccay); operational and ramp-up constraints (Katanga, Kazzinc, Mount Isa); and labour action (INO). Energy-driven direct and indirect input costs rose substantially across the board, notably with respect to higher diesel spend and increased power costs at our more energy-intensive metals' smelting and refining assets.

Adjusted EBITDA contribution from energy products assets was $18,590 million, compared to $5,603 million in 2021, mainly due to the significantly higher prices across the energy complex as noted in the Marketing section.

Reflecting the above, Adjusted EBITDA mining margins were 36% (2021: 45%) in our metals operations and 66% (2021: 47%) in our energy operations.

Capex of $4,807 million (2021: $4,423 million) was $384 million (9%) higher year over year, including $113 million in relation to the 66.7% of Cerrejón we did not previously own.

Financial overview

US$ million	**Metals and minerals**	**Energy products**	**Corporate and other**	**2022**	Metals and minerals	Energy products	Corporate and other	2021
Revenue◊	**38,993**	**39,333**	**6**	**78,332**	41,535	19,269	6	60,810
Adjusted EBITDA◊	**9,274**	**18,590**	**(599)**	**27,265**	12,017	5,603	(520)	17,100
Adjusted EBIT◊	**5,082**	**15,850**	**(657)**	**20,275**	8,128	3,252	(580)	10,800
Adjusted EBITDA mining margin	**36%**	**66%**		**51%**	45%	47%		44%

Production from own sources – Total[1]

		2022	2021	Change %
Copper	kt	**1,058.1**	1,195.7	(12)
Cobalt	kt	**43.8**	31.3	40
Zinc	kt	**938.5**	1,117.8	(16)
Lead	kt	**191.6**	222.3	(14)
Nickel	kt	**107.5**	102.3	5
Gold	koz	**661**	809	(18)
Silver	koz	**23,750**	31,519	(25)
Ferrochrome	kt	**1,488**	1,468	1
Coal	mt	**110.0**	103.3	6
Oil (entitlement interest basis)	kboe	**6,131**	5,274	16

1. Controlled industrial assets and joint ventures only. Production is on a 100% basis, except for joint ventures, where the Group's attributable share of production is included.

Industrial activities *continued*

Financial information 2022

							Capital expenditure◊		
	US$ million	Revenue◊	Adjusted EBITDA◊	Adjusted EBITDA mining margin[3,4]◊	Depreciation and amortisation	Adjusted EBIT◊	Sustaining	Expansionary	Total
Copper	Africa	3,526	1,551	44%	(826)	725	379	61	440
	Collahuasi[1]	2,120	1,501	71%	(290)	1,211	159	173	332
	Antamina[1]	1,575	1,186	75%	(351)	835	355	7	362
	Other South America	2,120	969	46%	(548)	421	575	47	622
	Australia	351	70	20%	(63)	7	85	–	85
	Polymet	–	(16)		–	(16)	–	8	8
	Custom metallurgical	9,769	467		(179)	288	200	2	202
	Intergroup revenue elimination	(355)	–		–	–	–	–	–
	Copper	**19,106**	**5,728**	**54%**	**(2,257)**	**3,471**	**1,753**	**298**	**2,051**
Zinc	Kazzinc	3,564	807	23%	(596)	211	271	75	346
	Australia	3,767	415	11%	(611)	(196)	397	21	418
	European custom metallurgical	4,260	119		(115)	4	104	43	147
	North America	1,770	127		(87)	40	24	–	24
	Volcan	–	(2)		–	(2)	–	–	–
	Other Zinc	203	11	5%	(15)	(4)	22	–	22
	Zinc	**13,564**	**1,477**	**16%**	**(1,424)**	**53**	**818**	**139**	957
Nickel	Integrated Nickel Operations	2,028	886	44%	(327)	559	155	265	420
	Australia	1,186	483	41%	(27)	456	26	–	26
	Koniambo	713	(72)	(10%)	(40)	(112)	19	–	19
	Nickel	**3,927**	**1,297**	**33%**	**(394)**	**903**	**200**	**265**	**465**
	Ferroalloys	2,396	719	30%	(116)	603	109	10	119
	Aluminium / Alumina	–	55		(1)	54	5	–	5
	Iron ore	–	(2)		–	(2)	–	–	–
	Metals and minerals	**38,993**	**9,274**	**36%**	**(4,192)**	**5,082**	**2,885**	**712**	**3,597**
Coal	Coking Australia	2,468	1,359	55%	(208)	1,151	186	–	186
	Thermal Australia	16,890	11,410	68%	(1,430)	9,980	547	–	547
	Thermal South Africa	2,767	1,655	60%	(461)	1,194	146	–	146
	Cerrejón[2]	5,393	3,609	67%	(438)	3,171	169	–	169
	Prodeco	–	(113)		–	(113)	–	–	–
	Coal (own production)	**27,518**	**17,920**	**65%**	**(2,537)**	**15,383**	**1,048**	**–**	**1,048**
	Coal other revenue (buy-in coal)	1,961							
	Oil E&P assets	1,004	781	78%	(128)	653	11	–	11
	Oil refining assets	8,850	(111)		(75)	(186)	82	31	113
	Energy products	**39,333**	**18,590**	**66%**	**(2,740)**	**15,850**	**1,141**	**31**	**1,172**
	Corporate and other	6	(599)		(58)	(657)	–	38	38
	Total Industrial activities	**78,332**	**27,265**	**51%**	**(6,990)**	**20,275**	**4,026**	**781**	**4,807**

1. Represents the Group's share of these JVs.
2. In January 2022, Glencore acquired the remaining 66.67% of Cerrejón. 2021 numbers represent Glencore's 33.33% interest in Cerrejón.
3. Adjusted EBITDA mining margin for metals and minerals is Adjusted EBITDA excluding non-mining assets as described below ($8,508 million (2021: $11,422 million)) divided by revenue excluding non-mining assets and intergroup revenue elimination ($23,549 million (2021: $25,609 million) i.e. the weighted average EBITDA margin of the mining assets. Non-mining assets are the copper custom metallurgical assets, zinc European custom metallurgical assets, Zinc North America (principally smelting / processing), the Aluminium / Alumina group and Volcan (equity accounted with no relevant revenue) as noted in the table above.
4. Energy products EBITDA margin is Adjusted EBITDA for coal and oil E&P (but excluding oil refining) ($18,701 million (2021: $5,455 million)), divided by the sum of coal revenue from own production and oil E&P revenue ($28,522 million (2021: $11,505 million)).

Industrial activities *continued*

Financial information 2021

	US$ million	Revenue◊	Adjusted EBITDA◊	Adjusted EBITDA mining margin[3,4]◊	Depreciation and amortisation	Adjusted EBIT◊	Capital expenditure◊ Sustaining	Capital expenditure◊ Expansionary	Capital expenditure◊ Total
Copper	Africa	4,256	2,174	51%	(504)	1,670	258	42	300
	Collahuasi[1]	2,599	2,133	82%	(287)	1,846	292	95	387
	Antamina[1]	1,791	1,416	79%	(311)	1,105	287	9	296
	Other South America	2,494	1,400	56%	(515)	885	658	26	684
	Australia	889	477	54%	(125)	352	81	–	81
	Polymet	–	(13)		–	(13)	7	–	7
	Custom metallurgical	10,186	325		(159)	166	164	–	164
	Intergroup revenue elimination	(249)	–		–	–	–	–	–
	Copper	**21,966**	**7,912**	**63%**	**(1,901)**	**6,011**	**1,747**	**172**	**1,919**
Zinc	Kazzinc	3,501	1,103	32%	(437)	666	252	90	342
	Australia	4,246	946	22%	(566)	380	281	2	283
	European custom metallurgical	4,035	71		(132)	(61)	89	87	176
	North America	1,964	281		(129)	152	33	2	35
	Volcan	–	9		–	9	–	–	–
	Other Zinc	524	111	21%	(102)	9	48	–	48
	Intergroup revenue elimination	(10)	–		–	–	–	–	–
	Zinc	**14,260**	**2,521**	**26%**	**(1,366)**	**1,155**	**703**	**181**	**884**
Nickel	Integrated Nickel Operations	1,811	836	46%	(396)	440	258	312	570
	Australia	763	196	26%	(29)	167	51	–	51
	Koniambo	242	(164)	(68%)	(81)	(245)	16	–	16
	Nickel	**2,816**	**868**	**31%**	**(506)**	**362**	**325**	**312**	**637**
	Ferroalloys	2,493	809	32%	(115)	694	104	24	128
	Aluminium / Alumina	–	(91)		(1)	(92)	5	–	5
	Iron ore	–	(2)		–	(2)	–	–	–
	Metals and minerals	**41,535**	**12,017**	**45%**	**(3,889)**	**8,128**	**2,884**	**689**	**3,573**
Coal	Coking Australia	1,975	959	49%	(229)	730	132	8	140
	Thermal Australia	6,976	3,270	47%	(1,398)	1,872	279	146	425
	Thermal South Africa	1,488	563	38%	(438)	125	126	3	129
	Cerrejón[2]	772	452	59%	(89)	363	30	–	30
	Prodeco	–	(18)		(11)	(29)	–	–	–
	Coal (own production)	**11,211**	**5,226**	**47%**	**(2,165)**	**3,061**	**567**	**157**	**724**
	Coal other revenue (buy-in coal)	865							
	Oil E&P assets	294	229	78%	(110)	119	35	–	35
	Oil refining assets	6,899	148		(76)	72	60	–	60
	Energy products	**19,269**	**5,603**	**47%**	**(2,351)**	**3,252**	**662**	**157**	**819**
	Corporate and other	6	(520)		(60)	(580)	–	31	31
	Total Industrial activities	**60,810**	**17,100**	**44%**	**(6,300)**	**10,800**	**3,546**	**877**	**4,423**

Industrial activities *continued*

Copper assets

Own sourced copper production of 1,058,100 tonnes was 137,600 tonnes (12%) lower than 2021, due to the basis change arising from the sale of Ernest Henry in January 2022 (44,800 tonnes), the ongoing geotechnical constraints at Katanga (44,300 tonnes), Collahuasi planned mining sequence changes (26,100 tonnes) and a lower contribution from Mount Isa (21,000 tonnes, shown in the Zinc section below).

African Copper

Own sourced copper production of 253,400 tonnes was 23,800 tonnes (9%) below 2021, mainly reflecting the previously disclosed geotechnical constraints related to Katanga's open pit, unplanned downtime at the acid plant and sporadic power supply interruptions, partially offset by Mutanda's restart in H2 2021.

Own sourced cobalt production of 40,200 tonnes was 12,500 tonnes (45%) higher than 2021, driven by Mutanda's restart.

Collahuasi

Attributable copper production of 251,100 tonnes was 26,100 tonnes (9%) lower than 2021, due to lower ore mined, reflecting planned mining sequence and intermittent Covid-related absenteeism.

Antamina

Attributable copper production of 152,500 tonnes was 2,500 tonnes (2%) higher than 2021, due to higher copper grades.

Attributable zinc production of 144,300 tonnes was 9,400 tonnes (6%) lower than 2021, reflecting lower zinc grades.

Other South America

Copper production of 223,600 tonnes was 11,500 tonnes (5%) lower than 2021, mainly reflecting mining sequence planning at Antapaccay, with higher production expected in 2023. Lomas Bayas recorded 8,300 tonnes more than in 2021, due to leaching improvements and expansion of the leaching surface area.

Australia

Own sourced copper production of 37,300 tonnes was 48,000 tonnes (56%) lower than 2021, mainly due to the basis change effect of Ernest Henry having been sold in early January 2022.

Custom metallurgical assets

Copper anode production of 474,900 tonnes was 20,900 tonnes (5%) higher than 2021, mainly reflecting maintenance at Altonorte in the base period, partially offset by lower production at Horne due to supply constraints and planned maintenance.

Copper cathode production of 456,900 tonnes was 33,700 tonnes (7%) lower than 2021, due to lower CCR production resulting from Horne's lower than planned output and planned maintenance at Pasar.

Production data

Production from own sources – Copper assets[1]

		2022	2021	Change %
African Copper (Katanga, Mutanda, Mopani)				
Copper metal	kt	**253.4**	277.2	(9)
Cobalt[2]	kt	**40.2**	27.7	45
Collahuasi[3]				
Copper in concentrates	kt	**251.1**	277.2	(9)
Silver in concentrates	koz	**3,350**	4,219	(21)
Gold in concentrates	koz	**38**	45	(16)
Antamina[4]				
Copper in concentrates	kt	**152.5**	150.0	2
Zinc in concentrates	kt	**144.3**	153.7	(6)
Silver in concentrates	koz	**4,964**	6,135	(19)
Other South America (Antapaccay, Lomas Bayas)				
Copper metal	kt	**72.6**	64.3	13
Copper in concentrates	kt	**151.0**	170.8	(12)
Gold in concentrates and in doré	koz	**61**	90	(32)
Silver in concentrates and in doré	koz	**1,222**	1,382	(12)
Australia (Ernest Henry, Cobar)				
Copper metal	kt	**–**	44.8	(100)
Copper in concentrates	kt	**37.3**	40.5	(8)
Gold	koz	**–**	64	(100)
Silver	koz	**446**	654	(32)
Total Copper department				
Copper	**kt**	**917.9**	**1,024.8**	**(10)**
Cobalt	**kt**	**40.2**	**27.7**	**45**
Zinc	**kt**	**144.3**	**153.7**	**(6)**
Gold	**koz**	**99**	**199**	**(50)**
Silver	**koz**	**9,982**	**12,390**	**(19)**

Industrial activities *continued*

Zinc assets

Own sourced zinc production of 938,500 tonnes was 179,300 tonnes (16%) lower than 2021, reflecting the disposal / cessation of South America operations (83,400 tonnes), closure of Matagami (30,100 tonnes) and lower volumes from Mount Isa (39,600 tonnes), as Lady Loretta approaches end of mine life.

Kazzinc

Own sourced zinc production of 146,400 tonnes was 1,500 tonnes (1%) lower than 2021, reflecting lower grades from the Maleevsky mine due to its progressive depletion, partly offset by increased Zhairem production.

Own sourced lead production of 17,300 tonnes was 2,500 tonnes (14%) lower than 2021, mainly reflecting the extended closure of the lead smelter in September / October for a safety investigation.

Own sourced copper production of 20,500 tonnes was 5,100 tonnes (20%) lower than 2021, mainly due to Maleevsky's progressive depletion.

Own sourced gold production of 546,000 ounces was 49,000 ounces (8%) lower than 2021, due to displacement of own units (expected to be processed in 2023) in favour of third-party units. Total gold production of 912,000 ounces was in line with 2021.

Australia

Zinc production of 564,000 tonnes was 45,400 tonnes (7%) lower than 2021, mostly related to lower volume and grade at Lady Loretta, reflecting reserves depletion as the mine approaches end of life.

Lead production of 165,900 tonnes was 22,200 tonnes (12%) down on 2021, for the same reasons as zinc.

Copper production of 70,500 tonnes was 21,000 tonnes (23%) lower than 2021, reflecting Covid-19 related absenteeism and loss of a high-grade stope due to ground conditions and a damaged orepass.

North America

Zinc production of 56,500 tonnes was 39,600 tonnes (41%) lower than 2021, reflecting the progressive depletion of both Kidd and Matagami, the latter closing in June 2022.

South America

Zinc production of 27,300 tonnes was 75% lower than 2021, reflecting disposal of the Bolivian mines at the end of Q1 2022 and cessation of mining at Iscaycruz in Q3 2021. Los Quenuales was sold in December 2022, following which, no operating assets remain in this grouping.

European custom metallurgical assets

Zinc metal production of 683,000 tonnes was 117,600 tonnes (15%) lower than 2021, mainly relating to partial curtailment of operations at Portovesme from Q4 2021 and a full suspension at Nordenham from November 2022, in each case due to high European power prices.

Lead metal production of 273,400 tonnes was 28,500 tonnes (12%) higher than 2021, reflecting the contribution of the Nordenham Metal lead smelter acquired in September 2021.

Production from own sources – Zinc assets[1]

		2022	2021	Change %
Kazzinc				
Zinc metal	kt	**125.7**	147.9	(15)
Zinc in concentrates	kt	**20.7**	–	n.m.
Lead metal	kt	**16.9**	19.8	(15)
Lead in concentrates	kt	**0.4**	–	n.m.
Copper metal[5]	kt	**20.5**	25.6	(20)
Gold	koz	**546**	595	(8)
Silver	koz	**2,721**	2,921	(7)
Silver in concentrates	koz	**12**	–	n.m.
Australia (Mount Isa, Townsville, McArthur River)				
Zinc in concentrates	kt	**564.0**	609.4	(7)
Copper metal	kt	**70.5**	91.5	(23)
Lead in concentrates	kt	**165.9**	188.1	(12)
Silver	koz	**557**	625	(11)
Silver in concentrates	koz	**5,592**	6,521	(14)
North America (Matagami, Kidd)				
Zinc in concentrates	kt	**56.5**	96.1	(41)
Copper in concentrates	kt	**28.3**	30.3	(7)
Silver in concentrates	koz	**1,346**	1,383	(3)
Other Zinc: South America (Bolivia, Peru)[6]				
Zinc in concentrates	kt	**27.3**	110.7	(75)
Lead in concentrates	kt	**8.4**	14.4	(42)
Copper in concentrates	kt	**1.4**	1.7	(18)
Silver in concentrates	koz	**3,345**	7,383	(55)
Total Zinc department				
Zinc	**kt**	**794.2**	**964.1**	**(18)**
Lead	**kt**	**191.6**	**222.3**	**(14)**
Copper	**kt**	**120.7**	**149.1**	**(19)**
Gold	**koz**	**546**	**595**	**(8)**
Silver	**koz**	**13,573**	**18,833**	**(28)**

Industrial activities *continued*

Nickel assets

Own sourced nickel production of 107,500 tonnes was 5,200 tonnes (5%) higher than 2021, reflecting Murrin Murrin's scheduled major maintenance shut in the prior year and Koniambo running two production lines for the majority of 2022, partially offset by lower production at INO due to strike action in Canada and Norway.

Integrated Nickel Operations (INO)

Own sourced nickel production of 46,400 tonnes was 8,800 tonnes (16%) lower than the comparable 2021 period, reflecting Raglan mine industrial action from May to September 2022 and a short industry-based strike at Nikkelverk.

Murrin Murrin

Own sourced nickel production of 35,700 tonnes was 5,600 tonnes (19%) higher than 2021, and own sourced cobalt production of 3,000 tonnes was 20% higher, in each case primarily due to the scheduled periodic lengthy plant maintenance shutdown carried out in the base period (May-June 2021).

Koniambo

Nickel production of 25,400 tonnes was 8,400 tonnes (49%) higher than 2021, as the plant operated with both processing lines for the majority of 2022.

Ferroalloys assets

Attributable ferrochrome production of 1,488,000 tonnes was in line with 2021.

Production from own sources – Nickel assets[1]

		2022	2021	Change %
Integrated Nickel Operations (INO) (Sudbury, Raglan, Nikkelverk)				
Nickel metal	kt	**46.2**	55.0	(16)
Nickel in concentrates	kt	**0.2**	0.2	–
Copper metal	kt	**11.9**	13.5	(12)
Copper in concentrates	kt	**7.6**	8.3	(8)
Cobalt metal	kt	**0.6**	1.1	(45)
Gold	koz	**16**	15	7
Silver	koz	**195**	296	(34)
Platinum	koz	**32**	33	(3)
Palladium	koz	**83**	83	–
Rhodium	koz	**4**	4	–
Murrin Murrin				
Nickel metal	kt	**35.7**	30.1	19
Cobalt metal	kt	**3.0**	2.5	20
Koniambo				
Nickel in ferronickel	kt	**25.4**	17.0	49
Total Nickel department				
Nickel	**kt**	**107.5**	**102.3**	**5**
Copper	**kt**	**19.5**	**21.8**	**(11)**
Cobalt	**kt**	**3.6**	**3.6**	**–**
Gold	**koz**	**16**	**15**	**7**
Silver	**koz**	**195**	**296**	**(34)**
Platinum	**koz**	**32**	**33**	**(3)**
Palladium	**koz**	**83**	**83**	**–**
Rhodium	**koz**	**4**	**4**	**–**

Production from own sources – Ferroalloys assets[1]

		2022	2021	Change %
Ferrochrome[7]	kt	**1,488**	1,468	1
Vanadium Pentoxide	mlb	**19.8**	20.5	(3)

Industrial activities *continued*

Coal assets

Coal production of 110.0 million tonnes was 6.7 million tonnes (6%) higher than 2021, reflecting higher attributable production from Cerrejón, following the acquisition in January 2022 of the remaining two-thirds interest that Glencore did not already own, less declines elsewhere in the portfolio.

On a like-for-like basis, overall Group production declined by 8.9 million tonnes (7%), primarily due to wet weather challenges and an extended community blockade in Colombia.

Australian coking

Production of 8.7 million tonnes was 0.4 million tonnes (4%) lower than 2021, reflecting mining sequencing changes at Hail Creek and abnormally wet weather.

Australian thermal and semi-soft

Production of 65.2 million tonnes was 1.2 million tonnes (2%) lower than 2021, with production impacted by extreme wet weather conditions.

South African thermal

Production of 16.4 million tonnes was 3.6 million tonnes (18%) lower than 2021, due to the disposal of Middelburg (1.2 million tonnes impact), wet weather challenges and continued export rail constraints.

Cerrejón

On a like-for-like basis, production of 19.7 million tonnes was 3.7 million tonnes (16%) lower than 2021, due to heavy rains in the June to November period and community blockades impacting operations in early September, with ramp-up challenges thereafter.

Oil assets

Exploration and production

Entitlement interest oil production of 6.1 million barrels of oil equivalent was 0.9 million barrels (16%) higher than 2021, due to a full year of production from the Alen gas project in Equatorial Guinea, following its commencement in March 2021.

Total production – Custom metallurgical assets[1]

		2022	2021	Change %
Copper (Altonorte, Pasar, Horne, CCR)				
Copper metal	kt	**456.9**	490.6	(7)
Copper anode	kt	**474.9**	454.0	5
Zinc (Portovesme, San Juan de Nieva, Nordenham, Northfleet)				
Zinc metal	kt	**683.0**	800.6	(15)
Lead metal	kt	**273.4**	244.9	12

Coal assets[1]

		2022	2021	Change %
Australian coking coal	mt	**8.7**	9.1	(4)
Australian semi-soft coal	mt	**4.0**	4.5	(11)
Australian thermal coal (export)	mt	**53.4**	55.9	(4)
Australian thermal coal (domestic)	mt	**7.8**	6.0	30
South African thermal coal (export)	mt	**12.7**	14.7	(14)
South African thermal coal (domestic)	mt	**3.7**	5.3	(30)
Cerrejón[8]	mt	**19.7**	7.8	153
Total Coal department	**mt**	**110.0**	**103.3**	**6**

Oil assets

		2022	2021	Change %
Glencore entitlement interest basis				
Equatorial Guinea	kboe	**5,107**	4,141	23
Cameroon	kbbl	**1,024**	1,133	(10)
Total Oil department	**kboe**	**6,131**	**5,274**	**16**

1. Controlled industrial assets and joint ventures only. Production is on a 100% basis, except for joint ventures, where the Group's attributable share of production is included.
2. Cobalt contained in concentrates and hydroxides.
3. The Group's pro-rata share of Collahuasi production (44%).
4. The Group's pro-rata share of Antamina production (33.75%).
5. Copper metal includes copper contained in copper concentrates and blister.
6. South American production excludes Volcan Compania Minera.
7. The Group's attributable 79.5% share of the Glencore-Merafe Chrome Venture.
8. 2021 numbers represented the Group's pro-rata share of Cerrejón production (33.3%). Glencore acquired the remaining 66.7% of Cerrejón in January 2022, such that 2022 production is presented on a 100% basis.

Industrial activities *continued*

Carbon intensity of Industrial activities

We show the carbon intensity of our operations as Scope 1 and 2 emissions compared to production from those operations. We have shown metals mining, coal mining, metals smelting and oil refining separately. Emissions data is collected on a site-by-site rather than activity-by-activity basis. Integrated sites with mining and smelting capability have therefore been allocated to the most appropriate category.

From 2022, we use the market-based approach to emissions recording as the primary method for our target-setting and progress measurement. The 2019 baseline has been restated to account for such. The 2019 baseline has also been restated to reflect industrial asset portfolio changes from acquisitions and divestments, most materially the acquisition of Cerrejón. 2019-21 emissions have also been restated to account for implementation of the organisational boundary of operational control and the change in emissions factors sources.

Metals mining[1]

		2022	2021	2020	2019 baseline
Reported own sourced metals production					
Copper	kt	1,058.1	1,195.7	1,258.1	1,371.2
Zinc	kt	938.5	1,117.8	1,170.4	1,077.5
Cobalt	kt	43.8	31.3	27.4	46.3
Nickel	kt	107.5	102.3	110.2	120.6
Lead	kt	191.6	222.3	259.4	280.0
Gold	koz	661	809	916	886
Silver	koz	23,750	31,519	32,766	32,018
Converted to copper equivalents[3,4]	kt	2,271	2,465	2,592	2,803
Less: attributable Cu-equivalent production from JVs	kt	(496)	(530)	(503)	(474)
Add: Cu-equivalent production from Volcan	kt	156	157	120	164
Less: Cu-equivalent production of assets disposed since 2019	kt	(25)	(140)	(173)	(181)
Relevant Cu-equivalent production	**kt**	**1,907**	**1,952**	**2,036**	**2,312**
CO_2e emissions of operated assets (Scope 1)	mt	5.8	5.1	5.1	5.5
CO_2e emissions of operated assets (Scope 2)	mt	2.1	2.1	2.4	2.7
CO_2e emissions of operated assets (Scope 1 & 2)	**mt**	**7.9**	**7.2**	**7.5**	**8.2**
Carbon intensity of metals mining	t CO_2e/t Cu-equiv	4.2	3.7	3.7	3.5

Metals smelting[2]

		2022	2021	2020	2019 baseline
Reported smelter production					
Copper anode	kt	474.9	454.0	490.1	510.7
Copper cathode	kt	456.9	490.6	482.6	432.9
Lead	kt	273.4	244.9	198.0	190.5
Zinc	kt	683.0	800.6	787.2	805.7
Ferroalloys	kt	1,487.8	1,468.3	1,028.8	1,438.4
Converted to copper equivalents	kt	1,523	1,573	1,518	1,552
Add: minority interests share of operated JVs	kt	54	54	37	52
Relevant Cu-equivalent production	**kt**	**1,577**	**1,627**	**1,556**	**1,605**
CO_2e emissions of operated assets (Scope 1)	mt	5.0	4.9	3.8	5.1
CO_2e emissions of operated assets (Scope 2)	mt	8.1	8.2	6.5	8.2
CO_2e emissions of operated assets (Scope 1 & 2)	mt	**13.1**	**13.1**	**10.3**	**13.3**
Carbon intensity of metals smelting	t CO_2e/t Cu-equiv	8.3	8.0	6.6	8.3

Coal mining

		2022	2021	2020	2019 baseline
Reported coal production	mt	110.0	103.3	106.2	139.5
Add: minority interests' share of operated JVs	mt	16.8	17.9	18.7	23.0
Add: two-thirds of Cerrejón JV not previously reported	mt	–	15.6	8.3	17.2
Less: other non-operated JVs	mt	(4.3)	(5.6)	(7.5)	(8.5)
Less: coal production of assets disposed since 2019	mt	(0.1)	(1.4)	(1.9)	(2.7)
Relevant coal production	mt	**122.4**	**129.8**	**123.7**	**168.5**
Converted to copper equivalents	mt	1,407	1,492	1,421	1,936
CO_2e emissions of operated assets (Scope 1)	mt	5.8	5.9	6.1	7.6
CO_2e emissions of operated assets (Scope 2)	mt	1.1	1.2	1.2	1.2
CO_2e emissions of operated assets (Scope 1 & 2)	mt	**6.9**	**7.1**	**7.3**	**8.8**
Carbon intensity of coal mining	t CO_2e/t coal	0.056	0.054	0.059	0.052
Carbon intensity of coal mining	t CO_2e/t Cu-equiv	4.9	4.7	5.1	4.5

Oil refining

		2022	2021	2020	2019 baseline
Astron Energy - energy content of refined products	billion Btu	–	–	24,445	140,468
CO_2e emissions of Astron Energy (Scope 1)	mt	0.0	0.0	0.1	0.7
CO_2e emissions of Astron Energy (Scope 2)	mt	0.0	0.0	0.0	0.2
CO_2e emissions of Astron Energy (Scope 1 & 2)	**mt**	**0.0**	**0.0**	**0.1**	**0.9**
Carbon intensity of Astron Energy[5]	t CO_2e/ billion Btu	–	–	6.0	6.4

CO_2e emissions of operated assets (Scope 1 & 2)

		2022	2021	2020	2019 baseline
CO_2e emissions of operated assets (Scope 1 & 2)					
Metals	mt	7.9	7.2	7.5	8.2
Coal	mt	6.9	7.1	7.3	8.8
Smelters	mt	13.1	13.1	10.3	13.3
Astron Energy	mt	0.0	0.0	0.1	0.9
Add: other assets	mt	0.1	0.0	0.0	0.0
Reported CO_2e emissions (Scope 1 & 2)	mt	**28.0**	**27.4**	**25.2**	**31.2**
Change vs 2019 baseline		-10%	-12%	-19%	

1. Includes integrated mine / smelter operations: Mount Isa, Kazzinc, INO, Murrin Murrin, Koniambo, Mopani (disposed 2021).
2. Includes integrated mine / smelter operations: Ferroalloys.
3. Converted to Cu-equivalents on the basis of 2019 average prices.
4. Also includes by-products such as platinum, palladium and rhodium.
5. Astron Energy's refining operations have been suspended since early 2020. While the refinery is being rebuilt and upgraded, Astron Energy has imported refined products for distribution in South Africa and Botswana.

Risk management

Risk management is one of the core responsibilities of the Group's leadership and it is central to our decision-making processes.

The Group leadership's fundamental duties as to risk management are:

- making a robust assessment of emerging and principal risks;
- monitoring risk management and internal controls; and
- promoting a risk-aware culture.

Effective risk management is crucial in helping the Group achieve its objectives of preserving its overall financial strength for the benefit of all stakeholders and safeguarding its ability to continue as a going concern, while generating sustainable long-term returns.

The Board assesses and approves our overall risk appetite and monitors our risk exposure and overall evaluation of internal controls. This process is supported by the Audit, HSEC and ECC Committees, whose roles include evaluating and monitoring the risks inherent in their respective areas on which they receive regular reports from the Group corporate functions:

- Industrial and Marketing risk functions (Group Risk Functions)
- Compliance
- Legal
- Finance
- HSEC&HR
- Sustainable Development
- Human Resources
- IT

Group Assurance provides independent assurance on various risks following an annual risk-based audit plan, as approved by the relevant Board Committees. The function has recently been constituted as an amalgamation of Internal Audit and HSEC Audit and is managed by a newly appointed Head of Group Assurance, who joined the Group in 2022, reporting directly to the Chair of the Audit Committee and administratively to the CEO.

The Committees' work concerning these various risks is set out in their reports on pages 114 to 115, and 117.

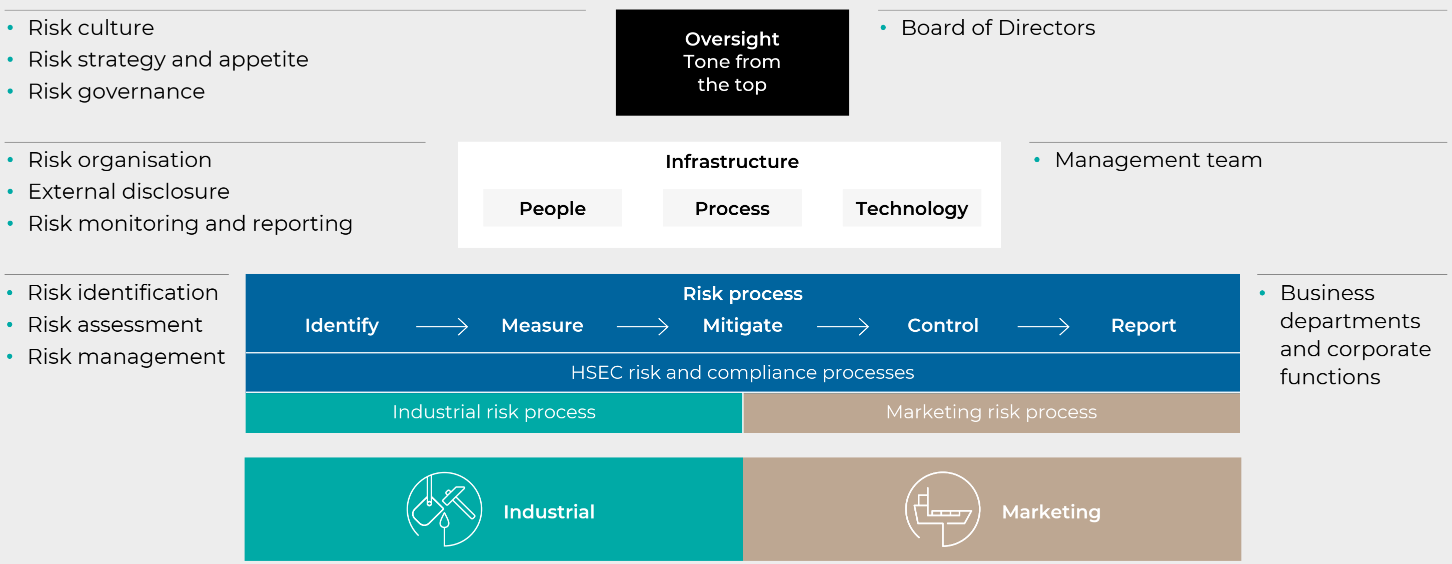
The Board actively manages and monitors the Group's risks, financial exposure and related internal controls to mitigate these risks. Monitoring and reporting are the responsibility of the Group Risk Functions and the Heads of corporate functions who provide regular updates to the Board and its Committees covering various risks and the performance of the relevant controls in place. Reporting covers various topics, including Group Value at Risk (VaR), credit exposure, material risks from the risk register, internal audit findings, compliance monitoring, HSEC&HR matters and HSEC assurance. The Board also receives updates from the ESG committee and on the Raising Concerns programme and material investigations.

As well as the ongoing work of the Board and its Committees on the various major areas of risk, the Board undertakes a complete review of the Group's principal and emerging risks in its main Q4 meeting, which is then updated and considered in subsequent meetings for the purposes of this report and the interim report.

Risk management framework

Our Group functions support senior management and those with responsibilities for risk within the business, in the development and maintenance of an appropriate institutional risk culture of managing and mitigating risk across the Group, as appropriate.

Risk management framework



Risk management *continued*

Industrial risk management

Responsibilities for business risk management are decentralised across the commodity departments and industrial assets and supported by the industrial assets' Risk Management teams. We believe that all employees should be accountable for the risks related to their roles. As a result, we encourage our employees to escalate risks (not limited to hazards), whether potential or realised, to their immediate supervisors. This enables risks to be tackled and mitigated at an early stage by the team with the relevant level of expertise.

Led by the Head of Industrial Assets and the Industrial Leads across each commodity department, management teams at each industrial asset are responsible for implementing processes that identify, assess and manage risk.

The industrial risk process is driven by ongoing risk assessment informing risk registers maintained at asset, department and Group levels based on risk rating and controls evaluation, with risks owned, escalated and approved according to materiality and following the guidance contained in the Glencore Enterprise Risk Matrix.

HSEC&HR & sustainability risk management

These risk management processes are managed at industrial asset level, with the support and guidance from the corporate HSEC and Human Rights (HSEC&HR) and Sustainable Development teams, and subject to the leadership and oversight of the HSEC Committee. The Head of Industrial Assets drives the risk management framework for all industrial assets, covering HSEC&HR, and his team monitors its implementation across the Group.

Our risk management framework allows us to identify, assess and mitigate HSEC&HR related risks. The framework identifies material matters and supports our ongoing assessment of what matters most to our business and to our stakeholders. The framework is supported by our HSEC assurance process. On a quarterly basis we monitor and review the progress to close out the corrective actions and address any outstanding issues with the local management teams. The Group's internal HSEC assurance programme focuses on catastrophic risks, assessing and monitoring compliance with leading practices.

Further information is provided in the report from the HSEC Committee on page 117 and will be published in the Group's *Sustainability Report* for 2022.

Marketing risk (MR) management

Glencore's Marketing activities are exposed to a variety of risks, such as commodity price, basis, volatility, foreign exchange, interest rate, credit and performance, liquidity and regulatory. Glencore devotes significant resources to developing and implementing policies and procedures to identify, monitor and manage these risks.

Glencore's MR is managed at an individual, business and corporate level. Initial responsibility for risk management is provided by the businesses in accordance with and complementing their commercial decision making. A support, challenge and verification role is provided by the corporate MR function headed by the Chief Risk Officer (CRO) via its daily risk reporting and analysis which is split by market and credit risk.

The MR function monitors and analyses the large transactional flows across many locations using timely and comprehensive recording and reporting of resultant exposures, which provides the encompassing positional analysis, and continued assessment of universal counterparty credit exposure.

The MR team provides a wide array of daily and weekly reporting. For example, daily risk reports showing Group VaR, back testing results and various stress tests and analysis are distributed to the CEO, CFO and CRO. Additionally, business risk summaries showing positional exposure and other relevant metrics, together with potential margin call requirements, are also circulated daily. The MR function strives to continuously enhance its stress and scenario testing as well as improve measures to capture additional risk exposure within the specific areas of the business.

The Group makes extensive use of credit enhancement tools, seeking letters of credit, insurance cover, discounting and other means of reducing credit risk from counterparts. In addition, mark-to-market exposures in relation to hedging contracts are regularly and substantially collateralised (primarily with cash) pursuant to margining agreements in place with such hedge counterparts.

The Group-wide credit risk policy governs higher levels of credit risk exposure, with an established threshold for referral of credit decisions by business heads to the CRO, CFO and CEO (and the Board, for highest level approvals), relating to potential credit risk exposures at varying levels, depending on counterparty credit quality. At lower levels of materiality, decisions may be taken by the business heads where key strategic transactions or established relationships, together with credit analysis, suggest that some level of open account exposure may be warranted.

Legal and compliance

For legal and compliance risk, see Ethics and compliance section on page 57, and the laws and enforcement risk on pages 97 to 98.

Managing risk for joint ventures (JVs)

We ensure that our material risk management programmes are implemented at the JVs that we control or operate. In other JVs, we seek to influence our JV partners to adopt our commitment to responsible business practices and implement appropriate programmes in respect of their main business risks.

Risk management *continued*

Value at Risk

One of the tools used by Glencore to monitor and limit its primary market risk exposure, namely commodity price risk related to its physical Marketing activities, is the use of a Value at Risk (VaR) computation. VaR is a risk measurement technique, which estimates the potential loss that could occur on risk positions as a result of movements in risk factors over a specified time horizon, given a specific level of confidence. The VaR methodology is a statistically defined, probability-based approach that takes into account market volatilities, as well as risk diversification by recognising offsetting positions and correlations between commodities and markets. In this way, risks can be measured consistently across markets and commodities and risk measures can be aggregated to derive a single risk value.

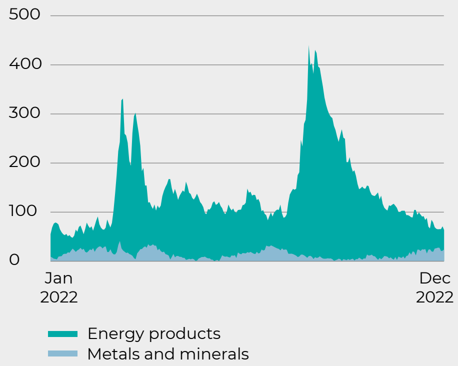
Glencore uses a VaR approach based on Monte Carlo simulations computed at a 95% confidence level and utilising a weighted data history for a one-day time horizon. Glencore's Board, as part of its annual review process in H2 2021, approved an increase in the Group's consolidated VaR limit (one day 95% confidence level) from $100 million to $150 million, with effect from 1 January 2022, which represents approximately 0.3% of total equity.

Prior to the Russia / Ukraine conflict, Glencore operated within the $150 million limit. Around the time of the invasion, the Group's VaR spiked due to the unprecedented levels of volatility in commodity markets (primarily energy but also certain metals), rather than due to any change in the Group's Marketing positions or trading strategies. Given the market backdrop, prior to any likely breach, the Chief Risk Officer proactively consulted with the Board and received a temporary waiver from the application of a Group VaR limit. During the waiver period, the Chief Risk Officer reported regularly to the Board.

In mid-May, as some non-energy markets started to normalise, the temporary waiver was rescinded and replaced with a VaR limit of $200 million, to account for the statistically elevated energy market risk environment. Similarly, prior to any breach, a temporary waiver was approved in mid-August due to increasing LNG risks as the European gas market was under significant pressure. In mid-September, following a comprehensive review, the Board determined it was appropriate to revert to the prior VaR limit of $150 million, but to exclude LNG from the Group VaR limit, while maintaining a separate multi-pronged LNG risk reporting and control structure, including the continued calculation and highlighting of VaR outcomes.

The year-end VaR (one day 95%), excluding LNG, was $76 million ($88 million, including LNG), comfortably within the Group's $150 million limit. Average Group VaR, excluding LNG, since its exclusion in mid-September, was $70 million. Including LNG, average market risk VaR (one day 95%) during 2022 was $158 million, with an observable high of $451 million and a low of $66 million, while average equivalent VaR during 2021 was $54 million.

Value at Risk
$m



Group Assurance

Group Assurance amalgamates the previously distinct Internal Audit and HSEC Audit teams. The function provides independent and objective assurance to help strengthen governance and controls. In doing so, Group Assurance supports the Board and senior management in protecting the stakeholders, assets , reputation and sustainability of Glencore.

The Head of Group Assurance reports directly to the Chair of the Audit Committee and administratively to the CEO.

The Audit and HSEC Committees, respectively, consider and approve a proposed annual risk-based Internal Audit and HSEC Audit plan. The Committees are regularly updated on the status of delivery against the audit plans, relevant findings and the progress on the implementation of agreed management actions.

The annual risk-based audit plan is developed by Group Assurance through top-down discussions with senior management and continuous bottom-up risk assessments of key processes and risk areas. Group Assurance also performs reviews at the direction of senior management and the Audit and HSEC Committees.

The audit reviews focus on the design, implementation and operating effectiveness of controls in place to mitigate the risks identified.

The Audit Committee has concluded that the Group Assurance function remains effective.

Principal and emerging risks

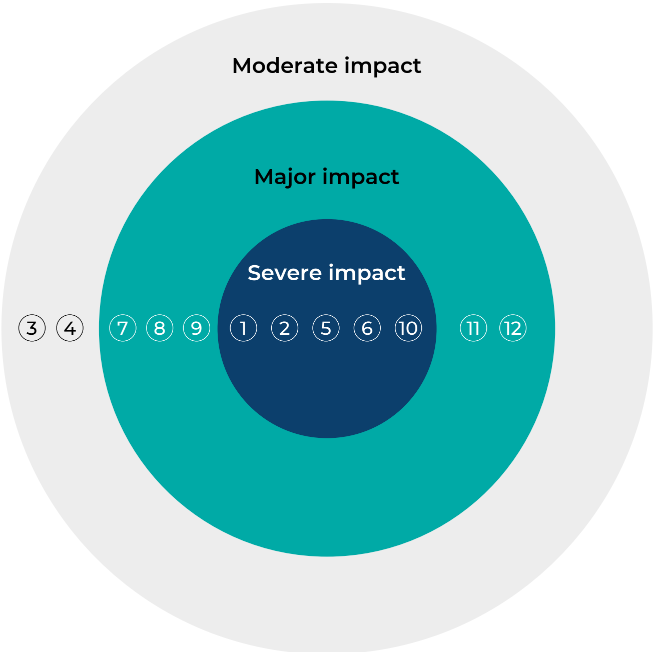
Our approach is framed by the ongoing understanding of the risks that we are exposed to, emerging trends that could seriously impact our business model, our risk appetite in respect of these risks, how these risks change over time and ensuring risk monitoring takes place across multiple organisational levels.

In accordance with UK Financial Reporting Council guidance, we define a principal risk as a risk or combination of risks that could seriously affect the performance, future prospects or reputation of Glencore. These include those risks which would threaten the business model, future performance, solvency, or liquidity of the Group.

The Group understands an emerging risk as a risk that has not yet fully crystallised but is at an early stage of becoming known and/or coming into being and expected to grow in significance in the longer term.

Emerging risks typically have their origin outside Glencore and there is often insufficient information for these risks to be fully understood and prevention by the Group may not be possible.

Summary map of PRUs



- ▲ 1. Supply, demand and prices of commodities
- ▲ 2. Liquidity
- ■ 3. Currency exchange rates
- ▲ 4. Counterparty credit and performance
- ▲ 5. Geopolitical, permits and licences to operate
- ▲ 6. Laws and enforcement
- ■ 7. Cyber
- ■ 8. Health, safety and environment
- ■ 9. Community relations and human rights
- ■ 10. Catastrophic and natural disaster events
- ■ 11. Operational delivery
- ■ 12. Low-carbon economy transition

Risk probability change in 2022 v 2021

- ▲ Increase
- ■ Stable
- ▼ Decrease

The Board mandates its ECC, HSEC and Audit Committees to identify, assess and monitor the principal and emerging risks relevant to their respective remits. These Committees usually meet four times a year and are always followed by a meeting of the Board, giving the opportunity for all Directors to review and discuss their work.

The assessment of our principal risks, according to exposure and impact, is detailed on the following pages.

The commentary on the risks in this section should be read in conjunction with the explanatory text under Understanding our risks information which is set out on page 94.

In total, there are 12 PRUs (2021: 11), of which the following five are the most significant and may potentially give rise to the most material and adverse effects on the Group:

- supply, demand and prices of commodities;
- liquidity;
- geopolitical, permits and licences to operate;
- laws and enforcement; and
- catastrophic and natural disaster events.

2022 developments and overview of principal risks and uncertainties

Russia / Ukraine war

The Russia / Ukraine war, with its associated sanctions regimes, intensified supply-side shocks in energy, agricultural products and commodities trading markets in general. Material trade flows needed to adjust for the now non-availability of Russian material into many of its traditional routes and/or flows through Russia itself. Furthermore, many Western companies meaningfully withdrew from lawful Russian trade (self-sanctioning) as the ESG risk became increasingly unacceptable. In this environment, commodity prices and volatility, particularly in the energy sector, surged in the first half.

Government investigations and related claims

We entered into resolutions with a number of authorities regarding our long-standing government investigations. However, investigations remain outstanding by Swiss and Dutch authorities.

In addition, following the resolution of the investigations, a number of group actions and other civil claims have been made or threatened against the Group.

Risk management *continued*

Covid-19

Although much of the world emerged from various forms of restrictions and lockdowns over the first half of the year, China maintained a strict zero tolerance policy. Such commitment to zero-Covid particularly dampened domestic industrial and consumer demand. The resulting drag on metals prices was evident in June-August, with prices broadly stable since then.

Rapid tightening of monetary policy

Faced with the current inflationary environment, most major central banks have been aggressively increasing interest rates. Many of the biggest economies are already dealing with lower growth or recession.

Reflecting the above, the main issues and impacts on our risks this year have been:

- unprecedented commodity price volatility and resulting margin call demands in respect of our hedging activities;
- strained supply chains, notably those tied to and linked to Russian sources, and increased costs;
- increase in credit loss provisioning, including in relation to a specific slow-moving exposure;
- implementation of sanctions on the Russian government, various companies, and certain individuals, and heightened risk around compliance with laws and sanctions; and
- significantly increased or new taxes and royalties introduced or under consideration by many commodity producer governments.

The next pages set out a summary of our PRUs and the impacts resulting from potential adverse movements.

Longer-term viability

In accordance with the requirements of the UK Corporate Governance Code, the Board has assessed the Company's prospects in the long term, incorporating but not limited to the 2050 date associated with the Company's net zero ambition.

The assessment was informed by the potential medium- and long-term impact of climate change on the outlook for our commodity businesses, under a range of possible scenarios, as set out on pages 24-25. Such impacts are uncertain, being particularly dependent on long-term changes in the energy mix related to power generation and transportation, as well as consumption efficiencies, behavioural change and coordinated implementation of government policy and regulation frameworks. This analysis, however, indicates stable or improving opportunities across the portfolio in the Current Pathway scenario. In the Rapid Transformation and Radical Transition scenarios, we project significant coal demand decline over the longer term, mitigated, however, (from a financial perspective) by materially stronger demand for battery and new energy infrastructure required metals.

The Board has also assessed the Company's ability to meet its liabilities as they fall due over the four-year period from 1 January 2023. This period is consistent with the Company's established annual business planning and forecasting processes and cycle, which is subject to review and approval each year by the Board. The Directors believe this is an appropriate review period having regard to the Group's business model, strategy, principal risks and uncertainties, sources of funding and liquidity.

The four-year plan considers Glencore's Adjusted EBITDA, capital expenditure, funds from operations (FFO) and Net debt, and the key financial ratio of Net debt to adjusted EBITDA over the forecast years and incorporates stress tests to simulate the potential impacts of exposure to the relevant principal risks and uncertainties. While all the PRUs have the capability to impact business and financial performance, the most scenario-relevant to the assessment of viability are Risk 1 (Supply, demand and prices of commodities), Risk 3 (Currency exchange rates) and Risk 11 (Operational delivery). For the 2023-26 plan the stress test scenarios were:

- Scenario 1: Reversion – Commodity prices and inflation reverting to historic norms over the outlook period (Likely);
- Scenario 2: Higher inflationary environment – Inflation running approximately 5% p.a. higher than in Scenario 1 until 2025 (Possible but unlikely); and
- Scenario 3: Recession – Commodity prices set at the low end of analysts' consensus ranges as of December 2022 for the entirety of the outlook period (Improbable). Inflation higher than Scenario 1 by 5% in 2023, with no further uplift in 2024-26.

In any downside scenario, the Company's distribution policy automatically prioritises debt repayment around a $10 billion Net debt cap. Additional mitigating actions include the ability to defer or cancel capital expenditure, to manage working capital and to reduce distributions to shareholders. After taking account of any such required mitigating actions, in the downsides described the Company could sustainably maintain a Net debt balance within its $10 billion cap.

Based on the results of the related analysis, the Directors have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the four-year period of this assessment.

Risk management *continued*

Understanding our risks information

There are many risks and uncertainties which have the potential to significantly impact our business. The order in which these risks and uncertainties appear does not necessarily reflect the likelihood of their occurrence or the relative magnitude of their potential material adverse effect on our business.

We have sought to provide examples of specific risks. However, in every case these do not attempt to be an exhaustive list. These principal risks and uncertainties should be considered in connection with any forward-looking statements in this document as explained on page 285.

Identifying, quantifying and managing risk is complex and challenging. Although we seek to identify and, where appropriate and practical, actively manage risk through the implementation of policies, standards and procedures, there can be no assurance that these measures will be effective and adequately protect the Group against these risks, including the principal risks and uncertainties listed in the following pages.

This section describes our attempts to manage, balance or mitigate risk. Risk is, however, by its very nature uncertain and inevitably events may lead to our policies and procedures not having a material mitigating effect on the negative impacts of the occurrence of a particular event. Our scenario planning and stress testing may accordingly prove to be optimistic, particularly in situations where material negative events occur in close proximity.

Since many risks are connected, our analysis should be read against all risks to which it may be relevant.

In this section, we have sought to update our explanations, reflecting our current outlook. Mostly this entails emphasising certain risks more strongly than other risks rather than the elimination of, or creation of, risks. Certain investors may also be familiar with the risk factors that are published in the Group debt or equity prospectuses or listing documents. These provide in part some differing descriptions of our principal risks.

Our latest documentation for debt investors and their related risk disclosures is available at: **glencore.com/investors/debt-investors**

In addition, more information on our risks is available in the relevant sections of our website.

To provide for concise text:

- where we hold minority interests in certain businesses, although these entities are not generally subsidiaries and would not usually be subject to the Group's operational control, these interests should be assumed to be subject to these risks. 'Business' refers to these and any business of the Group;
- where we refer to natural hazards, events of nature or similar phraseology we are referring to matters such as earthquake, flood, severe weather and other natural phenomena;
- where we refer to 'mitigation' we do not intend to suggest that we eliminate the risk, but rather it refers to the Group's attempt to reduce or manage the risk. Our mitigation of risks will usually include the taking out of insurance where it is customary and economic to do so;
- this section should be read as a whole – often commentary in one section is relevant to other risks;
- 'commodity/ies' will usually refer to those commodities which the Group produces or sells;
- 'law' includes regulation of any type;
- 'risk' includes uncertainty and hazard and together with 'material adverse effect on the business' should be understood as a negative change which can seriously affect the performance, future prospects or reputation of the Group. These include those risks which would threaten the business model, future performance, reputation, solvency or liquidity of the Group;
- a reference to a note is a note to the 2022 financial statements; and
- a reference to the Sustainability Report is our *2022 Sustainability Report* to be published in early May 2023.

Risk management *continued*

1. Supply, demand and prices of commodities

2022 vs 2021	Link to strategy
↑	

We are subject to the inherent risk of sustained low prices for our main commodities, particularly affecting our Industrial business. The revenue and earnings of substantial parts of our Industrial asset activities and, to a lesser extent, our Marketing activities, are dependent upon prevailing commodity prices. The prices of the commodities we produce are dependent on the expected volumes of supply or demand for commodities which can vary for many reasons out of our control.

New or improved energy production possibilities and/or technologies are likely to reduce the demand for some commodities. Net zero emissions commitment requires demand for unabated coal and other hydrocarbon fuel sources to significantly reduce over time.

The dependence of the Group (especially our Industrial business) on commodity prices, supply and demand of commodities, makes this the Group's foremost risk.

Strategic priorities
Responsible and ethical production and supply
Responsible portfolio management
Responsible product use

Potential impact on the Group

- Significant falls in the prices of certain commodities (e.g. copper, coal, zinc, nickel and cobalt) can have a severe drag on our financial performance, impede shareholder returns and could lead to concerns by external stakeholders as to the strength of the Group's balance sheet.
- A global surplus or shortage in one or more of the commodities we produce could have a major impact on their traded price, and therefore on our financial performance.

Mitigating factors

- We maintain a diverse portfolio of commodities, geographies, assets and contracts.
- We seek to prepare for anticipated shifts in commodity demand, for example by putting a special focus on the parts of the business that will potentially grow with increases in usage of electric vehicles and battery production, and by closely monitoring fossil fuel (particularly thermal coal) demands. We are also able to reduce the production of any commodity within our portfolio in response to changing market conditions.
- Our financial leverage of under 1x in the ordinary course of business should support our ability to obtain financing in a downside scenario (see Liquidity risk below).
- We continue to maintain focus on cost discipline and achieving greater operational efficiency to increase our resilience to lower prices.
- We actively manage commodity price risk in our Marketing segment, including via daily analysis of Group Value at Risk (VaR).

2. Liquidity

2022 vs 2021	Link to strategy
↑	

Liquidity risk is the risk that we are unable to meet our payment obligations when due, or are unable, on an ongoing basis, to borrow funds in the market at an acceptable cost to fund our commitments.

While we adjust our minimum internal liquidity threshold from time to time in response to changes in market conditions (as was the case in 2022, due to extreme levels of market volatility, particularly in energy markets, impacting daily margining requirements in respect of our hedging derivatives portfolio), this minimum internal liquidity target may be breached due to circumstances we are unable to control, such as general market disruptions, sharp movements in commodity prices or an operational problem that affects our suppliers, customers or our own business.

Potential impact on the Group

- Our failure to access funds (liquidity) would severely limit our ability to engage in our business activities and may mean that we will not have sufficient funds available for our Marketing and Industrial activities, both of which employ substantial amounts of capital. If we do not have funds available for these activities, then they will decrease.
- Debt costs may rise owing to ratings agency downgrades and the possibility of more restricted access to funding.

Mitigating factors

- It is the Group's policy to operate, at least, a strong BBB/Baa rated balance sheet and to ensure that a minimum level of cash and/or committed funding is available at any given time.
- Diversification of our funding sources (bank borrowings, bonds and trade finance, further diversified by currency, interest rate and maturity).
- Considering the Group's extensive funding activities, maintaining investment grade credit rating status is a financial priority. In support thereof, Glencore targets a maximum 2x Net debt/Adjusted EBITDA ratio through the cycle, however, whilst maintaining our ordinary course $10 billion net debt cap, the leverage ratio would more likely be under 1x. The net debt cap may be extended to $16 billion for M&A opportunities with swift deleveraging back to the $10 billion level being a key part of our assessment of any such opportunity. Deleveraging below the $10 billion cap is periodically returned to shareholders. Our financial policies seek to ensure access to funds, when desired, even in periods of market volatility.
- Our bond maturity profile is structured such that maturity repayments do not exceed approximately $3 billion in any given year.
- During 2022, financial markets were turbulent as markets responded to the Russia / Ukraine war and contended with inflationary pressures and rising interest rates. In this context, along with our strong liquidity position and operating cash flows, the Group opted not to access primary debt capital markets.
- It should be noted that the credit ratings agencies make certain adjustments, including a discount to the value of our Readily Marketable Inventories, so that their calculated net debt is higher. During 2022, S&P and Moody's, respectively, affirmed our BBB+ and Baa1 ratings, both changing their credit outlooks on Glencore to positive.

Risk management *continued*

3. Currency exchange (FX) rates

2022 vs 2021	Link to strategy
↔	Responsible and ethical production and supply

FX changes affect us as a global company usually selling in US dollars but having costs in a large variety of other currencies. The main currency exchange rate exposure is through our industrial assets, as a large proportion of the costs incurred by these operations, which are spread across many different countries, is denominated in the currency of the country in which each industrial asset is located, the currencies of which fluctuate against the US dollar. The vast majority of our sales transactions are denominated in US dollars.

Producer country currencies tend to increase in correlation with relevant higher commodity prices. Similarly, decreases in commodity prices are generally associated with increases in the US dollar relative to local producer currencies.

Potential impact on the Group

- A depreciation in the value of the US dollar against one or more of these currencies will result in an increase in the cost base of the relevant operations in US dollar terms.

Mitigating factors

- The inverse FX correlation (against USD commodity prices) usually provides a partial natural FX hedge for the Industrial business.
- In respect of commodity purchase and sale transactions denominated in currencies other than US dollars, the Group's policy is usually to hedge the specific future commitment through a forward exchange contract. From time to time, the Group may hedge a portion of its operating currency exposures and requirements in an attempt to limit any adverse effect of exchange rate fluctuations.
- We continuously monitor and report on financial impacts resulting from foreign currency movements.

Strategic priorities
Responsible and ethical production and supply
Responsible portfolio management
Responsible product use

4. Counterparty credit and performance

2022 vs 2021	Link to strategy
↑	Responsible portfolio management

We are subject to the risk of non-performance by our suppliers, customers and hedging counterparties, in particular in our Marketing activities.

Financial assets consisting principally of receivables and advances, derivative instruments and long-term advances and loans can expose us to concentrations of credit risk.

Potential impact on the Group

- Non-performance by suppliers, customers and hedging counterparties may occur and cause losses in a range of situations, such as:
  - a significant increase in commodity prices resulting in suppliers being unwilling to honour their contractual commitments to sell commodities at pre-agreed prices;
  - a significant reduction in commodity prices resulting in customers being unwilling or unable to honour their contractual commitments to purchase commodities at pre-agreed prices; and
  - suppliers to whom we have made prepayments finding themselves unable to honour their contractual obligations due to financial distress or other reasons.

Mitigating factors

- We seek to diversify our counterparties and try to ensure adherence to open account limits.
- We make extensive use of credit enhancement tools, seeking letters of credit, insurance cover, discounting and other means of reducing credit risk with counterparts. Where possible, credit exposures are covered through credit mitigation products.
- We monitor the credit quality of our physical and hedge counterparties and seek to reduce the risk of customer default or non-performance by requiring credit support from creditworthy financial institutions.
- Open account risk is governed by Group-wide standards with established thresholds for referral of credit decisions by department heads to the CEO, CFO and CRO (and the Board, for highest level approvals), relating to potential credit risk exposures at varying levels, depending on counterparty credit quality.

Risk management *continued*

5. Geopolitical, permits and licences to operate

2022 vs 2021	Link to strategy
↑	

We control and operate assets in many countries across the globe, some of which are categorised as developing, complex or having unstable political or social environments. As a result, we are exposed to a wide range of political, economic, regulatory, social and tax environments. Regulatory regimes applicable to resource companies can often be subject to adverse and unexpected changes. Our operations may also be affected by political and economic instability, including terrorism, civil disorder, violent crime, war and social unrest.

The terms attaching to any permit or licence to operate may be onerous and obtaining these and other approvals can be particularly difficult. Furthermore, in certain countries, title to land and rights and permits in respect of resources are not always clear or may be challenged.

Increased scrutiny by governments and tax authorities in pursuit of perceived aggressive tax structuring by multinational companies has elevated potential tax exposures for the Group. Additionally, governments have sought additional sources of revenue by increasing rates of taxation, royalties or resource rent taxes and aggressively enforcing their tax codes. The tax codes of some countries can be uncertain in their application and the access to impartial administrative and judicial redress may be limited.

Potential impact on the Group

- Adverse actions by governments and others can result in operational / project delays or loss of permits or licences to operate, which could have a material adverse effect on the Group therefore affecting the Group's long-term viability and success.
- Failure to obtain or renew a necessary permit or the occurrence of other disputes could mean that we would be unable to proceed with the development or continued operation of an industrial asset and/or impede our ability to develop new assets.
- Laws and regulations in the countries in which we do business may change or be implemented in a manner that may have a materially adverse effect on the Group.

Mitigating factors

- The Group's industrial assets are diversified across various countries which reduces the Group's exposure to any particular country.
- The Group has an active engagement strategy with the governments, regulators and other stakeholders within the countries in which it operates or intends to operate. Through strong relationships with stakeholders, we endeavour to secure and maintain our licences to operate.
- We endeavour to operate our businesses according to high legal, ethical, social and human rights standards, and to ensure that our presence in host countries leaves a positive lasting legacy.
- We operate under a Group Tax Policy, annually reviewed by the Board, which sets out the Group's commitment to comply with all applicable tax laws, rules and regulations, without exception, and to be characterised as a 'good corporate fiscal citizen'.

6. Laws and enforcement

2022 vs 2021	Link to strategy
↑	

We are exposed to extensive laws and regulations, including those relating to bribery and corruption, sanctions, taxation, anti-trust, financial markets regulation and rules, environmental protection, use of hazardous substances, product safety and dangerous goods regulations, post-closure reclamation, employment of labour and occupational health and safety standards. In addition, there are a number of high expectations regarding the need to act ethically in our business and we are exposed to the risk that unethical business practices may, by themselves, harm our ability to engage with certain business partners, and/or give rise to questions whether we are committed to complying with applicable laws.

As a diversified sourcing, marketing and distribution company conducting complex transactions globally, we are particularly exposed to the risks of fraud, corruption, sanctions and other unlawful activities both internally and externally. Certain of our existing Industrial and Marketing activities are in countries that are categorised as developing or as having challenging political or social climates or where the legal system is uncertain, and/or where corruption is generally understood to exist, which creates risks in relation to our compliance with laws and external requirements. The legal system and dispute resolution mechanisms in some countries in which we operate may be uncertain, meaning that we may be unable to enforce our understanding of our rights and obligations under these laws. Our

Risk management *continued*

Marketing activities are large in scale, which may make fraudulent, corrupt or other unlawful transactions difficult to detect. In addition, some of our counterparties have in the past, and may in the future, become the targets of sanctions.

Governmental and other authorities have commenced, and may in the future commence, investigations against the Group (including those listed in our financial statements) in relation to alleged non-compliance with these laws, and/or may bring proceedings against the Group in relation to alleged non-compliance. In addition, the Group may be the subject of legal claims in connection with alleged non-compliance with these laws, including class, collective or group actions.

Potential impact on the Group

- Any changes to these laws or regulations or their more stringent enforcement or restrictive interpretation could cause additional significant expenditure to be incurred and/or cause suspensions of operations and delays in the development of industrial assets.
- The costs associated with compliance with these laws and regulations, including the costs of regulatory permits, are substantial and increasing.
- The impact of any monetary fines, penalties, redress or other restitution requirements, and the associated reputational damage arising from proceedings that are resolved adversely to the Group, could be material.
- Any successful claims brought against the Group could result in material damages being awarded against the Group, the cessation of operations, compensation and remedial and/or preventative orders.
- In addition, the cost of cooperating with investigations and/or defending proceedings can be substantial.

Strategic priorities
Responsible and ethical production and supply
Responsible portfolio management
Responsible product use

Mitigating factors

- We seek to ensure compliance through our commitment to complying with or exceeding the laws and regulations applicable to our operations and products and through monitoring of legislative requirements, and engagement with government and regulators.
- We have implemented a number of programmes designed to ensure compliance with applicable laws and regulations, including our Group Ethics and Compliance programme that includes a range of policies, standards, procedures, guidelines, training and awareness, monitoring and investigations.
- We have invested significant resources towards developing this programme, including through increasing the number of dedicated compliance professionals, enhancing our compliance policies and procedures and controls, increasing our training and awareness activities, and strengthening the Group's Raising Concerns programme and investigations processes.
- We engage reputable external legal firms and consultants as necessary to support these efforts.

7. Cyber

2022 vs 2021	Link to strategy

The ever-increasing reliance on digital technologies has brought with it a corresponding rise in cyber-related risks, ranging from the proliferation of ransomware to nation-state activity and the monetisation of cybercrime. Our industrial production, operations, environmental management, health and safety management, communications, transaction processing, and risk management all rely on information technologies, while our long supply chains involve numerous third parties that are exposed to the same cyber risks. Furthermore, the emergence of machine learning and artificial intelligence has led to an exponential increase in the volume and sophistication of fraud attempts. The use of 'Deepfake' technology, powered by machine learning, makes it easier to manipulate audio and video content, increasing the potential for phishing or fraud attacks that impersonate senior executives. Given the accelerating pace at which AI is being used to create malware and deepfakes, there is a significant and growing threat to the security and authenticity of digital content, necessitating robust and vigilant cybersecurity measures.

Potential impact on the Group

- The potential consequences of a cybersecurity breach, incident, or failure of Glencore's IT systems are significant and wide-ranging. Such an event could lead to disruption of our businesses, jeopardise the safety of our employees, result in the exposure of confidential information, damage our reputation, and create substantial financial and legal risks for the Group.
- The ramifications could extend beyond just our own operations and impact our customers, suppliers, and partners as well.

Mitigating factors

- We take a proactive and multi-faceted approach to mitigating cyber exposure risks and maintaining the security of our IT systems.
- Our IT security standards include layered cyber security, privileged access management, and multiple layers of email security and malware protection, as well as the use of two-factor authentication and VPN technology for securing corporate applications and communications.
- We keep our system software up to date and use global platforms to proactively manage patch compliance, while routine third-party penetration tests and dedicated programmes for enhancing the monitoring and security of our Operational Technology (OT) platforms seek to ensure the effectiveness of our security measures.
- Our IT Security Council sets the global cyber security strategy, conducts regular risk assessments, and designs solutions to protect against emerging threats, and our Cyber Defence Centre is responsible for day-to-day monitoring and remediation of cyber vulnerabilities across the Group.
- We have an incident response team in place to coordinate a swift and effective response in the event of a major cyber incident.
- We prioritise employee education to raise awareness of cyber security threats and encourage best practices in information security.

Risk management *continued*

8. Health, safety and environment

2022 vs 2021	Link to strategy
↔	

Industrial operations are inherently hazardous. The success of our business is dependent on a safe and healthy workforce and work environment. Identifying and managing risks to the safety and health of our people is essential for maintaining our commitment to responsible production.

Our operations around the world can have direct and indirect impacts on the environment and host communities. Our ability to manage and mitigate these may impact maintenance of our operating licences as well as affect future projects, acquisitions and our reputation.

We operate in some countries characterised with complex and challenging political and/or social climates, which increases our risk of non-compliance with external laws and regulations, as well as with our HSEC&HR policies and standards.

Potential impact on the Group

- Compliance with environmental, safety and health regulations, and our relevant HSEC&HR policies or standards, may result in increased costs.
- Non-compliance or incidents causing serious injury or fatality or other damage at, or to, our facilities or surrounding areas, may result in significant losses. Related consequences could include (1) interruptions in production, litigation and imposition of penalties and sanctions, (2) having licences and permits withdrawn or suspended while being forced to undertake extensive remedial clean-up action or to pay for government-ordered remedial clean-up actions, and (3) paying compensation and reparations to negatively impacted communities.
- Failure to operate responsibly may have long-term negative impacts for host communities and the environment, and erode trust in the integrity of our organisation.
- Liability may also arise from the actions of any previous or subsequent owners or operators of the property, by any past or present owners of adjacent properties, or by third parties.

Mitigating factors

- We implement Health, Safety, Environment, Social Performance and Human Rights (HSEC&HR) policies, standards and procedures designed to (1) protect our people, communities and the environment, and (2) ensure we comply with laws and external regulations, and that set out our ambitions, expectations and requirements that should be applied consistently across the Group. These provide clear guidance on the minimum requirements we expect all our industrial assets to meet, as well as those for our workforce and business partners.
- We have re-launched SafeWork, Glencore's approach to creating a workplace without fatalities and serious injuries. SafeWork provides a set of minimum expectations for the management of fatal hazards, which consistent application drives a safe operating discipline and a positive safety culture. The impact of this programme has resulted in material improvements in our performance.
- We work with local authorities, local community representatives and other partners, such as NGOs, to help overcome major public health issues in the regions where we work, such as Covid-19, HIV / AIDS, malaria and tuberculosis.

Risk management *continued*

9. Community relations and human rights

2022 vs 2021	Link to strategy

Respecting human rights and building strong relationships with the communities in which we operate are fundamental to the current and future viability of our business.

We have a geographically diverse business, operating in both developed and developing countries in an array of different contexts. A perception that we are not respecting human rights or generating local sustainable benefits could have a negative impact on our ability to operate effectively, our reputation with stakeholders, our ability to secure access to new resources, our capacity to attract and retain the best talent and ultimately, our financial performance.

Areas that may be affected negatively include the health and safety of our workforce and surrounding communities, environmental damage and interactions with individuals and groups who live and work in or near our local communities. Poor performance can contribute to social instability and the perceived and real value of our assets.

Strategic priorities
Responsible and ethical production and supply
Responsible portfolio management
Responsible product use

Some of our mining operations are in remote areas where they are a major employer in the region. This presents particular social challenges when the mine's resources are depleted to an extent that it is no longer economic to operate and must be closed.

The destruction of indigenous cultural heritage during mining activities in Australia has highlighted the need for effective management processes and engagement, to protect areas and items of cultural significance, and to avoid business and reputation risks.

Potential impact on the Group

- The consequences of adverse community reactions or allegations of human rights or social incidents could also have a material adverse impact on the cost, profitability, ability to finance or even the viability of an operation and the safety and security of our workforce and assets. In addition, global connectivity means that local issues can quickly escalate to a regional, national and global level, potentially resulting in reputational damage and social instability.

Mitigating factors

- We respect communities' perspectives by seeking to actively consult with them on our decision making, and engaging openly and honestly to build lasting relationships.
- We endeavour to focus our social investments on initiatives and programmes to deliver long-term benefits fostering socio-economic resilience.
- We support the advancement of the interests of both our host communities and our industrial assets.
- We seek to apply the UN Voluntary Principles on Security and Human Rights in regions where there is a high risk to human rights from the deployment of public and private security forces.
- We tailor our community approach to be relevant and appropriate to the local context, including regarding tangible and intangible cultural heritage.
- We strive to uphold and respect the human rights of our workforce, local communities and others who may be affected by our activities, in line with the United Nations Guiding Principles on Business and Human Rights.
- We require our industrial assets to implement locally appropriate complaints and grievance processes to welcome feedback and comments on our performance, and take actions when necessary to address the issues raised.
- We believe that legal artisanal and small-scale mining (ASM) can play an important and sustainable role in many economies when carried out responsibly and transparently, including the DRC. We work with the Fair Cobalt Coalition, an NGO that works towards eliminating child and forced labour, improving work practices in ASM operations, and supporting alternative livelihoods to help increase incomes and reduce poverty.
- We implement policies, standards and procedures designed to identify, prevent and mitigate human rights risks and impacts across our business, and are committed to understanding and documenting the social risks and opportunities in the communities in which we operate.

Risk management *continued*

10. Catastrophic and natural disaster events

2022 vs 2021	Link to strategy

Catastrophic or natural disaster events at the Group's industrial assets can have disastrous impacts on workers, communities and the environment, while also impacting production and resulting in substantial financial costs and harm to our reputation. These events may arise due to natural causes (flood, earthquake, drought) or due to infrastructure or equipment failure (tailing storage facility failure), or both.

Climate change may increase physical risks to our assets and related infrastructure, largely driven from extreme weather events and water-related risks such as flooding or water scarcity.

Potential impact on the Group

- Loss of life, significant environmental damage, or social impact on livelihoods arising from such an event may have significant negative impacts on our reputation.
- The suspension of production arising from one of these events for an extended period could have a significant impact on our business.
- Inclusion of new design standards for improved management of potentially catastrophic events during the development of new projects and as required for the remediation of risks at operating assets may lead to future upward revisions in estimated costs, delays or other impacts. This may cause production to be reduced or to cease and/or require greater infrastructure spending. Also, the realisation of these risks could require significant additional capital and operating expenditures.

Mitigating factors

- Our HSEC&HR policies and standards have been developed to address the catastrophic hazards that present a material risk to our operations. These set our requirements for the prevention of potentially catastrophic events, including accountable roles such as our TSF accountable executives, and our Group standards are subject to assurance.
- The planning, design, construction, operation, maintenance and monitoring of our surface and underground mines, water and tailings storage facilities, smelters, refineries and other infrastructure and equipment is carried out in a manner consistent with leading international standards and designed to prevent incidents and protect our people, assets, communities, the environment and other stakeholders.
- A comprehensive process is in place for the independent assurance of HSEC catastrophic hazards across all operating sites.
- We have implemented a comprehensive tailings management framework, with clear governance, accountabilities, systems, training, auditing and reporting on performance.

Risk management *continued*

11. Operational delivery

2022 vs 2021	Link to strategy
↔	

Our Industrial activities are subject to significant risks throughout each operation's lifecycle, from project planning, through initiation, development, operation and/or expansion and ultimate closure.

The delivery of projects can be impacted by a range of factors, including an inadequate level of resource knowledge, inappropriate design and engineering, lack of independent review, permitting delays, poor project execution resulting in schedule delays and cost increases, commissioning delays and extended ramp-up to design, or not achieving design outputs.

Delivery of operational performance at existing industrial assets can be impacted by a range of factors, including a level of geological risk relating to factors such as structure and grade as well as geotechnical and hydrological risks, natural hazards, processing problems, technical malfunctions, supply chain risk of unavailability of materials and equipment, unreliability and/or constraints of infrastructure, disasters, force majeure factors, cost overruns, or delays in permitting or other regulatory matters.

Strategic priorities

- Responsible and ethical production and supply
- Responsible portfolio management
- Responsible product use

Some of the Group's interests in industrial assets do not constitute controlling stakes. Although the Group has various arrangements in place which seek to protect its position where it does not exercise control, the other shareholders in these entities may act contrary to the Group's interests or be unable or unwilling to fulfil their obligations.

Potential impact on the Group

- The development and operation of assets may lead to future upward revisions in estimated costs (capital and operating expenditure), including in relation to delays or other operational difficulties or damage to properties or facilities, which may cause production to be reduced or to cease, and may require greater infrastructure spending.
- Severe operating difficulties may result in impairments.

Mitigating factors

- Project development and operating risks and hazards are managed through our continuous project status evaluation and reporting processes and ongoing assessment, and reporting and communication of the risks that affect our operations along with updates to the risk register.
- We publish our assessment of reserves and resources based on available drilling and other data sources annually. Conversion of resources to reserves and, eventually, reserves to production is an ongoing process that takes into account technical and operational factors, and the economics of the particular commodities concerned.
- We manage a disciplined annual process for life of asset planning whereby the optimum resource development and subsequent production plans for each asset are reviewed by Corporate, including understanding the range of potential risks to operational delivery.
- We report our production results quarterly and provide guidance on future production periods which considers exposure to operational delivery risk.
- During 2022, we developed a Group standard which defines the corporate requirements for major project development, including governance requirements for concept, pre-feasibility and feasibility studies and execution. Major projects are also subject to an Independent Peer Review as part of the approval to progress from one project phase to the next.

Risk management *continued*

12. Low-carbon economy transition

2022 vs 2021	Link to strategy

The global transition to a low-carbon economy may affect our business through regulations to reduce emissions, carbon pricing mechanisms, reduced access to capital, permitting risks and fluctuating energy costs, as well as changing demand for the commodities we produce and market. A number of governments have already introduced or are contemplating the introduction of regulatory responses to support the achievement of the goals of the Paris Agreement and the transition to a low-carbon economy. This includes countries where we have assets such as Australia, Canada, Chile and South Africa, as well as our customer markets such as China, South Korea, Japan, United States and Europe.

A transition to a low-carbon economy and its associated public policy and regulatory developments is likely to reduce demand for fossil fuels over time and could lead to certain of our coal assets no longer being economically viable.

Potential impact on the Group

- A transition to a low-carbon economy and its associated public policy and regulatory developments may lead to:
  - the imposition of new regulations, and climate change-related policies on fossil fuels by actual or potential investors, customers and banks, that may impact Glencore's reputation, access to capital and financial performance;
  - import duties / carbon taxes in our customers' markets which may affect our access to those markets as well as our commodities' delivery costs;
  - increased costs for energy and for other resources, which may impact associated costs and the economic competitiveness of our industrial assets;
  - the imposition of levies or taxes, whether or not related to greenhouse gas emissions; and
  - impacts on the development or maintenance of our industrial assets due to restrictions in operating permits, licences or similar authorisations.
- Variations in commodity use from emerging technologies, moves towards renewable energy generation and policy changes may affect demand for our products, both positively and negatively.
- Implementing low-carbon processes and technologies at our industrial assets may increase our operating costs, while also potentially growing / changing our customer base.
- ESG concerns may increase pressure to divest our coal assets, limit / stop our access to finance, restrict production from, development of, or close assets and impact our ability to optimise our portfolio. Some may choose not to invest in or transact with us, due to our fossil fuel operations.
- Socio-economic concerns associated with the transition to a low-carbon economy may increase expectations of our closure plans and increase closure liabilities.
- We may be the subject of climate-related litigation or regulatory scrutiny. There has been a significant increase in litigation (including class actions), in which climate change and its impacts are a contributing or key consideration, including administrative law cases, tortious cases and claims brought by investors. In particular, a number of lawsuits have been brought against companies with fossil fuel operations in various jurisdictions seeking damages related to climate change. A number of regulators have also increased their scrutiny of companies' actions in respect of climate change, including through investigating claims related to inaccurate or misleading disclosure and/or greenwashing.

Mitigating factors

- We seek to integrate climate considerations, such as energy and climate policies in countries where we operate and sell our products, expectations of our value chains, and the various commitments to achieve the goals of the Paris Agreement, into our strategic decisions and day-to-day operational management.
- Our internal Climate Change Taskforce, led by our CEO and overseen by the Board of Directors, is responsible for delivering our climate strategy and addressing progress against our climate commitments.
- We monitor and report our Scope 1, 2 and 3 emissions, and use this data in managing our operational emissions, as well as for the tracking of our targets.
- We intend to deliver our ambition of net zero emissions by the end of 2050 through seven core actions: managing our operational footprint, reducing our Scope 3 emissions, allocating capital to prioritise transition metals, collaborating with our value chains, supporting uptake and integration of abatement, utilising technology to improve resource use efficiency and being transparent.
- To understand better and plan for the effects of climate change on our business, we have a framework for identifying, understanding, quantifying, where possible, and, ultimately, managing climate-related challenges and opportunities facing our portfolio which covers government policy, lobbying activities, carbon pricing, energy costs, physical impacts, access to capital, risks relating to permits, product demand and litigation risks.

Chairman's governance statement

Good governance is crucial for our future sustainable growth

Kalidas Madhavpeddi
Chairman

I am reporting on my first full year as your chairman. It has also been the first full year for our CEO Gary Nagle and revamped departmental management team.

Board composition

One of the key drivers for the Board has been rejuvenation. Following the appointments of Cynthia Carroll and David Wormsley in 2021, last year we also appointed Liz Hewitt to the Board. Liz brings considerable UK non-executive director experience and, in particular, strong experience of chairing audit committees. She will this month take over as Chair of our Audit Committee from Gill Marcus, who was recently appointed Senior Independent Director.

Patrice Merrin will retire in May at this year's AGM. Her fellow directors express their gratitude to Patrice for nine years of committed service to the Board. Following Patrice's retirement, the average tenure of the Board members will be under four years.

As we strive for diversity in the boardroom, we also see material benefits in having a compact one. The small size and composition of our Board assists in its collegiality and sense of purpose. Therefore, we will continue with a Board of eight Directors, including three female Directors and one from a minority ethnic background. Although we will therefore miss the gender diversity target of 40% female by 2.5%, we believe that the composition of our Board will continue to fulfil the spirit and intent of relevant diversity targets (see page 108). Combined with the variety and complementarity of background, skills, and experience of the current Directors, Board diversity will remain strong and continue to be an important factor in the choice of future Directors.

Performance review

Following considerable changes in Board composition, which resulted in a 12-month deferment, an external independent board performance review has been carried out by Spencer Stuart. The overall scores for the review put Glencore in the top decile of boards that Spencer Stuart have assessed in the past five years. The report made a number of helpful recommendations (see page 112) and we are keen to retain and improve on this assessment.

Shareholder engagement

In 2022, we actively engaged with our shareholders and interested stakeholders on our climate strategy. Following the 2022 AGM at which the shareholders voted on the progress against our three-yearly Climate Action Transition Plan, we undertook an active engagement programme to understand better our shareholders views on our climate strategy.

There was broad support for our climate strategy, recognising the importance of maintaining a strategy that remains resilient to the risks and opportunities of the evolving energy transition, and encouragement to continue our focus on progressing towards our ambition of achieving net zero emissions by the end of 2050.

We have reflected carefully on the feedback received and will continue to engage with shareholders and other stakeholders, as well as monitor external market developments. Insights from this engagement have been and will continue to be factored into our internal deliberations for consideration.

Further details on the outcome of the consultation was published on 28 October 2022 and can be found at: *glencore.com/media-and-insights/news/agm-climate-vote-shareholder-consultation-update* and in our *2022 Climate Report* that was published alongside this Annual Report.

Investigations

The Investigations Committee remained an important committee of the Board last year. We reached resolutions with the US, UK and Brazilian authorities and the differing resolutions and timing with each of the authorities (and in the case of the US covering both bribery and market conduct offences) were considered carefully, the Committee having spent the prior four years overseeing the response to the relevant investigations. It and the Board also carefully considered the communication of the resolutions in order to ensure that the relevant details of these were transparently set out so as to be clearly understood by all stakeholders.

The work of the Committee also continues with the ongoing investigations by the Swiss and Dutch authorities.

Looking forward

The governance of one of the most dynamic and diverse major companies in the resources sector is rewarding and challenging. Your Board sees good governance as crucial for the future sustainable growth of our Company. There are many opportunities for our Company which should deliver long-term benefits to our stakeholders, and which are being pursued within a robust framework of oversight and controls which appropriately manages our risks while at the same time enabling the entrepreneurialism that remains the lifeblood of our organisation.

Kalidas Madhavpeddi
Chairman

Watch the full interview at:
glencore.com/culture

Directors and officers

Notes

All the Directors are non-executive apart from the CEO. The Chairman is considered not to be independent from the date of appointment. Mr Madhavpeddi was independent up to his appointment as Chairman. The remaining Non-Executive Directors (NEDs) are designated as independent apart from Mr Coates.

Committee membership is as follows:

- A Audit
- E Ethics, Compliance and Culture (ECC)
- H Health, Safety, Environment and Communities (HSEC)
- I Investigations
- N Nomination
- R Renumeration
- ○ denotes Committee Chair

Impending change to Committee responsibilities:

1. From 1 April 2023, Liz Hewitt will replace Gill Marcus as Chair of the Audit Committee.
2. On 27 May 2023:
   i) Cynthia Carroll will become Chair of the ECC Committee,
   ii) Martin Gilbert will become Chair of the Remuneration Committee, and
   iii) David Wormsley will become a member of the Investigations Committee.

Directors

Kalidas Madhavpeddi

Chairman (67)

H I N R

Appointed in February 2020.

Experience

Kalidas Madhavpeddi has over 40 years of experience in the international mining industry, including being CEO of CMOC International, the operating subsidiary of China Molybdenum Co Ltd (China Moly), from 2008 to 2018. His career started at Phelps Dodge, where he worked from 1980 to 2006, ultimately becoming senior VP responsible for the company's global business development, acquisitions and divestments, as well as its global exploration programmes.

Mr Madhavpeddi is currently a director of Novagold Resources (TSX:NG), Trilogy Metals (TSX:TMQ), and Dundee Precious Metals Inc (TSX:DPM).

He was formerly director and chair of the governance committee of Capstone Mining (TSX:CS).

He has degrees from the Indian Institute of Technology, Madras, India and the University of Iowa and has completed the Advanced Management Program at Harvard Business School.

Gary Nagle

Chief Executive Officer (48)

Joined Glencore in 2000; Chief Executive Officer since July 2021.

Experience

Gary Nagle joined Glencore in 2000 in Switzerland as part of the Coal business development team. He was heavily involved in seeding a portfolio of assets to Xstrata in 2002, in conjunction with its initial listing on the London Stock Exchange.

Mr Nagle worked for five years (2008-2013) in Colombia as CEO of Prodeco. He then moved to South Africa to be Head of Glencore's Ferroalloys assets (2013-2018). Following that he was the Head of Glencore's coal assets based in Australia. He was a non-executive director of Lonmin plc from 2013 - 2015 and has represented Glencore on the Minerals Councils of Australia and Colombia.

Mr Nagle has commerce and accounting degrees from the University of the Witwatersrand and qualified as a Chartered Accountant in South Africa in 1999.

Gill Marcus

Senior Independent Director (73)

A E N

Senior Independent Director since December 2022; appointed in January 2018.

Experience

Gill Marcus worked in exile for the African National Congress from 1970 before returning to South Africa in 1990. In 1994 she was elected to the South African Parliament. In 1996 she was appointed as the Deputy Minister of Finance and from 1999 to 2004 was Deputy Governor of the Reserve Bank. Gill Marcus was Governor of the South African Reserve Bank from 2009–14.

Ms Marcus was the non-executive chair of the Absa Group from 2007–09 and has been a non-executive director of Gold Fields Ltd and Bidvest. She has acted as chair of a number of South African regulatory bodies. From 2018 to 2019, she was appointed to the Judicial Commission of Inquiry into allegations of impropriety at the Public Investment Corporation.

Ms Marcus is a graduate of the University of South Africa.

Directors and officers *continued*

Martin Gilbert
Independent Non-Executive Director (67)

A I N R

Appointed in May 2017. Senior Independent Director from May 2018 to December 2022.

Experience
Martin Gilbert co-founded Aberdeen Asset Management in 1983, leading the company for 34 years and overseeing its 2017 merger with Standard Life, when he was made co-CEO.

Mr Gilbert is currently chairman of AssetCo plc (LON:ASTO), Revolut Limited, Toscafund and Saranac Partners. He was formerly deputy chair of the board of Sky PLC until 2018.

Mr Gilbert is a member of the International Advisory Board of British American Business.

Mr Gilbert was educated in Aberdeen. He has an LLB, an MA in Accountancy and is a Chartered Accountant.

Peter Coates AO
Non-Executive Director (77)

E H N

Non-Executive Director since January 2014; previously Executive Director from June to December 2013 and Non-Executive Director from April 2011 to May 2013.

Experience
Peter Coates worked in senior positions in a range of resource companies before joining Glencore's coal unit as a senior executive in 1994. When Glencore sold its Australian and South African coal assets to Xstrata in 2002, he became CEO of Xstrata's coal business, stepping down in December 2007.

Mr Coates is currently a non-executive director of Event Hospitality and Entertainment Ltd (ASX:EVT). He was non-executive chairman of Xstrata Australia (2008–09), Minara Resources Ltd (2008–11) and Santos Ltd (2009–13 and 2015–18).

Mr Coates holds a Bachelor of Science degree in Mining Engineering from the University of New South Wales. He was appointed as an Officer of the Order of Australia in June 2009 and awarded the Australasian Institute of Mining and Metallurgy Medal for 2010.

Patrice Merrin
Independent Non-Executive Director (74)

E H I N

Appointed in June 2014. Ms Merrin will retire from the Board at this year's AGM.

Experience
Following initial roles with Molson and Canadian Pacific, Patrice Merrin worked at Sherritt for ten years until 2004, latterly as COO. She then became CEO of Luscar.

She is currently non-executive director of Metals Acquisition Corp. and of Samuel, Son & Co. Limited. She was non-executive chair of Detour Gold Corporation (TSX:DGC) from June 2019 to January 2020 and non-executive director of Stillwater Mining Company (NYSE:SWC) from 2013 to 2017. Ms Merrin chaired CML Healthcare and was also a director of Arconic Inc., NB Power, and the Alberta Climate Change and Emissions Management Corporation.

Ms Merrin is a graduate of Queen's University, Ontario and completed the Advanced Management Programme at INSEAD.

Cynthia Carroll
Independent Non-Executive Director (66)

H N R

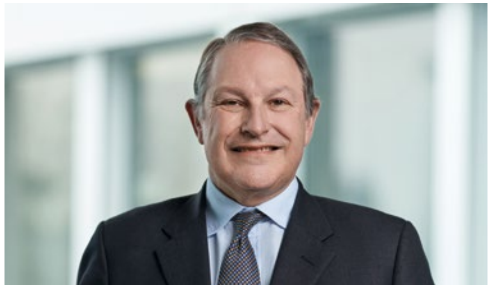
Appointed in February 2021.

Experience
Cynthia Carroll has over 30 years' experience in the resources sector. She began her career as an exploration geologist at Amoco before joining Alcan. She held various executive roles there culminating in being CEO of the Primary Metal Group, Alcan's core business. From 2007 to 2013 she served as CEO of Anglo American plc.

Ms Carroll is currently a non-executive director of Hitachi, Ltd (TYO:6501), Baker Hughes Company (NYSE:BKR) and Pembina Pipeline Corporation (TSE:PPL).

Ms Carroll holds a Bachelor's degree in Geology from Skidmore College (NY), a Master's degree in Geology from the University of Kansas and an MBA from Harvard University. She is a fellow of the Royal Academy of Engineers and a Fellow of the Institute of Materials, Minerals and Mining.

Directors and officers *continued*



David Wormsley
Independent Non-Executive Director (62)

A H N

Appointed in October 2021.

Experience
David Wormsley worked in investment banking for 35 years. His last position at Citigroup was Chairman, UK banking and broking when he retired in March 2021. Mr Wormsley led a wide variety of corporate transactions in the UK and internationally, including IPOs and equity fundraising, both public and private, mergers & acquisitions and debt financing. During his period of management, Citigroup successfully acquired and integrated the majority of ABN Amro's broking business. Under his leadership, the Citigroup UK M&A franchise was ranked between number 1 and 5 in the market.

Mr Wormsley is currently a non-executive director of Stanhope plc and a governor of the Museum of London.

He holds an economics degree from Downing College, Cambridge.

Liz Hewitt
Independent Non-Executive Director (65)

A N

Appointed in July 2022.

Experience
Liz Hewitt has over 30 years' business experience in executive and non-executive positions. She began her career as a qualified chartered accountant with Arthur Andersen & Co. She held various executive positions in private equity companies including 3i Group plc, Gartmore Investment Management Limited and Citicorp Venture Capital Ltd. At 3i Group plc, she was a private equity investor and then director of corporate affairs. She also worked for Smith & Nephew plc as group director of corporate affairs.

Liz Hewitt is currently a non-executive director of National Grid plc (LON: NG) and Silverwood Property Limited. She was previously non-executive director of Melrose Industries plc (2013-2022), Novo Nordisk (2012-2021), Savills plc (2014-2019) and Synergy Health plc (2011-2014).

Ms Hewitt holds a bachelor's degree in economics from University College London.

Officers

Steven Kalmin
Chief Financial Officer (52)

Appointed as Chief Financial Officer in June 2005.

Experience
Steven Kalmin joined Glencore in September 1999 as general manager of finance and treasury functions at Glencore's coal industrial unit in Sydney. He moved to Glencore's head office in 2003 to oversee Glencore's accounting function, becoming CFO in June 2005. From November 2017 to June 2020 he was a director of Katanga Mining Limited (TSX:KAT).

Mr Kalmin holds a Bachelor of Business (with distinction) from the University of Technology, Sydney and is a member of Chartered Accountants Australia and New Zealand and the Financial Services Institute of Australasia.

Before joining Glencore, Mr Kalmin worked for nine years at Horwath Chartered Accountants.

John Burton
Company Secretary (58)

Appointed Company Secretary in September 2011.

Experience
From 2006 to 2011, John Burton was company secretary and general counsel of Informa plc, where he established the group legal function and a new company secretarial team. Before that he had been a partner of CMS in London for eight years, advising on a broad range of corporate and securities law matters.

Mr Burton holds a B.A. degree in Law from Durham University. He was admitted as a Solicitor in England and Wales in 1990.

Corporate governance report

Board diversity, skills and experience

	Kalidas Madhavpeddi American	Gary Nagle S. African	Martin Gilbert British	Cynthia Carroll American	Peter Coates Australian	Gill Marcus S. African	Patrice Merrin Canadian	David Wormsley British	Liz Hewitt British
Experience									
Resources	●	●		●	●		●		
Non-executive directorship	●	●	●	●	●	●	●	●	●
C-suite	●	●	●	●	●	●	●		
International M&A	●	●	●	●	●		●	●	●
Technical Skills*									
Leadership & Strategy	●	●	●	●	●	●	●	●	●
Financial Expertise	●	●	●			●		●	●
ESG	●	●	●	●	●	●	●	●	●
Health & Safety	●	●	●	●	●		●		
Investor Relations	●	●	●	●	●		●	●	●
Communications & Reputation	●	●	●	●	●	●	●	●	●
Risk Management	●	●	●	●	●	●	●	●	●

* The majority of these skills have been acquired through exposure and experience at leadership level, rather than as part of a formal education.

Diversity

The diversity policy, which is applied to appointments to governance bodies with regard to aspects such as age, gender, or education and professional backgrounds, is the same as for all Group employees.

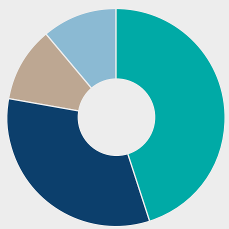
The Board is very cognisant of the ongoing desire from stakeholders for greater diversity in senior management and boards. In 2022, the UK FCA introduced new listing rules that require companies to disclose, on a comply or explain basis, whether they meet specific diversity targets, being:

- at least 40% of the board are women (4/9);
- at least one of the senior board positions (Chair, SID, CEO, or CFO) is a woman, (Gill Marcus is SID); and
- at least one member of the board is from a minority ethnic background (Kalidas Madhavpeddi).

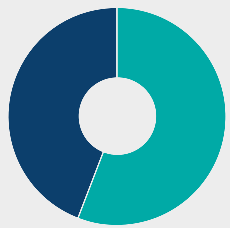
At the time of this report, the Company meets all the diversity targets listed above.

The Board acknowledges that much more needs to be done to achieve greater diversity in the senior management of the Group and throughout the organisation, including through the development of an internal pipeline of candidates. Accordingly, during 2022 it has overseen the continued refinement and implementation of our Diversity and Inclusion Framework with progress being made across many dimensions – see further on page 52.

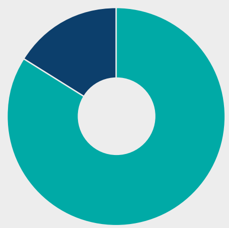
Board tenure



Board diversity



Senior manager* diversity in 2022



2021: 85% male
15% female

2020: 87% male
13% female

* A senior manager as defined in section 414C of the UK Companies Act 2006 to include members of the management team and Glencore appointed directors on the boards of subsidiaries. This definition is only relevant to this data and does not apply to other references of 'senior management' that are included in this Annual Report.

Corporate governance report *continued*

Roles and responsibilities

Chairman

- Leading the Board
- Shaping the culture in the boardroom
- Promoting sound and effective Board governance
- Ensuring effective communication with shareholders
- Leading the annual performance evaluation of the Board

Senior Independent Director

- Acting as confidant of the Chairman and, when appropriate, as an intermediary for other independent Directors
- Acting as Chair of the Board if the Chairman is unable to attend
- Leading the Chairman's performance appraisal along with other independent Directors
- Answering shareholders' queries when usual channels of communication are unavailable

Chief Executive Officer

- Leading the management
- Executing the Group's strategy developed in conjunction with the Board
- Implementing the decisions of the Board and its Committees
- Delivering on the Group's commercial objectives
- Developing Group policies and ensuring effective implementation

Non-Executive Directors

- Constructively challenging the Chief Executive Officer and senior management
- Bringing an independent mindset and a variety of backgrounds and experience around the Board table
- Providing leadership and challenge as chairs or members of the Board and its Committees
- Assessing the Chairman's performance and leadership

Company Secretary

- Ensuring that Board procedures are complied with and that papers are provided in sufficient detail and on time
- Informing and advising the Board on all governance matters
- Informing the Board on all matters reserved to it
- Assisting the Chairman and the Board regarding the annual performance evaluation process

Division of responsibilities

As a Jersey incorporated company, Glencore has a unitary Board, meaning all Directors share equal responsibility for decisions taken. Glencore has established a clear division between the respective responsibilities of the Non-Executive Chairman and the Chief Executive Officer, which are set out in a schedule of responsibilities approved by the Board and reviewed annually. While the Non-Executive Chairman is responsible for leading the Board's discussions and decision making, the CEO is responsible for implementing and executing strategy and for leading Glencore's operating performance and day-to-day management. The Company Secretary is responsible for ensuring that there is clear and effective information flow to the Non-Executive Directors.

The CEO, CFO and General Counsel have line of sight across the Group. Together with the Head of Industrial Assets, they lead our management supported by the heads of corporate functions and departmental leadership comprising the heads of each marketing department and industrial leads.

Senior Independent Director

Gill Marcus is the Senior Independent Non-Executive Director. She is available to meet with shareholders and acts as an intermediary between the Chairman and other independent Directors when required. This division of responsibilities, coupled with the schedule of reserved matters for the Board, ensures that no individual has unfettered powers of decision.

Non-Executive Directors

The Company's Non-Executive Directors provide a broad range of skills and experience to the Board (see table above), which assists in their roles in formulating the Company's strategy and in providing constructive challenge to senior management.

Independence of Non-Executive Directors

Glencore regularly assesses its Non-Executive Directors' independence. Except for Peter Coates, who was first appointed to the Board in May 2011, and the Chairman, all are regarded by the Board as Independent Non-Executive Directors within the meaning of 'independent' as defined in the Code and free from any business or other relationship which could materially interfere with the exercise of their independent judgement. Mr Madhavpeddi was independent at the time of his appointment as Chairman.

Board attendance throughout the year

Attendance during the year for all scheduled full agenda Board and all permanent Board Committee meetings is set out in the table below:

	Board of 4	Audit of 4	ECC of 4	HSEC of 4	Nom of 2	Rem of 3
Cynthia Carroll	4			4	2	3
Peter Coates	4		4	4	2	
Martin Gilbert	4	4			2	3
Liz Hewitt[1]	2	2				
Kalidas Madhavpeddi	4			4	2	3
Gill Marcus	4	4	4		2	
Patrice Merrin	4		4	4	2	
Gary Nagle	4					
David Wormsley[2]	4	4			2	1

1. Ms Hewitt attended all relevant meetings from her appointment on 18 July 2022.
2. Mr Wormsley attended the one meeting of the Remuneration Committee meeting that took place from the date of his appointment as member.

There were other unscheduled or limited agenda meetings during the year: eight Board, two Audit Committee, two Nomination Committee and one Remuneration Committee.

There were also various meetings of the Investigations Committee and additional calls to review the matters described on page 226. Most Directors also attended, by invitation, the meetings of the Committees of which they are not members.

Corporate governance report *continued*

Board governance and structure

This Governance report, along with the Strategic Report and the Directors' report, sets out how Glencore has complied with the principles and provisions of the 2018 UK Corporate Governance Code (the Code) in a manner which enables shareholders to evaluate how these principles have been applied. The Board believes that the Company has throughout the year complied with all relevant provisions contained in the Code.

During 2022, the Board comprised either seven or eight Non-Executive Directors (including the Chairman) and one Executive Director. A list of the current Directors, with their brief biographical details and other significant commitments, is provided in the previous pages.

The CFO attends all meetings of the Board and Audit Committee and usually the meetings of the HSEC and ECC Committees.

The Company Secretary attends all meetings of the Board and its Committees.

Appointment of Non-Executive Directors

All the Non-Executive Directors have letters of appointment and the details of their terms are set out in the Directors' Remuneration Report. No other contract with the Company or any subsidiary undertaking of the Company in which any Director was materially interested existed during or at the end of the financial year.

Director induction and information

New Directors receive a full, formal and tailored induction on joining the Board, including meetings with management and a comprehensive introduction to the Company's Purpose, Values and Code of Conduct, the main aspects of the Group, its business and functions, and the roles and responsibilities of a UK premium listed company director.

The Directors receive training on legal and compliance topics, climate matters and regular updates on relevant business and governance matters. Ms Hewitt completed her induction during the year.

Board meetings

The Board has approved a schedule that sets out the matters reserved for its approval, including Group strategy, financial statements and annual budget, and material acquisitions and disposals. Meetings are usually held at the Company's headquarters in Baar, Switzerland. The Board and its Committees have standing agenda items to cover their proposed business at their scheduled meetings. The Chairman seeks to ensure that the very significant work of the Committees feeds into, and benefits through feedback from, the full Board. The Board and Committee meetings seek to cover all aspects of the Group and, for this purpose, receive input and support from senior management through reports and presentations, which among others cover operational, financial, audit, risk, legal, sustainability, climate, safety, compliance, governance and investor relations. These reports and presentations allow Directors to further their understanding of the business and provide the insights necessary for defining the Company's strategy and objectives, in turn contributing to a more effective Board.

Board Committees

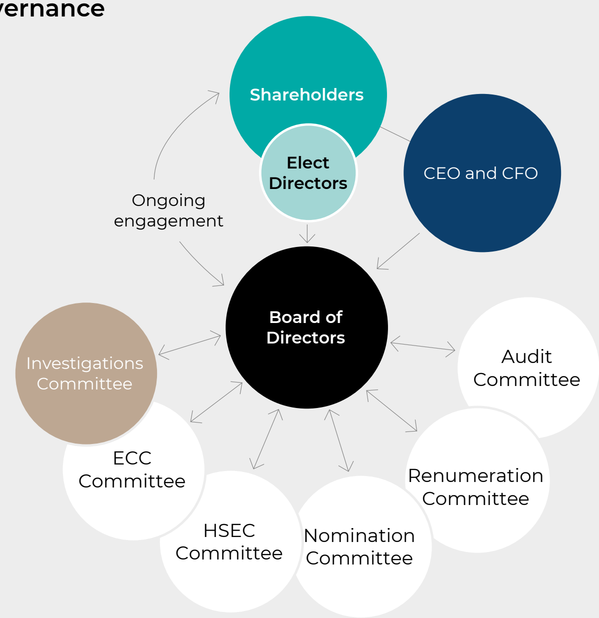
The following permanent Committees are in place to assist the Board in exercising its functions: Audit, Nomination, Remuneration, HSEC and ECC. The Board is provided with technical and commercial updates as appropriate during the year, including as to our Raising Concerns programme and material investigations. The Board may also establish temporary committees for specific purposes, such as the Investigations Committee (see below). As each Committee reports to the Board, meetings are held prior to Board meetings, during which the chair of each Committee leads a discussion concerning the Committee's activities since the previous Board meeting unless all Directors attended the meeting.

A report from each chair of the permanent Committees is set out later in this report.

All permanent Committees' terms of reference are available at: **glencore.com/who-we-are/governance**

Each Committee reports to, and has its terms of reference approved by, the Board and the minutes of the Committee meetings are circulated to the Board. Each Committee regularly reviews its terms of reference to ensure they reflect the Board's expectations as to the Committee's role as well as the latest corporate governance requirements and recommended practices.

Corporate governance



Board and Committees' main activities

Below are details of the main topics which were reviewed, discussed, and when required, approved during 2022:

Regular updates

- Reports from Committee Chairs
- Reports from CEO, CFO, Company Secretary, General Counsel and senior management, including on climate strategy
- Group Strategy, including M&A and capital expenditure

Financial & Risk

- Evaluation of the internal control environment
- Finance reports, forecasts and capital position updates
- 2023 budget and 2024–26 business plan, life of asset planning and costs analysis
- Capital management, debt and returns analysis
- Financial statements
- Group principal and emerging risks
- Group risk management framework, including new ERM policies
- Tax policies and provisions

Governmental investigations

- Regular scheduled and ad-hoc meetings of the Investigations Committee to review progress and receive updates on interactions with relevant authorities
- Decisions concerning ongoing investigations and accounting disclosures

Governance & Stakeholders

- Reporting suite, including Annual Report
- AGM, voting results and outcomes
- Investor relations reports
- Analysts' updates
- Corporate governance framework
- Stakeholder engagement
- Board and Directors' evaluation
- Chairman's performance
- Legal, Regulatory & Compliance
- Group policies

Legal matters updates

- Regulatory, Legal & Compliance updates
- Group Ethics and Compliance programme
- Raising Concerns reports and analysis
- Analysis of legal risks concerning climate change
- Board training
- Material permitting and licences

Health, Safety, Environment & Communities

- Fatalities, major incidents and other safety issues
- Tailings storage facilities reviews
- Environmental incidents reports
- HSEC&HR policy framework
- Social and human rights performance
- Responsible sourcing
- Cultural heritage

Succession & Remuneration

- Succession planning for Board and senior management
- Tender and appointment for Remuneration Committee adviser
- Senior management remuneration

Climate-related matters

During 2022, the Board undertook the following climate-related activities:

- Oversaw the Group's climate strategy and Glencore's response to climate-related risks and opportunities that affect our business
- Monitored progress against Glencore's climate strategy, including our Scope 1, 2 and 3 emissions performance, and the ongoing development of our Group marginal abatement cost curve
- Approved our annual climate planning and delivery progress and our four-year climate action plan framework that identifies opportunities to decarbonise our operational footprint
- Considered climate-related issues, with information provided by management, when it reviewed strategic decisions relating to major capital expenditures
- Provided our shareholders at our 2022 AGM with their second advisory vote on the progress against our rolling three-year climate action transition plan
- Received feedback from the shareholder consultation following the results of the vote, and discussed and approved the steps taken to respond to the feedback
- Reviewed climate-related disclosures in the 2021 Annual Reporting and other external engagement
- Participated in annual internal training on climate change, including on duties as directors, legal risks, external expectations and evolving climate issues. The training also emphasised the importance of effective integration of climate change into the Group's risk management processes and related Board oversight
- Received details on emerging trends relating to climate-related litigation and 'greenwashing' allegations

Other activities

Information, management meetings, site visits and professional development

It is considered essential that the Non-Executive Directors attain a good knowledge of the Company and its business and allocate sufficient time to Glencore to discharge their responsibilities effectively. The Board calendar is planned to ensure that Directors are briefed on a wide range of topics.

During 2022, site visits were made to various Group assets including Cerrejón, Murrin Murrin, Canadian Copper Refinery (CCR), Horne Smelter and Britannia Refined Metals. All Directors have access to the advice and services of the Company Secretary, who is responsible to the Board for ensuring that Board procedures are complied with, and have access to independent and professional advice at the Company's expense, where they judge this to be necessary to discharge their responsibilities as Directors.

Corporate governance report *continued*

Board performance and effectiveness

The Board is subject to an independent external performance review every three years. Performance reviews for 2019, 2020 and 2021 were conducted internally. As noted in last year's Annual Report, as several changes took place on the Board during 2021, the external Board review was deferred by one year.

In 2022, an evaluation was conducted by Spencer Stuart. Directors completed a questionnaire, and a structured interview was held with each Director which covered Board and Committee effectiveness and individual Director effectiveness. With the feedback from the process, the Chairman conducted the individual Director reviews, and the SID conducted the Chairman's review. The 2022 review concluded that the Board and Committees are operating effectively.

Final results were presented to the Board collectively for discussion and all of the recommendations were accepted.

These recommendations concerned or proposed improvements to:

- Executive succession planning
- Greater Board exposure to the bench strength in the business
- Board succession planning
- Committee Chair / SID engagement with investors
- Format of strategy forums
- Board and Committee papers
- Site visits
- Communication in between Board meetings
- Investment / M&A post-transaction reviews
- Crisis simulation and business continuity
- Ongoing feedback to Directors

Investigations

Following oversight of the US, UK and Brazilian resolutions, the work of the Investigations Committee has continued concerning the ongoing investigations by the Swiss and Dutch authorities. See note 32 to the financial statements.

Management of conflicts of interest

All Directors endeavour to avoid any situation of conflict of interest with the Company. Potential conflicts can arise and therefore processes and procedures are in place requiring Directors to identify and declare any actual or potential conflict of interest. Any notifications are required to be made by the Directors prior to, or at, a Board meeting and all Directors have a duty to update the whole Board of any changes in circumstances. Glencore's Articles of Association and Jersey law allow for the Board to authorise potential conflicts and the potentially conflicted Director must abstain from any vote accordingly. During the year, Ms Merrin vacated herself from any proceedings concerning the proposed disposal of Cobar to Metals Acquisition Corp., of which she is a director.

Related party transactions

In the course of its business, the Group enters into transactions with organisations which may constitute related parties.

All material related party transactions are required to be reviewed and approved by the Board. If a conflict exists for a Director, they will not be allowed to vote on the resolution approving the transaction. See above concerning Ms Merrin. The Company also seeks advice whenever an assessment is to be made as to whether any material transaction may be a related party transaction under the terms of FCA Listing Rule 11.

Transactions between the Group and its significant joint ventures and associates are summarised in note 33 to the financial statements.

Acquisition and disposal of assets

The Board reviews and approves all material proposed transactions, including acquisitions and disposals of assets. Additionally, there is an assessment as to whether material transactions comply with FCA Listing Rule 10 requirements.

If required, the Board may engage an independent third-party adviser to review the proposed transaction and provide an independent opinion for the Board to assist in its decision making in addition to the requirements to have advice from a sponsor under the FCA Listing Rules.

Oversight of management of climate-related risks and opportunities

Climate change is a Board-level standing agenda item. During 2022, our internal climate change governance framework continued to drive implementation of our climate strategy and its supporting work programmes.

The Board is responsible for overseeing the Group's climate strategy and progress against Glencore's emission targets and ambition, which is led by the management team. Management, led by our CEO in his capacity as chair of our Climate Change Taskforce (CCT), reports to the Board on implementation of the strategy. See further on page 109.

In recognition of the desire of some shareholders to have the opportunity directly to advise the Company of their opinion on its climate-related plans and their implementation, the Board resolved in 2021 to follow the same shareholder engagement model which it uses for remuneration by which a plan is developed at least every three years and a report is published annually on the implementation of that plan, each of which is put to shareholders for an advisory vote. Following a vote against the climate implementation resolution at the Company's 2022 AGM in excess of 23%, in accordance with paragraph 4 of the Code, the Company consulted with shareholders and announced the outcome of that consultation on 28 October 2022. There was broad support for the Company's climate strategy with a limited number of shareholders holding other views and there were also a number of constructive recommendations to enhance the Company's climate-related disclosures.

Accountability and audit

Financial reporting

The Group has in place a comprehensive financial review cycle, which includes a detailed annual planning / budgeting process where our commodity departments prepare budgets for overall consolidation and approval by the Board. The Group uses many performance indicators to measure both operational and financial activity in the business. Depending on the measure, these are reported and reviewed on a daily, weekly or monthly basis. In addition, management in the business receives weekly and monthly reports of indicators which are the basis of regular operational meetings, where corrective action is taken if necessary. At a Group level, a well-developed management accounts pack, including income statement, balance sheet, cash flow statement as well as key ratios, is prepared and reviewed monthly by management. As part of the monthly reporting process, a reforecast of the current year projections is performed. To ensure consistency of reporting, the Group has a global consolidation system as well as a common accounting policies and procedures manual. Management monitors the publication of new reporting standards and works closely with our external auditor in evaluating any impact.

Risk management and internal control

The Board has complied with provisions 28 to 31 of the Code by establishing an ongoing process for identifying, evaluating and managing the risks that are considered significant by the Group in accordance with the Guidance on Risk Management, Internal Controls and Related Financial and Business Reporting published by the Financial Reporting Council, as detailed on pages 89-103. The Directors confirm that they have carried out a robust assessment of the principal and emerging risks facing the Group and have reviewed the effectiveness of the risk management and internal control systems, and concluded that there are no significant failings or weaknesses in internal controls other than certain internal control deficiencies noted by the external auditor, see section 7.4 of the independent auditor's report.

Interactions with shareholders

The Board aims to present a balanced and clear view of the Group in communications with shareholders and believes that being transparent in describing how we see the market and the prospects for the business is extremely important.

We communicate with shareholders in a number of different ways. The formal reporting of our full- and half-year results and quarterly production reports is achieved through a combination of releases, presentations, group calls and individual meetings. The full- and half-year reporting is followed by investor meetings across a variety of locations where we meet institutional shareholders. We also regularly meet with existing and prospective shareholders. Absent Covid-19 related travel restrictions, we regularly facilitate visits to parts of the business to give analysts and major shareholders a better understanding of how we manage our operations. These visits and meetings are principally undertaken by a combination of the CEO, CFO, Head of Industrial Assets and Head of Investor Relations.

In addition, many major shareholders have meetings with the Chairman and appropriate other senior participants, including other Non-Executive Directors, the Company Secretary and senior members of the Sustainable Development team. The matters covered by meetings with the Chairman and Company Secretary include the work of the Board's Committees.

For individual shareholders, the AGM is usually the only time when direct interaction with the Board and management is possible. The Chairman, along with the Chair of each Committee, are available for questions at the AGM or at other meetings, as requested.

AGM

The Company's next AGM is due to be held on 26 May 2023. Full details of the meeting will be set out in the AGM notice of meeting. All documents relating to the AGM will be available on the Company's website at: **glencore.com/agm**

Audit Committee report

Gill Marcus
Chair

Other members
Martin Gilbert
David Wormsley
Liz Hewitt

The Committee met six times during the year. In August 2022, Liz Hewitt was appointed as a member of the Committee. Each Committee member attended all of the meetings during their period of appointment. All current Committee members are considered by the Board to be Independent Non-Executive Directors and to be financially literate by virtue of their relevant financial experience. As a whole, the Committee has the skills and experience relevant to the sector. From 1 April 2023, Liz Hewitt will take over as Chair of the Committee, of which Gill Marcus will remain a member.

John Burton is the Secretary to the Committee.

The Committee usually invites the CEO, CFO, General Counsel, Group Financial Controller, Chief Risk Officer, Head of Group Assurance and the lead partner from the external auditor to attend each meeting. Other members of management and the external audit team may attend as and when required. Other Directors also usually attend its meetings.

Additionally, the Committee holds closed sessions with the external auditors and the Head of Group Assurance without members of management being present. The Committee has adopted guidelines allowing certain non-audit services to be contracted with the external auditor.

Role and responsibilities

The primary function of the Committee is to assist the Board in fulfilling its responsibilities with regard to financial risk management and internal controls, financial reporting, and oversight of external and internal audit.

During the year, the Committee's principal work included the following:

- reviewing the Group's internal financial controls and financial risk management systems;
- reviewing the Group's financial and accounting policies and practices including discussing material issues with management and the external auditor, especially matters that influence or could affect the presentation of accounts and key figures;
- considering the output from the Group-wide processes used to identify, evaluate and mitigate financial risks, including credit and performance risks, across the Industrial and Marketing activities;
- reviewing the global audit plan, scope and fees of the audit work to be undertaken by the external auditor;
- reviewing the annual Group Assurance plan;
- monitoring the progress made in remediating the internal control deficiencies noted by the external auditor (IT access controls and certain review controls over journal entries and complex valuation models). The Committee regularly discusses these matters, the actions to remediate them and the progress being made with management and the external auditor; refer to point 3 below, Internal Controls Review – UKCR readiness programme;
- reviewing and agreeing the preparation and scope of the year-end reporting process;
- considering applicable regulatory changes to reporting obligations;
- considering the scope and methodologies to determine the Company's going concern and longer-term viability statements;
- reviewing the full-year and half-year financial statements with management and the external auditor;
- evaluating the Group's procedures for ensuring that the Annual Report and Accounts, taken as a whole, are fair, balanced and understandable;
- monitoring the independence of the external auditor and the operation of the Company's policy for the provision of non-audit services by the external auditor; and
- recommending to the Board a resolution to be put to the shareholders for their approval on the appointment of the external auditor and to authorise the Board to fix the remuneration and terms of engagement of the external auditor.

Risk management and internal controls review process

The Committee receives reports and presentations at each meeting on management of marketing and other risks (excluding operational and sustainability risks which are reviewed by the HSEC Committee and compliance risks which are reviewed by the ECC Committee) and at least once a year the Board considers an in-depth study of the perceived principal and emerging risks and uncertainties and the Group's risk management framework as a whole.

The Board's internal controls review processes are outlined under the Risk management section from page 89.

Significant issues

The Committee assesses whether suitable accounting policies, including the implementation of new accounting standards, have been adopted and whether management has made appropriate estimates and judgements. It also reviews the external auditor's reports outlining audit work performed and conclusions reached in respect of key judgements, as well as identifying any issues in respect of these reports.

Audit Committee report *continued*

During the year, the Committee has focused in particular on these key matters:

1. Audit plan review

The Committee reviewed key developments and audit risks central to planning for the half-year review and annual audit. These included asset valuations, DRC matters, internal controls approach and observations, agreed acquisition of the remaining 2/3 interest in Cerrejón, and ongoing government investigations.

The Committee considered and agreed the materiality applied by the external auditor and the reporting threshold to the Committee for unadjusted misstatements.

2. Significant accounting matters

The Committee considered a number of current or prospective significant accounting matters including disposals of various assets during the period, the appropriate valuation of investments in EN+ and Rosneft, various asset impairments as well as a number of key judgements and estimates. These included the valuation of LNG exposures in the extremely volatile 2022 price environment, and uncertain tax positions (see 5., below).

3. Internal Controls Review – UK Corporate Reform (UKCR) readiness programme

In response to the Corporate Reform changes being considered in the UK regarding, amongst other proposals, a potential Sarbanes-Oxley type internal controls attestation regime, the Committee is overseeing an intensive management review, supported by Ernst & Young, of the Group's internal controls and related financial assurance structures to ensure readiness for such new regulations. Initially this focused on compliance related financial controls and it has now broadened to internal controls related to financial reporting.

4. Impairments

The Committee considered whether the carrying value of goodwill, industrial assets, physical trade positions and material loans and advances may be impaired as a result of commodity price volatility and some asset-specific factors including the impact of climate change. The Committee reviewed management's reports, outlining the basis for the key assumptions used in calculating the recoverable value for the Group's assets. Future performance assumptions used are derived from the Board-approved business plan. As part of the process for approval of this plan, the Committee considered the feasibility of strategic plans underpinning future performance expectations, and whether they remain achievable. Considerable focus was applied to management's commodity price and exchange rate assumptions and their sensitivities within the models. In relation to coal, there continues to be particular focus around price outlook and climate change-related risks.

The Committee was satisfied with the positions adopted by management.

5. Taxation

Due to its global reach, including operating in many higher-risk jurisdictions, the Group is subject to enhanced complexity and uncertainty in accounting for income taxes, particularly the evaluation of tax exposures and recoverability of deferred tax assets. The Committee has engaged with management to understand the potential tax exposures globally and the key estimates taken in determining the positions recorded, including the status of communications with local tax authorities and the carrying values of deferred tax assets. The African copper assets and tax risk exposures in the UK have been particular areas of focus.

The Committee was satisfied with the positions adopted by management.

6. Counterparty exposures

The Group's global operations expose it to credit and performance risk, which result in the requirement to make estimates around recoverability of receivables, loans, trade advances and contractual non-performance. As part of an ongoing review, the Committee considered material continuing exposures, the robustness of processes followed to evaluate recoverability and whether the amounts recorded in the financial statements are reasonable. The Mopani receivable and certain other exposures have been particular areas of focus.

The Committee was satisfied with the positions adopted by management.

7. Other material issues

At various times during the year, and in light of the unprecedented levels of volatility seen in some commodity markets, the Committee considered the application of the Group's Value at Risk (VaR) limits. A full discussion of the limits applied (or waived) in the year is set out in the Risk management section on page 91.

The Committee considered, and was satisfied with, the going concern and longer-term viability conclusions reached as set out on page 93.

Internal and external audit

The Committee monitored the Internal Audit component of the Group Assurance function as described under 'Group Assurance' on page 91.

The Committee focused on the critical role of Internal Audit, welcomed the appointment of a new Head of Group Assurance and the enhancement to the function, including the increase in staff capacity. The coordinated assurance work with the HSEC team and the potential for synergies between the functions are already very valuable.

The Committee assesses the quality and effectiveness of the external audit process on an annual basis in conjunction with the senior management team. Key areas of focus include consideration of the quality and robustness of the audit, identification of and response to areas of risk and the experience and expertise of the audit team, including the lead audit partner.

The Group complies 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, which includes the requirement to re-tender the external audit periodically.

For 2022, fees paid to the external auditor were approximately $29 million. These included audit-related assurance services of $2 million and non-audit fees of $1 million as permitted by the FRC's Revised Ethical Standard; further details are contained in note 30 to the financial statements.

Gill Marcus
Chair of the Audit Committee

Ethics, Compliance and Culture (ECC) Committee report

Patrice Merrin
Chair

Other members
Gill Marcus
Peter Coates

The Committee met four times during the year. Ms Merrin is Chair of the Committee and other members are Ms Marcus and Mr Coates. Committee members served throughout the year and attended all of the meetings and all other Directors are invited to attend the meetings. Nicola Leigh is the Secretary of this Committee.

Responsibilities

The main responsibilities of the Committee are:

- overseeing the implementation of the Group Ethics and Compliance Programme including Group policies, standards, procedures, guidelines, systems and controls for the prevention of unethical business practices and misconduct;
- reviewing reports and the activities of relevant management committees: ESG and Business Approval Committees;
- assessing and monitoring culture to ensure alignment with the Company's Purpose and Values and ensuring appropriate levels of workforce engagement by the designated Directors; and
- monitoring the Group's stakeholder engagement.

Main activities

During the year, the Committee's activities included the following:

Ethics and Compliance

- Provided oversight of the key elements of the Ethics and Compliance programme, including risk assessments, policy implementation, training and awareness, internal monitoring, and reviews conducted by third-party specialists.
- Reviewed the implementation and effectiveness of the Ethics and Compliance programme.
- Reviewed the compliance structure and resourcing to assess whether it is sufficient for the Group. A particular focus for the year has been reviewing the resources supporting the business on Russian sanctions and the increased workload.
- Considered a variety of other material ethics and compliance issues with a deep dive on ethics and compliance in the DRC.
- Considered developments in relation to the independent compliance monitors to be appointed pursuant to the resolutions with the Department of Justice and the Group's preparation in this regard.

Stakeholder engagement

- Reviewed our ESG engagement, including with NGOs and multi-stakeholder organisations that invest or engage on ESG issues, and track the development of reporting on ESG-related topics.
- Considered the significant matters on which the Group has made political representations and our use of lobbyists and the conduct and positions of our member organisations during 2022 on material issues in accordance with our Political Engagement Policy.
- Considered regulatory developments in relation to responsible sourcing and the Group's proposed planned actions.

Workplace culture and practices

- Considered management of health-related concerns, policies and communications for employees with a focus on mental health and wellbeing and providing accurate health advice and support.
- Considered Group HR policies, standards, legislative compliance around the globe and greater use of technology.
- Considered various public reports into workplace culture and sexual harassment, particularly within the mining industry, and with a particular focus on the recommendations contained within those reports. Ensured the Company has or is developing the appropriate measures to address concerns.
- Considered regulatory developments in relation to diversity and inclusion and the Group's proposed governance and action planning to meet regulatory guidance.
- Reporting on the employee survey: Employee attitudes toward the Group's culture, covering its Values, equality of opportunity, career and development, commitment to ethical behaviour, and scores covering the Ethics and Compliance programme were considered in particular. During 2022, behavioural reviews were more formally introduced for Glencore's most senior managers. The outcomes of this assessment are linked to annual bonus determinations, to align the behaviours we value and expect, beyond the delivery of financial results.
- The Committee reviewed initial action planning at the November meeting and further details of this can be found on pages 52 and 56 in Our people section.

Workforce engagement

- As part of the Committee's role in assessing and monitoring Group culture, individual Non-Executive Directors held a series of forums, mostly in-person, with a cross section of employees in different parts of the business, representing different commodities and different levels of responsibility. Discussions were focused on topics such as diversity and inclusion, health and safety, climate change, ethics and compliance and Glencore's strategy, Purpose and Values. The feedback from employees was shared with the Committee and notes provided to the Board – see site visit on page 62 and
- The Board considers having designated workforce engagement Directors as the most constructive method of workforce engagement and has chosen for all members of this Committee to be such workforce engagement Directors. Each Director uses the forum of this Committee to provide feedback to the Board on the concerns of the workforce and ensure that employees' voices are heard in the boardroom.

Patrice Merrin
Chair of the ECC Committee

Health, Safety, Environment & Communities (HSEC) Committee report

Peter Coates
Chair

Other members
Patrice Merrin
Cynthia Carroll
Kalidas Madhavpeddi

The Committee met four times during the year. Each Committee member attended all meetings during their period of appointment. Every scheduled meeting had a substantial agenda, reflecting the Committee's objective of monitoring the achievement by management of ongoing improvements in HSEC performance.

John Burton is the Secretary of this Committee.

Responsibilities

The main responsibilities of the Committee are:

- ensuring that appropriate Group policies and standards are developed in line with our Values and Code of Conduct for the identification and management of current and emerging health, safety, environmental, social performance and human rights risks;
- ensuring that the policies and standards are effectively communicated throughout the Group and that appropriate processes and procedures are developed at an operational level to implement these policies and assess their effectiveness through:
  - assessment of operational performance;
  - review of updated internal and external reports; and
  - independent audits and reviews of performance with regard to HSEC&HR matters, and action plans developed by management in response to issues raised;
- evaluating and overseeing the quality and integrity of any reporting to external stakeholders concerning HSEC&HR matters;
- reviewing the outcome of investigations following fatalities and the recommended actions to improve safety and prevent recurrence; and
- reporting to the Board.

Main activities

During the year, the Committee engaged in the following activities:

- HSEC&HR Strategy: reviewing the Group's annual HSEC & Human Rights strategy and its implementation.
- Reviewing results of independent ESG materiality assessment which involved interviews of both internal and external stakeholders.
- Governance: continuing to monitor the global response to Covid and monitoring business continuity, specifically associated with high absenteeism at some industrial assets earlier in the year due to isolation requirements and supply chain impacts.
- Policy and standards: approval of the Responsible Sourcing Policy, Supplier Code of Conduct and Responsible Sourcing Standard. Monitoring the implementation of the Group HSEC&HR standards specifically those that were developed and/or updated and rolled out in September 2021. Overview of Cerrejón integration against the Glencore Group HSEC&HR standards.
- Health and Safety: overseeing the Group's fatality prevention programme including SafeWork, which is Glencore's approach to eliminating fatalities. In 2021, a revised SafeWork was launched through a change project called 'SafeWork 2.0'. The Committee was updated on the progress of SafeWork 2.0 implementation. Review of each fatality occurring with emphasis on reviewing the investigation outcomes and recommendations. There was also a focus on lessons to be learned across the Group; oversight of a revamping of leadership of fatality investigations including a training programme; and reviews of critical incidents and trends in TRIFR, LTIFR, HPRIs and other relevant statistics.
- Environment: reviewing the Group's progress and performance concerning emissions, energy, water and stewardship and other impacts.
- Social performance and human rights: reviewing material issues including cultural heritage issues, investigations and complaints, monitoring the Group's strategy and reviewing serious incidents.
- Assurance: reviewing the work of HSEC Audit component of the Group Assurance function, including overview of key HSEC catastrophic audits such as tailings storage facilities, multi-disciplinary open cut and underground audits. There was also a focus in 2022 on road transportation safety, mine closure planning and underground transformer fire risk.
- Enterprise Risk Management (ERM): overseeing the implementation of a revised ERM standard for the Industrial business.
- Tailings storage facilities: overseeing the work on the new Tailings Management Policy Framework and updated Tailings Storage Facility Standard which is now aligned to the Global Industry Standard for Tailings Management and the internal work on the Group's facilities, particularly those designated as high risk.
- External affairs: monitoring the Group's external HSEC reporting, continuing engagement on material issues and stakeholder and investor engagement. Reviewed the commitment of US $7.5 million to a number of humanitarian organisations to support on-the-ground humanitarian relief in Ukraine and surrounding regions.
- Other matters: considering a variety of other material HSEC issues.

Peter Coates
Chair of the HSEC Committee

Nomination Committee report

Kalidas Madhavpeddi
Chair

Other members
All other Non-Executive Directors

The Committee met four times during the year.

John Burton is the Secretary of this Committee.

Role and responsibilities

The main responsibilities of the Nomination Committee are to assist the Board with succession planning and with the selection process for the appointment of new Directors, both Executive and Non-Executive, including the Chair, and overseeing succession plans for senior management.

This involves:

- evaluating the balance of skills, knowledge and experience of the Board and identifying the capabilities required for a particular appointment;
- overseeing the search process;
- evaluating the need for Board rejuvenation and succession planning generally;
- overseeing planning for CEO and CFO succession;
- monitoring the CEO's planning for senior management succession to seek to ensure that the Company has a suitable pipeline of candidates; and
- considering diversity in appointments.

Main activities

The Committee focused on three main tasks during this year:

- Firstly, it considered the current composition of the Group's senior leaders across the business departments and corporate functions, and the succession plans for each of them.
- Secondly, prior to the notice of 2022 AGM being compiled, the Committee considered the performance of each Director. It concluded that each Director is effective in their role and continues to demonstrate the commitment required to remain on the Board. Accordingly, it recommended to the Board that re-election resolutions be put for each continuing Director at the AGM.
- Finally, the Committee oversaw overall Board refreshment which led to the appointment of Liz Hewitt, reflecting the desire for additional financial and strong non-executive director experience.

Succession planning and the review of succession-related development actions is considered regularly by leadership and the Human Resources community. Specific focus is placed on measuring and increasing the diversity of the senior management group and the candidate pipeline. Our over-riding target for diversity in senior leadership remains those targets suggested by the FTSE Women Leaders Review.

The Committee acknowledged the recommendations of the FTSE Women Leaders Review (formerly Hampton-Alexander Review) on gender and the Parker Review on ethnic diversity. It is part of the Committee's policy when making new Board appointments to consider the importance of diversity on the Board, including gender and ethnicity, which is considered in conjunction with experience and qualifications.

The Board acknowledges the FTSE Women Leaders Review's recognition of Glencore in its 2023 report as one of the biggest improvers in the year for FTSE 100 companies.

While the diversity targets set by these bodies are met, the Committee acknowledges that more work needs to be done to address diversity at senior management level.

Kalidas Madhavpeddi
Chair of the Nomination Committee

Directors' Remuneration Report

For the year ended 31 December 2022

Cynthia Carroll
Chair

Other members
Kalidas Madhavpeddi
Martin Gilbert
David Wormsley

On behalf of the Board, I am pleased to present Glencore's Remuneration Report for the financial year ended 31 December 2022, my second as Chair of Glencore's Remuneration Committee.

This report is presented to reflect the reporting requirements on remuneration matters for companies with a UK governance profile, particularly the UK's Large and Medium-sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013, unless stated otherwise. The report also describes how the Board has complied with the provisions set out in the UK Corporate Governance Code relating to remuneration matters. Our auditors have reported on certain parts of the Remuneration Committee report and stated whether, in their opinion, those parts of the report have been properly prepared. Those sections of the report which have been subject to audit are clearly indicated.

Our report is divided into three sections:

1. This letter from me as Chair of the Remuneration Committee.
2. Glencore's Remuneration at a glance.
3. Our Annual Report on Remuneration detailing the outcomes from 2022 and how we will implement our Remuneration Policy in 2023.

Introduction

2022 was Gary Nagle's first full year as CEO. In this context, the Committee continued to focus on the implementation of the Remuneration Policy for the CEO, including reviewing shareholders' feedback from the AGM and refining the frameworks, processes and structures for the measurement and assessment of performance for incentive compensation. The Committee welcomed fresh perspectives with the appointment of Mr David Wormsley who draws from his extensive boardroom leadership, management, financial and international business experience to provide relevant remuneration and governance-related insights. Together, we have been guided in our decision making by the principle of responsible pay and believe that our Remuneration Policy continues to achieve its intended objectives to support Glencore's growth now and into the future. A number of important considerations have informed our decisions this year, including:

- financial and non-financial performance;
- the views and expectations of our stakeholders;
- the Company's sustainability commitments;
- our continued focus on capital projects;
- our delivery against the Group strategy to meet the global demands of today and advance tomorrow;
- the ongoing legacy of the Covid-19 pandemic, inflationary pressures and geopolitical conflict in Ukraine; and
- the broader economic environment impacting Glencore's operations.

Performance and incentive outcomes in 2022

The social, economic and political legacy of the Covid-19 pandemic and military conflict in Europe are without precedent in recent history and have resulted in a very complex geopolitical landscape for Glencore to manage. Despite these complexities, Glencore delivered another year of exceptionally strong financial performance as a result of Mr. Nagle's leadership paired with a clear strategy. Glencore's strategy of supplying the energy needs of today while investing in the commodities needed for the future has been developed over many years of planning by the current and former management teams including Mr Nagle who led Glencore's global coal operations prior to his appointment as CEO in July 2021. Specifically, Glencore delivered a record level of EBITDA and underlying profitability for the year, as well as significant cash generation that exceeded the Company's three-year average and allowed the Company to reduce net debt and increase shareholder distributions, significantly ahead of the distributions policy. 2022 was a record year of financial success and momentum driven by a clear and future-oriented strategy that is coming to fruition.

There was a continued focus on health and safety and deliberate steps were taken by each of Glencore's managed operations to drive compliance with our safety standards. A clear framework and roadmap, which involves responsibly depleting our coal portfolio over time, was established to set Glencore on a path to achieve ambitious climate commitments and ambitions by 2026, 2035 and 2050. We have made further progress towards responsible depletion and this reflects our belief that we remain the best stewards for these assets and that coal will be required to support global energy needs in the short term. In addition, a significant focus was placed on reinforcing a strong culture of ethics and compliance throughout Glencore, setting a clear expectation of not simply performing the minimum required by laws and regulations. Alongside the resolution of the previously disclosed investigations by authorities in the US, UK and Brazil that predate Mr Nagle's leadership, Glencore has taken future-oriented steps towards building and implementing a world-class Ethics and Compliance programme to embed the Company's core values of integrity and openness which are foundational to a responsible and ethical company. These values are entirely congruent with the Board's Values, Mr Nagle's leadership vision, and his commitment to delivering long-term value for Glencore's stakeholders – responsibly and sustainably.

In line with the annual bonus scorecard which provides consideration for financial, safety, climate and individual performance initiatives, the Remuneration Committee reviewed Glencore's financial and non-financial performance versus targets that were established at the beginning of the year (see page 127). The Remuneration

Committee also assessed the CEO's individual performance and contributions to determine the appropriate level of bonus payout for 2022. A summary of the Remuneration Committee's performance assessment is below.

- Delivered a record level of financial success in 2022 whilst successfully navigating the operational risks and challenges posed by the Ukraine / Russia conflict.
- Our framework of managing our net debt around a $10 billion cap, with deleveraging after base distribution return to shareholders, allowed us to announce c.$8.5 billion of returns, up from $2.8 billion in 2021.
- Drove continuous improvement in Glencore's fatality prevention and elimination programme through the implementation of SafeWork 2.0 – 75% of all assets worldwide are on track to achieve 80% compliance versus the demanding standards by the end of 2023.
- Marked improvements in safety performance reflecting the positive impact of our SafeWork 2.0 initiatives: in addition to a year-over-year decrease of c.7% in the total recordable injury frequency rate (TRIFR), all other safety KPIs are trending positively versus a three-year rolling average which is a meaningful indicator of success for a business of this scale.
- Extensive consultation during the year on our climate ambition and decarbonisation plans, with a strong majority of shareholders reiterating their support for Glencore's current responsibly managed coal decline strategy and associated targets.
- Improving our emissions disclosure and further operationalising our emission reduction commitments and ambition through the rollout of a four-year Climate Action Plan including allocating the budget for the key actions required to meet these goals, reinforcing Glencore's climate change leadership and further embedding the climate strategy across global operations.
- The development of a workforce diversity strategy with diversity and inclusion action plans created for each department, the appointment of a Group Head of Inclusion, Equity & Diversity, and overseeing improvement of the representation of women in senior management ranks.
- Enhancing the existing approach to behavioural reviews, by introducing a standardised formal annual behavioural review, which includes a self-assessment component, for the most senior leaders worldwide (c. 500 managers) to reinforce a feedback culture that enhances our high-performance standards, with a clear and consistent focus on our values and the leadership behaviours we value as an organisation.
- The rollout of a revised Code of Conduct that set out the business principles and values critical to Glencore's success as a responsible and ethical Company and maintenance of a best-in-class Ethics and Compliance programme.

Based on the Remuneration Committee's assessment of 2022 performance delivered against the annual bonus framework, the formulaic outcome was 98.5% of the maximum opportunity.

As ever, the safety and security of both our workforce and communities where we operate is paramount and we remain focused on preventing and eliminating fatalities through the promotion of our safety culture. We have continued to drive marked improvements in our safety performance and good progress is being made across all of Glencore's managed operations to ensure that clear and robust processes are in place to identify hazards that can result in fatal incidents and develop life-saving behaviours and protocols to target these hazards. Every individual has the authority to stop unsafe work. Despite the high standards we have set for ourselves, regrettably we recorded a total of four work-related (occupational) fatalities at Glencore's managed operations during 2022. Any loss of life is unacceptable and this is an important reminder of the importance of driving a culture of safety and, accordingly, continuous improvement in our safety standards across the business. Reflecting on Glencore's safety commitment and accountability for sustainable value creation, beyond superior financial returns regardless of the prevailing economic environment, the Committee applied a 5% reduction to the bonus outcome, in line with the approach taken in 2021, resulting in a bonus outcome of 93.6% of maximum. Further details of how the Committee assessed the 2022 annual bonus scorecard for the CEO are provided in the Annual Report on Remuneration.

The vesting outcome for the RSP will be disclosed for the first time in the 2024 Remuneration Report. Vesting is subject to a holistic assessment of performance underpins (shareholder distributions, overall Company performance, and ESG performance) which ensures that vesting outcomes are entirely consistent with the stakeholder experience over the vesting period. Further details of the Committee's interim assessment of these underpins are provided in the section of this report titled RSP awards vesting in 2022.

Wider workforce considerations

The Committee is advised of pay and conditions around the Group and considers such information when considering executive pay. The Head of Group HR also attends meetings by invitation and is able to share information about the wider workforce. In 2022, several virtual focus groups were also conducted with the aim of promoting employee engagement and facilitating direct communication between employees and Board members. Topics and issues discussed include diversity and inclusion, safety, business and strategy, executive and wider workforce pay including living wage considerations, compliance, our Purpose and Values, and the continued roll-out of the Code of Conduct.

Remuneration in 2023

The Remuneration Committee is monitoring the evolving remuneration landscape including the external environment, governance best practices, market developments, and the overall alignment between pay and performance. Under the leadership of the CEO who was appointed on 1 July, 2021, Glencore has announced returns of c.$8.5 billion to shareholders for 2022, which is a clear reflection of operational excellence, exceptional financial discipline and a compelling leadership vision. With this strong business foundation that continues to deliver long-term shareholder value, meaningful steps have been taken to position the business for the future, with a climate change strategy that firmly positions the Company to benefit from the energy transition by supporting the energy needs of today whilst investing in our transition metals portfolio. In recognition of the CEO's exceptional contributions in shaping this journey, the Committee determined that a 3% salary increase effective 1 January 2023 would be appropriate. This compares to an average workforce salary increase of 5.5% in Switzerland for 2023. No other changes are proposed to Mr Nagle's remuneration package for 2023.

Fixed remuneration	Annual bonus	Long-term incentive
• $1.854m base salary reflecting a 3% salary increase with effect from 1 January 2023, below the average of the Swiss workforce • Benefits/pension in line with the wider workforce in Switzerland	• 125% target, 250% maximum bonus • 50% deferred into shares vesting on the third anniversary, subject to continuing employment • Scorecard comprises: – 55% financial measures; – 30% ESG (safety and climate); and – 15% individual targets.	• 225% RSUs per year • Comprehensive underpin focused on a holistic review of the overall business and ESG performance • Test of underpin and, subject to satisfactory performance based on the assessment of the underpin, cliff vesting on the third anniversary. Requirement to hold all vested restricted stock until the later of five years from the date of grant or two years post-employment

Remuneration for the Chairman and Non-Executive Directors

Fees for the Chair and Non-Executive Directors are reviewed annually and are benchmarked against peer companies. Based on our latest review, no changes to the Chair or Non-Executive Directors' base fees will be made for 2023.

Engaging with shareholders

We remain committed to delivering a transparent remuneration framework, supported by strong governance processes, designed to drive the right behaviours across the whole organisation and deliver long-term success, meeting the needs of our stakeholders. During the second half of 2022, the Chairman consulted certain large shareholders as to the operation of the Remuneration Policy reflecting our approach to open engagement with shareholders. We look forward to continued dialogue with shareholders and to receiving your feedback and support at the upcoming AGM.

Summary and priorities for 2023

In closing, I would like to thank the Committee for its strong engagement during the year and our shareholders for their support. Thanks also to our management team for their decisive leadership and relentless efforts to continue to deliver exceptional value to our stakeholders and driving positive change, and to our employees who worked tirelessly throughout the year.

The Committee's priorities for 2023 will be to prepare for the policy review ahead of submitting the new policy to shareholders at the 2024 AGM. We will focus on ensuring that our approach to executive remuneration, including current implementation, remains fair, responsible and provides a dynamic framework that can accommodate the evolving demands of a changing business environment and the priorities of our shareholders and other stakeholders.

Cynthia Carroll
Chair of the Remuneration Committee

22 March 2023

Remuneration Committee meetings in 2022

The Committee formally met three times during the year and considered, amongst other matters, the remuneration packages applicable to the CEO and senior management, the content and approval of the Remuneration Report and the annual incentive targets and outcomes.

All Committee members were considered independent on their appointment to the Board. Further details concerning independence of the Non-Executive Directors are contained on page 109.

The CEO and CFO are usually invited to attend some or all of the proceedings of Remuneration Committee meetings; however, they do not participate in any decisions concerning their own remuneration. Similarly, the Chairman is not involved in discussions regarding his own fees.

Membership and experience of the Remuneration Committee

The members of the Committee provide a useful balance of skills, experience and perspectives to provide the critical analysis required in carrying out the Committee's function. Each Committee member has had a long career in the management of large organisations and therefore provides considerable experience of remuneration analysis, design and implementation.

Role of the Remuneration Committee

The terms of reference of the Committee set out its role. They are available on the Company's website at: **glencore.com/who-we-are/governance**

Its principal responsibilities are to:

- regularly review the appropriateness and relevance of the Remuneration Policy;
- determine and agree with the Board the framework for the remuneration of the Company's Chairman and the Chief Executive Officer;
- establish the remuneration package for the CEO including the scope of pension benefits;
- determine the remuneration package for the Chairman, in consultation with the CEO;
- determine the policy for senior management remuneration;
- oversee schemes of performance-related remuneration (including share incentive plans), and determine awards for the CEO (as appropriate); and
- ensure that the contractual terms on termination for the CEO are fair and not excessive.

The philosophy of the Remuneration Committee is to set the Company's remuneration policies and practices to promote the long-term success of the Company and support the implementation of the Group's strategy, while aligning the interests of the Executive Director and executives with those of shareholders generally. This policy has consistently underpinned our approach to executive remuneration.

The Committee considers corporate performance on ESG and governance issues when setting remuneration for the Executive Director. Additionally, the Committee seeks to ensure that the incentive structure for the Group's senior management does not raise ESG or governance risks by inadvertently promoting and/or rewarding behaviours that are not aligned with the Group's Values, culture and policies.

Advisers to the Remuneration Committee

The Committee received remuneration advice from Mercer UK Limited ('Mercer'), its independent external adviser. Mercer is a member of the Remuneration Consultants Group (the UK professional body for Remuneration Consultants) and adheres to its code of conduct. The Committee is satisfied that the advice provided by Mercer was objective and independent.

The fees paid for advice in respect of 2022 were $100,466. The Mercer team does not have any connection with the Company or individual Directors.

The Head of Group HR also attends meetings at the invitation of the Committee.

AGM shareholder voting

The votes cast to approve the Directors' Remuneration Report, for the year ended 31 December 2021 at the AGM, held on 28 April 2022, were as follows.

	Votes 'For'	Votes 'Against'	Votes 'Withheld'[1]
Directors' Remuneration Report	93.53%	6.47%	2.22%
	(9,375,360,448)	(648,848,101)	(222,123,365)

(1) A vote withheld is not counted in the calculation of the proportion of votes for and against the resolution.

UK Corporate Governance Code considerations

The Committee has considered the factors set out in provision 40 of the Corporate Governance Code. In our view, the Remuneration Policy which was approved by shareholders at the 2021 AGM addresses those factors as set out below:

Clarity: remuneration arrangements should be transparent and promote effective engagement with shareholders and the workforce.	Our Remuneration Policy and pay arrangements are clearly disclosed each year in the Annual Report. The Remuneration Committee proactively seeks engagement with shareholders on remuneration matters.
Simplicity: remuneration structures should avoid complexity and their rationale and operation should be easy to understand.	Our remuneration structure comprises fixed and variable remuneration, with the performance conditions for variable elements clearly communicated to, and understood by, participants. The RSP provides a simple and transparent mechanism for aligning Executive Director and shareholder interests.
Risk: remuneration arrangements should ensure reputational and other risks from excessive rewards, and behavioural risks that can arise from target-based incentive plans, are identified and mitigated.	The rules of the annual bonus scheme and RSP provide suitable mechanisms for the Committee to reduce award levels and are subject to malus and clawback provisions. The RSP reduces the risk of unintended remuneration outcomes associated with complex performance conditions associated with other forms of long-term incentive. The comprehensive RSP underpins also mitigate the risk of payments for failure.
Predictability: the range of possible values of rewards to individual directors and any other limits or discretions should be identified and explained at the time of approving the policy.	The RSP increases the predictability of reward values (removing the risk of potentially unintended outcomes). Maximum award levels and discretions are set out in the policy tables and the policy includes scenario charts showing the potential outcomes on a range of assumptions.
Proportionality: the link between individual awards, the delivery of strategy and the long-term performance of the Company should be clear. Outcomes should not reward poor performance.	Variable performance-related pay represents a significant proportion of the total remuneration opportunity. The Committee considers the appropriate financial and personal performance measures each year to ensure that there is a clear link to strategy. Discretion is available to the Committee with the ability to reduce awards if necessary, to ensure that formulaic outcomes do not reward poor performance.
Alignment to culture: incentive schemes should drive behaviours consistent with company purpose, values and strategy.	The Committee seeks to ensure that personal performance measures under the annual bonus scheme incentivise behaviours consistent with the Company's Purpose, Values and culture. The RSP will clearly align the Executive Director's interests with those of shareholders by ensuring a focus on delivering against strategy including strategy related to environmental, social and governance factors to generate long-term value for shareholders.

Remuneration at a glance/Policy

Summary of Remuneration Policy

The table below summarises Glencore's Remuneration Policy which was approved by shareholders at the 2021 AGM, how we have applied this policy for the CEO for the year ending 31 December 2022 and how we will apply the policy for 2023. The policy for the Executive Directors currently only applies to Mr Nagle as he is the only Executive Director. Our policy is based on an extensive external benchmarking exercise focused on our peer group comprising Anglo American, BHP, BP, Rio Tinto and Shell. This group was chosen because the mining companies are the best comparators for our Industrial business while, for the oil companies, the combined Industrial and Marketing business model is closely aligned to Glencore's activities.

Pay element	Purpose and link to strategy	Details	2022-23 implementation for Gary Nagle CEO
Base salary	Provides market competitive fixed remuneration that rewards relevant skills, responsibilities and contribution	Reviewed annually and any increases take account of those applied across the wider workforce	2023: $1.854m (3.0% increase), below the average of the Swiss workforce
Pension and benefits	Provides basic retirement and non-monetary benefits which reflect local market practice	The pension opportunity and retirement age (65) are aligned with the requirements set for other employees based in Switzerland	Non-monetary benefits include salary loss, long-term sickness and accident/travel insurance. Retirement benefits are in line with the Swiss legal limit and contribution levels for other local staff
Annual bonus	Supports delivery of short-term operational, financial and strategic goals	On-target/maximum opportunity (% of salary)	125%/250%
		Performance conditions (and weightings)	Funds from operations (30%) Net debt (15%) Industrial capex (10%) Safety (15%) Progress towards 2026 and 2035 CO_2 reduction targets (15%) Individual targets (15%)
		Bonus deferral	50% of annual bonus deferred in shares for three years
Restricted Share Plan	Incentivises the creation of shareholder value over the longer term	Grant (% of salary)	225%
		Vesting conditions	Vesting subject to satisfactory performance assessed with a comprehensive underpin which is based on a holistic review of overall business and ESG performance over the vesting period
		Vesting period	Three years
		Holding period	The later of five years after the date of grant or two years post-employment
Minimum shareholding requirement	Provides long-term alignment with shareholders	In-post (% of pre-tax salary)	500%
		Post-exit shareholding requirement (% salary)	The lower of the shareholding at departure or 500% of salary for a period of two years

The full text of the policy can be found in our 2021 Annual Report on the Company's website at **glencore.com/investors/reports-results/2021-annual-report**

Malus & clawback

Awards subject to the applicable plan rules governing the annual bonus and RSP are subject to malus and clawback provisions that allow the Committee to reduce or clawback awards and may be applied in certain circumstances, such as material failures in the financial, operational, compliance, or HSEC and HR performance of the Company and a failure to identify and/or report such failure(s); and any other circumstances that are deemed to have a significant impact on the reputation or financial prospects of the Company. These provisions apply irrespective whether an award is made in cash or equity.

The Committee may, in its discretion, decide to delay vesting and therefore extend the period during which malus and clawback may be applied if facts come to light within the period warranting an investigation.

Discretion and vesting subject to the underpin

In addition to the specific discretions set out in the policy table on the preceding page, the Committee may exercise various discretions related to the operation of the policy, subject to any applicable plan rules. In particular, these include, but are not limited to, the following:

- the participants of the respective incentive plans;
- the timing of award grants, vesting and/or payment;
- the size of an award and/or payment (subject to the limits set out in the policy table);
- the determination of vesting;
- dealing with a change of control or corporate restructuring;
- the determination of a good / bad leaver for incentive plan purposes and the treatment of pro-rating and holding periods;
- adjustments required in certain circumstances (e.g. rights issues, corporate reorganisation and/or change to capital structure); and
- determining the appropriate performance conditions, underpins, weightings and targets for the annual bonus scheme and LTI.

The holistic, qualitative judgement, which is applied as an underpin test before final vesting of restricted stock is confirmed, is an important 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 exercise of any discretion will be fully disclosed in the applicable statement of implementation of the policy.

Directors' service contracts

Executive Director's contract

The table below summarises the key features of the service contract for Mr Nagle.

A copy of the service contract of Mr Nagle is available for inspection at the Company's registered office as noted on page 284 or as otherwise indicated in the Notice of 2023 AGM.

Provision	Service contract terms
Notice period	12 months' notice by either party
Contract date	01 July 2021
Expiry date	Rolling service contract

Termination policy summary

In practice, the facts surrounding any termination do not always fit neatly into defined categories for good or bad leavers. Therefore, it is appropriate for the Committee to consider the suitable treatment on a termination having regard to all of the relevant facts and circumstances available at that time. This policy applies both to any negotiations linked to notice periods on a termination and any treatment which the Committee may choose to apply under the discretions available to it under the terms of the annual bonus and long-term incentive arrangements. The potential treatments on termination under these plans are summarised below.

Incentives	Good leaver	Bad leaver
Definition	• If a leaver is deemed to be a 'good leaver'; i.e. leaving through serious ill health or death or otherwise at the discretion of the Committee	• If a leaver is deemed to be a 'bad leaver'; typically, voluntary resignation or leaving for disciplinary reasons
Annual bonus	• Pro-rated bonus, typically with the normal proportion subject to deferral	• No awards made and any unvested awards would lapse
Deferred element of bonuses earned previously	• Typically retained for the balance of the deferral period (although the Committee may exceptionally approve early release)	• May be retained or forfeited at Committee discretion
Restricted Share Plan	• Will receive a pro-rated vesting (if applicable, subject to the application of the underpin at the normal measurement date) • The Committee retains the discretion to disapply pro-rating however it does not expect to use this other than in exceptional circumstances	• All unvested awards would normally lapse

Directors' Remuneration Report *continued*

In the event of a change of control or similar event, awards may become payable or vest early with treatment broadly in line with that for good leavers. Rules permit a roll-over of awards in appropriate circumstances.

The UK legislation does not require the inclusion of a cap or limit in relation to payments for loss of office. The Committee will take all relevant factors into account in deciding whether any discretion should be exercised in an individual's favour in these circumstances, and the Committee will aim to ensure that any payments made are, in its view, appropriate having regard to prevailing best practice guidelines. The Committee may also, after taking appropriate legal advice, sanction the payment of additional sums in the settlement of potential legal claims and/or the provision of outplacement and similar services.

External appointments

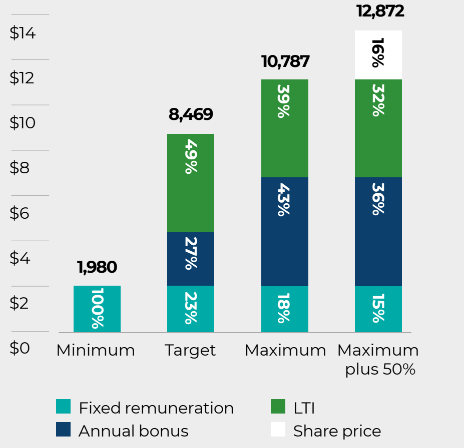
None currently. The appropriateness of any future appointment will be considered as part of a wider review of Directors' interests / potential conflicts.

Potential rewards under various scenarios

The chart below is based on the following scenarios, in accordance with UK reporting regulations and basis the 2023 implementation set out later in this report:

- Minimum: Mr Nagle's salary of $1.854 million and 2022 benefits of $18k
- Target pay: as Minimum, plus bonus at 50% of maximum plus the LTI grant
- Maximum pay: as Target pay, except bonus payable at maximum
- Maximum plus 50%: as Maximum pay, except the share price on the LTI is assumed to increase by 50%

Scenarios
US$'000



Annual Report on Remuneration

The Annual Report on Remuneration and the Annual Statement will be put to an advisory shareholder vote at the AGM on 26 May 2023. Sections of the report are subject to audit and these have been flagged where applicable.

Implementation report

Executive Director remuneration (audited)

The emoluments of the Executive Director for 2022 were as follows. The variance between 2021 and 2022 is largely due to Mr Nagle's pay being pro-rated in 2021 from the date of his appointment.

	Gary Nagle[1]	
Single figure table (US$'000)	**2022**	2021
Salary	**1,800**	900
Benefits[2]	**18**	14
Pension	**42**	24
Other[3]	**–**	165
Total fixed remuneration	**1,860**	1,103
Annual bonus	**4,211**	2,105
Long-term incentives	**–**	–
Total variable remuneration	**4,211**	2,105
Total	**6,071**	3,208

1. Mr Nagle was appointed Chief Executive Officer on 1 July 2021 and his 2021 remuneration was pro-rated accordingly.
2. Lunch card and unemployment insurance covered by employer, in line with all other Swiss-based employees.
3. For 2021, mainly comprises one-time relocation benefits consisting of household goods shipment, airfare, temporary accommodation and tax assistance.

The aggregate fees for all Non-Executive Directors for 2022 were $2,897,000 (2021: $2,756,000). The total emoluments of all Directors for 2022 (including pension contributions) were $8,967,000 (2021: $6,720,000).

Incentive outcomes for 2022

Annual bonus

The Company has designed a bonus scorecard for Mr Nagle with a mix of financial and non-financial measures which the Committee believes appropriately supports the achievement of Glencore's financial and strategic ambitions. For 2022, as in 2021, the annual bonus scorecard comprised 55% financial measures, 30% ESG (safety and climate), and 15% personal strategic objectives. As this was only the second year for the application of the bonus scorecard, the Company was keen to maintain the same framework with minimal year-on-year changes in order to further embed the KPIs into the organisation.

Directors' Remuneration Report *continued*

The financial targets were set at the start of the financial year based on a comprehensive annual business planning process. These financial targets were set to reflect challenging levels of performance across a number of operating scenarios and price assumptions, including historical performance delivered, inflationary pressures, and the residual impact of the Covid-19 pandemic. The financial targets were also set with reference to Glencore's annual guidance ranges. The non-financial targets were developed by the Board in consultation with Mr Nagle.

Consistent with the 2021 bonus scorecard, the financial measures selected include Funds from operations (FFO), Net debt, and Capital expenditure (Capex). These financial measures are in line with the key metrics tracked by Glencore's four-year plan (2021 to 2024) developed as part of its longer-term viability assessment. FFO was selected to measure Glencore's ability to deliver margins and generate cash that may be returned to shareholders or further invested in the business for growth. Net debt was selected to evaluate the actions taken to continuously strengthen Glencore's balance sheet and capital structure. Capex was selected to evaluate Glencore's capital allocation and progress towards pursuing business reinvestment opportunities that support the net zero emissions ambition. Collectively, these financial measures reinforce the importance of advancing multiple strategies and objectives in parallel to support the Company's long-term viability.

The non-financial measures selected include HSEC (safety and climate: progress towards 2026 and 2035 CO_2 reduction targets), and individual objectives which, for 2022, consider individual contributions towards continued portfolio simplification; embedding a culture of ethics and compliance throughout Glencore; and developing and nurturing Glencore's next generation of leadership, including through the development of a diverse and inclusive culture.

These financial and non-financial measures were deliberately selected in consideration of their alignment with Glencore's strategic priorities, as discussed at the front of the Annual Report on page 18 and as illustrated below.

Bonus scorecard – Financial measures

The table below sets out the 2022 performance delivered against the financial targets under the annual bonus scorecard which comprise a total weighting of 55%. As detailed in the Strategic Report, 2022 was another extraordinary year for Glencore with a record c.$8.5 billion of announced returns to shareholders, up from $2.8 billion in 2021. These returns comprised a $3.4 billion base distribution returned to shareholders and an additional 'top-up' return of $5.1 billion, split between a c.$1.5 billion cash top-up and $3.6 billion of share buybacks. Amid continued economic and geopolitical uncertainty, inflationary pressures, and the ongoing impacts caused by the global pandemic, the CEO's decisive leadership enabled Glencore to achieve record earnings and ensure that the business is ideally positioned for the future. FFO delivered in 2022 significantly exceeded the trailing three-year average of $9.3 billion and a continued focus on optimising the capital structure for Glencore reduced net debt to $0.1 billion in 2022 from $6.0 billion in 2021. In addition to maintaining Glencore's strong BBB/Baa investment grade ratings, the financial flexibility also enabled a continued focus on investing in sustaining and expansionary capital projects, as well as transition metals and value-accretive Scope 1 and 2 reduction opportunities, in line with and supporting the Company's emissions reduction commitments and ambition. 2022 actual performance delivered against each of the financial metrics exceeds the maximum level of performance based on the performance ranges set at the beginning of the year.

Financial measures	Weighting	Threshold	Target	Maximum	2022 Actual performance	Percentage of maximum opportunity
Funds from operations	30%	$11.3bn	$14.1bn	$16.9bn	$28.9bn (2021: $17.1bn)	100%
Net debt	15%	$12.0bn	$10.0bn	$8.0bn	$0.1bn (2021: $6.0bn)	100%
Capex	10%	$6.3bn	$5.8bn	$5.3bn	$4.8bn (2021: $4.5bn)	100%
Total Financial						100%

Variable pay element		Annual bonus							
		Financial			ESG		Personal objectives		
Measure		Funds from operations	Net debt	Capex	Safety	Progress towards CO_2 targets	Portfolio simplification	Compliance	People
Weighting		30%	15%	10%	15%	15%	15%		
Strategic priorities	Responsible and ethical production and supply			✓	✓	✓		✓	✓
	Responsible portfolio management	✓	✓	✓		✓	✓	✓	
	Responsible product use	✓	✓			✓			✓

Directors' Remuneration Report *continued*

Bonus scorecard – non-financial measures

Non-financial performance categories include ESG (safety and climate) and individual initiatives that reflect short-term operational and strategic priorities of the business that are critical to our continued success and are assessed based on performance in line with our business plan and the contributions of the CEO. These measures comprise a total weighting of 45%. The table below sets out the performance delivered against these non-financial performance categories.

Reference	2022 achievements
ESG measure Safety **Weighting** 15% **2022 outturn** 90%	With the aim of improving our safety record, we continued to take a proactive, preventative approach towards driving a culture of safe operating discipline across the Group. In 2022, this included the development of safety improvement plans and standards across the Group, the implementation and assurance of safety standards, and the monitoring and review of critical controls to drive consistent application of SafeWork through strong, visible leadership. Drive continuous improvement in Glencore's fatality prevention and elimination programme through the implementation of SafeWork 2.0 – 75% of all industrial assets worldwide are on track to achieve 80% compliance with the demanding SafeWork 2.0 standards by the end of 2023; plans are already underway to address known gaps and to fully embed the new structures and standards established across the Group. Marked improvements in safety performance reinforcing the positive impact of the SafeWork 2.0 initiatives rolled out in 2022: • the total recordable injury frequency rate (TRIFR) has decreased by c.7% year on year and 17% versus the three-year average; and • the lost time injury frequency rate (LTIFR) was neutral at 0.83 per million hours worked, but has decreased by 9% versus the three-year average, a meaningful indicator of success for a business of this scale. Our primary goal is the elimination of any fatalities and serious injuries in our operations. Same as 2021, in 2022 we recorded the lowest number of fatalities since our IPO and achieved a meaningful decrease in the fatality rate compared to our three-year rolling average. However, despite these improvements, we recorded the loss of four[Δ] lives at Glencore's managed operations in 2022 (two separate incidents in Kazakhstan in the Zinc department, one in the Philippines in the Copper department and one in Colombia in the Coal department). We believe that consistent application of our SafeWork initiative, which is ongoing, will further drive a culture of safe operating discipline and get our people home safe. Based on the assessment above, the Remuneration Committee determined that an outcome of 90% of the safety component is appropriate. This is in line with the 2021 outcome and reflects the positive progress made since last year in improving our safety record while also acknowledging that this is a complex process for a company of this size and global scale that requires time and that there is always room for improvement.
ESG measure Climate: Progress towards 2026 and 2035 CO_2 reduction targets **Weighting** 15% **2022 outturn** 100%	Our targets and ambition reflect our commitment to contribute to the global effort to achieve our net zero emissions by the end of 2050, we have set ourselves the target of reducing our Scope 1, 2, and 3 emissions in the short term by 15% by the end of 2026, and in the medium term by 50% by the end of 2035, each against 2019 baseline. Post-2035, our ambition is to achieve net zero emissions by the end of 2050 with a supportive policy environment. For 2022, there were three climate-related KPIs: (1) adopting a rolling four-year Climate Action Plan (4YCAP) with a Marginal Abatement Cost Curve (MACC) that supports the achievement of the 2026 emissions reduction target; (2) activities approved in the budget to support achievement of 2026 emission reduction targets, specifically 265 ktpa of CO_2 abatement from operational activities in the 2023 budget; and (3) providing stakeholders with attestable and comprehensive reporting of carbon emissions associated with our footprint and products (Scope 1, 2 and upstream and downstream Scope 3) through the development of a Emissions and Energy Reporting Procedure. During 2022: a) On the 4YCAP measure, the stretch level of performance was achieved with the consolidated plan being presented to the Climate Change Taskforce containing a planned level of emissions reduction beyond the 2026 commitment. This was achieved by significantly expanding the MACC, with more than 14 million tonnes of potential Scope 1 and 2 abatement initiatives now under consideration, ranging from renewable power purchases and on-site renewable power generation, through to energy storage systems, operational efficiency initiatives, and electrification. b) The level of abatement options captured in the 4YCAP and subsequently approved by management during the budget review exceeded 290ktpa, which is in excess of the target established for 2022 of 265 ktpa, resulting in a stretch level of performance being achieved versus this target. c) A comprehensive review of all Scope 1, 2 and 3 reporting categories has been completed and a detailed Emissions and Energy Reporting Procedure produced to improve the consistency and depth of our emissions reporting in response to the proliferation of voluntary and mandatory GHG emission reporting requirements (see Reporting on Scope 3 emissions on page 35 of our *2022 Climate Report* for further details). Shareholders also expressed broad support of Glencore's climate strategy, climate ambitions, and overall decarbonisation plan in the shareholder vote and subsequent consultation. Based on the assessment above, the Remuneration Committee determined that an outcome of 100% of the climate component is appropriate.

Directors' Remuneration Report *continued*

Reference	2022 achievements
Individual targets Individual objectives, comprising: • Portfolio simplification • Compliance • People **Weighting** 15% **2022 outturn** 100%	For 2022, there were three categories of individual objectives, comprising (1) Portfolio simplification, (2) Compliance, and (3) People: **Portfolio simplification:** Ongoing portfolio optimisation through the acquisition of the balance of Cerrejón that we did not already own in 2022 and efficient and commercially attractive disposals of various South American Zinc assets over the last two years; our industry-leading, large-scale low-cost transition metals portfolio is well-positioned to provide the commodities needed for decarbonisation of the global economy. **Compliance:** Alongside the resolution of the previously disclosed investigations by authorities in the US, UK and Brazil that predate Mr Nagle's leadership, we continue to take significant action towards implementing a world-class Ethics and Compliance programme to embed our core Values of integrity and openness which are critical to ensuring that we are a responsible and ethical company. During 2022, we enhanced our capability to monitor transactions and identify market abuse risks by deploying a vendor-based trade surveillance using the Scila tool across our global marketing business. Additionally, we commenced the process to deploy a new E-communications surveillance tool. To complement these activities, a Head of Market Conduct Surveillance and supporting team was hired, tasked to develop an operating framework for the surveillance programme. Reflecting our commitment to ethical business practices, leadership and compliant behaviours, are now formally assessed as part of standardised annual behavioural reviews for Glencore's most senior managers. The outcomes of this assessment are linked to annual bonus determinations sending a clear message to our employees regarding the behaviours we value as an organisation, beyond the delivery of results. **People:** Led the diversity and inclusion strategy to position Glencore as an employer of choice for the best talent. Following a comprehensive review of the Company's maternity and paternity leave policies, we introduced a market-leading parental leave policy in Switzerland to attract female talent and to foster compatibility between work and family life. Glencore has also made a clear commitment to ensuring that employees around the world are compensated in accordance with locally relevant living wages. In addition, we continue to work towards improving the diversity of our workforce, as highlighted by FTSE Women Leaders Review which, in its 2023 report, identified Glencore as one of the best FTSE100 improvers year on year. Finally, in line with Glencore's high-performance ethos, a comprehensive review of the annual bonus structure across the Group was completed, which involved the introduction of behavioural reviews for Glencore's most senior managers as part of the annual bonus structure. Around 290 reviews were conducted in the year-end cycle with a further c.190 reviews due around mid-year 2023. Based on the assessment above, the Remuneration Committee determined that an outcome of 100% of the individual component is appropriate.
Total non-financial	40%

2022 annual bonus outcomes for the CEO (audited)

The Committee conducted a comprehensive assessment of the progress achieved against the financial and non-financial measures. A 100% payout was determined to be appropriate for the financial objectives, the climate objectives and the individual objectives, especially noting the specific climate-related KPIs set out previously and significant returns to shareholders in 2022, which exceeded 2021 levels despite continued market volatility and other disruptions. A 90% payout was determined to be appropriate for the safety objective based on the considerations noted above. The combined formulaic result from the scorecard assessment was 98.5%.

2022 was a year of growth and momentum and despite the strong overall performance delivered and value created for shareholders, regrettably there were also four$^{\Delta}$ tragic fatalities. 2021 and 2022 were the equal lowest fatality rates recorded in our business since IPO, but safety is of paramount importance and this is reflected in Glencore's ultimate ambition of preventing all fatalities, occupational diseases and injuries at work. Therefore, any loss of life is unacceptable and an important reminder that there is still work to do to improve Glencore's safety across the business. Given the scale of Glencore's operations, maintaining the momentum with driving the global roll out of SafeWork 2.0 remains a key priority to thoroughly embed structures, systems and standards to reinforce the requisite safety culture across the entire business. Reflecting on Glencore's safety commitment and accountability for sustainable value creation beyond superior financial returns regardless of the prevailing economic environment, the Committee applied discretion to reduce the formulaic bonus outcome by 5%, resulting in a final bonus outcome of 93.6% of maximum. The following table sets out the outcome of the 2022 annual bonus for Mr Nagle.

	Max opportunity (% of salary)	Performance measures	Weighting	Formulaic outturn (% of max)
Gary Nagle	250%	Financial	55%	100%
		ESG	30%	95.0%
		Personal strategic objectives	15%	100%
Total formulaic bonus outturn			100%	98.5%
Discretion applied				-5%
2022 annual bonus outturn (% of maximum opportunity)				93.6%
2022 Outturn				**$4.2 million**

Bonus deferral

The Remuneration Policy states that 50% of any annual bonus plan outcome is deferred into shares for a period of up to three years unless otherwise determined by the Committee. The following table sets out the number of shares that were awarded as a result of the 50% deferral.

	Date of grant	Face value of award[1] (US$)	No. shares	Vesting date
Gary Nagle	23 March 2023	$2,105m	316,399	22 March 2026

1. Based on a share price of $6.65 which is the Volume Weighted Average Price (VWAP) of December 2022.

Directors’ Remuneration Report *continued*

RSP awards vesting in 2022

There were no RSP awards due to vest during the year.

To provide insight into the performance orientation embedded in our Restricted Share Plan and to ensure that the performance underpins remain appropriate in the context of market developments and the Company’s strategy, the Committee conducted a review of the performance delivered to date versus the RSP underpins for outstanding awards.

The performance underpins are designed to mitigate the risk of payments for failure by enabling a reduction in vesting when: (1) shareholders do not receive the minimum distribution required under the Company’s stated distribution policy; (2) absolute and relative shareholder performance over the vesting period is deemed unsatisfactory; or (3) progress against ESG initiatives, including the implementation of Company’s Ethics and Compliance programme and the ambitious climate action transition plan, is considered to be unsatisfactory. These performance underpins enable a more holistic consideration of performance to reward sustainable value creation and commercial effectiveness, rather than short-term share price volatility primarily driven by commodity price cycles that is characteristic of traditional total shareholder return-based measures commonly used in long-term incentive plans by other mining companies.

These performance underpins were also deliberately selected in consideration of their alignment with Glencore’s strategic priorities, as illustrated below.

Variable pay element		Long-term incentive		
Measure		Distributions to shareholders	Company performance	ESG performance
Weighting		N/A		
Strategic priorities	Responsible and ethical production and supply		✓	✓
	Responsible portfolio management	✓		✓
	Responsible product use			✓

Overall, the Committee is pleased with the performance of the Company against the underpins set at the grant of the awards which remain appropriate. A summary of the main considerations is provided below. These considerations apply for the two awards of restricted shares currently outstanding for the CEO, with the first vesting due to occur in 2024.

Underpin	Performance considerations
Distributions to shareholders	• During 2022, in line with our record cash generation, we announced c.$8.5 billion of shareholder returns, being c.$3.4 billion of base distribution (in respect of 2021 cash flows), a $1.5 billion cash top-up and $3.6 billion of share repurchases. • For 2023, based on 2022 cash flows, we are recommending to shareholders a $0.40 per share ($5.1 billion) base distribution. • Our ‘top-up’ capital returns allocation framework generates an additional c.$2.0 billion returns, split as an incremental $0.5 billion cash distribution and $1.5 billion of further share buybacks.
Company performance over the year	• 2022 was a year of growth and momentum, marked by record earnings and returns to shareholders despite challenges relating to Covid-19, the inflationary environment and geopolitical conflict. The Group achieved record results, with Adjusted EBITDA rising 60% to $34.1 billion. Net income before significant items increased 107% to $18.9 billion, while Net income attributable to equity holders increased by 248% to $17.3 billion. • For Marketing, Adjusted EBIT grew 73% to a record $6.4 billion. • For Industrial, Adjusted EBITDA of $27.3 billion was 59% higher compared to 2021, primarily reflecting the strong increase from energy products. • We continued to strengthen our balance sheet and optimise our capital structure with net debt reducing to $0.1 billion in 2022 from $6.0 billion in 2021. In addition to maintaining strong investment grade ratings (BBB+/Baa1), our financial flexibility enabled a continued focus on investing in sustaining and expansionary capital projects, including into transition metals, in line with and supporting the Company’s overall strategy.
ESG performance	• Environment and climate change: Our strong environmental performance has continued with no major or catastrophic events. We recognise our responsibility to contribute to the global effort to achieve the goals of the Paris Agreement by decarbonising our emissions and responsibly managing the depletion of our fossil fuels portfolio. Against a 2019 baseline, we have set ourselves the target of reducing our (Scope 1, 2 and 3) emissions in the short term by 15% by the end of 2026, and in the medium term by 50% by the end of 2035. Post-2035, our ambition is to achieve, with a supportive policy environment, net zero emissions by the end of 2050.

Directors’ Remuneration Report *continued*

Underpin	Performance considerations
ESG performance continued	• Regarding decarbonisation of our own operational footprint, our industrial assets have reported to management on emissions abatement opportunities identified. Work to de-risk, optimise and operationalise opportunities is ongoing. More widely, delivery of our responsible coal depletion strategy has included the safe closure of the Calenturitas, La Jagua and Hlagisa mines since 2019, with three more mine closures planned in the near term. For transparency, we have further strengthened our emissions disclosures to enable our stakeholders to better understand our performance in this respect. • Safety: Our safety performance has seen improvements observed in all metrics versus the three-year rolling averages. The number of work-related (occupational) fatalities was four which, along with the 2021 result, was the lowest for Company since IPO. While our goal remains zero fatalities and the elimination of serious injuries in our operations, we acknowledge that meaningful progress has been made to promote a SafeWork culture and ensure that there are robust processes in place to mitigate safety risks across all of Glencore’s managed operations. • Community engagement: Our community development programmes are an integral part of our community and stakeholder engagement strategies. In 2022, we spent around $90 million on these support programmes (2021: $68 million). • Governance: From a governance perspective, we are committed to ensuring a strong culture of ethics and compliance across the Group. • Reflecting this, we have dedicated substantial resources over the last few years to build and implement a best-in-class Ethics and Compliance programme. This was further implemented during 2022. Additionally, we introduced behavioural reviews for the most senior managers worldwide to clearly embed leadership, ethical and compliance-related behaviours beyond the delivery of results. We also introduced a mandatory compliance training escalation procedure to our employees and contractors to ensure that Glencore’s ethical standards are consistently applied and ethical expectations are clearly understood.

2022 Restricted Share Plan awards (audited)

During the year ended 31 December 2022, Mr Nagle received an award of restricted shares which may vest after a three-year period ending on 13 March 2025, subject to the achievement of three stretching performance underpins as discussed above. The award is set out in the table below.

	Grant (% of annual salary)	Face value of award[1] (US$’000)	No. shares[2]	Vesting date[3]	Holding period[4]
Gary Nagle	225%	4,050	833,556	13 March 2025	Five years after grant or two years post-employment

1. Face value of award based on the 225% award opportunity multiplied by the annual salary of $1.8 million.
2. Based on a share price of $4.86 which was the VWAP during December 2021.
3. Vesting subject to underpins described in the RSP awards vesting in 2022 section.
4. Whichever occurs latest.

Statement of Directors’ shareholdings and interests in shares (audited)

As at 31 December 2022 the Executive Director’s shareholding in the Company is as follows:

	Outstanding scheme interests at 31 December 2022			Vested scheme interests		Total of all scheme interests as at 31 Dec 2022
	Unvested scheme interests subject to performance[1]	Unvested scheme interests not subject to performance[2]	Total outstanding scheme interests	As at 31 Dec 2021	As at 31 Dec 2022	
Gary Nagle	1,294,664	216,667	1,511,331	–	–	1,511,331

1. Includes awards under the Restricted Share Plan.
2. Excludes awards under the deferred bonus plan issued in 2023.

Non-Executive Directors do not participate in the Company’s share plan and their interests in shares of the Company are included in the Directors’ report, page 138.

Between 1 January 2023 and the date of this 2022 Annual Report, the Executive and Non-Executive Directors' beneficial interests in the table above remained unchanged, except for the portion of the Executive Director's 2022 bonus deferred into shares, which was granted in 2023 as disclosed above.

Directors' Remuneration Report *continued*

	Plan	Date of award[1]	Interests at 1 January 2022	Interests awarded during the year	Interests vested during the year	Interests lapsed during the year	Interests outstanding at 31 December 2022	Date at which award vests
Gary Nagle	21 LTIP	1/7/21	461,108	–	–		461,108	1/7/24
	22 LTIP	14/03/22	–	833,556	–	–	833,556	13/03/25
	21 bonus deferred shares	14/03/22	–	216,667	–	–	216,667	13/03/25
Total			461,108	1,050,223	–	–	1,511,331	

Share ownership guidelines

Glencore is founded on an ownership ethos and the Committee therefore promotes the critical importance of aligning the interests of the CEO with those of shareholders. The aim is to encourage the build-up of a meaningful shareholding in the Company over time by retaining shares received through the RSP, pursuant to which vested shares cannot be sold until the later of five years from the date award or two years post-departure, or from purchases in the market.

The in-post shareholding requirement for the CEO is 500% of salary. The CEO will be required to retain the lower of: (1) actual shareholding on stepping down from the Board and (2) such shares as then represent the policy level of 500% of salary for two years after stepping down (although the Board may relax this requirement in appropriate cases) with such policy enforceable through a requirement to lodge such shares at the Company's request.

Director	Beneficially owned shares as at 31 Dec 2022	Shareholding requirement (as % of salary)	Current shareholding (as % of salary)[1]	Shareholding requirement met?
Gary Nagle	2,000,000	500%	738%	Yes

1. The share price of £5.52 and the exchange rate of £1=US$1.20 as at 31 December 2022 have been used for the purpose of calculating the current shareholding as a percentage of salary. Unvested awards do not count towards the satisfaction of the shareholding guidelines.

CEO pay ratio

The table below shows the ratio of CEO single figure remuneration for 2022 to the comparable, indicative, full-time equivalent total remuneration for employees globally, whose pay is ranked at the 25^{th} percentile, median and 75^{th} percentile, as at 31 December 2022. As we are a global group, which is not headquartered in the UK and whose UK employees represent less than 1% of all our employees worldwide, we have decided to amend this comparison to all employees, using method A, which provides the most statistically accurate method of calculation for the purpose of this disclosure. Our methodology is fully compliant with the UK Remuneration Regulations except that we have substituted all of our employees for just the UK employees as specified in the Regulations on the basis that this is a more meaningful comparison. The increase between 2021 and 2022 is due to the pay of the CEO being pro-rated in 2021 from his date of appointment.

Year	Method (A)	25^{th} percentile pay ratio	Median pay ratio	75^{th} percentile pay ratio
		$12,893	$25,059	$68,250
2022	A	471:1	242:1	89:1
2021	A	$10,404	$23,530	$67,734
		381:1	169:1	59:1

Additional UK remuneration disclosures

Under UK laws and remuneration regulations, UK companies are also required to disclose various data comparing the percentage change in Directors' year-on-year remuneration compared with employees of the listed company itself, i.e. not on a Group-wide basis. As Glencore plc has no direct employees, there would be no non-director data to disclose. The changes relative to the Executive Director solely relate to the change of CEO, to whom the new policy applied for a full year for the first time in 2022, and all the relevant information is included in this report. Minor adjustments relating to Non-Executive Directors' Committee fees are listed below. On this basis, it was considered unnecessary to include such data.

Relative importance of remuneration spend

The table below illustrates the change in total remuneration, distributions paid and net profit from 2021 to 2022.

	2022 US$m	2021 US$m
Distributions and buybacks attributable to equity holders	**7,335**	2,861
Net income attributable to equity holders	**17,320**	4,974
Total remuneration	**6,319**	6,012

The figures presented have been calculated on the following bases:

- Distributions and buybacks – distributions paid and shares bought back during the year
- Net income/(loss) attributable to equity holders – our reported net income/loss in respect of the financial year
- Total remuneration – represents total personnel costs as disclosed in note 24 to the financial statements which includes salaries, wages, social security, other personnel costs and share-based payments receivable by all employees of the Group

Loss of office payments (audited)

No additional payments for loss were made.

Payments to past Directors (audited)

No payments to past Directors.

Fees retained for external non-executive directorships (audited)

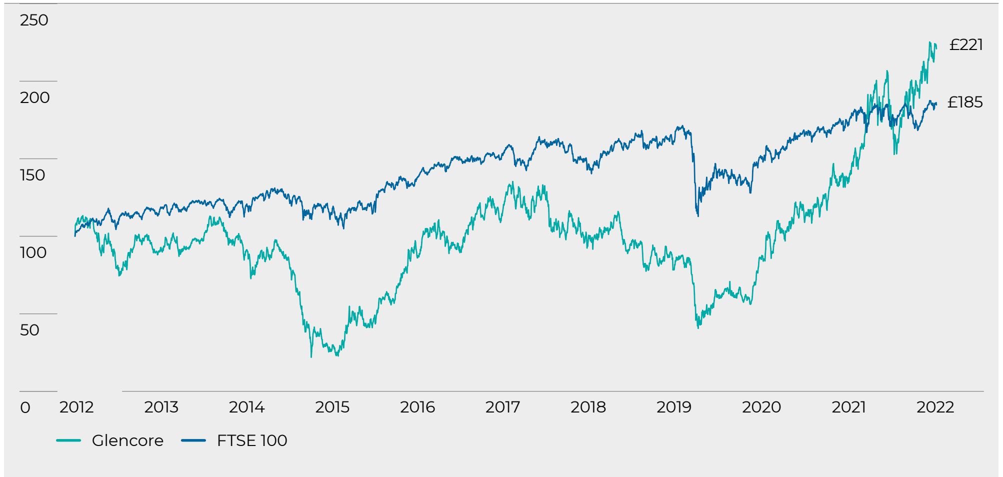
Not applicable.

Alignment between pay and performance

Total shareholder return (TSR) performance

This graph shows the value to 31 December 2022, on a total shareholder return (TSR) basis, of £100 invested in Glencore plc on 31 December 2012 compared with the value of £100 invested in the FTSE 100 Index.

The Committee believes that the FTSE 100 Index is an appropriate comparator as it is a broad equity index reflecting the performance of the largest UK-listed companies.



In previous years, Glencore had illustrated TSR compared to the FTSE 350 Mining Index. Due to significant changes in the index composition in 2022, the FTSE 350 Mining Index has been omitted from the graph.

Directors' Remuneration Report *continued*

The UK reporting regulations also require that a TSR performance graph is supported by a table summarising aspects of CEO remuneration, as shown below for the same period as the TSR performance graph:

History of CEO remuneration

		Single figure of total remuneration[1] (US$'000)	Annual variable element award rates against maximum opportunity	Long-term incentive vesting rates against maximum opportunity
2022	Gary Nagle	6,071	93.6%	n/a
2021	Gary Nagle[2]	3,208	93.6%	n/a
2021	Ivan Glasenberg[3]	756	–	–
2020	Ivan Glasenberg	1,508	–	–
2019	Ivan Glasenberg	1,503	–	–
2018	Ivan Glasenberg	1,503	–	–
2017	Ivan Glasenberg	1,513	–	–
2016	Ivan Glasenberg	1,509	–	–
2015	Ivan Glasenberg	1,510	–	–
2014	Ivan Glasenberg	1,513	–	–
2013	Ivan Glasenberg	1,509	–	–

1. The figures in this table are reported in US dollars and have been translated to US dollars where applicable at the exchange rates used for the preparation of the financial statements in each relevant financial year. The value of benefits and pension provision in the single figure vary as a result of the application of exchange rates.
2. Mr Nagle was appointed Chief Executive Officer on 1 July 2021 and his 2021 remuneration was prorated accordingly in 2021. His 2022 remuneration reflects a full year of service.
3. Mr Glasenberg retired as Chief Executive Officer on 30 June 2021 and his salary was prorated accordingly in 2021.

Non-Executive Director fees (audited)

The emoluments of the Non-Executive Directors for 2022 and 2021 were as follows:

Name	**2022 Base fees US$'000**	2021 Base fees US$'000	**2022 Committee fees US$'000**	2021 Committee fees US$'000	**Total 2022 US$'000**	Total 2021 US$'000
Non-Executive Chairman						
Kalidas Madhavpeddi[1]	**1,150**	558	**n/a**	77	**1,150**	635
Anthony Hayward[2]	**n/a**	671	**n/a**	n/a	**n/a**	671
Non-Executive Directors						
Cynthia Carroll[3]	**135**	123	**115**	61	**250**	184
Peter Coates	**135**	135	**185**	186	**320**	321
Martin Gilbert[4]	**195**	200	**125**	101	**320**	301
Patrice Merrin	**135**	135	**160**	163	**295**	298
Gill Marcus[5]	**140**	135	**130**	96	**270**	231
David Wormsley[6]	**135**	40	**70**	10	**205**	50
John Mack[7]	**n/a**	44	**n/a**	21	**n/a**	65
Liz Hewitt[8]	**61**	n/a	**26**	n/a	**87**	n/a

1. Mr Madhavpeddi was appointed as Non-Executive Chairman on 30 July 2021, from which date he was paid the Chairman's fee that encompasses all Committee memberships. From 1 January to 30 July 2021, he was paid the same base fee as other Non-Executive Directors plus Committee fees.
2. Mr Hayward stepped down as Non-Executive Chairman on 30 July 2021.
3. Ms Carroll was appointed as a Non-Executive Director on 2 February 2021.
4. Mr Gilbert was the Senior Independent Director until 2 December 2022.
5. Ms Marcus was appointed as Senior Independent Director on 2 December 2022.
6. Mr Wormsley was appointed as a Non-Executive Director on 15 September 2021.
7. Mr Mack stepped down as a Non-Executive Director on 29 April 2021.
8. Ms Hewitt was appointed as a Non-Executive Director on 18 July 2022.

Implementation of Remuneration Policy in FY2023

This section provides details of how the Remuneration Policy will be implemented for 2023.

Fixed remuneration

	Base salary	Effective date	Increase %	Reason
Gary Nagle	US$1,854k	1 January 2023	3.0%	Recognition of the CEO's exceptional contributions in supporting Glencore's continued growth in global scale and complexity; increase is well below the average applicable to the Swiss local workforce

Glencore's annual pension provision for the CEO is fully aligned with the Swiss requirements, local legal limits, and that of other employees based in Switzerland, where the CEO is located. In 2022, this pension arrangement was reviewed against Swiss and UK market practice to ensure that Glencore is well positioned to attract and retain high calibre and experienced talent and to better support the generational shift in the workforce and their needs. Following this review and effective 1 January 2023, all employees in Switzerland eligible by law, including the CEO, will benefit from a more competitive insured salary cap (which has not been revisited since Glencore's IPO), greater investment flexibility, as well as the option to co-contribute to the pension fund with contribution limits that are tiered by age bracket. For the CEO, the maximum employer contribution is up to 12.3% of salary (capped at c.$108k per annum) and the maximum co-contribution limit is up to 6.2% of salary. These terms are aligned to the wider workforce.

Annual bonus

The CEO will continue to have a maximum opportunity of 250% of salary; 50% of any bonus earned will be deferred into shares for three years. A combination of financial, safety and climate measures as well as individual initiatives that align with Glencore's strategy will continue to apply.

The Committee considers that the detailed performance targets for the 2023 bonus are commercially sensitive and that disclosing precise targets in advance would not be in the interest of shareholders. Actual targets, performance achieved and outturns will be disclosed in the 2023 Annual Report so that shareholders can fully assess the basis for any payouts.

To demonstrate our commitment towards achieving our net zero ambitions, we will continue to track our performance relative to our interim 2026 CO_2e emissions reduction targets and overall progress towards 2026 and 2035 CO_2e reduction targets in our annual bonus framework to support meaningful progress being made each year.

Financial	Funds from operations	30%
	Net debt	15%
	Industrial capex	10%
ESG	Safety	15%
	Progress towards 2035 CO_2e targets	15%
Individual initiatives	Portfolio, Compliance and People	15%

The Committee will review the annual bonus framework and its alignment with Glencore's strategic goals when it undertakes its review of Remuneration Policy prior to the 2024 AGM.

Restricted Share Plan

For 2023, the LTIP will continue to operate on the same basis as in 2022. Awards have been granted in March 2023 to the CEO under the RSP. When considering grant levels each year, the Committee takes account of share price performance over the preceding year. Given the share price growth during 2022, the Committee has decided to make no adjustment to the size of the award which will be maintained at 225% of salary.

Shares will only be released (other than to meet tax obligations) on the later of five years from grant and two years post-employment.

In line with the approach taken in 2022, the Committee will retain discretion to approve the vesting of these awards, subject to the satisfaction of the performance underpins following the third anniversary of the grant, and will carefully evaluate the overall performance of the Company to ensure there is no reward for failure. In reaching its decision, the Committee will look at both financial and non-financial performance noting that there may be short-term trade-offs between different factors. In particular, it will consider reducing the level of vesting if any of the following occur:

- failure to pay the minimum distribution required under the Company's stated distribution policy; or
- the overall performance and outcomes, both on absolute and relative basis, is considered by the Committee unsatisfactory to permit full vesting; or
- ESG performance (including climate) is considered unsatisfactory to permit full vesting.

Given the complexity of the Group structure and its clear exposure to commodity price movements, the underpin deliberately does not apply a formula-driven approach to determining vesting levels. Instead, broad discretion has been reserved to consider the position in the round and to reduce vesting levels if the overall Company financial or ESG performance is not at an adequate level. The Remuneration Committee will make use of all relevant data points for its review, including the Company's Ethics and Compliance programme and climate action transition plan to assess the progress across the Group concerning material ESG matters. In reaching any decision, it will balance both the design principle that the default for restricted stock is to accept lower awards levels for greater certainty of vesting and, therefore, there should be a default to full vesting while ensuring that the Remuneration Committee considers the overall outcome and avoids payments for failure. At the time of vesting, the Remuneration Committee will provide detailed disclosure on the achievement against the performance underpins to support the vesting of any awards.

Directors' Remuneration Report *continued*

Non-Executive Director fees for 2023

The annual fees are paid in accordance with a Non-Executive Director's role and responsibilities. The Chairman's fee is inclusive of all his Committee responsibilities. The Committee believes that the fees remain competitively positioned against the market. The notes to the table below shows the changes to the Committees' fees.

There was no change to the base fees.

As a result, the fees payable for 2023 are as follows:

	US$'000
Non-Executive Directors' base fees	
Chairman	1,150
Senior Independent Director	200
Non-Executive Director	135
Committee[1] fees:	
ECC	
Chair	60
Member	40
Remuneration	
Chair	55
Member	25
Audit	
Chair	70
Member	35
Nomination	
Chair	40
Member	20
HSEC	
Chair	125
Member	40
Investigations[2]	
Member	40

1. Fees do not apply to the Chairman when he is a chair or member of a Committee.
2. No chair fee was ever applied as the Chairman has always chaired this Committee since its inception.

Non-Executive Directors' letters of appointment and re-election

All Non-Executive Directors have letters of appointment with the Company for an initial period of three years from their date of appointment, subject to re-election at each AGM. The Company may terminate each appointment by immediate notice and there are no special arrangements or entitlements on termination except that the Chairman is entitled to three months' notice. Copies of the letter of appointment for Non-Executive Directors are available for inspection at the Company's registered office address as noted on page 284.

Approval

This report in its entirety has been approved by the Committee and the Board of Directors and signed on its behalf by:

Cynthia Carroll
Chair of the Remuneration Committee

22 March 2023

Directors' report

John Burton
Company Secretary

Introduction

This Annual Report is presented by the Directors on the affairs of Glencore plc (the 'Company') and its subsidiaries (the 'Group' or 'Glencore'), together with the financial statements and auditor's report, for the year ended 31 December 2022. The Directors' report includes details of the business, the development of the Group and likely future developments as set out in the Strategic Report, which together form the management report for the purposes of the UK Financial Conduct Authority's Disclosure and Transparency Rule (DTR) 4.1.8R. The notice concerning forward-looking statements is set out at the end of the Annual Report.

Corporate structure

Glencore plc is a public company limited by shares, incorporated in Jersey and domiciled in Baar, Switzerland. Its shares are listed on the London and Johannesburg Stock Exchanges.

Financial results and distributions

The Group's financial results are set out in the financial statements section of this Annual Report.

A total capital distribution of $0.37 per share was paid in two instalments in 2022, comprising $0.26 in respect of the 2021 financial year and US$0.11 in respect of cash generation in the first half of 2022 in excess of the Group's target leverage position. The Board is recommending to shareholders an aggregate capital distribution of $0.44 per share in respect of the 2022 financial year as further detailed on page 71.

Review of business, future developments and post balance sheet events

A review of the business and the future developments of the Group is presented in the Strategic Report.

A description of acquisitions, disposals and material changes to Group companies undertaken during the year is included in the Financial review and in note 26 to the financial statements.

Financial instruments

Descriptions of the use of financial instruments and financial risk management objectives and policies, including hedging activities and exposure to price risk, credit risk, liquidity risk and cash flow risk, are included in notes 27 and 28 to the financial statements.

Corporate governance

A report on corporate governance and compliance with the UK Corporate Governance Code is set out in the Corporate Governance report and forms part of this report by reference.

Health, safety, environment & communities (HSEC)

An overview of health, safety, environment, social and human rights performance is provided in the Sustainability section of the Strategic report. The work of the HSEC Board committee is contained in the Corporate governance report.

Greenhouse gas emissions

A summary of the Group's greenhouse gas emissions is included on page 24.

Taxation policy

Our Tax Policy: *glencore.com/group-tax-policy* and our most recent Payments to Governments report: *glencore.com/payments-to-governments-report* set out the Company's approach to tax and transparency and disclose the payments to governments made by the Group on a country-by-country and project-by-project basis.

Exploration and research and development

The Group's business units carry out exploration and research and development activities that are necessary to support and expand their operations.

Employee policies and involvement

Glencore has a range of Group policies and standards that talk specifically to diversity and recruitment practices that aim to treat individuals fairly and not to discriminate on the basis of gender, race, ethnicity, disability, religion, or beliefs or on any other basis. We provide equal opportunities for career development and promotion as well as providing employees with appropriate training opportunities.

If disability occurs during employment, the Group seeks to accommodate that disability where reasonably possible, including with appropriate training.

The Group's Code of Conduct and other policies support and protect the interests of employees in a number of ways such as requiring open, fair and respectful communication, commitment to respect human rights, fair and equitable conditions of employment and, above all, a safe working environment.

Employee communication is mainly provided through the Group's intranet, corporate website and via emails. A range of information is made available to employees, including all policies and procedures applicable to them as well as information on the Group's financial performance and the main drivers of its business. Employee consultation depends upon the type and location of industrial assets or office but includes Group-wide surveys – see the Our people section on page 51.

Directors' conflicts of interest

Under Jersey law and the Company's Articles of Association (which mirror section 175 of the UK Companies Act 2006), a Director must avoid a situation in which the Director has, or can have, a direct or indirect interest that conflicts, or possibly may conflict, with the interests of the Company. The duty is not infringed if the matter has been authorised by the Directors. Under the Articles, the Board has the power to authorise potential or actual conflict situations. The Board maintains effective procedures to enable the Directors to notify the Company of any actual or potential conflict situations and for those situations to be reviewed and, if appropriate, to be authorised by the Board. Directors' conflict situations are reviewed annually. A register of authorisations is maintained.

Directors' liabilities and indemnities

The Company has granted third-party indemnities to each of its Directors against any liability that attaches to them in defending proceedings brought against them, to the extent permitted by Jersey law. In addition, Directors and officers of the Company and its subsidiaries are covered by directors' & officers' liability insurance.

Directors and officers

The names of the Company's Directors and officers who were in office at the end of 2022, together with their biographical details and other information, are shown on pages 105 to 107.

Directors' interests

Details of interests in the ordinary shares of the Company of those Directors who held office as at 31 December 2022 are given below:

Name	Number of Glencore shares	Percentage of Total Voting Rights
Executive Director		
Gary Nagle	2,000,000	0.01
Non-Executive Directors		
Cynthia Carroll	–	–
Peter Coates	1,665,150	0.01
Martin Gilbert	50,000	0.00
Liz Hewitt	24,049	0.00
Kalidas Madhavpeddi	–	–
Gill Marcus	–	–
Patrice Merrin	60,000	0.00
David Wormsley	–	–

Share capital and shareholder rights

As at 28 February 2023, the issued ordinary share capital of the Company was $138,000,000 represented by 13,800,000,000 ordinary shares of $0.01 each, of which 1,151,798,492 shares are held in treasury and 33,987,862 shares are held by Group employee benefit trusts.

Major interests in shares

Taking into account the information available to Glencore as at 28 February 2023, the table below shows the Company's understanding of the interests in 3% or more of the Total Voting Rights attaching to its issued ordinary share capital:

Name	Number of Glencore shares	Percentage of Total Voting Rights
Ivan Glasenberg	1,211,957,850	9.58
Qatar Holding	1,046,550,951	8.27
BlackRock, Inc.	1,007,488,638	7.97

Share capital

The rights attaching to the Company's ordinary shares, being the only share class of the Company, are set out in the Company's Articles of Association (the 'Articles'), which can be found at *glencore.com/who-we-are/governance*. Subject to Jersey law, any share may be issued with or have attached to it such preferred, deferred or other special rights and restrictions as the Company may by special resolution decide or, if no such resolution is in effect, or so far as the resolution does not make specific provision, as the Board may decide.

No such resolution is currently in effect. Subject to the recommendation of the Board, holders of ordinary shares may receive a distribution. On liquidation, holders of ordinary shares may share in the assets of the Company.

Holders of ordinary shares are also entitled to receive the Company's Annual Report and Accounts and, subject to certain thresholds being met, may requisition the Board to convene a general meeting (GM) or submit resolutions for proposal at AGMs. None of the ordinary shares carry any special rights with regard to control of the Company.

Holders of ordinary shares are entitled to attend and speak at GMs of the Company and to appoint one or more proxies or, if the holder of shares is a corporation, a corporate representative. On a show of hands, each holder of ordinary shares who (being an individual) is present in person or (being a corporation) is present by a duly appointed corporate representative, not being himself a member, shall have one vote. On a poll, every holder of ordinary shares present in person or by proxy shall have one vote for every share of which he or she is the holder.

Electronic and paper proxy appointments and voting instructions must be received not later than 48 hours before a GM. A holder of ordinary shares can lose the entitlement to vote at GMs where that holder has been served with a disclosure notice and has failed to provide the Company with information concerning interests held in those shares. Except as (1) set out above and (2) permitted under applicable statutes, there are no limitations on voting rights of holders of a given percentage, number of votes or deadlines for exercising voting rights.

The Directors may refuse to register a transfer of a certificated share which is not fully paid, provided that the refusal does not prevent dealings in shares in the Company from taking place on an open and proper basis or where the Company has a lien over that share.

The Directors may also refuse to register a transfer of a certificated share unless the instrument of transfer is:

1. lodged, duly stamped (if necessary), at the registered office of the Company or any other place as the Board may decide accompanied by the certificate for the share(s) to be transferred and/or such other evidence as the Directors may reasonably require as proof of title; or
2. in respect of only one class of shares.

Transfers of uncertificated shares must be carried out using CREST and the Directors can refuse to register a transfer of an uncertificated share in accordance with the regulations governing the operation of CREST.

Directors' report *continued*

The Directors may decide to suspend the registration of transfers, for up to 30 days a year, by closing the register of shareholders. The Directors cannot suspend the registration of transfers of any uncertificated shares without obtaining consent from CREST.

There are no other restrictions on the transfer of ordinary shares in the Company except: (1) certain restrictions may from time to time be imposed by laws and regulations (for example insider trading laws); (2) pursuant to the Company's Inside Information and Securities Dealing Policy and PDMR Securities Dealing Procedure whereby the Directors and certain employees of the Company require approval to deal in the Company's shares; and (3) where a shareholder with at least a 0.25% interest in the Company's issued share capital has been served with a disclosure notice and has failed to provide the Company with information concerning interests in those shares. There are no agreements between holders of ordinary shares that are known to the Company, which may result in restrictions on the transfer of securities or on voting rights.

The rules for appointment and replacement of the Directors are set out in the Articles. Directors can be appointed by the Company by ordinary resolution at a GM or by the Board upon the recommendation of the Nomination Committee. The Company can remove a Director from office, including by passing an ordinary resolution or by notice being given by all the other Directors. The Company may amend its Articles by special resolution approved at a GM.

The powers of the Directors are set out in the Articles and provide that the Board may exercise all the powers of the Company including to borrow money. The Company may by ordinary resolution authorise the Board to issue shares, and increase, consolidate, sub-divide and cancel shares in accordance with its Articles and Jersey law.

Purchase of own shares

In February 2022 and August 2022, respectively, the Company announced buyback programmes of up to $550 million and up to $3 billion. Cumulatively, these programmes completed on 20 February 2023, and pursuant to them the Company purchased 582,890,627 of its own ordinary shares. The authority to purchase own shares was approved by the shareholders on 28 April 2022.

As announced on 15 February 2023, the Company launched a new buyback programme of $1.5 billion, which started on 24 February 2023.

The Directors will seek a similar authority at the Company's AGM on 26 May 2023.

During the year, Glencore also purchased the remaining $33 million of shares under the $650 million share buyback programme announced in August 2021.

Going concern

The financial position of the Group, its cash flows, liquidity position and borrowing facilities are set out in the Strategic Report. Furthermore, notes 27 and 28 to the financial statements include the Group's objectives and policies for managing its capital, its financial risk management objectives, details of its financial instruments and hedging activities and its exposure to credit and liquidity risk. Significant financing activities that took place during the year are detailed in the Financial review section, which starts on page 66.

The results of the Group, principally pertaining to its Industrial activities, are exposed to fluctuations in both commodity prices and currency exchange rates whereas the performance of Marketing activities is primarily physical volume- and arbitrage-driven with commodity price risk substantially hedged.

The Directors have a reasonable expectation, having made appropriate enquiries, that the Group has adequate resources to continue in its operational existence for the foreseeable future. For this reason they continue to adopt the going concern basis in preparing the financial statements. The Directors have made this assessment after consideration of the Group's budgeted cash flows and related assumptions including appropriate stress testing of the identified uncertainties (being primarily commodity prices and currency exchange rates) and undrawn credit facilities, monitoring of debt maturities, and after review of the Guidance on Risk Management, Internal Control and Related Financial and Business Reporting 2014 as published by the UK Financial Reporting Council.

Longer-term viability

In accordance with provision 31 of the Code, the Directors have assessed the prospects of the Group's viability over a longer period than the 12 months required by the going concern assessment above. A summary of the assessment made is set out on page 93 in the Risk management section.

The Directors have considered the prospects of the Company over the long term under a range of possible scenarios, as set out on pages 24 to 25. The long-term view incorporated, but was not limited to, the 2050 date associated with the Company's net zero ambition. The scenarios offer a reasonable basis to conclude that the Company's business model is resilient to potential uncertainties, its prospects are good and that it will be able to meet its financial liabilities in full.

The Directors further considered the Company's four-year business plan, which they believe is an appropriate review period having regard to the Company's business model, strategy, principal risks and uncertainties, sources of funding and liquidity. Based on the results of the related analysis, the Directors have a reasonable expectation that the Company will be able to continue in operation and meet its liabilities as they fall due over the four-year period of this assessment.

Auditor

Each of the persons who is a Director at the date of approval of this Annual Report confirms that:

1. so far as the Director is aware, there is no relevant audit information of which the Company's auditor is unaware; and
2. the Director has taken all the steps that he or she ought to have taken as a Director in order to make himself or herself aware of any relevant audit information and to establish that the Company's auditor is aware of that information.

Deloitte LLP have expressed their willingness to continue in office as auditor and a resolution to reappoint them will be proposed at the forthcoming AGM.

Directors' report *continued*

Statement of Directors' responsibilities

The Directors are responsible for preparing the Annual Report and financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare financial statements for the Company for each financial year.

The financial statements are prepared in accordance with International Financial Reporting Standards (IFRS) adopted by the United Kingdom, and IFRS as issued by the International Accounting Standards Board. The financial statements are required by law to be properly prepared in accordance with the Companies (Jersey) Law 1991. International Accounting Standard 1 requires that financial statements present fairly for each financial year the Company's financial position, financial performance and cash flows. This requires the faithful representation of the effects of transactions, other events and conditions in accordance with the definitions and recognition criteria for assets, liabilities, income and expenses set out in the International Accounting Standards Board's Framework for the preparation and presentation of financial statements.

In virtually all circumstances, a fair presentation will be achieved by compliance with all applicable IFRSs.

The Directors confirm that the Annual Report and Accounts, taken as a whole, is fair, balanced and understandable, and provides the information necessary for shareholders to assess the performance, strategy and business model of the Company.

However, the Directors are also required to:

- properly select and apply accounting policies;
- present information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- provide additional disclosures when compliance with the specific requirements in IFRSs are insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity's financial position and financial performance; and
- make an assessment of the Company's ability to continue as a going concern.

The Directors are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with the Companies (Jersey) Law 1991. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities. The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Company's website. The legislation governing the preparation and dissemination of the Company's financial statements may differ from legislation in other jurisdictions.

Signed on behalf of the Board

John Burton
Company Secretary

22 March 2023

Information required by Listing Rule LR 9.8.4C

In compliance with UK Listing Rule 9.8.4C the Company discloses the following information:

Listing Rule	Information required	Relevant disclosure
9.8.4(1)	Interest capitalised by the Group	See note 9 to the financial statements
9.8.4(2)	Unaudited financial information as required (LR 9.2.18)	See Chief Executive Officer's review
9.8.4(5)	Director waivers of emoluments	See Directors' Remuneration Report
9.8.4(6)	Director waivers of future emoluments	See Directors' Remuneration Report
9.8.4(12)	Waivers of dividends	See note 19 to the financial statements
9.8.4(13)	Waivers of future dividends	See note 19 to the financial statements
9.8.4(14)	Agreement with a controlling shareholder (LR 9.2.2A)	Not applicable
There are no disclosures to be made in respect of the other numbered parts of LR 9.8.4.		

Confirmation of Directors' responsibilities

We confirm that to the best of our knowledge:

- the consolidated financial statements, prepared in accordance with International Financial Reporting Standards (IFRS) adopted by the United Kingdom, and IFRS as issued by the International Accounting Standards Board and the Companies (Jersey) Law 1991, give a true and fair view of the assets, liabilities, financial position and income of the Group and the undertakings included in the consolidation taken as a whole;
- the management report, which is incorporated in the Strategic Report, includes a fair review of the development and performance of the business and the position of the Group and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties they face; and
- the Annual Report and consolidated financial statements, taken as a whole, are fair and balanced and understandable and provide the information necessary for shareholders to assess the performance, position, strategy and business model of the Company.

The consolidated financial statements of the Group for the year ended 31 December 2022 were approved on the date below by the Board of Directors.

Signed on behalf of the Board

Kalidas Madhavpeddi
Chairman

Gary Nagle
Chief Executive Officer

22 March 2023

Financial Statements 2022

GLENCORE

Independent Auditor's Report to the Members of Glencore Plc

Report on the audit of the financial statements

1. Opinion

In our opinion the financial statements of Glencore plc and its subsidiaries (together "the Group"):

- give a true and fair view of the state of the Group's affairs as at 31 December 2022 and of the Group's profit for the year then ended;
- have been properly prepared in accordance with United Kingdom adopted international accounting standards and International Financial Reporting Standards ("IFRSs") as issued by the International Accounting Standards Board ("IASB"), and
- have been properly prepared in accordance with Companies (Jersey) Law 1991.

We have audited the financial statements of the Group which comprise:

- the consolidated statement of income;
- the consolidated statement of comprehensive income;
- the consolidated statement of financial position;
- the consolidated statement of cash flows;
- the consolidated statement of changes of equity, and
- the related notes 1 to 36.

The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom adopted international accounting standards and IFRSs as issued by the IASB.

2. Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the financial statements section of our report.

We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's (the "FRC's") Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. The non-audit services provided to the Group for the year are disclosed in note 30 to the financial statements. We confirm that we have not provided any non-audit services prohibited by the FRC's Ethical Standard to the Group.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

3. Summary of our audit approach

Key audit matters	The key audit matters that we identified in the current year were: • Government investigations and related claims; • Impairments of non-current assets; • Potential impact of climate change on non-current assets; • Classification of trading contracts and arrangements which contain a financing element; • Marketing revenue recognition and fair value measurements; and • Taxation: uncertain tax positions and the recognition and recoverability of deferred tax assets. Our assessment of the Group's key audit matters is consistent with those identified in 2021.
Materiality	The materiality that we used for the Group financial statements in the current year was \$700 million (2021: \$300 million), which was determined on the basis of a 3-year average adjusted profit before tax benchmark and a net assets benchmark, consistent with the prior year.
Scoping	We focused our Group audit scope primarily on the audit work at 26 components, representing the Group's most material marketing operations and industrial assets. These 26 components account for 77% of the Group's net assets, 90% of the Group's revenue and 82% of the Group's adjusted EBITDA (refer to segment information in note 2 to the financial statements).
Significant changes in our approach	There were no significant changes to our audit approach when compared to 2021.

Independent Auditor's Report to the Members of Glencore Plc *continued*

4. Conclusions relating to going concern

In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

In evaluating the directors' assessment of the Group's ability to continue to adopt the going concern basis of accounting:

- We considered the effect of key risks on the Group's business model as part of our risk assessment and analysed how these risks might affect the Group's liquidity position, including access to capital, and thus its ability to continue to operate as a going concern. The risk we considered to have the greatest impact is the supply, demand and prices of commodities over the forecast period.
- We assessed the basis for the assumptions used in the forecast information including operational profitability, the Group's debt repayment obligations and capital expenditure requirements as well as undrawn facilities.
- We assessed the downside stress scenarios applied by the directors in their analysis, in particular whether the downside scenarios represented an appropriately robust sensitivity. We evaluated the effect of these scenarios on key metrics such as liquidity headroom, net debt and net debt to EBITDA over the going concern period and performed additional sensitivities to further challenge the Group's forecast position.
- We assessed whether the investigations resolutions and contingent liabilities could have a material effect on the Group's ability to continue as a going concern.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Group's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

In relation to the reporting on how the Group has applied the UK Corporate Governance Code, we have nothing material to add or draw attention to in relation to the directors' statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report.

5. Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on the overall audit strategy, the allocation of resources in the audit, and directing the efforts of the engagement team.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Independent Auditor's Report to the Members of Glencore Plc *continued*

5.1 Government investigations

Description of key audit matter

During the year, the Group resolved investigations by authorities in the United States, United Kingdom and Brazil, and settled all amounts owing to the United Kingdom authorities. At 31 December 2022, the residual amount owing to the United States and Brazilian authorities is $484 million (refer note 23).

The Group remains the subject of investigations by the Office of the Attorney General of Switzerland and the Dutch Public Prosecutor's Office as disclosed in notes 23 and 32 to the financial statements. Claims have been issued against the Group in the United Kingdom ("UK Claims") in connection with the various Government investigations, constituting claims on behalf of current and former shareholders (refer note 32). The Board's consideration of these matters are set out in the Corporate Governance Report on page 108 and the Group's commentary on the Laws and enforcement principal risk is set out in the Strategic Report on pages 97 – 98.

The Investigations Committee of the Board is overseeing the Group's response to these investigations. The Group has engaged external legal counsel and forensic experts to assist the Group in responding to the various investigations, to represent it in litigation and to perform additional investigations at the request of the Investigations Committee covering various aspects of the Group's business.

In accordance with the accounting criteria set out under IAS 37 Provisions, Contingent Liabilities and Contingent Assets, the judgement of the Investigations Committee (guided by the General Counsel and the Group's external legal counsel) is required in determining the following:

- the probability of whether a present obligation exists at 31 December 2022 for the ongoing Swiss and Dutch investigations, and potential future claims by other authorities or other parties in connection with these matters, including collective, group or representative actions; and
- the probability of whether a present obligation exists at 31 December 2022 for the UK Claims and potential future claims in connection with these matters.

At 31 December 2022, taking all available evidence into account, with respect to the Swiss and Dutch investigations, the UK Claims and any potential additional investigations or claims, the Investigations Committee concluded that it is not probable that a present obligation existed at the end of the reporting period. The timing and amount, if any, of financial effects (such as fines, penalties or damages, which could be material) or other consequences, including external costs, from any of the various investigations or claims and any change in the investigations' scope is not possible to predict or estimate. Consequently, no liability has been recognised, nor has any estimate of the contingent liability been disclosed, in relation to these matters in the consolidated statement of financial position at 31 December 2022.

We identified the following key audit areas:

- the risk that the related disclosure made by the Group on the nature, timing and associated uncertainties relating to the provision as required by IAS 37 is inadequate; and
- the risk that the judgement on the probability that a present obligation did not exist for the Swiss or Dutch investigations, the UK Claims or potential additional investigations or claims is inappropriate, and the disclosure of these as contingent liabilities may not be adequate.

How the scope of our audit responded to the key audit matter

In response to the key audit matter noted above we performed the following:

General procedures

- We gained an understanding of the Investigations Committee's and General Counsel's process and internal controls for reviewing the IAS 37 assessment and review of the disclosures in the Annual Report.
- We attended regular briefings from the General Counsel and the Group's external legal counsel during the year.
- We reviewed written legal assessments from the external legal counsel and evaluated whether they appropriately support the Group's conclusions.
- We assessed the competence, capability and objectivity of the external legal counsel used by the Group.
- We considered whether the external legal counsel's scope and outcomes were sufficient to inform the Investigations Committee's assessment and representation of whether a present obligation exists, and the adequacy of the provision made at 31 December 2022.
- We reviewed resolution documents from the investigating authorities and the internal meeting minutes of the Investigations Committee.
- We obtained an understanding of the stage of each investigation and process being followed by each regulatory and enforcement authority in reaching resolution with Glencore from the General Counsel and gave direct challenge to and sought confirmation from external legal counsel on each matter.

Appropriateness of contingent liability assessment and relevant disclosures in relation to the ongoing Swiss and Dutch investigations, and potential additional follow-on investigations or claims

- We enquired of the General Counsel and obtained direct written confirmation from Swiss and Dutch external legal counsel as to the current stage of the Swiss and Dutch investigations respectively, and their assessment of the probability of a present obligation existing at the reporting date.

- Having regard to potential additional follow-on investigations or claims, we enquired of the General Counsel and obtained written assessment from external legal counsel on the potential for additional follow-on investigations or claims, and their assessment of the probability of a present obligation existing at the reporting date.
- We enquired of the Investigations Committee, the General Counsel and the Group's external legal counsel as to their awareness of known or likely non-compliance with laws and regulations from the Swiss and Dutch investigations to date which could indicate the existence of a present obligation at 31 December 2022, and whether any such non-compliance could result in a potential material outflow (penalty or fine).
- We considered whether the Investigations Committee's conclusions were reasonable that a present obligation did not exist at the end of the reporting period and that the timing and amount, if any, of financial effects from any of these investigations and any change in their scope is not possible to predict or estimate.

Appropriateness of contingent liability assessment and relevant disclosures in relation to the UK Claims and potential further legal claims

- We reviewed the claims filed in the UK High Court.
- We obtained an understanding from Glencore's General Counsel on its response to these claims.
- We reviewed a legal assessment from Glencore's external UK legal counsel of the claims, setting out the legal process and legal requirements that claimants need to adhere to in order to be successful.
- We held a discussion with the external legal counsel to understand their assessment of legal liability and the potential to quantify any exposure to Glencore as a result of these claims.
- We evaluated management's overall conclusion that these claims meet the IAS 37 definition of a contingent liability.

Key observations

Based on the results of our procedures, we concluded that:

- the financial statement disclosures relating to the investigations by regulatory and enforcement authorities and the related follow-on claims in notes 23 and 32 and the key judgement disclosures in note 1 are appropriate and in accordance with the requirements of IAS 37 and IAS 1.

5.2 Impairments of non-current assets

Description of key audit matter

The carrying value of the Group's non-current assets within the scope of IAS 36 Impairment of assets includes property, plant and equipment ("PPE"), intangible assets, non-current advances and loans, and investments in associates and joint ventures, which amounted in total to $60,108 million at 31 December 2022. When an impairment or impairment reversal indicator exists in the Group's significant assets and investments, management completes an impairment review.

In assessing the recoverability of non-current assets, management must make significant assumptions about factors such as:

- expected future prices of commodities key to the Group (particularly coal, oil, copper, cobalt, zinc, ferroalloys and nickel), oil refining margins, foreign exchange rates, production levels, operating costs and discount rates;
- future mining and tax legislation, and political and other macro-economic developments;
- responses to climate change impacts by regulators and consumers, which could negatively impact demand for the Group's products, particularly coal (refer to "Potential impact of climate change on non-current assets" key audit matter below); and
- geological and other operational factors that could affect an asset's performance over time.

For non-current advances and loans, the Group is also exposed to credit and performance risk related to non-performance by the counterparty, particularly in markets demonstrating significant price volatility with limited liquidity and terminal markets, where suppliers may be incentivised to default on delivery and customers may be unwilling to take contracted deliveries or be unable to pay. Assessing counterparty performance, solvency and liquidity risks can be highly subjective.

As disclosed in note 7, pre-tax impairments totalling $1,984 million were recorded in PPE and intangible assets, $799 million in investments and non-current VAT receivables, and $389 million in advances and loans.

The outcome of impairment or impairment reversal assessments can vary significantly if different assumptions are applied as further described in the sensitivity disclosures made by the Group within "Key sources of estimation uncertainty" in notes 1 and note 7, as well as the Audit Committee Report on page 114.

We considered the potential risk of fraud being perpetrated through management bias due to the potential for there to be significant estimation uncertainty and subjectivity in certain judgements and key assumptions in the Group's impairment and impairment reversal assessments.

Independent Auditor's Report to the Members of Glencore Plc *continued*

How the scope of our audit responded to the key audit matter

In response to the key aduit matter noted above, we performed the following:

General procedures

- We considered management's assessment of impairment risk and its assessment of the indicators of impairment or impairment reversal.
- We performed an independent assessment of impairment and impairment reversal indicators considering the current economic environment, including the impacts of the war between Russia and Ukraine and related supply chain disruptions, and the increase in inflation globally.
- We updated our assessment of management's determination of relevant cash-generating units ("CGUs") by reference to the requirements of the accounting standards and our understanding of the nature of the mining operations and the extent to which active markets are considered to exist for intermediary products.
- We obtained an understanding of the methodology applied by management in developing its impairment and impairment reversal assessments, which included understanding the inherent subjectivity and complexity of underlying key assumptions, as well as relevant controls in management's impairment and impairment reversal assessment process.
- For non-current advances and loans (see note 12), we obtained an understanding of management's method of assessing these assets for impairment, which included obtaining an understanding of relevant controls in the Group's centralised and local credit and performance risk monitoring processes.

Challenge of key model assumptions and overall reasonableness of impairment or impairment reversal assessment

- We challenged the significant assumptions used and the evidence on which these assumptions were based. We considered the risk of management bias in macroeconomic forecast assumptions and estimates with the support of Deloitte valuations specialists by analysing management's inputs against third party forecast data, Deloitte's independent assessment of discount rates, and reconciliations to latest internal budget information.
- Where indicators of impairment or impairment reversal were identified, we performed detailed testing on management's impairment calculations and where appropriate based on our risk assessment, we utilised Deloitte valuation and mining specialists to assess the reasonableness of management's underlying model inputs and key assumptions and the basis for technical mining, operational and financial inputs (e.g. price, discount rate, reserve and resource estimation, production parameters, grade and recovery rates, resource conversion rates, and operating and capital costs). Production and cost assumptions were analysed against historical performance as well as approved budgets and life of mine ("LOM") plans, where applicable, and minable tonnes assumptions were assessed against reserves and resources estimates.
- We assessed the competence, capability and objectivity of the Group's internal experts responsible for preparing the reserves and resources statements.
- We assessed the appropriateness of key mine-specific assumptions and the judgements taken in applying these assumptions within the impairment models, such as the incorporation of price-specific discounts or premiums, changes in tax legislation or other legal or regulatory assumptions (e.g., rehabilitation provisions).
- We performed a stand back assessment and evaluated management's impairment or impairment reversal assessment for any evidence of management bias in assumptions and judgements applied.
- We challenged management's assessment of recoverability of advances and loans by reviewing supporting agreements and obtaining evidence of current performance, historical patterns of trading and settlement, correspondence with the third party and any other information we are aware of that may influence the third party's ability to perform.
- We evaluated the adequacy of impairment related disclosures in the financial statements, including the key assumptions used and the completeness and accuracy of sensitivities disclosed.
- For climate related impairment risks, please refer to our key audit matter under 5.3 below.

Key observations

Based on the results of our assessment of management's methodology for impairment and impairment reversal testing and modelling, we concluded that the methodology applied complies with the accounting framework, and that management's assessment of impairment indicators was appropriate.

We concluded that key assumptions to which impairment or impairment reversal outcomes were sensitive were reasonable in comparison to historical actuals achieved, relevant evidence and/or our specialists' judgements.

Based on the results of our testing, we concluded that the recoverable amounts for the CGUs tested were within an acceptable range of outcomes, although certain assumptions applied are subject to high levels of estimation uncertainty. We considered management's disclosures on key assumptions and impairment or impairment reversal sensitivities and found them to be in compliance with IFRS requirements. Notwithstanding our conclusions above, we found that the level of management review and documentation retained relating to certain judgements and key assumptions in complex models requires improvement and considered this finding in our audit response.

We concluded that the Group's impairment charge in relation to non-current loans and advances and non-current VAT receivables was appropriate.

Independent Auditor's Report to the Members of Glencore Plc *continued*

5.3 Potential impact of climate change on non-current assets

Description of key audit matter

As described on pages 24 to 42 of the Annual Report, climate change is a material issue that can affect Glencore's business through currently enacted and prospective regulations to reduce carbon emissions and ultimately limit extreme climate events. This may impact the company through increased costs through carbon pricing mechanisms, potentially reduced access to capital and changes in energy prices amongst others.

In December 2020, the Group published its climate change strategy, Pathway to Net Zero which set out the pathway to delivering its climate-related targets and longer-term ambition of becoming a net-zero total emissions company by 2050. The Group published its *2022 Climate Report* in March 2023 detailing the steps taken during the year to identify and implement emission reduction opportunities and to make progress in the seven priority areas identified in the Group's climate strategy.

As outlined in note 1, Glencore's exposure to assets that produce fossil fuels relate mainly to its coal mining operations in Australia, South Africa and Colombia and its Astron oil refining asset in South Africa. It also has goodwill in its coal marketing CGU. All of these assets are long term in nature and, other than goodwill which is not required to be amortised, the average useful life of fossil fuel assets is 6.5 years. There are also rehabilitation liabilities linked to the coal and oil producing assets totalling $2,708 million ($3,717 million undiscounted). At 31 December 2022, the carrying values of fossil fuel producing assets and linked rehabilitation liabilities make up 28% of total non-current assets and 8% of total non-current liabilities respectively.

In note 1 to the financial statements, the Group identifies the accounting measurement and disclosure impacts of assets and liabilities that are most impacted by climate change and Glencore's climate commitments, including:

- estimation of the carrying value of certain assets exposed to climate change risk impacted by demand and supply for the Group's commodities, related commodity pricing and carbon pricing;
- estimation of the remaining useful economic life of assets for depreciation and amortisation purposes; and
- estimation of timing of rehabilitation and decommissioning closure activities.

To assess the possible impact of climate change on the Group's coal portfolio, the Group has developed a number of downside sensitivities based on various scenarios published by the International Energy Agency ("IEA"), including a net zero emissions by 2050 scenario ("NZE"). In addition to the above, the Group has also run downside sensitivities against the Complete Displacement Scenario. The impact of these sensitivities has been disclosed in note 1. These sensitivities illustrate the combined effect of assuming weaker short term and long-term thermal coal demand and commodity prices than management has assumed in its base case.

IFRS requires the Group's financial reporting to be based, amongst other things, on the Group's best estimate of assumptions that are reasonable and supportable as at the date of reporting. Those assumptions may not align with the ways in which the global economy, society and government policies will need to change to meet the targets set out in the IEA's NZE scenario or the Group's stated ambitions .

We identified a key audit matter relating to the financial impacts of climate change on the Group and the impact on key judgements and estimates within the financial statements, and the consistency of reporting in the Strategic and Corporate Governance reports on pages 1 – 140, with the financial impacts in the financial statements. Our audit focused on the following areas in particular:

- Glencore's coal pricing assumptions used (which differ from the IEA's pricing assumptions under the respective scenarios) to assess its coal producing assets for impairment or impairment reversals;
- The appropriateness of Glencore's useful life assessment of fossil fuel producing assets based on anticipated demand for coal and oil in the medium to long term;
- The appropriateness of Glencore's judgement that carbon costs will likely be passed on to the consumer (refer page 164 for details);
- The valuation of goodwill relating to its coal marketing cash generating unit which is based on an earnings multiple approach of 12x (12x in 2021) (refer note 10);
- The appropriateness of the timing of rehabilitation cash flows at operations that produce fossil fuels; and
- The consistency between Glencore's announced climate related targets and net zero 2050 ambition and the above areas.

Independent Auditor's Report to the Members of Glencore Plc *continued*

How the scope of our audit responded to the key audit matter

In response to the key audit matter noted above we performed the following:

Coal pricing
- As the availability of long-term coal pricing and demand and supply market data (particularly for the Group's coal produced outside of Australia) is extremely limited, we engaged valuation experts to analyse historical price correlations between the three primary coal benchmark prices: Newcastle (Australian coal benchmark) which has the largest number of broker forecasting data, API 4 (South African coal benchmark) and API 2 (North West Europe coal benchmark for the sale of the Group's Colombian coal). This assessment was used to extrapolate a forward curve against which we challenged Glencore's forecast price assumptions.
- We compared Glencore's long-term coal pricing to pricing assumptions provided by brokers and the IEA's Stated Policies Scenario ("STEPS") and Announced Pledges Scenario ("APS") noting that some adjustments were required to the IEA's data to ensure comparability (e.g., appropriate freight adjustments etc).
- We considered management's updated illustrative impairment sensitivities in note 1 and challenged whether these presented contradictory evidence to management's conclusion that there were no impairment indicators relating to the Group's thermal coal assets.

Asset useful lives
- We evaluated Glencore's coal production profile against the IEA scenarios and evaluated the consistency of management's internal modelling with its external climate reporting.
- With the support of South African refinery specialists, we challenged the useful life of the Astron's oil refinery by evaluating a third party expert report commissioned by management (that covered the period up to 2050), as well as data on oil demand expectations provided by the IEA up to 2050. We also considered factors such as the refinery's geographical location and competitive landscape in our assessment.
- We challenged management's assessment of useful lives and the basis used to depreciate/amortise physical and intangible assets.
- We assessed whether any assets' useful lives exceeded management's modelled life of mine/asset of the operation.

Carbon costs
- We confirmed with management that their position that carbon costs will be passed through to the customer has not changed from the prior year.
- We challenged the reasonableness of management's logic on carbon pricing being passed onto the customer based on the outcome of our independent sensitivity analysis and observations.
- We benchmarked management's position against peer entities.
- We reviewed external reports (IEA and others) for market expectations on the impact of carbon pricing.

Marketing coal goodwill
- We evaluated the appropriateness of Glencore's use of a price-to-earnings multiple to determine a market based fair value estimate in light of an expectation that coal volumes traded are expected to decrease over time and therefore so too would earnings.
- We determined an independent range of price-to-earnings multiples based on companies with coal trading, coal production or coal logistics exposure to evaluate the reasonableness of management's use of the earnings multiple approach.
- We obtained management's value in use calculation which is based on a bottom-up assessment of forecast trading volumes and margins. We challenged the Group's assumptions on coal volumes with reference to Glencore's declining volume production and scenarios provided by the IEA.

Rehabilitation provisions
- We updated our understanding of the current and any proposed legislative requirements and considered the impact on the timing of rehabilitation provisions.
- We challenged the timing of planned rehabilitation activities of Glencore's fossil fuel operations and whether modelled cash flows aligned with the directors' announced climate change commitments and ambition.
- We re-performed calculations behind management's sensitivity analysis to assess the impact of a 3- and 5-year acceleration to forecast cash flows of all rehabilitation provisions impacting fossil fuel producing CGUs.

Consistency between Glencore's announced targets and accounting policies
- We have used Deloitte climate and sustainability specialists to challenge the Group's climate change narrative and related disclosures.
- We have read the other information included in the annual report and considered whether there was any material inconsistency between the other information and the financial statements, or whether there was any material inconsistency between the other information and our understanding of the business based on audit evidence obtained and conclusions reached in the audit.
- We considered whether the Group's sensitivity and estimation uncertainty disclosures were appropriate in the context of climate change risks and uncertainties.

Key observations

With respect to Glencore's base case assessment of coal pricing assumptions, we found Glencore's short to medium term Newcastle pricing assumptions to be conservative (below) relative to broker consensus ranges. When comparing Glencore's assumptions to the IEA's data points, we found their assumptions to be higher than the IEA's STEPS and APS forecast. Glencore's base case commodity pricing assumptions are within our acceptable range.

We concur with the disclosure in note 1 that no reasonably possible change in key assumptions would result in a material impairment in the next financial year. While management's pricing assumptions appear reasonable, there remains a risk of impairment should the macro pricing environment deteriorate significantly and trend faster towards the IEA's APS and NZE scenarios (as demonstrated in the Group's sensitivity disclosure).

With respect to the illustrative climate related sensitivities provided in note 1, and whether these contradict the Group's impairment conclusions and our related audit conclusions, we observed that the illustrative sensitivities reflect the combined effect of adopting the IEA's long-term price assumptions based on the various IEA climate scenarios, together with the effect of adopting the 2021 IEA price as a starting point for short term price assumptions. The short-term price assumptions in these sensitivities do not reflect the benefit of the short-term pricing environment at the balance sheet date which has increased significantly over the 2021 price assumptions referenced in the IEA's report. Accordingly we are satisfied that these do not contradict the directors' assessment that an impairment is not reasonably possible within the next financial year.

We consider management's position on the 'pass through' of carbon pricing to be reasonable and concur that it is a key judgement (refer "Climate change related considerations" within note 1).

We concluded that the assumed timing of anticipated restoration, rehabilitation and decommissioning cash flows associated with Glencore's fossil fuel related assets was reasonable. We found the sensitivity disclosures in note 1 to be appropriate.

We found no material inconsistencies between management's coal and oil impairment modelling, rehabilitation forecasts or asset useful lives as set out in note 1 and its stated response to climate change as described in the Strategic Report.

We concluded that reasonable consideration and weight had been given to the likely impacts of climate change in the valuation for impairment testing purposes of the Group's coal assets, Coal marketing business CGU and oil refining assets at 31 December 2022.

5.4 Classification of trading contracts and arrangements which contain a financing element

Description of key audit matter

Glencore trades a diverse portfolio of commodities and utilises a wide variety of trading strategies in order to profit from volatility in market prices, differentials and spreads whilst maximising flexibility and optionality, within the Group's risk management framework.

The classification of contracts relating to the Group's Marketing segment can be complex, particularly distinguishing the Group's regular marketing contracts, which are measured at fair value through profit or loss, from those sales contracts where the Group physically delivers its own production to a third party with no history or intention of net settlement ("own use"), which are exempt from fair value measurement (i.e., mark-to-market accounting).

Transactions for the sale or purchase of commodities may contain a financing element, such as prepayments or extended payment terms, which may require judgement in determining the most appropriate accounting classification, presentation and disclosure.

Refer to notes 1, 21, 22 and 25.

How the scope of our audit responded to the key audit matter

In response to the key audit matter noted above we performed the following:

- We obtained an understanding of the trading strategies and associated product flows within the Group's marketing departments, including gaining an understanding of the relevant controls over market risk management using financial instrument specialists embedded within the audit team with experience in commodity trading.
- We analysed the trade books to understand unusual or complex derivatives open at year-end. We also analysed the trading results for portfolios designated as "own use" for evidence of any net settlements, which may indicate potential tainting of the IFRS 9 Financial Instruments "own use" criteria.
- We challenged the Group's judgements and conclusions associated with the classification and accounting for new significant arrangements and/or significant changes to existing arrangements containing a financing element. Our challenge included evaluation of the commercial substance of the arrangements in the context of applicable IFRS guidance and industry practice.
- We assessed the adequacy of related disclosures in the financial statements in accordance with the requirements of IFRS.

Key observations

Based on our procedures, we are satisfied that the significant judgements applied in the classification of contracts, and arrangements with a financing element, were appropriate, and the respective accounting treatment and disclosures are in accordance with the requirements of IFRS.

Independent Auditor's Report to the Members of Glencore Plc *continued*

5.5 Marketing revenue recognition and fair value measurements

Description of key audit matter

Marketing revenue for the year (prior to inter-segment eliminations) was $215,102 million (2021: $177,583 million). Refer to note 1 for the revenue recognition accounting policies and note 2 for segment information. The increase in revenues year-on-year is principally due to the impact of higher pricing for certain commodities following the Russian-Ukraine conflict and the resulting disruption on European energy markets.

Glencore generates marketing revenue from physical asset handling, arbitrage, and blending and trade optimisation opportunities. Substantially all output from industrial assets is sold by the Group's marketing segment.

Marketing related activities depend on the reliability of the trade capture systems and their IT infrastructure environment. As the majority of the Group's trades and marketing inventories are measured at fair value through profit or loss (through either revenue or cost of goods sold), a complete and accurate trade capture process that includes all specific and bespoke terms within the commodity contracts is critical for accurate financial reporting and monitoring of trade book exposures and performance.

Determination of fair values can be a complex and subjective area, requiring significant estimates, particularly where valuations utilise unobservable inputs and are classified as Level 3 as established by the hierarchy set out in IFRS 13 Fair value measurements (e.g. price differentials, medium- and long-term LNG pricing assumptions, credit risk assessments, market volatility and forecast operational estimates).

At 31 December 2022, total Level 3 financial assets and liabilities amounted to $3,461 million and $530 million respectively. Refer to "Critical accounting judgements" within note 1 and additionally notes 28 and 29.

How the scope of our audit responded to the key audit matter

- We reviewed Glencore's accounting policies on revenue recognition and fair value measurements to assess compliance with the requirements of IFRS.
- We obtained an understanding of relevant controls surrounding the completeness and accuracy of trade capture and revenue and, for certain controls, we tested their operating effectiveness. Our audit approach was largely substantive in nature and included agreeing key terms on unrealised trades back to contracts and other supporting evidence on a sample basis.
- We tested general IT controls surrounding major technology applications and critical interfaces involving revenue recognition and the completeness and accuracy of trade capture.
- We utilised data analytics tools to enhance audit effectiveness over large transaction volumes tracing realised revenue to cash receipts.
- We tested the accuracy and completeness of unrealised trades as of the reporting date by tracing and agreeing a sample of trades entered into around the year-end from source documents to the trade book system.
- We obtained an understanding of certain relevant internal controls over management's fair value measurement processes and, where appropriate, we tested their operating effectiveness. Our audit approach for testing the valuation of unrealised trades was largely substantive in nature and included performing independent valuations of the forward physical and paper trades on a sample basis.
- We worked with financial instrument specialists with experience in commodity trading, and tested management's significant unobservable inputs utilised in Level 3 measurements in the fair value hierarchy as set out in notes 28 and 29 to the financial statements. This work included assessing management's valuation assumptions against independent price quotes, recent transactions, and/or other relevant documentation. For the long-term LNG contracts we assessed management's modelling techniques used in extrapolating the directly observable inputs.

Key observations

Based on the results of our testing, we are satisfied that the revenue recognition policies are in line with IFRS and were appropriately applied throughout the period. In addition, we are satisfied that the Level 3 fair value measurements are supported by reasonable assumptions in line with recent transactions and/or externally verifiable information. We found the financial statement disclosures on fair value measurements to be appropriate. As improvements in controls were either in progress or implemented during the year, we adopted a largely fully substantive audit approach in relation to the deal capture and valuation risks.

5.6 Taxation: Uncertain tax positions and the recognition and recoverability of deferred taxes

Description of key audit matter

The global tax environment is complex, particularly with respect to cross border transactions. Furthermore, the interpretation and application of tax legislation in certain jurisdictions in which the Group operates can be unclear and unpredictable. There continues to be an increase in enforcement activities, and increasingly stringent interpretations of existing legislation by local revenue authorities.

These developments give rise to complexity and uncertainty in respect of the calculation of income taxes and deferred tax assets and consideration of contingent liabilities associated with tax years open to audit and other exposures. The accounting interpretation IFRIC 23 Uncertainty over Income Tax Treatments is used by the Group together with IAS 12 Income Taxes to assess and measure the uncertainty over income tax treatments.

As disclosed in notes 1 and 8:

- Management has updated its assessment of uncertain tax positions and the recognition and recoverability of deferred tax assets. In recognising a liability for these taxation exposures, consideration was given to the range of possible outcomes to determine the Group's best estimate of the amount to provide. As at 31 December 2022, the Group has provided $1,486 million (2021: $880 million) for uncertain tax liabilities related to possible adverse outcomes of these matters.
- At 31 December 2022 the Group has recorded total deferred tax liabilities of $3,651 million (2021: $4,469 million) and total deferred tax assets of $1,837million (2021: $1,779 million).
- The most significant estimation uncertainty relates to the Democratic Republic of Congo ("DRC"):
- During 2018, the DRC parliament adopted a new mining code ("2018 Mining Code") which introduced wide-ranging reforms including the introduction of higher royalties, a new Super Profits Tax regime and further regulatory controls. The uncertainties of the 2018 Mining Code, specifically the application and interpretation of the Super Profits Tax, remain.
- Since 2020 the tax authorities in the DRC have regularly challenged the Group's income tax filings and indirect tax filings and raised further direct tax and customs related claims; some matters have subsequently been agreed while others are still outstanding. The Group is currently responding to the challenges and assessments raised.

Further estimation uncertainty arises from the challenges of forecasting future taxable profits in various jurisdictions given the inherent volatility of trading results.

As a result, we have identified a risk of material misstatement of the liability and related disclosures for uncertain tax positions and the valuation of deferred tax assets due to the significant estimation uncertainty and subjectivity in certain judgements and key assumptions applied by management, whether arising from deliberate bias or unintentional error. This was also a key risk area for the Audit Committee; refer to page 114.

How the scope of our audit responded to the key audit matter

We engaged Deloitte tax specialists to assist in executing the following audit procedures:

- We reviewed and challenged management's assessment of uncertain tax positions by reviewing correspondence with local tax authorities and reviewing third party expert tax opinions where appropriate, to assess the adequacy of associated liabilities and disclosures, having consideration of the IFRIC 23 guidance.
- We considered the appropriateness of management's assumptions and estimates to support the recognition of deferred tax assets with reference to forecast taxable profits. We challenged the appropriateness of management's tax utilisation models by comparing these forecasts against the relevant entities' budgets or underlying asset LOM plans.
- We assessed the adequacy of disclosures in the financial statements in relation to liabilities for uncertain tax positions and deferred tax assets, and the respective sensitivity disclosures provided.
- In respect of tax exposures in the DRC:
  - We challenged management's position by inspecting correspondence with local tax authorities, reviewing third party expert tax opinions where appropriate, and working with Deloitte local DRC tax specialists to assess the probability and extent of outflows from the challenges or expected challenges from the various tax authorities.
  - We challenged the adequacy of associated liabilities and disclosures having consideration of IFRIC 23 and IAS 37 guidance, as applicable.
  - We challenged management's position regarding the continuing recognition of a deferred tax asset in the DRC having regard to the ongoing uncertainties arising from the 2018 Mining Code (specifically the application of Super Profits Tax) and ongoing challenges received from the DRC tax authorities on open tax years.
  - We assessed the adequacy of disclosures in the financial statements in relation to the DRC tax matters and the respective estimation uncertainty disclosures provided.

Key observations

Based on our audit work on the Group's tax liabilities and deferred tax assets recorded at 31 December 2022, we concur that the recorded liabilities for uncertain tax positions and deferred tax assets and related disclosures are appropriate.

Independent Auditor's Report to the Members of Glencore Plc *continued*

6. Our application of materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

We set performance materiality at a level lower than materiality to reduce the probability that, in aggregate, uncorrected and undetected misstatements exceed the materiality for the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

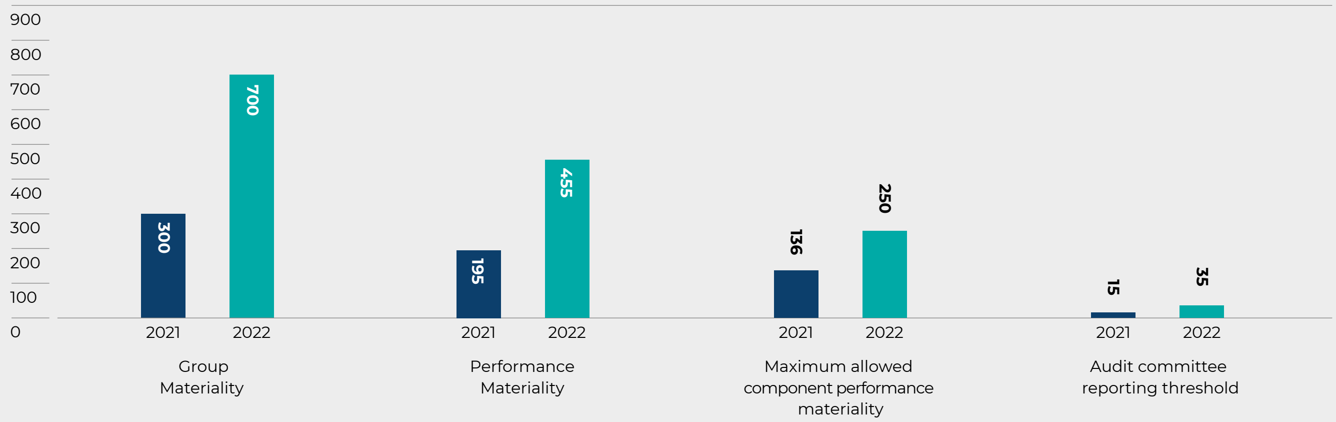
Group materiality and performance materiality

Group materiality: $700 million (2021: $300 million)

Group performance materiality: $455 million (2021: $195 million)

The increase in materiality is driven by significantly higher adjusted profit before tax compared to the prior year.

Group materiality and performance materiality
(US$ million)



Basis for determining materiality and performance materiality

We have continued our approach to determining materiality by reference to a 3-year average adjusted profit before tax metric and also net assets (a balance sheet metric). Based on our professional judgement, we determined materiality to be 700 million which is:

- 5.6% of three-year average adjusted profit before tax
- 1.5% of net assets as at 31 December 2022

Performance materiality
Group performance materiality for the 2022 audit has been set at $455 million being 65% of Group materiality (2021: $195 million being 65% of Group materiality). While the number of uncorrected misstatements in previous years is low, we continued to maintain a factor of 65% to determine performance materiality consistent with prior years. Component audit procedures are scoped with reference to the component materiality (see ranges applied below).

Component materiality
Due to the diversified nature of the Group's operations, we have historically applied a maximum allowed component materiality such that our component level procedures are set at a level that is commensurate with the contributions of each component. The maximum permitted materiality for individual components which were of a significant size to the Group was $250 million (2021: $136 million). The materiality applied to individual components ranged from $63 million to $250 million.

Rationale for the benchmark applied

3-year average adjusted PBT
Using a 3-year average continues to be an effective approach in the mining industry to normalise a profit orientated benchmark that is highly exposed to cyclical commodity price fluctuations. This benchmark is further normalised for items which, due to their nature and variable financial impact and/or expected infrequency of the underlying events, are not considered indicative of the continuing operations of the Group (such as impairment charges). The absence of these normalisation steps would result in a volatile materiality that may not represent the scale of the Group's operations.

Independent Auditor's Report to the Members of Glencore Plc *continued*

Net assets as an additional benchmark
In evaluating the changes in Glencore's environment and the evolving stakeholder focus areas, net debt and the impact of climate change on asset valuations have become important metrics for stakeholders. As an emerging risk, the impact of climate change is not necessarily captured in a mining company's 12-month performance but rather on the company's business model and long-term decision making, which includes access to capital. Incorporating a net assets metric into our approach improves the alignment of our materiality with the scale of the business and focus areas of investors.

Range approach to determining materiality
We consider a range approach to be appropriate to capture the upper and lower bounds of a reasonable materiality level that takes into consideration both of the above benchmarks. We then selected a point within that range that, in our professional judgement, appropriately reflects the sensitivity of the users of the financial statements to Glencore's current year performance and financial position.

The selected group materiality of $700 million amounts to 2.9% of current year adjusted pre-tax profit without the effect of averaging (2021: 2.5%).

Error reporting threshold
We agreed with the Audit Committee that we would report individual audit differences in excess of $35 million (2021: $15 million), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

7. An overview of the scope of our audit

7.1 The impact of climate change on our audit
Climate change impacts Glencore's business in a number of ways as set out in the Strategic report on pages 24 – 42 of the Annual Report and Note 1 on pages 163 – 183 of the financial statements.

In planning our audit, the financial impacts on the Group of climate change and the transition to a low carbon economy were considered where these factors have the potential to directly or indirectly impact key judgements and estimates and related assumptions within the financial statements. We worked with our internal environmental specialists in considering potential climate change risk factors. Our risk assessment was based on:

- enquiries of senior management to understand the potential impact of climate change risk including physical risks to producing assets, the potential changes to the macro-economic environment and the potential for the transition to a low carbon environment to occur quicker than anticipated;
- reading and considering Glencore's climate change report and position papers;
- considering, together with each of our component teams, immediate and possible longer-term impacts of climate change in each of the Group's main jurisdictions; and
- reading and considering external publications by recognised authorities on climate change such as the IEA's World Energy Outlook amongst others.

The principal audit risk that we have identified for our audit is that coal forecast assumptions (particularly coal price assumptions and the expected economic lives of these assets) used in impairment testing may not appropriately reflect anticipated changes in supply and demand due to climate change and the energy transition.

Our response to this principal audit risk and other climate risks that we considered relevant to the audit is summarised in the Key Audit Matter 5.3 "Potential impact of climate change on non-current assets" above.

7.2 Identification and scoping of components
Our Group audit was scoped by obtaining an understanding of the Group and its environment and assessing the risks of material misstatement at the Group level. Our scoping considered both quantitative and qualitative factors including a component's contribution to financial metrics (revenue, adjusted EBIT, adjusted EBITDA, and non-current assets), production output and qualitative criteria, such as being a significant development project or exhibiting particular risk factors. Based on our assessment, we scoped in audit work at 26 components (2021: 25 components), representing the Group's most material marketing operations and industrial assets.

Our Group audit utilised the work of 16 component audit teams (2021: 14 component audit teams) in 14 countries (2021: 12 countries).

The following audit scoping was applied:

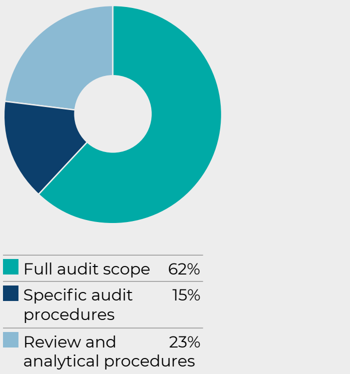
- 11 components (2021: 12 components) were subject to a full scope audit, and
- 15 components (2021: 13 components) were subject to specified audit procedures where the extent of our testing was based on our assessment of the risk of material misstatement of certain specific financial balances and/or processes and of the materiality of the Group's operations at those locations.

These 26 components account for 77% of the Group's net assets (2021: 77%), 90% of the Group's revenue (2021: 87%) and 82% of the Group's adjusted EBITDA (2021: 83%).

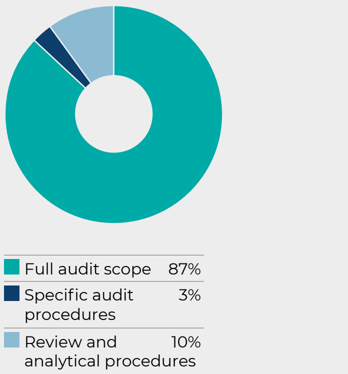
Independent Auditor's Report to the Members of Glencore Plc *continued*

At the parent entity level, we tested the consolidation process and carried out analytical procedures to confirm our conclusion that there was no significant risk of material misstatement in the aggregated financial information of the remaining components not subject to audit or audit of specified account balances.

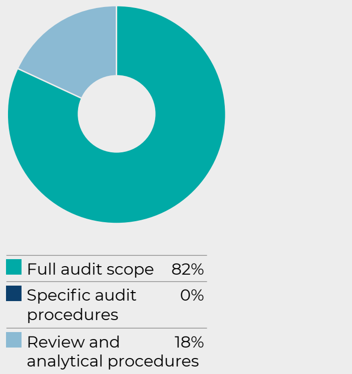
Net Assets



Revenue



Adjusted EBITDA



7.3 Working with other auditors

Detailed audit instructions were sent to the auditors of these in-scope components. These instructions identified the significant audit risks, other areas of audit focus, the account balances, classes of transactions and disclosures considered material and their relevant risks of material misstatement as assessed by the Group audit team. The instructions also set out the audit procedures to be performed and set out the information to be reported back to the Group audit team and other matters relevant to the audit.

On-site visits during the first half of 2022 were restricted due to travel restrictions arising from the ongoing Covid-19 pandemic. However, in the latter half of 2022, on-site visits took place in the UK, the Democratic Republic of Congo and South Africa.

For all in-scope components, the Group audit team was involved in the audit work performed by the component auditors through a combination of provision of referral instructions, regular interaction with the component teams during the year using video conferencing tools, review and challenge of related component inter-office reporting and of findings from their work, and attendance during component audit closing video conference calls.

7.4 Our consideration of the control environment

Glencore relies on the effectiveness of a number of IT systems and applications to ensure that financial transactions are recorded completely and accurately. The main financial accounting, reporting, trading and treasury systems were identified as key IT systems relevant to our audit. The IT systems which are primarily managed from the centralised IT function in Switzerland were evaluated by IT specialists who were part of the group engagement team. Other IT systems were evaluated by component IT specialists to determine whether controls within these IT systems could be relied upon. IT control deficiencies relating to the review of user access rights and the management of privileged access accounts were identified in a number of entities within the Group. Where centrally managed IT systems were impacted, mitigating controls were identified and/or additional procedures were performed in order to adopt a control reliance approach. However, certain component teams were unable to adopt a controls-based audit approach in the current year and accordingly, these teams extended the scope of their audit procedures in response to the identified control deficiencies.

For the marketing business we tested and relied on certain key manual and automated controls over the revenue business process. As discussed in the "Marketing revenue recognition and fair value measurements" key audit matter above, as improvements in controls were either in progress or implemented during the year, we adopted a fully substantive audit approach in relation to the deal capture and valuation risks. Industrial activities are generally decentralised and thus the design of controls and testing approach varies between components, except for revenue where a controls reliance approach was adopted for third-party revenue across all components.

At certain components of the Group, we observed a lack of evidence and insufficient segregation of duties around the posting of manual journal entries. While the group is increasingly enhancing its controls over manual journal entries and leveraging the journal approval functionality within its systems, the volume and controls over manual journals are such that, in certain components, we continue to adopt a fully substantive audit approach with enhanced risk assessment and audit procedures and extended sample testing.

As described in the "Impairment of non-current assets" key audit matter above, we found that the level of review and documentation retained relating to certain judgements and key assumptions in complex models requires improvement. This observation was also noted in other areas of the audit where complex models are prepared.

The Audit Committee has discussed these internal control deficiencies, and management's actions to remediate them on page 114. As deficiencies in the control environment increase the risk of fraud and error within the financial statements, we performed additional procedures to respond to the potential risks, including the risk of fraud as outlined in section 11 below.

Independent Auditor's Report to the Members of Glencore Plc *continued*

8. Other information

The other information comprises the information included in the annual report other than the financial statements and our auditor's report thereon. The directors are responsible for the other information contained within the annual report.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

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 course of the audit, or otherwise appears to be materially misstated.

If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

9. Responsibilities of directors

As explained more fully in the statement of directors' responsibilities, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

10. Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

11. Extent to which the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud, is detailed below.

11.1 Identifying and assessing potential risks related to irregularities

In identifying and assessing risks of material misstatement in respect of irregularities, including fraud and non-compliance with laws and regulations, we considered the following:

- the nature of the industry and sector, control environment and business performance including the design of the Group's remuneration policies, key drivers for remuneration, bonus levels and performance targets;
- the Group's own assessment of the risks that irregularities may occur either as a result of fraud or error;
- the results of our enquiries of senior management, internal audit, members of the legal, risk and compliance functions, and the Audit and Investigations Committees about their own identification and assessment of the risks of irregularities, including obtaining and reviewing the Group's documentation of its policies and procedures relating to:
  - identifying, evaluating and complying with laws and regulations and whether they were aware of any instances of non-compliance;
  - detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected or alleged fraud; and
  - reviewing internal controls established to mitigate risks of fraud or non-compliance with laws and regulations;
- the matters discussed among the engagement team, including significant component audit teams, and relevant internal specialists, including forensic, tax, mining, valuations and IT specialists, regarding how and where fraud might occur in the financial statements and any potential indicators of fraud.

Independent Auditor's Report to the Members of Glencore Plc *continued*

As a result of these procedures, we considered the opportunities and incentives that may exist within the organisation for fraud and identified the greatest potential for fraud in the following areas:

- the use of agents and intermediaries in certain higher risk jurisdictions, and other higher risk transaction types;
- the testing of impairment of non-current assets within the scope of IAS 36 Impairment of Non-current Assets;
- the use of supply chain finance arrangements and their classifications and disclosure within trade creditors;
- key sources of estimation uncertainty in the recognition and measurement of deferred tax assets and uncertain tax positions; and
- valuation of unrealised forward physical positions (Level 3 fair value measurements).

In common with all audits under ISAs (UK), we are also required to perform specific procedures to respond to the risk of management override.

We also obtained an understanding of the legal and regulatory frameworks that the Group operates in, focusing on provisions of those laws and regulations that had a direct effect on the determination of material amounts and disclosures in the financial statements. The key laws and regulations we considered in this context included Companies (Jersey) Law 1991, Primary and Secondary Listing Rules, Disclosure Guidance and Transparency Rules and related guidance and relevant tax laws.

In addition, we considered provisions of other laws and regulations that do not have a direct effect on the financial statements but compliance with which may be fundamental to the Group's ability to operate or to avoid a material penalty. These included the US Foreign Corrupt Practices Act, the US Anti-Money Laundering regulations, the UK Bribery Act 2010 and the Group's operating licences and environmental regulations in the jurisdictions in which it operates.

11.2 Audit response to risks identified

As a result of performing the above, we identified "Government investigations", "Impairments of non-current assets", "Marketing revenue recognition and fair value measurements" and "Taxation: uncertain tax positions and the recognition and recoverability of deferred tax assets" as key audit matters related to the potential risk of fraud or non-compliance with laws and regulations. The key audit matters section of our report explains the matters in more detail and also describes the specific procedures we performed in response to those key audit matters.

In addition, our procedures to respond to risks identified included the following:

- inquiring of management, the Audit Committee, the Investigations Committee, General Counsel and the Group's external legal counsel concerning actual and potential litigation and claims;
- inquiring of management, the Audit Committee, the Investigations Committee, General Counsel and the Group's external legal counsel regarding whether the Group is in compliance with laws and regulations relating to fraud, money laundering, bribery and corruption;
- reading minutes of meetings of those charged with governance, reviewing internal audit reports and reviewing correspondence with relevant regulatory and taxation authorities, where applicable;
- obtaining an understanding of the Group's business relationships with agents and intermediaries in certain high-risk jurisdictions and the rationale for appointment;
- scrutinising higher risk expense accounts for evidence of improper payments in high risk jurisdictions;
- performing audit procedures to identify and investigate suspicious payments to government officials, agents and intermediaries; this was done by adding search parameters to our journal entry testing for key words relevant to potentially fraudulent payments;
- working with our Deloitte forensic specialists to perform detailed audit procedures on business transactions with high-risk individuals and companies;
- challenging management's key judgements and assumptions for determining the recoverable amounts and credit adjustments for trade advances, and provisioning for uncertain tax positions;
- using analytical tools to identify unrealised forward physical positions of increased audit interest and challenging the method and inputs to those valuations;
- using analytical tools to confirm the completeness of management's identification of transactions that may indicate supply chain financing features, and challenging the nature of such supply chain financing arrangements and whether they qualify for separate disclosure or classification as debt;
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud;
- performing focused analytical procedures on key financial metrics of non-significant components to identify any unusual or material transactions that may indicate a risk of material misstatement and evaluating the business rationale of such transactions;
- reviewing the financial statement disclosures and testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described as having a direct effect on the financial statements; and
- addressing the risk of fraud through management override of controls by testing the appropriateness of journal entries and other adjustments; assessing whether the judgements made by management in making accounting estimates indicate a potential bias and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business.

We also communicated relevant identified laws and regulations and potential fraud risks to all engagement team members, including internal specialists and all component audit teams, and remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit.

Report on other legal and regulatory requirements

12. Opinion on other matters prescribed by our engagement letter

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the provisions of the UK Companies Act 2006 as if that Act had applied to the company.

13. Corporate Governance Statement

Based on the work undertaken as part of our audit, we have concluded that each of the following elements of the Corporate Governance Statement is materially consistent with the financial statements and our knowledge obtained during the audit:

- the directors' statement with regards to the appropriateness of adopting the going concern basis of accounting and any material uncertainties identified (set out on page 139);
- the directors' explanation as to their assessment of the Group's prospects, the period this assessment covers and why the period is appropriate (set out on page 139);
- the directors' statement on fair, balanced and understandable (set out on page 140);
- the board's confirmation that it has carried out a robust assessment of the emerging and principal risks (set out on page 113);
- the section of the annual report that describes the review of effectiveness of risk management and internal control systems (set out on pages 89-103), and
- the section describing the work of the audit committee (set out on pages 114-115).

14. Matters on which we are required to report by exception

Adequacy of explanations received and accounting records

Under the Companies (Jersey) Law, 1991 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- proper accounting records have not been kept by the parent company, or proper returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

15. Other matters which we are required to address

15.1 Auditor tenure

We were appointed by the Board of Directors on 22 August 2011 to audit the financial statements of Glencore plc for the year ending 31 December 2011 and subsequent financial periods. Following a competitive tender process run by the Audit Committee in 2021, we were reappointed as auditor of Glencore plc for the period ending 31 December 2023 and subsequent financial periods. The period of total uninterrupted engagement including previous renewals and reappointments of the firm as auditor of Glencore plc is 12 years, covering the years ending 31 December 2011 to 31 December 2022. The Engagement Partner has rotated twice during this period, with the most recent rotation being after the 2017 audit.

15.2 Consistency of the audit report with the additional report to the Audit Committee

Our audit opinion is consistent with the additional reporting to the audit committee we are required to provide in accordance with ISAs (UK).

16. Use of our report

This report is made solely to the company's members, as a body, in accordance with Article 113A of the Companies (Jersey) Law, 1991. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. 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 this report, or for the opinions we have formed.

As required by the Financial Conduct Authority (FCA) Disclosure Guidance and Transparency Rule (DTR) 4.1.14R, these financial statements form part of the European Single Electronic Format (ESEF) prepared Annual Financial Report filed on the National Storage Mechanism of the UK FCA in accordance with the ESEF Regulatory Technical Standard ('ESEF RTS'). This auditor's report provides no assurance over whether the annual financial report has been prepared using the single electronic format specified in the ESEF RTS. We have provided assurance on whether the annual financial report has been prepared using the single electronic format specified in the ESEF RTS and have reported separately to the members on this.

Geoffrey Pinnock, CA (SA)
for and on behalf of Deloitte LLP
Recognised Auditor

London, United Kingdom,,
22 March 2023

Consolidated statement of income

For the year ended 31 December 2022

US$ million	Notes	**2022**	2021
Revenue	3	255,984	203,751
Cost of goods sold		(228,723)	(191,370)
Selling and administrative expenses		(2,430)	(2,115)
Share of income from associates and joint ventures	11	2,300	2,618
Gain/(loss) on acquisitions and disposals of non-current assets	4	1,287	(607)
Other income	5	365	186
Other expense	5	(1,276)	(2,133)
Impairments of non-current assets	7	(3,285)	(1,905)
(Impairments)/reversal of impairments of financial assets	7	(52)	67
Dividend income	11	45	23
Interest income	6	435	208
Interest expense	6	(1,771)	(1,348)
Income before income taxes		**22,879**	**7,375**
Income tax expense	8	(6,368)	(3,026)
Income for the year		**16,511**	**4,349**
Attributable to:			
Non-controlling interests		(809)	(625)
Equity holders of the Parent		17,320	4,974
Earnings per share:			
Basic (US$)	18	1.33	0.38
Diluted (US$)	18	1.32	0.37

All amounts presented are derived from continuing operations. The accompanying notes are an integral part of the consolidated financial statements.

Consolidated statement of comprehensive income

For the year ended 31 December 2022

US$ million	Notes	**2022**	2021
Income for the year		16,511	4,349
Other comprehensive income			
Items not to be reclassified to the statement of income in subsequent periods:			
Defined benefit plan remeasurements	24	298	284
Tax charge on defined benefit plan remeasurements		(67)	(61)
Fair value loss on equity investments accounted for at fair value through other comprehensive income	11	(1,124)	(52)
Tax credit/(charge) on equity investments accounted for at fair value through other comprehensive income		2	(4)
Gain/(loss) due to changes in credit risk on financial liabilities accounted for at fair value through profit and loss		2	(7)
Net items not to be reclassified to the statement of income in subsequent periods		**(889)**	**160**
Items that have been or may be reclassified to the statement of income in subsequent periods:			
Exchange loss on translation of foreign operations		(307)	(87)
Items recycled to the statement of income[1]	5/26	481	–
Loss on cash flow hedges		(38)	(212)
Tax credit on loss on cash flow hedges		2	–
Cash flow hedges reclassified to the statement of income		65	241
Tax charge on cash flow hedges reclassified to the statement of income		(2)	(2)
Share of other comprehensive loss from associates and joint ventures	11	(100)	(58)
Net items that have been or may be reclassified to the statement of income in subsequent periods		**101**	**(118)**
Other comprehensive (loss)/income		**(788)**	**42**
Total comprehensive income		**15,723**	**4,391**
Attributable to:			
Non-controlling interests		(824)	(645)
Equity holders of the Parent		16,547	5,036

1 Comprises foreign exchange translation losses recycled upon disposal of subsidiaries ($50 million)(see notes 17 and 26) and restructuring of intragroup debt ($431 million)(see note 5).

All amounts presented are derived from continuing operations. The accompanying notes are an integral part of the consolidated financial statements.

Consolidated statement of financial position

As at 31 December 2022

US$ million	Notes	2022	2021
Assets			
Non-current assets			
Property, plant and equipment	9	39,564	43,159
Intangible assets	10	6,160	6,235
Investments in associates and joint ventures	11	11,878	12,294
Other investments	11	456	1,620
Advances and loans	12	2,654	3,527
Other financial assets	28	206	458
Inventories	13	605	662
Deferred tax assets	8	1,837	1,779
		63,360	**69,734**
Current assets			
Inventories	13	33,460	28,434
Accounts receivable	14	24,565	19,493
Other financial assets	28	6,109	4,636
Income tax receivable	8	401	364
Prepaid expenses		325	287
Cash and cash equivalents	15	1,923	3,241
		66,783	**56,455**
Assets held for sale	16	2,440	1,321
		69,223	**57,776**
Total assets		**132,583**	**127,510**
Equity and liabilities			
Capital and reserves – attributable to equity holders			
Share capital	17	141	146
Reserves and retained earnings	17	49,269	39,785
		49,410	**39,931**
Non-controlling interests	34	(4,191)	(3,014)
Total equity		**45,219**	**36,917**
Non-current liabilities			
Borrowings	21	18,851	26,811
Deferred income	22	1,547	2,088
Deferred tax liabilities	8	3,651	4,469
Other financial liabilities	28	2,055	710
Provisions	23	7,163	6,117
Post-retirement and other employee benefits	24	677	939
		33,944	**41,134**
Current liabilities			
Borrowings	21	9,926	7,830
Accounts payable	25	29,726	29,313
Deferred income	22	1,060	1,573
Provisions	23	1,425	2,093
Other financial liabilities	28	4,882	6,077
Income tax payable	8	4,660	1,785
		51,679	**48,671**
Liabilities held for sale	16	1,741	788
		53,420	**49,459**
Total equity and liabilities		**132,583**	**127,510**

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated statement of cash flows

For the year ended 31 December 2022

US$ million	Notes	2022	2021
Operating activities			
Income before income taxes		22,879	7,375
Adjustments for:			
Depreciation and amortisation		6,987	6,335
Share of income from associates and joint ventures	11	(2,300)	(2,618)
Streaming revenue and other non-current provisions		65	(280)
(Gain)/loss on acquisitions and disposals of non-current assets	4	(1,287)	607
Unrealised mark-to-market movements on other investments	5	106	(64)
Impairments	7	3,337	1,838
Other non-cash items – net[1]		1,792	2,392
Interest expense – net	6	1,336	1,140
Cash generated by operating activities before working capital changes, interest and tax		**32,915**	**16,725**
Working capital changes			
Increase in accounts receivable[2]		(4,942)	(5,888)
Increase in inventories		(5,035)	(5,660)
(Decrease)/increase in accounts payable[3]		(3,292)	6,423
Total working capital changes		**(13,269)**	**(5,125)**
Income taxes paid		(4,881)	(1,837)
Interest received		234	100
Interest paid		(1,340)	(1,003)
Net cash generated by operating activities		**13,659**	**8,860**
Investing activities			
Increase in long-term advances and loans	12	(200)	–
Net cash received in acquisition of subsidiaries	26	321	–
Net cash received from disposal of subsidiaries	26	455	252
Purchase of investments		(476)	(86)
Proceeds from sale of investments		604	194
Purchase of property, plant and equipment		(4,177)	(3,618)
Proceeds from sale of property, plant and equipment		63	342
Dividends received from associates and joint ventures	11	1,691	2,375
Net cash used by investing activities		**(1,719)**	**(541)**

1 See reconciliation below.
2 Includes movements in other financial assets, prepaid expenses and other long-term advances and loans.
3 Includes movements in other financial liabilities, provisions and deferred income.

Other non-cash items comprise the following:

US$ million	Notes	2022	2021
Net foreign exchange losses	5	349	187
Closed sites rehabilitation provisioning	5	370	177
Share based and deferred remuneration costs	20	1,134	476
Legal and regulatory proceedings	5/23	–	1,556
Other		(61)	(4)
Total		**1,792**	**2,392**

All amounts presented are derived from continuing operations. The accompanying notes are an integral part of the consolidated financial statements.

Consolidated statement of cash flows *continued*

For the year ended 31 December 2022

US$ million	Notes	2022	2021
Financing activities[1]			
Proceeds from issuance of capital market notes[2]		–	4,877
Repayment of capital market notes		(2,850)	(2,807)
Repurchase of capital market notes		(103)	(125)
Repayment of revolving credit facility		(2,563)	(2,244)
Proceeds from other non-current borrowings		430	231
Rrepayment of other non-current borrowings		(73)	(493)
Repayment of lease liabilities		(577)	(634)
Margin payments in respect of financing related hedging activities		(1,824)	(970)
Proceeds from/(repayment of) current borrowings		3,306	(2,016)
Repayment of/(proceeds from) US commercial papers		(1,407)	675
Proceeds received on acquisition of non-controlling interests in subsidiaries		–	55
Payments on acquisition of non-controlling interests in subsidiaries		–	(45)
Return of capital/distributions to non-controlling interests		(442)	(163)
Purchase of own shares	17	(2,503)	(746)
Disposal of own shares[3]		238	–
Distributions paid to equity holders of the Parent	19	(4,832)	(2,115)
Net cash used by financing activities		**(13,200)**	**(6,520)**
(Decrease)/increase in cash and cash equivalents		(1,260)	1,799
Effect of foreign exchange rate changes		(50)	11
Cash and cash equivalents, beginning of year		3,308	1,498
Cash and cash equivalents, end of year		**1,998**	**3,308**
Cash and cash equivalents reported in the statement of financial position	15	1,923	3,241
Cash and cash equivalents attributable to assets held for sale	16	75	67

1 Refer to note 21 for reconciliation of movement in borrowings.
2 2021 amount net of issuance costs relating to capital market notes of $48 million.
3 Comprises primarily cash received from the exercise of share-based option awards assumed in previous business combinations. There are no outstanding options as at 31 December 2022.

All amounts presented are derived from continuing operations. The accompanying notes are an integral part of the consolidated financial statements.

Consolidated statement of changes in equity

For the year ended 31 December 2022

	Retained earnings	Share premium	Other reserves (Note 17)	Own shares (Note 17)	Total reserves and retained earnings	Share capital	Total equity attributable to equity holders	Non-controlling interests (Note 34)	Total equity
1 January 2021	**2,849**	**45,794**	**(5,848)**	**(5,304)**	**37,491**	**146**	**37,637**	**(3,235)**	**34,402**
Income for the year	4,974	–	–	–	4,974	–	4,974	(625)	4,349
Other comprehensive income/(loss)	164	–	(102)	–	62	–	62	(20)	42
Total comprehensive income	**5,138**	**–**	**(102)**	**–**	**5,036**	**–**	**5,036**	**(645)**	**4,391**
Own share disposal (see note 17)	(78)	–	–	173	95	–	95	–	95
Own share purchases (see note 17)	–	–	–	(746)	(746)	–	(746)	–	(746)
Equity-settled share-based expenses (see note 20)	30	–	–	–	30	–	30	–	30
Change in ownership interest in subsidiaries (see note 34)	–	–	(6)	–	(6)	–	(6)	14	8
Acquisition/disposal of business (see note 26)	–	–	–	–	–	–	–	1,017	1,017
Reclassifications	(25)	–	25	–	–	–	–	(2)	(2)
Distributions paid (see note 19)	–	(2,115)	–	–	(2,115)	–	(2,115)	(163)	(2,278)
31 December 2021	**7,914**	**43,679**	**(5,931)**	**(5,877)**	**39,785**	**146**	**39,931**	**(3,014)**	**36,917**

	Retained earnings	Share premium	Other reserves (Note 17)	Own shares (Note 17)	Total reserves and retained earnings	Share capital	Total equity attributable to equity holders	Non-controlling interests (Note 34)	Total equity
1 January 2022	**7,914**	**43,679**	**(5,931)**	**(5,877)**	**39,785**	**146**	**39,931**	**(3,014)**	**36,917**
Income for the year	17,320	–	–	–	17,320	–	17,320	(809)	16,511
Other comprehensive income/(loss)	129	–	(902)	–	(773)	–	(773)	(15)	(788)
Total comprehensive income	**17,449**	**–**	**(902)**	**–**	**16,547**	**–**	**16,547**	**(824)**	**15,723**
Own share disposal (see note 17)	(81)	–	–	430	349	–	349	–	349
Own share purchases (see note 17)	–	–	–	(2,549)	(2,549)	–	(2,549)	–	(2,549)
Equity-settled share-based expenses (see note 20)	(32)	–	–	–	(32)	–	(32)	–	(32)
Change in ownership interest in subsidiaries (see note 34)	–	–	(3)	–	(3)	–	(3)	115	112
Acquisition/disposal of business (see note 26)	–	–	–	–	–	–	–	(28)	(28)
Reclassifications	(4)	–	3	–	(1)	–	(1)	2	1
Cancellation of shares (see note 20)	–	(2,130)	–	2,135	5	(5)	–	–	–
Distributions paid (see note 19)	–	(4,832)	–	–	(4,832)	–	(4,832)	(442)	(5,274)
31 December 2022	**25,246**	**36,717**	**(6,833)**	**(5,861)**	**49,269**	**141**	**49,410**	**(4,191)**	**45,219**

The accompanying notes are an integral part of the consolidated financial statements.

Notes to the financial statements

1. Accounting policies

Corporate information

Glencore plc (the 'Company', 'Parent', the 'Group' or 'Glencore'), is a leading integrated producer and marketer of natural resources, with worldwide activities in the production, refinement, processing, storage, transport and marketing of metals and minerals and energy products. Glencore operates on a global scale, marketing and distributing physical commodities sourced from third party producers and own production to industrial consumers, such as those in the battery, electronic, construction, automotive, steel, energy and oil industries. Glencore also provides financing, logistics and other services to producers and consumers of commodities. In this regard, Glencore seeks to capture value throughout the commodity supply chain. Glencore's long experience as a commodity producer and merchant has allowed it to develop and build upon its expertise in the commodities which it markets and cultivate long-term relationships with a broad supplier and customer base across diverse industries and in multiple geographic regions.

Glencore is a publicly traded limited company incorporated in Jersey and domiciled in Switzerland, at Baarermattstrasse 3, 6340 Baar. Its ordinary shares are traded on the London and Johannesburg stock exchanges.

These consolidated financial statements were authorised for issue in accordance with a Directors' resolution on 22 March 2023.

Statement of compliance

The consolidated financial statements have been prepared in accordance with the recognition and measurement criteria of:

- International Financial Reporting Standards (IFRS) adopted by the United Kingdom; and
- IFRS as issued by the International Accounting Standards Board (IASB).

Climate change related considerations

The Group remains committed to emissions (Scope 1, 2 and 3) reduction targets, relative to a 2019 baseline, of 15% by 2026 and 50% by 2035 and has an ambition to achieve, with a supportive policy environment, net zero industrial asset emissions by 2050. The Group is committed to reaching the 2026 and 2035 targets without reliance on coordinated changes in government policies. We recognise that to achieve our long-term ambition there is a need for significant global technological evolution and advancement, and coordinated and supportive government policies, including incentives to drive accelerated uptake of lower carbon and decarbonisation technologies, and market-based regulations governing industrial practices that drive a competitive, least-cost emissions reduction approach, most of which are not within our direct control or ability to materially influence. Our long term ambition is therefore subject to such a supportive policy environment and, for that reason, we have expressed it as an ambition rather than a target, which is more appropriate for activities and actions deemed within our direct control.

The accounting-related measurement and disclosure items that are most impacted by our commitments, and climate change risk more generally, relate to those areas of the financial statements that are prepared under the historical cost convention and are subject to estimation uncertainties in the medium to long term. Climate change impacts can also introduce more volatility in assets and liabilities carried at fair value. Future changes to the Group's climate change strategy or realisation of global decarbonisation ambitions quicker than currently anticipated may impact some of the Group's significant judgements and key estimates and result in material changes to financial results and the carrying values of certain assets and liabilities in future reporting periods. The Group's current climate change strategy is reflected in the Group's significant judgements and key estimates, and therefore the Financial Statements, as follows:

(i) Property, plant and equipment and Intangible assets – estimation of the remaining useful economic life of assets for depreciation and amortisation purposes

Property, plant and equipment and intangible assets are depreciated / amortised to estimated residual values over the estimated useful lives of the specific assets concerned, or the estimated remaining life of the associated mine, field or lease, using a straight-line or a units of production over recoverable reserves method. The estimated useful lives of our specific assets and / or operations (and therefore the rate of depreciation / amortisation) aligns with our climate change commitments and ambition. Property, plant and equipment and intangible assets policies are further covered below and within impairment and impairment reversal estimation uncertainties, together with key estimates and sensitivities pertaining to a reasonably possible change in the realisation of global decarbonisation ambitions, which could also change the useful economic lives of the related assets. Sensitivities pertaining to a reasonably possible change in the realisation of global decarbonisation ambitions on the rate of depreciation / amortisation of our fossil fuel related property, plant and equipment and intangible assets are outlined below in the key estimation uncertainty – impairments and impairment reversals.

1. Accounting policies *continued*

(ii) Restoration, rehabilitation and decommissioning provisions – estimation of the timing of closure and rehabilitation activities

A provision for future restoration, rehabilitation and decommissioning costs requires estimates and assumptions to be made around the relevant regulatory framework, the magnitude of the possible disturbance and the timing, extent and costs of the required closure and rehabilitation activities. Many of these rehabilitation and decommissioning events are expected to take place when the underlying commercial reserves are extracted and the operations move into closure mode. Our current estimates of the timing of these closure activities align with the trajectory of our climate change emissions reduction commitments and ambition. Sensitivities pertaining to a reasonably possible change in the realisation of global decarbonisation ambitions (i.e. the timing of the restoration, rehabilitation and decommissioning costs) of our fossil fuel related obligations are outlined below in the key estimation uncertainty - restoration, rehabilitation and decommissioning costs.

(iii) Property, plant and equipment and Intangible assets (including the carrying value of goodwill in our coal marketing CGU) – estimation of the valuation of assets and potential impairment charges or reversals

The Group acknowledges that there is a wide range of possible energy transition scenarios, including those aligned with the Paris Agreement goals, that would indicate different outcomes for individual commodities. The decarbonisation transition could result in increasing or decreasing demand for the Group's various commodities, due to policy, regulatory (including carbon pricing mechanisms), legal, technological, market or societal responses to climate change, which, on the negative side, may result in some or all of a cash-generating unit's reserves becoming uneconomic to extract and / or our coal marketing CGU no-longer being able to generate returns and realise the benefits of its associated goodwill balance.

We use carbon price scenarios to assess the potential impacts on commodity specific operating cost curves and related supply / demand outcomes, arising from existing and future potential carbon pricing regulation. A key component of this analysis is to understand the potential development of a range of underlying cost curve structures over time and to consider, identify and make reasonable judgments, on the extent to which costs are likely to be passed onto the end-consumer. Our analysis shows that under the IEA's NZE2050 scenario, marginal supply costs would increase by 10% to over 60%, for the range of our most relevant and material commodities. We expect the rising cost of carbon will increase operating costs, increasing the cost of production, which, in turn, would ordinarily be passed on to consumers. In fact, first and second quartile (below average) emission intensity producers, where we see the weighted average of our portfolio residing, are likely to see margin expansion.

Notwithstanding the above, for coal and other fossil fuels, should global decarbonisation ambitions materialise along an Announced Pledges scenario or other more ambitious net zero scenario, essentially an accelerated displacement of coal and other fossil fuels as an energy source, the potential impact on the current carrying value of these cash generating units is outlined below in the key estimation uncertainty – impairments and impairment reversals (Sensitivity to demand for fossil fuels). It should be noted that, under accelerated emission reduction scenarios, we would expect to see positive valuation developments within our industrial production portfolio exposed to the metals currently required to deliver such rapid decarbonisation scenarios, including copper, nickel and cobalt.

Critical accounting judgements and key sources of estimation uncertainty

The preparation of the consolidated financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of assets and liabilities as well as the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable and relevant under the circumstances, independent estimates, quoted market prices and common industry standard modelling techniques. Actual outcomes could result in a material adjustment to the carrying amount of assets or liabilities affected in future periods.

Glencore has identified the following areas as being critical to understanding Glencore's financial position as they require management to make complex and/or subjective judgements, estimates and assumptions about matters that are inherently uncertain:

Critical accounting judgements

In the process of applying Glencore's accounting policies, management has made the following judgements based on the relevant facts and circumstances including macro-economic circumstances and, where applicable, interpretation of underlying agreements, which have the most significant effect on the amounts recognised in the consolidated financial statements.

Notes to the financial statements *continued*

1. Accounting policies *continued*

(i) Determination of control of subsidiaries and joint arrangements

Judgement is required to determine when Glencore has control of subsidiaries or joint control of joint or other unincorporated arrangements. This requires an assessment of the relevant activities (those relating to the operating and capital decisions of the arrangement, such as: the approval of the capital expenditure programme for each year, and appointing, remunerating and terminating the key management personnel or service providers of the operations) and when the decisions in relation to those activities are under the control of Glencore or require unanimous consent. See note 26 for a summary of the acquisitions of subsidiaries completed during 2022 and 2021 and the key judgements made in determining control thereof.

Judgement is also required in determining the classification of a joint arrangement between a joint venture or a joint operation through an evaluation of the rights and obligations arising from the arrangement and in particular, if the joint arrangement has been structured through a separate vehicle, further consideration is required of whether:

(1) the legal form of the separate vehicle gives the parties rights to the assets and obligations for the liabilities;

(2) the contractual terms and conditions give the parties rights to the assets and obligations for the liabilities; and

(3) other facts and circumstances give the parties rights to the assets and obligations for the liabilities.

Joint arrangements in which the primary activity is the provision of output to the shareholders, typically convey substantially all the economic benefits of the assets to the parties and judgement is required in assessing whether the terms of the offtake agreements and any other obligations for liabilities of the arrangement result in the parties being substantially the only source of cash flows contributing to the continuity of the operations of the arrangement.

Certain joint arrangements that are structured through separate vehicles including Collahuasi and Viterra are accounted for as joint ventures. The Collahuasi arrangement is primarily designed for the provision of output to the shareholders sharing joint control, the offtake terms of which are at prevailing market prices and the parties are not obligated to cover any potential funding shortfalls. In management's judgement, Glencore is not the only possible source of funding and does not have a direct or indirect obligation to the liabilities of the arrangement, but rather shares in its net assets and, therefore, such arrangements have been accounted for as joint ventures.

Differing conclusions around these judgements may materially impact how these businesses are presented in the consolidated financial statements – under the full consolidation method, equity method or recognition of Glencore's share of assets, liabilities, revenue and expenses, including any assets or liabilities held jointly. See note 11 for a summary of these joint arrangements and the key judgements made in determining the applicable accounting treatment for any material joint arrangements entered during the year.

(ii) Classification of transactions which contain a financing element (notes 21, 22 and 25)

Transactions for the purchase of commodities may contain a financing element such as extended payment terms. Under such an arrangement, a financial institution may issue a letter of credit on behalf of Glencore and act as the paying party upon delivery of product by the supplier and Glencore will subsequently settle the liability directly with the financial institution, generally from 30 up to 90 days after physical supply. Judgement is required to determine the most appropriate classification and presentation of these transactions within the statements of cash flows and financial position. In determining the appropriate classification, management considers the underlying economic substance of the transaction and the significance of the financing element to the transaction. Typically, the economic substance of the transaction is determined to be operating in nature as the financing element is insignificant and the time frame in which the original arrangement is extended by, is consistent and within supply terms commonly provided in the market. As a result, the entire cash flow is presented as operating in the statement of cash flows with a corresponding trade payable in the statement of financial position. As at 31 December 2022, trade payables include $7,504 million (2021: $8,565 million) of such liabilities arising from supplier financing arrangements, the weighted average of which extended settlement of the original payable to 67 days (2021: 77 days) after physical supply and are due for settlement 35 days (2021: 33 days) after year end. There was no significant exposure to any individual financial institution under these arrangements. These payables are not included within net funding and net debt as defined in the APMs section.

(iii) Classification of physical liquefied natural gas (LNG) purchase and sale contracts at amortised cost or fair value through profit and loss (notes 28 and 29)

Judgement is required to determine the appropriate IFRS 9 classification of physical LNG purchase and sale contracts as being measured within the scope of IFRS 9 at fair value through profit and loss or as executory contracts. This requires an assessment of whether the contracts to buy or sell LNG (a non-financial item) can be settled net in cash or with another financial instrument, or by exchanging financial instruments, as if the contracts were financial instruments, and whether there is a past practise of net settling similar contracts. Those physical LNG contracts that can be net settled are considered to be derivatives, measured at fair value through profit or loss (see notes 28 and 29). Contracts that do not meet the definition of derivatives are considered own use contacts and are to be accounted for as executory contracts.

1. Accounting policies *continued*

Differing conclusions around classification of these contracts, may materially impact their presentation as financial assets or liabilities and any fair value adjustments recognised through profit and loss. As at 31 December 2022, the net fair value of physical LNG contracts on the statement of financial position is $2,533 million (2021: $912 million) comprising a $2,552 million forward physical asset and a $19 million forward physical liability (2021: $1,786 million forward physical asset and $874 million forward physical liability).

(iv) Investigations by regulatory and enforcement authorities and claims against the company in connection with the investigations – Critical judgement in relation to whether a present obligation exists (note 32).

(v) Impact of carbon pricing – refer to climate change related considerations above. No material change to the Group's related accounting estimates is expected within the next financial year as a result of this judgement.

(vi) Valuation of investments in EN+ and Rosneft (note 11). No material change to the Group's related accounting estimates is expected within the next financial year as a result of this judgement.

Key sources of estimation uncertainty

In the process of applying Glencore's accounting policies, management has made key estimates and assumptions concerning the future and other key sources of estimation uncertainty. The key assumptions and estimates at the reporting date that have a significant risk of resulting in a material adjustment to the carrying amount of assets and liabilities within the next financial year, are described below. Actual results may differ from these estimates under different assumptions and conditions and may materially affect financial results or the financial position reported in future periods.

(i) Recognition of deferred tax assets and uncertain tax positions (note 8)

Deferred tax assets are recognised only to the extent it is considered probable that those assets will be recoverable. This involves an assessment of when those deferred tax assets are likely to reverse, and a judgement as to whether there will be sufficient taxable income available to offset the tax assets when they do reverse. These judgements and estimates are subject to risk and uncertainty and therefore, to the extent assumptions regarding future profitability change, there can be a material increase or decrease in the amounts recognised in the consolidated statement of income in the period in which the change occurs, notably the deferred tax asset and uncertain tax position of the Group's DRC operations as outlined in note 8. The recoverability of the Group's deferred tax assets and the completeness and accuracy of its uncertain tax positions, including the estimates and assumptions contained therein are reviewed regularly by management.

(ii) Impairments and impairment reversals (note 7)

Investments in associates and joint ventures, advances and loans, property, plant and equipment and intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value of an individual asset or a cash-generating unit (CGU) may not be fully recoverable, or at least annually for CGUs to which goodwill and other indefinite life intangible assets have been allocated. 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, or the possible impacts from emerging risks such as those related to climate change and the transition to a low carbon economy. If an asset or CGU's recoverable amount is less than its carrying amount, an impairment loss is recognised in the consolidated statement of income. For those assets or CGUs which were impaired in prior periods, if their recoverable amount exceeds their carrying amount, an impairment reversal is recorded in the consolidated statement of income. Future cash flow estimates which are used to calculate the asset's or CGU's recoverable amount are discounted using asset or CGU specific discount rates and are based on expectations about future operations (including their alignment with our emissions reduction commitments and long-term ambition), using a combination of internal sources and those inputs available to a market participant, which primarily comprise estimates about production and sales volumes, commodity prices (considering current and future prices and price trends including factors such as the current global trajectory of climate change), legally enacted carbon taxes, reserves and resources, operating costs and capital expenditures. Estimates are reviewed regularly by management. Changes in such estimates and in particular, deterioration in the commodity pricing outlook, could impact the recoverable amounts of these assets or CGUs, whereby some or all of the carrying amount may be impaired or the impairment charge reversed (if pricing outlook improves significantly or the service potential of the asset or CGU has otherwise increased from the time of the previous impairment) with the impact recorded in the statement of income.

Notes to the financial statements *continued*

1. Accounting policies *continued*

As referred to above and further described below in the 'impairment or impairment reversals' accounting policy, the Group carries out, at least annually, an impairment assessment. Following this review, indicators of impairment or impairment reversal were identified for various CGUs, including those due to changes in the underlying commodity price environment most influencing the respective operation. The Group assessed the recoverable amounts of these CGUs and as at 31 December 2022, except for those CGUs disclosed in note 7, the estimated recoverable amounts exceeded the carrying values. For certain CGUs where no impairment was recognised, should there be a significant deterioration or improvement in the key assumptions, a material impairment or reversal could result within the next financial year. A summary of the carrying values, the key / most sensitive assumptions and a sensitivity impact of potential movements in these assumptions for each such CGU with limited headroom (relative to its estimated recoverable amount) is shown below. In providing sensitivity analysis (and particularly on commodity price assumptions), a 10% change, representing a typical deviation parameter common in the industry, has generally been provided. Where a higher or lower percentage is reasonably possible on an operational assumption, this has been clearly identified.

Katanga
Katanga's non-current capital employed is carried at approximately $3,800 million. The valuation is sensitive to price and a deterioration in this key assumption could result in an impairment. The short to long-term copper and cobalt price assumptions were $8,200-$7,400/t and $24.50-$22.50/lb, respectively. A 10% reduction in the copper price assumption across the curve could result in a $440 million impairment. A 10% reduction in the cobalt price assumption across the curve is not expected to result in an impairment.

Mutanda
Mutanda's non-current capital employed is carried at approximately $2,300 million, inclusive of a $109 million intangible asset recognised during the year and net of an accumulated impairment of $955 million. Following care and maintenance status since 2019, a limited restart of operations commenced in 2021, utilising stockpiles of oxide ore. The valuation includes value attributable to the long-term copper / cobalt sulphide mining and processing development potential. The valuation is sensitive to price and eventual commercialisation and ramp-up of the sulphide project, and deteriorations or improvements in these key assumptions may result in additional impairments or reversals.

The short to long-term copper and cobalt price assumptions were $8,200-$7,400/t and $24.50-$22.50/lb, respectively. A 10% reduction in the copper price assumption across the curve is not expected to result in a further impairment, whereas a 10% reduction in the realised cobalt price assumption (across the curve) could result in a further $150 million impairment. Should the copper and cobalt assumptions rise by 10% (across the curve), the previously recognised impairment could be reversed in its entirety.

Kazzinc Smelting
Management has assessed that the Kazzinc business comprises three CGUs: the core Kazzinc Smelting (integrated mining and smelting operations); the Zhairem zinc/lead mine; and the Vasilkovsky gold mine.

Kazzinc Smelting has not been impaired in the past or in the current year. However, industry cost pressures, including energy inputs and additional taxes, are such that there is no appreciable difference between carrying value and recoverable value. Should zinc prices move higher in line with the industry cost curve and/or stronger demand, the recoverable value could increase. Conversely, in a recessionary scenario the recoverable value could be lower than the carrying value.

Kazzinc Smelting's non-current capital employed is carried at approximately $1,300 million. The valuation is sensitive to price and the realisation of certain operational efficiencies, and deteriorations in these key assumptions may result in an impairment.

The short to long-term zinc price assumption was $3,250 - $2,450/t and the discount rate was 11%. A 10% reduction in the zinc price assumption (across the curve) could result in a $200 million impairment. A 1% increase in the discount rate could result in a $130 million impairment. Equivalent upside sensitivities are materially symmetrical with the downsides illustrated.

Zhairem has been impaired in 2022 (refer note 7).

Management does not expect that any reasonably possible changes in assumptions could lead to an impairment of Vasilkovsky within the next financial year.

Climate change (additional illustrative disclosures)
Based on the current pricing environment, we do not consider there to be a reasonably possible change in the next financial year in key assumptions that would result in a material change in carrying values of any of our coal CGUs. With respect to our oil CGUs, a change in oil refining margin assumptions (across the curve) of $1/bbl is reasonably possible and could result in a $220 million change (increase or decrease) to the carrying value of the Astron Energy CGU.

All other sensitivities below are reasonably possible changes in assumptions beyond the next financial year.

Notes to the financial statements *continued*

1. Accounting policies *continued*

Energy fossil fuels industrial operations

Our base case price assessment takes into account the short-, medium- and longer-term seaborne coal demand outlook. Achieving our net zero ambition by 2050 assumes significant global technological evolution and advancement, and coordinated and supportive government policies, including incentives to drive accelerated uptake of lower carbon and decarbonisation technologies, and market-based regulations governing industrial practices that drive a competitive, least-cost emissions reduction approach, most of which are not within our direct control or ability to materially influence. In particular, economic and regulatory incentivisation of such shift, whether through carbon pricing and / or incentives to drive accelerated uptake of lower carbon and decarbonisation technologies, could result in different financial results on the same tonnage profile.

Our assessment applies a value in use methodology. Glencore is not progressing thermal coal greenfield investments. However, we plan to continue to progress various brownfield coal extensions or expansions at existing mines as included in the life of mine plans, while continuing to be a responsible steward of these assets, as we progress the phase down of our global coal portfolio. We assume that, beyond the next 3 years when shorter term pricing assumptions have been used, through the remaining life of mine, there will continue to be a market for thermal coal at a real Newcastle FOB export price of $90/tonne (6,000 NAR), South African FOB export price of $90/tonne and Colombian FOB price of $88/tonne, which represents our best current estimate of long term pricing based on our view of projected likely supply and demand fundamentals and the industry cost structure. The increase over the equivalent prices presented in our 2021 analysis largely reflects inflation in the intervening year.

Notwithstanding these assumptions, we present illustrative impairments arising under alternate price scenarios. Glencore's scenarios were developed in 2020, drawing principally, though not exclusively, on the IEA scenarios available at the time. The next update will be in 2023 as part of our climate strategic review. For these 2022 price sensitivities, we have drawn from the IEA's latest *World Energy Outlook 2022* (WEO 2022) climate scenarios, described below:

- IEA's Stated Policies Scenario (STEPS) (WEO 2022 prices) – the impact of existing policy frameworks and announced policy intentions, subject to the IEA's assessment of the likelihood of such ambitions being implemented (reflecting an updated outlook consistent with our 'Current Pathway' scenario);
- IEA's Announced Pledges Scenario (APS) (WEO 2022 prices) – the impact of all major national announcements of 2030 targets and longer term net zero and other pledges, regardless of whether these have been anchored in legislation or nationally determined contributions;
- IEA's Net Zero Emissions by 2050 Scenario (NZE) (WEO 2022 prices) – a pathway for the global energy sector to achieve net zero emissions by 2050 (reflecting an updated outlook consistent with our 'Radical Transformation' scenario).

The IEA no longer publishes assumptions relating to the Sustainable Development Scenario (SDS).

In addition, for illustrative purposes, we have shown a Complete Displacement Scenario (CDS) – reflecting the impact of fossil fuels being immediately displaced as an energy source and the resulting immediate fall in commodity prices to zero.

Our life of mine planning reflects operating cash flows which are consistent with achieving our emissions reduction targets and 2050 net zero emissions ambition. Overall our portfolio's production is heavily weighted towards the earlier part of these time frames. Based on the life of mine plan and remaining production as at 31 December 2022, we have illustrated this by showing the year in which 50% and 80% of saleable coal would be expected to be extracted under our current plans, being 2029 and 2036, respectively. If and while there is demand for coal, and it is economic to do so, we plan to continue to operate our mines to the end of their economic life and in accordance with our climate commitments, while not exceeding our 150 million tonnes per annum consolidated production cap.

The sensitivities are presented on price alone and assume no mitigating actions; therefore the impairments in each scenario are likely higher than would transpire. In practice, in a sustained low price environment, management would alter mine plans to cut operating and capital costs, potentially at the expense of future volumes, in order to reduce the overall NPV impact.

The STEPS, APS and NZE sensitivity prices adopted are those included in the documentation to WEO 2022, except that IEA thermal coal prices are on a delivered basis. These have been adjusted to FOB pricing on the basis of forward freight costs. Furthermore, in determining the Colombian FOB price, we have used a weighting of the IEA Japan and IEA European prices to take into account that Colombian coal sold from Cerrejón is likely to be delivered to a combination of different markets in the future as coal demand in Europe declines.

The IEA assumes, in each scenario, additional decarbonisation measures leading to declining fossil fuel prices by the years 2030 and 2050, anchored in each case in a 2021 baseline. For the purpose of our climate change sensitivities below, we have assumed linear progression of prices between these points. Our base case reflects higher longer-term prices than in each of the IEA's climate scenarios reflecting our assessment of the supply and demand outlook and the industry cost structure.

Notes to the financial statements *continued*

1. Accounting policies *continued*

US$ million	Cash-generating unit Thermal Australia	South Africa	Cerrejón	Total thermal coal	Oil E&P
Base case assumptions in life of mine plan:					
– LOM saleable tonnes (Glencore consolidated) (million tonnes)/ (million bbls)	960	320	200		15
– projected year when 50% LOM tonnage / reserves depleted	2030	2030	2026	2029	2024
– projected year when 80% LOM tonnage / reserves depleted	2037	2035	2029	2036	2026
– long-term price (Newcastle FOB / API4 FOB / Col FOB) ($/t) / (Brent oil price) ($/bbl) (real terms)	90	90	88		75
– discount rate applied (ranges represent opencut / underground)	8.7-9.3%	11.7%	10.5%		11.6%
Benchmark prices over LOM in selected scenarios ($/t, $/bbl):	2021-'30-'50	2021-'30-'50	2021-'30-'50		2021-'30
– IEA STEPS	156 - 86 - 66	146 - 79 - 62	131 - 68 - 63		78 - 93
– IEA APS	156 - 67 -51	146 - 61 - 48	131 - 70 - 50		78 - 72
– IEA NZE	156 - 50 - 36	146 - 44 - 32	131 - 59 - 38		78 - 40
– CDS	n.a.	n.a.	n.a.		n.a.
Carrying value of non-current capital employed as at 31 December 2022	7,238	1,986	956	10,180	200
Impairment arising in selected scenarios:					
– IEA STEPS	–	–	–	–	–
– IEA APS	–	740	–	740	26
– IEA NZE	840	1,600	–	2,400	110
– CDS[1]	8,613	2,318	2,093	13,024	285
Breakdown of non-current capital employed as at 31 December 2022:					
Property, plant and equipment and intangible assets	9,210	2,976	2,349	14,535	312
Investments in associates and other investments	555	32	–	587	–
Deferred tax liabilities	(1,152)	(690)	(256)	(2,098)	(27)
Non-current provisions	(1,123)	(394)	(1,134)	(2,651)	(85)
Other non-current net assets/(liabilities)	(252)	62	(3)	(193)	–

1 In this scenario, we assume the impairment of non-current assets (net of deferred tax) while non-current liabilities, including rehabilitation, would be retained on balance sheet.

The prior year disclosure illustrated impairments under each of the IEA's scenarios, whereas the above table reflects impairments only in the NZE scenario (for Australia and South Africa) and the APS (for South Africa only). This mainly reflects materially higher shorter term prices in the various scenarios.

No impairment is projected for Cerrejón using any of the IEA's scenarios, given that the current mine plan reflects expiry of mining leases by 2034, meaning the mine would not be exposed to the lower prices at the longer end of the price curves.

Following the disposal of Glencore's upstream Chad oil operations in 2022, the remaining portfolio (non-operated) is weighted towards natural gas, with the currently approved production profile expected to reach 80% extraction by 2026.

Notes to the financial statements *continued*

1. Accounting policies *continued*

Other fossil fuel related capital employed NPV sensitivities

US$ million	Cash-generating unit Coking coal	Astron Energy	Coal marketing goodwill
Base case assumptions in life of asset plan:			
– LOA saleable tonnes (millions) / Refinery steady-state capacity ('000 bbls)	100	100k bopd	n.a.
– projected year when 50% LOA reserves depleted	2027	n.a.	n.a.
– projected year when 80% LOA reserves depleted	2032	n.a.	n.a.
– long-term price (hard coking coal) ($/t) (real terms)	175	n.a.	n.a.
– discount rate applied (ranges represent opencut / underground)	8.7-9.3%	9.6%	n.a.
– price to earnings multiple			12x
Percentage decrease to long-term pricing/PE multiples:			
– 25% price / $1/bbl refining margin[1] / 2x PE (17%) decrease	131	n.a.	10x
– 30% price / $2/bbl refining margin / 4x PE (33%) decrease	123	n.a.	8x
Carrying value of non-current capital employed as at 31 December 2022	1,654	876	1,674
Impairment arising in selected scenarios:			
– 25% price decrease across the curve / $1/bbl refining margin[1] / 2x PE (17%) decrease	100	220	–
– 30% price decrease across the curve / $2/bbl refining margin / 4x PE (33%) decrease	390	450	400
Breakdown of non-current capital employed as at 31 December 2022:			
Property, plant and equipment and intangible assets	1,950	835	1,674
Investments in associates and other investments	4	2	
Deferred tax liabilities	(87)	–	
Non-current provisions	(213)	(4)	
Other non-current net assets	–	43	

1 The change in refining margin by $1/bbl is considered to be a reasonably possible change in our assumptions for Astron Energy within the next financial year.

Climate change sensitivities – property, plant and equipment and intangible assets – estimation of the remaining useful economic life of assets for depreciation and amortisation purposes

Property, plant and equipment and intangible assets are depreciated / amortised to estimated residual values over the estimated useful lives of the specific assets concerned, or the estimated remaining life of the associated mine, field or lease, using a straight-line or a units of production over recoverable reserves method. The estimated useful lives of our specific assets and / or operations (and therefore the rate of depreciation / amortisation) aligns with, and reflects, our emissions reduction commitments and ambition. The current carrying value of our property, plant and equipment and intangible assets related to our fossil fuels operations is $17,633 million, and the depreciation / amortisation related to these balances recognised in 2022 was $2,740 million, implying an average accounting determined useful life of 6.5 years.

1. Accounting policies *continued*

(iii) Restoration, rehabilitation and decommissioning costs (note 23)

A provision for future restoration, rehabilitation and decommissioning costs requires estimates and assumptions to be made around the relevant regulatory framework, the magnitude of the possible disturbance and the timing, extent and costs of the required closure and rehabilitation activities. Most of these rehabilitation and decommissioning events are expected to take place many years in the future and the currently estimated requirements and costs that will have to be met when the restoration events occur are inherently uncertain and could materially change over time.

In calculating the appropriate provision for the expected restoration, rehabilitation or decommissioning obligations, cost estimates of the future potential cash outflows based on current studies of the expected rehabilitation activities and timing thereof, are prepared. These forecasts are then discounted to their present value using a risk-free rate specific to the liability and the currency in which they are denominated.

Any changes in the expected future costs or risk-free rate are initially reflected in both the provision and the asset and subsequently in the consolidated statement of income over the remaining economic life of the asset. As the actual future costs can differ from the estimates due to changes in laws, regulations, technology, costs and timing, the provisions including the estimates and assumptions contained therein are reviewed regularly by management. A material change in the provision within the next financial year could arise from changes in risk-free rates. The aggregate effect of changes within the next financial year as a result of revisions to cost and timing assumptions is not expected to be material.

Climate change sensitivities

As noted above, while it is not a reasonably possible change we expect over the next financial year, global ambitions seeking to drive quicker decarbonisation, could result in the timing of restoration, rehabilitation and decommissioning costs related to our coal and oil closure obligations being accelerated. The non-current closure and monitoring provision related to the coal and oil operations is $3,717 million (undiscounted) and $2,708 million (current carrying value). The weighted average maturity is 13 years. To illustrate the effect of quicker decarbonisation, a three-year and five-year weighted average acceleration, with no changes to the total undiscounted cash flows, would result in an increase to the provision of $140 million and $224 million, respectively.

(iv) Valuation of Level 3 derivatives related to LNG contracts (note 29)

Adoption of new and revised standards

The following clarification revisions to existing accounting pronouncements became effective as of 1 January 2022 and have been adopted by the Group.

(i) Onerous Contracts – Cost of Fulfilling a Contract (Amendments to IAS 37) – effective for year ends beginning on or after 1 January 2022

The amendments specify that the 'cost of fulfilling' a contract comprises the 'costs that relate directly to the contract'. Costs that relate directly to a contract can either be incremental costs of fulfilling that contract or an allocation of other costs that relate directly to fulfilling contracts. The Group has applied the amendments to contracts for which the Group has not yet fulfilled all its obligations as at 1 January 2022.

(ii) Property, Plant and Equipment – Proceeds before intended use (Amendments to IAS 16) – effective for year ends beginning on or after 1 January 2022

The amendments prohibit an entity from deducting from the cost of an item of property, plant and equipment, any proceeds received from selling items produced while preparing the assets for its intended use. Instead, any entity recognises the proceeds from selling such items, and the costs of producing those items, in the statement of income.

(iii) Reference to the Conceptual Framework (Amendments to IFRS 3) – effective for year ends beginning on or after 1 January 2022

The amendments update the references to the Conceptual Framework for Financial Reporting and add an exception for the recognition of liabilities and contingent liabilities within the scope of IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* and IFRIC 21 *Levies*. The amendments also confirm that contingent assets should not be recognised at the acquisition date.

These amendments did not have a material impact on the Group.

1. Accounting policies *continued*

Revised standards not yet effective

At the date of the authorisation of these consolidated financial statements, the following revised IFRS standards, which are applicable to Glencore, were issued but not yet effective:

(i) Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendments to IAS 12) – effective for year ends beginning on or after 1 January 2023

The amendments specify how companies should account for deferred tax on transactions such as leases and decommissioning obligations, and clarify that the initial recognition exception does not apply to transactions where both an asset and a liability are recognised in a single transaction. Accordingly, deferred tax is required to be recognised on such transactions.

(i) Definition of Accounting Estimates (Amendments to IAS 8) – effective for year ends beginning on or after 1 January 2023

The amendments introduce the definition of accounting estimates and include other amendments to IAS 8 to help entities distinguish changes in accounting estimates from changes in accounting policies.

(iii) Materiality of Accounting Policy Disclosure (Amendments to IAS 1) – effective for year ends beginning on or after 1 January 2023

The amendments require companies to disclose their material accounting policy information rather than their significant accounting policies.

(iv) Classification of Liabilities as current or non-current (Amendments to IAS 1) – effective for year ends beginning on or after 1 January 2023

The amendments clarify that the classification of liabilities as current or non-current is based on rights that are in existence at the end of the reporting period, specify that classification is unaffected by expectations about whether an entity will exercise its right to defer settlement of a liability, explain that rights are in existence if covenants are complied with at the end of the reporting period, and introduce a definition of 'settlement' to make clear that settlement refers to the transfer to the counterparty of cash, equity instruments, other assets or services.

No significant changes to presentation or disclosures within these financial statements are expected following the adoption of these amendments.

Basis of preparation

The consolidated financial statements are prepared under the historical cost convention except for certain financial assets, liabilities, marketing inventories and pension obligations that are measured at revalued amounts or fair values at the end of each reporting period as explained in the accounting policies below. Historical cost is defined as the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire them at the time of their acquisition. The principal accounting policies adopted are set out below.

The Directors have assessed that they have, at the time of approving these consolidated financial statements, a reasonable expectation that the Group has adequate resources to continue in operational existence for the 12 months from the expected date of approval of the 2022 Annual Report and Accounts. Therefore, they continue to adopt the going concern basis of accounting in preparing these financial statements. The Directors have made this assessment after consideration of the Group's budgeted cash flows and related assumptions including appropriate stress testing of the identified uncertainties (being primarily commodity prices and currency exchange rates) and access to undrawn credit facilities and monitoring of debt maturities. Further information on Glencore's objectives, policies and processes for managing its capital and financial risks is detailed in note 27.

All amounts are expressed in millions of United States dollars, the presentation currency of the Group, unless otherwise stated.

Principles of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company and its subsidiaries.

Control is achieved when Glencore is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, Glencore controls an investee if, and only if, Glencore has all of the following:

- Power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee);
- Exposure, or rights, to variable returns from its involvement with the investee; and
- The ability to use its power over the investee to affect its returns.

1. Accounting policies *continued*

When Glencore has less than a majority of the voting rights of an investee or similar rights of an investee, it considers all relevant facts and circumstances in assessing whether it has power over the investee including:

- The size of Glencore's holding of voting rights relative to the size and dispersion of holdings of the other vote holders;
- Potential voting rights held by Glencore, other vote holders or other parties;
- Rights arising from other contractual arrangements; and
- Any additional facts and circumstances that indicate that Glencore has, or does not have, the current ability to direct the relevant activities at the time that decisions need to be made, including voting patterns at previous shareholders' meetings.

The Company reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above. Consolidation of a subsidiary begins when Glencore obtains control over the subsidiary and ceases when Glencore loses control of the subsidiary.

Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of income and other comprehensive income from the date Glencore gains control until the date when Glencore ceases to control the subsidiary.

Profit or loss and each component of other comprehensive income are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies. All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

Changes in Glencore's interests in subsidiaries that do not result in a loss of control are accounted for as equity transactions with any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received being recognised directly in equity and attributed to equity holders of Glencore.

When Glencore loses control of a subsidiary, a gain or loss is recognised in the consolidated statement of income and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests. All amounts previously recognised in other comprehensive income in relation to that subsidiary are accounted for as if Glencore had directly disposed of the related assets or liabilities of the subsidiary (i.e. reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable IFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IFRS 9, when applicable, or the cost on the initial recognition of an investment in an associate or a joint venture.

Investments in associates and joint ventures

Associates and joint ventures (together 'Associates') in which Glencore exercises significant influence or joint control are accounted for using the equity method. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies. Significant influence is presumed if Glencore holds between 20% and 50% of the voting rights, unless evidence exists to the contrary. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control over an arrangement, which exists only when decisions about relevant strategic and/or key operating decisions require unanimous consent of the parties sharing control.

Equity accounting involves Glencore recording its share of the Associate's net income and equity. Glencore's interest in an Associate is initially recorded at cost and is subsequently adjusted for Glencore's share of changes in net assets of the Associate, less any impairment in the value of individual investments. Where Glencore transacts with an Associate, unrealised profits and losses are eliminated to the extent of Glencore's interest in that Associate.

Changes in Glencore's interests in Associates are accounted for as a gain or loss on disposal with any difference between the amount by which the carrying value of the Associate is adjusted and the fair value of the consideration received being recognised directly in the consolidated statement of income.

Joint operations

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement, have rights to the assets and obligations for the liabilities relating to the arrangement.

1. Accounting policies *continued*

When Glencore undertakes its activities under joint operations, Glencore recognises in relation to its interest in a joint operation:

- Its assets, including its share of any assets held jointly;
- Its liabilities, including its share of any liabilities incurred jointly;
- Its revenue from the sale of its share of the output arising from the joint operation;
- Its share of the revenue from the sale of the output by the joint operation; and
- Its expenses, including its share of any expenses incurred jointly.

The Group accounts for the assets, liabilities, revenues and expenses relating to its interest in a joint operation in accordance with the IFRSs applicable to the particular assets, liabilities, revenues and expenses.

Where Glencore transacts with a joint operation, unrealised profits and losses are eliminated to the extent of Glencore's interest in that joint operation.

Other unincorporated arrangements

In some cases, Glencore participates in unincorporated arrangements where it has the rights to its share of the assets and obligations for its share of the liabilities of the arrangement, rather than a right to the net returns of the arrangement, but does not share joint control. In such cases, Glencore accounts for its share of the assets, liabilities, revenues and expenses in accordance with the IFRSs applicable to the particular assets, liabilities, revenues and expenses and obligations for the liabilities relating to the arrangement, similar to a joint operation noted above.

Business combinations and goodwill

Acquisitions of subsidiaries and businesses are accounted for using the acquisition method of accounting. The cost of the acquisition is measured at fair value, which is calculated as the sum of the acquisition date fair values of the assets transferred, liabilities incurred to the former owners of the acquiree and the equity interests issued in exchange for control of the acquiree.

The identifiable assets, liabilities and contingent liabilities ('identifiable net assets') are recognised at their fair value at the date of acquisition. Acquisition-related costs are recognised in the consolidated statement of income as incurred.

Where a business combination is achieved in stages, Glencore's previously held interests in the acquired entity are remeasured to fair value at the acquisition date (i.e. the date Glencore attains control) and the resulting gain or loss, if any, is recognised in the consolidated statement of income.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to the CGUs that are expected to benefit from the synergies of the combination. CGUs to which goodwill has been allocated are tested for impairment annually, or more frequently when there is an indication that the unit may be impaired. If the recoverable amount of the CGU is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro-rata based on the carrying amount of each asset in the unit.

Any impairment loss is recognised directly in profit or loss. An impairment loss recognised for goodwill is not able to be reversed in subsequent periods.

On disposal of the relevant CGU, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, Glencore reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted for additional information obtained during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on a transaction-by-transaction basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS.

Notes to the financial statements *continued*

1. Accounting policies *continued*

Similar procedures are applied in accounting for the purchases of interests in Associates and joint operations. Any goodwill arising from such purchases is included within the carrying amount of the investment in Associates, but not amortised thereafter. Any excess of Glencore's share of the net fair value of the Associate's identifiable net assets over the cost of the investment is included in the consolidated statement of income in the period of the purchase.

Non-current assets held for sale and disposal groups

Non-current assets, liabilities and those included in disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use, they are available for immediate disposal and the sale is highly probable. Non-current assets, liabilities and those included in disposal groups held for sale are measured at the lower of their carrying amount or fair value less costs to sell.

Revenue recognition

Revenue is derived principally from the sale of goods (sale of commodities) and in some instances the goods are sold on Cost and Freight (CFR) or Cost, Insurance and Freight (CIF) Incoterms. When goods are sold on a CFR or CIF basis, the Group is responsible for providing these services (shipping and insurance) to the customer, sometimes after the date at which Glencore has lost control of the goods. Revenue is recognised when the performance obligations have been satisfied, which is once control of the goods and/or services has transferred from Glencore to the buyer. Revenue is measured based on consideration specified in the contract with a customer and excludes amounts collected on behalf of third parties. The same recognition and presentation principles apply to revenues arising from physical settlement of forward sale contracts that do not meet the own use exemption.

Revenue related to the sale of goods is recognised when the product is delivered to the destination specified by the customer, which is typically the vessel on which it is shipped, the destination port or the customer's premises and the buyer has gained control through their ability to direct the use of and obtain substantially all the benefits from the asset. Where the sale of goods is connected with an agreement to repurchase goods at a later date, revenue is recognised when the repurchase terms are at prevailing market prices, the goods repurchased are readily available in the market, and the buyer gained control of the goods originally sold to them. Should it be determined that control has not transferred or the buyer does not have the ability to benefit substantially from ownership of the asset, revenue is not recognised and any proceeds received are accounted for as a financing arrangement.

For certain commodities, the sales price is determined on a provisional basis at the date of sale as the final selling price is subject to movements in market prices up to the date of final pricing, normally ranging from 30 to 90 days after initial booking (provisionally priced sales). Revenue on provisionally priced sales is recognised based on the estimated fair value of the total consideration receivable. The revenue adjustment mechanism embedded within provisionally priced sales arrangements has the character of a commodity derivative.

Accordingly, the fair value of the final sales price adjustment is re-estimated continuously and changes in fair value are recognised as an adjustment to revenue. In all cases, fair value is estimated by reference to forward market prices.

Revenue from the sale of material by-products are included within revenue. Where a by-product is not regarded as significant, revenue may be credited against cost of goods sold.

Revenue related to the provision of shipping and insurance related activities is recognised over time as the service is rendered.

Payments received for future metal (primarily gold and silver) deliveries (prepayments) are accounted for as executory contracts whereby the prepayment is initially recorded as deferred revenue in the consolidated statement of financial position. The initial deferred revenue amount is unwound and revenue is recognised in the consolidated statement of income as and when Glencore physically delivers the metal and loses control of it. Where these prepayments are in excess of one year and contain a significant financing component, the amount of the deferred revenue is adjusted for the effects of the time value of money. Glencore applies the practical expedient to not adjust the promised amount of consideration for the effects of time value of money if the period between delivery and the respective payment is one year or less.

Royalty, interest and dividend income is recognised when the right to receive payment has been established, it is probable that the economic benefits will flow to Glencore and the amount of income can be measured reliably. Royalty revenue is recognised on an accruals basis in accordance with the substance of the relevant agreement. Interest income is accrued on a time basis, by reference to the principal outstanding and the applicable effective interest rate.

Foreign currency translation

Glencore's reporting currency and the functional currency of the majority of its operations is the US dollar as this is assessed to be the principal currency of the economic environment in which it operates.

1. Accounting policies *continued*

(i) Foreign currency transactions
Transactions in foreign currencies are converted into the functional currency of each entity using the exchange rate prevailing at the transaction date. Monetary assets and liabilities outstanding at year-end are converted at year-end rates. Non-monetary items measured in terms of historical cost are translated using the exchange rate at the date of the transaction. The resulting exchange differences are recorded in the consolidated statement of income.

(ii) Translation of financial statements
For the purposes of consolidation, assets and liabilities of group companies whose functional currency is in a currency other than the US dollar are translated into US dollars using year-end exchange rates, while their statements of income are translated using average rates of exchange for the year. Translation adjustments are included as a separate component of shareholders' equity and have no consolidated statement of income impact to the extent that no disposal of the foreign operation has occurred.

Where an intragroup balance is, in substance, part of the Group's net investment in an entity, exchange gains and losses on that balance are taken to the currency translation reserve. Cumulative translation differences are recycled from equity and recognised as income or expense on partial disposal of the net investment in an entity, which includes repayments of capital and loans. On such partial disposals, when the Group's percentage of equity ownerships do not change, the 'absolute' approach is applied. Under this approach, the amounts held in the foreign currency translation reserve are reclassified to income or expense based on the proportionate share of total cumulative translation differences recognised in the net investment.

Goodwill and fair value adjustments arising from the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and are translated at the closing rate.

Borrowing costs
Borrowing costs are expensed as incurred except where they relate to the financing of construction or development of qualifying assets in which case they are capitalised up to the date when the qualifying asset is ready for its intended use.

Employee and retirement benefits
Wages, salaries, bonuses, social security contributions, paid annual and sick leave are accrued in the period in which the associated services are rendered by the employees of the Group.

Glencore operates various pension schemes in accordance with local requirements and practices of the respective countries. The annual costs for defined contribution plans that are funded by payments to separate trustee administered funds or insurance companies equal the contributions that are required under the plans and accounted for as an expense.

For defined benefit retirement plans, the cost of providing benefits is determined using the Projected Unit Credit Method, with actuarial valuations being carried out at the end of each annual reporting period. Remeasurements comprising actuarial gains and losses, the effect of the asset ceiling (if applicable) and the return on plan assets (excluding interest) are recognised immediately in the statement of financial position with a charge or credit to other comprehensive income in the period in which they occur. Remeasurements recognised in other comprehensive income are not reclassified. Past service cost is recognised in profit or loss when the plan amendment or curtailment occurs, or when the Group recognises related restructuring costs or termination benefits, if earlier. Gains or losses on settlement of a defined benefit plan are recognised when the settlement occurs. Net interest is calculated by applying a discount rate to the net defined benefit liability or asset.

Defined benefit costs are split into three categories:

- service costs, which includes current service cost, past service cost and gains and losses on curtailments and settlements;
- net interest expense or income; and
- remeasurements.

The Group recognises service costs within the consolidated statement of income.

Net interest expense or income is recognised within interest expense or income within the consolidated statement of income.

Any past service cost (or the gain or loss on settlement) is calculated by measuring the defined benefit liability (asset) using updated assumptions and comparing benefits offered and plan assets before and after the plan amendment (or curtailment or settlement) but ignoring the effect of the asset ceiling (that may arise when the defined benefit plan is in a surplus position). The Group uses the updated assumptions from this remeasurement to determine current service cost and net interest for the remainder of the reporting period after the change to the plan. In the case of the net interest for the period post-plan amendment, the net interest is calculated by multiplying the net defined benefit liability (asset) as remeasured with the discount rate used in the remeasurement (also taking into account the effect of contributions and benefit payments on the net defined benefit liability (asset)).

1. Accounting policies *continued*

The retirement benefit obligation recognised in the consolidated statement of financial position represents the deficit or surplus in the Group's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.

Glencore also provides post-retirement healthcare benefits to certain employees in Canada, South Africa and the United States. These are accounted for in a similar manner to the defined benefit pension plans, however are unfunded.

Share-based payments

(i) Equity-settled share-based payments

Equity-settled share-based payments are measured at the fair value of the awards based on the market value of the shares at the grant date. Fair value excludes the effect of non-market-based vesting conditions. The fair value is charged to the consolidated statement of income and credited to retained earnings on a straight-line basis over the period the estimated awards are expected to vest.

At each balance sheet date, the Company revises its estimate of the number of equity instruments expected to vest as a result of the effect of non-market-based vesting conditions. The impact of the revision of the original estimates, if any, is recognised in the consolidated statement of income such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to retained earnings.

(ii) Cash-settled share-based payments

For cash-settled share-based payments, a liability is initially recognised at fair value based on the estimated number of awards that are expected to vest, adjusting for market and non-market-based performance conditions. Subsequently, at each reporting period until the liability is settled, it is remeasured to fair value with any changes in fair value recognised in the consolidated statement of income.

Income taxes

Income taxes consist of current and deferred income taxes. Current taxes represent income taxes expected to be payable based on enacted or substantively enacted tax rates at the period end on expected current taxable income, and any adjustment to tax payable in respect of previous years. Deferred taxes are recognised for temporary differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable income, using enacted or substantively enacted income tax rates which are expected to be effective at the time of reversal of the underlying temporary difference. Deferred tax assets and unused tax losses are only recognised to the extent that their recoverability is probable. Deferred tax assets are reviewed at reporting period end and amended to the extent that it is no longer probable that the related benefit will be realised. To the extent that a deferred tax asset not previously recognised subsequently fulfils the criteria for recognition, an asset is then recognised.

Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same authority and Glencore has both the right and the intention to settle its current tax assets and liabilities on a net or simultaneous basis. The tax effect of certain temporary differences is not recognised principally with respect to the initial recognition of an asset or liability (other than those arising in a business combination or in a manner that initially impacted accounting or taxable profit) and temporary differences relating to investments in subsidiaries and Associates to the extent that Glencore can control the timing of the reversal of the temporary difference and it is probable the temporary difference will not reverse in the foreseeable future. Deferred tax is provided in respect of fair value adjustments on acquisitions. These adjustments may relate to assets such as extraction rights that, in general, are not eligible for income tax allowances.

Current and deferred tax are recognised as an expense or income in the consolidated statement of income, except when they relate to items that are recognised outside the consolidated statement of income (whether in other comprehensive income or directly in equity) or where they arise from the initial accounting for a business combination.

Royalties, extraction taxes and other levies/taxes are treated as taxation arrangements when they have the characteristics of an income tax, including being imposed and determined in accordance with regulations established by the respective government's taxation authority and the amount payable is based on taxable income – rather than physical quantities produced or as a percentage of revenues – after adjustment for temporary differences. For such arrangements, current and deferred tax is provided on the same basis as described above for other forms of taxation. Obligations arising from royalty arrangements that do not satisfy these criteria are recognised as current provisions and included in cost of goods sold.

Glencore assesses its liabilities and contingencies for all tax years open to audit based upon the latest information available. Inherent uncertainties exist in estimates of tax contingencies due to complexities of interpretation and changes in tax laws. For those matters where it is probable that an adjustment will be made, the Group records its best estimate of these tax liabilities, including related interest charges, taking into account the range of possible outcomes.

1. Accounting policies *continued*

Property, plant and equipment

Property, plant and equipment are stated at cost, being the fair value of the consideration given to acquire or construct the asset, including directly attributable costs required to bring the asset to the location or to a condition necessary for operation and the direct cost of dismantling and removing the asset, less accumulated depreciation and any accumulated impairment losses.

Property, plant and equipment are depreciated to their estimated residual value over the estimated useful life of the specific asset concerned, or the estimated remaining life of the associated mine (LOM), field or lease.

Depreciation commences when the asset is available for use. The major categories of property, plant and equipment are depreciated/amortised on a units of production (UOP) and/or straight-line basis as follows:

Buildings	10 – 45 years
Freehold land	not depreciated
Plant and equipment	3 – 30 years/UOP
Right-of-use assets	2 – 20 years
Mineral and petroleum rights	UOP
Deferred mining costs	UOP

(i) Mineral and petroleum rights

Mineral and petroleum reserves, resources and rights (together 'Mineral and petroleum rights') which can be reasonably valued, are recognised in the assessment of fair values on acquisition. Mineral and petroleum rights for which values cannot be reasonably determined are not recognised. Exploitable Mineral and petroleum rights are amortised using the UOP basis over the commercially recoverable reserves and, in certain circumstances, other mineral resources. Mineral resources are included in amortisation calculations where there is a high degree of confidence that they will be extracted in an economic manner.

(ii) Exploration and evaluation expenditure

Exploration and evaluation expenditure relates to costs incurred in the exploration and evaluation of potential mineral and petroleum resources and includes costs such as exploration and production licences, researching and analysing historical exploration data, exploratory drilling, trenching, sampling and the costs of pre-feasibility studies. Exploration and evaluation expenditure for each area of interest, other than that acquired from another entity, is charged to the consolidated statement of income as incurred except when the expenditure is expected to be recouped from future exploitation or sale of the area of interest and it is planned to continue with active and significant operations in relation to the area, or at the reporting period end, the activity has not reached a stage which permits a reasonable assessment of the existence of commercially recoverable reserves, in which case the expenditure is capitalised. As the intangible component (i.e. licences) represents an insignificant and indistinguishable portion of the overall expected tangible amount to be incurred and recouped from future exploitation, these costs along with other capitalised exploration and evaluation expenditure are recorded as a component of property, plant and equipment. Purchased exploration and evaluation assets are recognised at their fair value at acquisition.

As the capitalised exploration and evaluation expenditure asset is not available for use, it is not depreciated. All capitalised exploration and evaluation expenditure is monitored for indications of impairment. Where a potential impairment is indicated, an assessment is performed for each area of interest or at the CGU level. To the extent that capitalised expenditure is not expected to be recovered it is charged to the consolidated statement of income.

Administration costs that are not directly attributable to a specific exploration area are charged to the consolidated statement of income. Licence costs paid in connection with a right to explore in an existing exploration area are capitalised and amortised over the term of the permit.

Development expenditure

When commercially recoverable reserves are determined and such proposed development receives the appropriate approvals, capitalised exploration and evaluation expenditure is transferred to construction in progress, a component within the plant and equipment asset sub-category. All subsequent development expenditure is similarly capitalised, provided commercial viability conditions continue to be satisfied. Proceeds from the sale of product extracted during the development phase are recognised in the statement of income. Upon completion of development and commencement of production, capitalised development costs are further transferred, as required, to the appropriate plant and equipment asset category and depreciated using the unit of production method (UOP) or straight-line basis.

1. Accounting policies *continued*

Deferred mining costs

Mainly comprises certain capitalised costs related to underground mining as well as pre-production and in-production stripping activities as outlined below. Deferred mining costs are amortised using the UOP basis over the life of the ore body to which those costs relate.

Deferred stripping costs

Stripping costs incurred in the development of a mine (or pit) before production commences are capitalised as part of the cost of constructing the mine (or pit) and subsequently amortised over the life of the mine (or pit) on a UOP basis.

In-production stripping costs related to accessing an identifiable component of the ore body to realise benefits in the form of improved access to ore to be mined in the future (stripping activity asset), are capitalised within deferred mining costs provided all the following conditions are met:

(a) it is probable that the future economic benefit associated with the stripping activity will be realised;

(b) the component of the ore body for which access has been improved can be identified; and

(c) the costs relating to the stripping activity associated with the improved access can be reliably measured.

If all of the criteria are not met, the production stripping costs are charged to the consolidated statement of income as they are incurred.

The stripping activity asset is subsequently depreciated on a UOP basis over the life of the identified component of the ore body that became more accessible as a result of the stripping activity and is then stated at cost less accumulated depreciation and any accumulated impairment losses.

Leases

As lessee, the Group assesses whether a contract contains a lease at inception of the contract. The Group recognises a right-of-use asset and corresponding lease liability in the statement of financial position for all lease arrangements where it is the lessee, except for short-term leases with a term of twelve months or less and leases of low value assets. For these leases, the Group recognises the lease payments as an operating expense on a straight-line basis over the term of the lease.

The lease liability is initially measured at the present value of the future lease payments from the commencement date of the lease. The lease payments are discounted using the interest rate implicit in the lease or, if not readily determinable, the asset and company specific incremental borrowing rates. Lease liabilities are recognised within borrowings on the statement of financial position. The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made. The Group remeasures the lease liability, with a corresponding adjustment to the related right-of-use assets, whenever:

- The lease term changes or there is a significant event or change in circumstances resulting in a change in the assessment of exercise of a purchase option, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate;
- The lease payments change due to the changes in an index or rate or a change in expected payment under a guaranteed residual value, in which case the lease liability is remeasured by discounting the revised lease payments using an unchanged discount rate; or
- A lease contract is modified and the lease modification is not accounted for as a separate lease, in which case the lease liability is remeasured based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of modification.

The right-of-use assets are initially recognised on the balance sheet at cost, which comprises the amount of the initial measurement of the corresponding lease liability, adjusted for any lease payments made at or prior to the commencement date of the lease, any lease incentive received and any initial direct costs incurred, and expected costs for obligations to dismantle and remove right-of-use assets when they are no longer used. Right-of-use assets are recognised within property, plant and equipment on the statement of financial position. Right-of-use assets are depreciated on a straight-line basis from the commencement date of the lease over the shorter of the useful life of the right-of-use asset or the end of the lease term.

The Group enters into lease arrangements as a lessor with respect to some of its time charter vessels. Leases for which the Group is an intermediate lessor are classified as finance or operating leases by reference to the right-of-use asset arising from the head lease. Income from operating leases is recognised on a straight-line basis over the term of the relevant lease. Amounts due from lessees under finance leases are recognised as receivables at the amount of the Group's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Group's net investment outstanding in respect of these leases.

1. Accounting policies *continued*

Restoration, rehabilitation and decommissioning

Restoration, rehabilitation and decommissioning costs arising from the installation of plant and other site preparation work, discounted using a risk-free rate specific to the liability and the currency in which they are denominated to their net present value, are provided for and capitalised at the time such an obligation arises. The costs are charged to the consolidated statement of income over the life of the operation through depreciation of the asset and the unwinding of the discount on the provision.

Costs for restoration of subsequent site disturbance, which is created on an ongoing basis during production, are provided for at their net present values and charged to the consolidated statement of income as extraction progresses.

Changes in the estimated timing of the rehabilitation or changes to the estimated future costs are accounted for prospectively by recognising an adjustment to the rehabilitation liability and a corresponding adjustment to the asset to which it relates, provided a reduction, if any, in the provision is not greater than the depreciated capitalised cost of the related asset, in which case the capitalised cost is reduced to Nil and the remaining adjustment recognised in the consolidated statement of income. In the case of closed sites, changes to estimated costs are recognised immediately in the consolidated statement of income.

Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is their fair value at the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation (calculated on a straight-line basis over their useful lives) and accumulated impairment losses, if any.

Internally generated intangibles are not capitalised. Instead, the related expenditure is recognised in the consolidated statement of income in the period in which the expenditure is incurred.

Identifiable intangible assets with a finite life are amortised on a straight-line basis over their expected useful life. The amortisation method and period are reviewed annually and impairment testing is undertaken when circumstances indicate the carrying amount may not be recoverable. Other than goodwill which is not amortised, Glencore has no identifiable intangible assets with an indefinite life.

The major categories of intangibles are amortised on a units of production (UOP) and/or straight-line basis as follows:

Port allocation rights	UOP
Licences, trademarks and software	3 – 20 years
Customer relationships	5 – 9 years

Goodwill impairment testing

For the purpose of impairment testing, goodwill has been allocated to the CGUs, or groups of CGUs, that are expected to benefit from the synergies of the business combination and which represent the level at which management monitors and manages the goodwill. In assessing whether an impairment is required, the carrying value of the CGU is compared with its recoverable amount. The recoverable amount is the higher of its fair value less costs of disposal (FVLCD) and its value in use (VIU). If the recoverable amount of the CGU is less than the carrying amount of the unit, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit on a pro-rata basis of the carrying amount of each asset in the unit. Any impairment loss for goodwill is recognised directly in the consolidated statement of income. An impairment loss recognised for goodwill can not be reversed in subsequent periods.

Other investments

Equity investments, other than investments in Associates, are recorded at fair value. Glencore designated investments that are not held for trading as at fair value through other comprehensive income (FVTOCI). As a result, changes in fair value are recorded in the consolidated statement of other comprehensive income. Dividends from these investments are recognised in the consolidated statement of income, unless the dividend represents a recovery of part of the cost of the equity investment. Investments that are held for trading are subsequently measured at fair value through profit or loss (FVTPL).

Impairment or impairment reversals

Glencore conducts, at least annually, an internal review of asset values which is used as a source of information to assess for any indications of impairment or impairment reversal. Formal impairment tests are carried out, at least annually, for cash-generating units containing goodwill and for all other non-current assets, when events or changes in circumstances indicate the carrying value may not be recoverable.

1. Accounting policies *continued*

A formal impairment or reversal test involves determining whether the carrying amounts are in excess (or below, as the case may be) of their recoverable amounts. An asset's recoverable amount is determined as the higher of its FVLCD and its VIU. Such reviews are undertaken on an asset-by-asset basis, except where assets do not generate cash flows independent of other assets, in which case the review is undertaken at the CGU level.

If the carrying amount of an asset exceeds its recoverable amount, an impairment loss is recorded in the consolidated statement of income to reflect the asset at the lower amount.

For those assets which were impaired in prior periods, if their recoverable amount exceeds their carrying amount, and the change in their recoverable amount is not solely due to the passage of time, an impairment reversal is recorded in the consolidated statement of income to reflect the asset at the higher amount to the extent the increased carrying amount does not exceed the carrying value of the asset that would have been determined had no impairment previously been recognised. Goodwill impairments cannot be subsequently reversed.

Provisions

Provisions are recognised when Glencore has a present obligation (legal or constructive), as a result of past events, and it is probable that an outflow of resources embodying economic benefits that can be reliably estimated will be required to settle the liability.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation, including interpretation of specific laws and likelihood of settlement. Where a provision is measured using the cash flow estimated to settle the present obligation, its carrying amount is the present value of those cash flows (when the effect of the time value of money is material).

Onerous contracts

An onerous contract is considered to exist where Glencore has a contract under which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received from the contract. Present obligations arising under onerous contracts are recognised and measured as provisions.

Unfavourable contracts

An unfavourable contract is considered to exist when Glencore, in a business combination, acquires a contract under which the terms of the contract require Glencore to sell or purchase products or services on terms which are economically unfavourable compared to current market terms at the time of the business combination. Unfavourable contracts are recognised at the present value of the economic loss and amortised into the statement of income over the term of the contract.

Inventories

The vast majority of inventories attributable to the marketing activities are valued at fair value less costs of disposal with the remainder valued at the lower of cost or net realisable value, with costs allocated using the first-in-first-out (FIFO) method. Unrealised gains and losses from changes in fair value are reported in cost of goods sold.

Inventories held by the industrial activities are valued at the lower of cost or net realisable value. Cost is determined using FIFO or the weighted average method and comprises material costs, labour costs and allocated production related overhead costs. Typically raw materials and consumables are measured using the FIFO method and work in progress inventories using the weighted average method. Where the production process results in more than one product being produced (joint products), cost is allocated between the various products according to the ratio of contribution of these metals to gross sales revenue. Financing and storage costs related to inventory are expensed as incurred.

Non-current inventories primarily relate to stockpiles which are not expected to be utlised within the normal operating cycle.

Non-financial instruments (physical advances or prepayments)

The Group enters into physical advances and prepayment agreements with certain suppliers and customers. When such advances and prepayments are primarily settled in cash or another financial asset, they are classified as financial assets or financial liabilities (see below). Where such advances and prepayments are settled through physical delivery or receipt of an underlying product they are classified as non-financial assets or non-financial liabilities. Such advances and prepayments are initially recorded at the amount of the cash paid or received and are subsequently reduced by the relevant contractual volumes of physical deliveries made. Certain physically-settled advances and prepayments which relate to contracts to buy or sell commodities that can be settled on a net basis are accounted for under IFRS 9 as if they were financial instruments.

Financial instruments

Financial assets and financial liabilities are recognised in the Group's consolidated statement of financial position when the Group becomes a party to the contractual provisions of the instrument. Contractual maturities of such financial assets and financial liabilities may be longer than one year. However, in the normal course of trading activities, derivative financial instruments are often settled before their maturity date, and therefore classified as current assets or current liabilities.

1. Accounting policies *continued*

Financial assets are classified as either financial assets at amortised cost, at fair value through other comprehensive income (FVTOCI) or at fair value through profit or loss (FVTPL) depending upon the business model for managing the financial assets and the nature of the contractual cash flow characteristics of the financial asset. Financial assets are initially recognised at fair value on the trade date, including, in the case of instruments not subsequently measured at fair value through profit or loss, directly attributable transaction costs. Trade receivables with no provisional price features and where there is no significant financing component, are initially recognised at their transaction price.

Subsequently, other investments, provisionally priced trade receivables and derivatives are carried at fair value and trade receivables that do not contain provisional price features, loans and other receivables are carried at amortised cost.

Financial liabilities, other than derivatives and those containing provisional price features, are initially recognised at fair value of consideration received net of transaction costs as appropriate and subsequently carried at amortised cost. Financial liabilities that contain provisional pricing features (accounted for as embedded derivatives) were designated in their entirety as at FVTPL. Derivatives are carried at FVTPL.

Where financial assets and financial liabilities recognised at fair value are managed and reported to key management personnel on the basis of its net exposure to either market risks or credit risk, fair value of that group of financial assets and financial liabilities is measured on the basis of the net price that would be received to sell the long position and to transfer the short position for a particular risk exposure of the specific financial asset or liability being measured. When the group of financial assets and/or financial liabilities are not presented on a net basis in the statement of financial position, any portfolio level adjustments are allocated to the individual instruments that make up the group on an appropriate basis.

(i) Impairment of financial assets

A loss allowance for expected credit losses is determined for all financial assets (as well as for issued loan commitments and financial guarantee contracts), other than those at FVTPL and investments in equity instruments measured at FVTOCI, at the end of each reporting period. The expected credit loss recognised represents a probability-weighted estimate of credit losses over the expected life of the financial instrument.

The Group applies the simplified approach to measure the loss allowance for trade receivables classified at amortised cost, using the lifetime expected loss provision. The expected credit losses on these financial assets are estimated using a provision matrix by reference to past default experience and an equivalent credit rating, adjusted as appropriate for current observable data and forward-looking information.

For all other financial assets at amortised cost, the Group recognises lifetime expected credit losses when there has been a significant increase in credit risk since initial recognition, which is determined by:

- A review of overdue amounts;
- Comparing the risk of default at the reporting date and at the date of initial recognition; and
- An assessment of relevant historical and forward-looking quantitative and qualitative information.

For those balances that are beyond 30 days overdue, such is presumed to be an indicator of a significant increase in credit risk.

If the credit risk on the financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12-month expected credit loss, which comprises the expected lifetime loss from the instrument were a default to occur within 12 months of the reporting date.

The Group considers an event of default has materialised and the financial asset is credit impaired when information developed internally or obtained from external sources indicates that the debtor is unlikely to pay the Group without taking into account any collateral held by the Group or if the financial asset is more than 90 days past due, unless the Group has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate. The Group writes off a financial asset when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery.

(ii) Derecognition of financial assets and financial liabilities

The Group derecognises a financial asset when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another party. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

The Group derecognises financial liabilities when the Group's obligations are discharged, cancelled or have expired.

1. Accounting policies *continued*

On derecognition of a financial asset/financial liability in its entirety, the difference between the carrying amount of the financial asset/financial liability and the sum of the consideration received and receivable/paid and payable is recognised in profit and loss. On derecognition of equity investments designated and measured at FVTOCI, the cumulative gain or loss recognised in other comprehensive income is reclassified directly to retained earnings.

Own shares

The cost of purchases of own shares is deducted from equity. Where they are purchased, issued to employees or sold, no gain or loss is recognised in the consolidated statement of income. Such gains and losses are recognised directly in equity. Any proceeds received on disposal of the shares or transfers to employees are recognised in equity.

Derivatives and hedging activities

Derivative instruments, which include physical contracts to sell or purchase commodities that do not meet the own use exemption, are initially recognised at fair value when Glencore becomes a party to the contractual provisions of the instrument and are subsequently remeasured to fair value at the end of each reporting period. Fair values are determined using quoted market prices, dealer price quotations or using models and other valuation techniques, the key inputs for which include current market and contractual prices for the underlying instrument, time to expiry, yield curves, volatility of the underlying instrument and counterparty risk.

Gains and losses on derivative instruments for which hedge accounting is not applied, other than the revenue adjustment mechanism embedded within provisionally priced sales and mark-to-market movements on physical forward sales contracts, are recognised in cost of goods sold.

Those derivatives qualifying and designated as hedges are either (i) a Fair Value Hedge of the change in fair value of a recognised asset or liability or an unrecognised firm commitment, or (ii) a Cash Flow Hedge of the change in cash flows to be received or paid relating to a recognised asset or liability or a highly probable transaction.

At the inception of the hedge and on an ongoing basis, Glencore documents whether the hedging instrument is effective in offsetting changes in fair values or cash flows of the hedged item attributable to the hedged risk, which is when the hedging relationship meets the qualifying hedge effectiveness requirements.

Glencore discontinues hedge accounting when the qualifying criteria for the hedged relationship is no longer met.

A change in the fair value of derivatives designated as a Fair Value Hedge is reflected together with the change in the fair value of the hedged item in the consolidated statement of income.

A change in the fair value of derivatives designated as a Cash Flow Hedge is initially recognised in the consolidated statement of comprehensive income and accumulated in the cash flow hedge reserve in shareholders' equity. The deferred amount is then released to the consolidated statement of income in the same periods during which the hedged transaction affects the consolidated statement of income. Hedge ineffectiveness is recorded in the consolidated statement of income when it occurs.

When a hedging instrument expires or is sold, 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 shareholders' equity and is recognised in the consolidated statement of income when the committed or forecast transaction is ultimately recognised in the consolidated statement of income. However, if a forecast or committed transaction is no longer expected to occur, the cumulative gain or loss that was recognised in equity is immediately transferred to the consolidated statement of income.

A derivative may be embedded in a non-derivative 'host contract' such as provisionally priced sales and purchases. Such combinations are known as hybrid instruments. If a hybrid contract contains a host that is a financial asset within the scope of IFRS 9, then the relevant classification and measurement requirements are applied to the entire contract at the date of initial recognition. Should the host contract not be a financial asset within the scope of IFRS 9, the embedded derivative is separated from the host contract, if it is not closely related to the host contract, and accounted for as a standalone derivative. Where the embedded derivative is separated, the host contract is accounted for in accordance with its relevant accounting policy, unless the entire instrument is designated at FVTPL in accordance with IFRS 9.

Financial guarantee contracts

Financial guarantee contracts are accounted for in accordance with IFRS 9 as financial liabilities. After initial recognition, any such contracts are subsequently measured at the higher of the amount of the provision for expected credit losses and the amount initially recognised less any income recognised in accordance with the principles of IFRS 15.

2. Segment information

Glencore is organised and operates on a worldwide basis in two core business segments – Marketing activities and Industrial activities, reflecting the reporting lines and structure used by Glencore's Management to allocate resources and assess the performance of Glencore.

The business segments' contributions to the Group are primarily derived from a) the net margin or premium earned from physical Marketing activities (net sale and purchase of physical commodities) and the provision of marketing and related value-add services and b) the net margin earned from Industrial asset activities (resulting from the sale of physical commodities over the cost of production and/or cost of sales). The marketing-related operating segments have been aggregated under the Marketing reportable segment as their economic characteristics (historic and expected long-term Adjusted EBITDA margins and the nature of the marketing services provided) are similar. The industrial-related operating segments have been aggregated under the Industrial reportable segment as the core activities (extracting raw material and / or processing it further into saleable product, as required, and then selling it at prevailing market prices), the exposure to long-term economic risks (price movements, technology, sovereign and production substitution) and the longer-term average Adjusted EBITDA margins are similar. The economic and operational characteristics of our coal operating and commercial units are not expected to change in the foreseeable future and continue to be included within the industrial assets and marketing reporting segments, respectively.

Corporate and other: consolidated statement of income amounts represent Group related income and expenses (including share of Viterra earnings and certain variable bonus charges). Statement of financial position amounts represent Group related balances.

The financial performance of the operating segments is principally evaluated by management with reference to Adjusted EBIT/EBITDA. Adjusted EBIT is the net result of segmental revenue (revenue including Proportionate adjustments as defined in the Alternative performance measure section) less cost of goods sold and selling and administrative expenses plus share of income from associates and joint ventures, dividend income and the attributable share of Adjusted EBIT of relevant material associates and joint ventures, which are accounted for internally by means of proportionate consolidation, excluding significant items. Adjusted EBITDA consists of Adjusted EBIT plus depreciation and amortisation, including the related Proportionate adjustments. In addition, Volcan, while a subsidiary of the Group, is accounted for under the equity method for internal reporting and analysis due to the relatively low economic ownership held by the Group.

The accounting policies of the operating segments are the same as those described in note 2 with the exception of the Antamina copper/zinc mine, the Collahuasi joint venture and Volcan. Under IAS 28 and IFRS 11, Glencore's investment in the Antamina copper/zinc mine (34% owned) is considered to be an associate as it is not subject to joint control and the Collahuasi copper mine (44% owned) is considered to be a joint venture. Associates and joint ventures are required to be accounted for in Glencore's financial statements under the equity method. For internal reporting and analysis, Glencore evaluates the performance of these investments under the proportionate consolidation method, reflecting Glencore's proportionate share of the revenues, expenses, assets and liabilities of the investments. For internal reporting and analysis, management evaluates the performance of Volcan under the equity method, reflecting the Group's relatively low 23.3% economic ownership in this fully ring-fenced listed entity, with its stand-alone, independent and separate capital structure. The balances as presented for internal reporting purposes are reconciled to Glencore's statutory disclosures in the following tables and/or in the Alternative performance measures section.

In January 2022, Glencore completed the acquisition of the remaining 66.67% interest in Cerrejón (coal), that it did not previously own (see note 26), increasing Glencore's ownership to 100% and providing it with the ability to exercise control and fully consolidate Cerrejón. Prior to the transaction, Glencore evaluated the performance of its 33.33% interest in Cerrejón under the proportionate consolidation method, such that 2021 segment comparatives reflect Glencore's proportionate share of the revenues, expenses, assets and liabilities of the investment.

In Q4 2022, Glencore commenced a process exploring the possible disposal of its 23.3% economic interest in Volcan. As a result, the carrying amounts of Volcan assets and liabilities as at 31 December 2022 are classified as held for sale (see note 16). For segmental reporting purposes, Volcan continues to be accounted for as an equity accounted associate.

Notes to the financial statements *continued*

2. Segment information *continued*

Glencore accounts for intra-segment sales and transfers where applicable as if the sales or transfers were to third parties, i.e. at arm's length commercial terms.

2022 US$ million	Marketing activities	Industrial activities	Inter-segment eliminations	**Total**
Revenue				
Metals and minerals	77,382	38,993	(25,499)	90,876
Energy products	137,720	39,333	(9,256)	167,797
Corporate and other	–	6	–	6
Revenue – segmental	**215,102**	**78,332**	**(34,755)**	**258,679**
Proportionate adjustment – revenue[1]	–	(2,695)	–	(2,695)
Revenue – reported measure	**215,102**	**75,637**	**(34,755)**	**255,984**
Metals and minerals				
Adjusted EBITDA	1,694	9,274	–	10,968
Depreciation and amortisation	(54)	(3,776)	–	(3,830)
Proportionate adjustment – depreciation[1]	–	(416)	–	(416)
Adjusted EBIT	**1,640**	**5,082**	**–**	**6,722**
Energy products				
Adjusted EBITDA	5,558	18,590	–	24,148
Depreciation and amortisation	(359)	(2,740)	–	(3,099)
Adjusted EBIT	**5,199**	**15,850**	**–**	**21,049**
Corporate and other				
Adjusted EBITDA[2]	(457)	(599)	–	(1,056)
Depreciation and amortisation	–	(58)	–	(58)
Adjusted EBIT	**(457)**	**(657)**	**–**	**(1,114)**
Total Adjusted EBITDA	**6,795**	**27,265**	**–**	**34,060**
Total depreciation and amortisation	(413)	(6,574)	–	(6,987)
Total depreciation proportionate adjustment	–	(416)	–	(416)
Total Adjusted EBIT	**6,382**	**20,275**	**–**	**26,657**
Share of associates' significant items[1,3]				(9)
Movement in unrealised inter-segment profit elimination adjustments[4]				1,176
Gain on acquisitions and disposals of non-current assets				1,287
Other expense – net				(911)
Impairments				(3,337)
Interest expense – net				(1,336)
Income tax expense				(6,368)
Proportionate adjustment – net finance, impairment and income tax expense[1]				(648)
Income for the year				**16,511**

1 Refer to segment information on previous page and APMs section for definition.
2 Marketing activities include $494 million of Glencore's equity accounted share of Viterra.
3 Share of associates' significant items comprise Glencore's share of significant charges relating to impairments and other items booked directly by various associates.
4 Represents the required adjustment to eliminate unrealised profit or losses arising on inter-segment transactions, i.e. before ultimate sale to a third party. For Glencore, such adjustments arise on the sale of product, in the ordinary course of business, from its Industrial to Marketing operations. Management assesses segment performance prior to any such adjustments, as if the sales were to third parties.

Notes to the financial statements *continued*

2. Segment information *continued*

2021 US$ million	Marketing activities	Industrial activities	Inter-segment eliminations	**Total**
Revenue				
Metals and minerals[1]	71,318	41,535	(26,506)	86,347
Energy products[1]	106,265	19,269	(3,955)	121,579
Corporate and other	–	6	–	6
Revenue – segmental	**177,583**	**60,810**	**(30,461)**	**207,932**
Proportionate adjustment – revenue[2]	–	(4,181)	–	(4,181)
Revenue – reported measure	**177,583**	**56,629**	**(30,461)**	**203,751**
Metals and minerals				
Adjusted EBITDA	2,588	12,017	–	14,605
Depreciation and amortisation	(94)	(3,485)	–	(3,579)
Proportionate adjustment – depreciation[2]	–	(404)	–	(404)
Adjusted EBIT	**2,494**	**8,128**	**–**	**10,622**
Energy products				
Adjusted EBITDA	1,829	5,603	–	7,432
Depreciation and amortisation	(434)	(2,262)	–	(2,696)
Proportionate adjustment – depreciation[2]	–	(89)	–	(89)
Adjusted EBIT	**1,395**	**3,252**	**–**	**4,647**
Corporate and other				
Adjusted EBITDA[3]	(194)	(520)	–	(714)
Depreciation and amortisation	–	(60)	–	(60)
Adjusted EBIT	**(194)**	**(580)**	**–**	**(774)**
Total Adjusted EBITDA	**4,223**	**17,100**	**–**	**21,323**
Total depreciation and amortisation	(528)	(5,807)	–	(6,335)
Total depreciation proportionate adjustment	–	(493)	–	(493)
Total Adjusted EBIT	**3,695**	**10,800**	**–**	**14,495**
Share of associates' significant items[2,4]				(11)
Movement in unrealised inter-segment profit elimination adjustments[5]				(549)
Loss on acquisitions and disposals of non-current assets				(607)
Other expense – net				(1,947)
Impairments				(1,838)
Interest expense – net				(1,140)
Income tax expense				(3,026)
Proportionate adjustment – net finance, impairment and income tax expense[2]				(1,028)
Income for the year				**4,349**

1 Certain prior year balances have been restated to conform with current year presentation of inter-segment eliminations.
2 Refer to segment information above and APMs section for definition.
3 Marketing activities include $473 million of Glencore's equity accounted share of Viterra.
4 Share of associates' significant items comprise Glencore's share of significant charges relating to impairments and other items booked directly by various associates.
5 Represents the required adjustment to eliminate unrealised profit or losses arising on inter-segment transactions, i.e. before ultimate sale to a third party. For Glencore, such adjustments arise on the sale of product, in the ordinary course of business, from its Industrial to Marketing operations. Management assesses segment performance prior to any such adjustments, as if the sales were to third parties.

Notes to the financial statements *continued*

2. Segment information *continued*

2022 US$ million	Marketing activities	Industrial activities	Corporate and other	**Total**
Current assets	47,534	17,326	–	64,860
Current liabilities	(32,495)	(9,258)	–	(41,753)
Allocatable current capital employed	**15,039**	**8,068**	**–**	**23,107**
Property, plant and equipment	920	38,644	–	39,564
Intangible assets	5,142	1,018	–	6,160
Investments in associates and other investments	4,509	7,825	–	12,334
Non-current advances and loans	1,666	988	–	2,654
Inventories	–	605	–	605
Allocatable non-current capital employed	**12,237**	**49,080**	**–**	**61,317**
Other assets[1]			6,406	6,406
Other liabilities[2]			(45,611)	(45,611)
Total net assets	**27,276**	**57,148**	**(39,205)**	**45,219**
Capital expenditure				
Metals and minerals	60	3,597	–	3,657
Energy products	239	1,172	–	1,411
Corporate and other	–	38	–	38
Capital expenditure – segmental	**299**	**4,807**	**–**	**5,106**
Proportionate adjustment – capital expenditure[3]	–	(461)	–	(461)
Capital expenditure – reported measure[4]	**299**	**4,346**	**–**	**4,645**

2021 US$ million	Marketing activities	Industrial activities	Corporate and other	**Total**
Current assets	38,080	15,134	–	53,214
Current liabilities	(33,553)	(7,288)	–	(40,841)
Allocatable current capital employed	**4,527**	**7,846**	**–**	**12,373**
Property, plant and equipment	961	42,198	–	43,159
Intangible assets	5,149	1,086	–	6,235
Investments in associates and other investments	5,565	8,349	–	13,914
Non-current advances and loans	1,943	1,584	–	3,527
Inventories	5	657	–	662
Allocatable non-current capital employed	**13,623**	**53,874**	**–**	**67,497**
Other assets[1]			6,799	6,799
Other liabilities[2]			(49,752)	(49,752)
Total net assets	**18,150**	**61,720**	**(42,953)**	**36,917**
Capital expenditure				
Metals and minerals	145	3,573	–	3,718
Energy products	656	819	–	1,475
Corporate and other	–	31	–	31
Capital expenditure – segmental	**801**	**4,423**	**–**	**5,224**
Proportionate adjustment – capital expenditure[3]	–	(516)	–	(516)
Capital expenditure – reported measure[4]	**801**	**3,907**	**–**	**4,708**

1 Other assets include non-current financial assets, deferred tax assets, cash and cash equivalents and assets held for sale.
2 Other liabilities include borrowings, non-current deferred income, deferred tax liabilities, non-current provisions, non-current post-retirement and other employee benefits, non-current financial liabilities and liabilities held for sale.
3 Refer to APMs section for definition.
4 Includes $425 million (2021: $1,006 million), comprising $219 million (2021: $648 million) in Marketing activities and $206 million (2021: $358 million) in Industrial activities, of 'right-of-use assets' capitalised in accordance with IFRS 16 – Leases.

Notes to the financial statements *continued*

2. Segment information *continued*

Geographical information

US$ million	2022	2021
Revenue from third parties[1]		
The Americas	44,354	37,930
Europe	87,662	64,284
Asia	104,861	86,576
Africa	13,238	9,991
Oceania	5,869	4,970
	255,984	**203,751**
Non-current assets[2]		
The Americas	17,183	16,963
Europe	11,297	11,152
Asia	3,966	4,683
Africa	11,300	12,389
Oceania	14,461	17,163
	58,207	**62,350**

1 Revenue by geographical destination is based on the country of incorporation of the sales counterparty, however this may not necessarily be the country of the counterparty's ultimate parent and/or final destination of product.
2 Non-current assets are non-current assets excluding other investments, advances and loans, other financial assets and deferred tax assets. Non-current assets comprise assets in Australia of $14,164 million (2021: $16,714 million), in Peru of $5,519 million (2021: $7,243 million) and the DRC of $6,074 million (2021: $6,555 million).

3. Revenue

US$ million	2022	2021
Sale of commodities	252,356	201,113
Freight, storage and other services	3,628	2,638
Total	**255,984**	**203,751**

Revenue is derived principally from the sale of commodities, recognised once control of the goods has transferred from Glencore to the buyer. Revenue from sale of commodities includes $78 million (2021: $710 million) of mark-to-market related adjustments on provisionally priced sales arrangements. Revenue derived from freight, storage and other services is recognised over time as the service is rendered. Revenue is measured based on consideration specified in the contract with the customer and is presented net of amounts prepaid as incentives and/or rebates paid to customers, and excludes amounts collected on behalf of third parties. This is consistent with the revenue information disclosed for each reportable segment (see note 2).

4. Gain/(loss) on acquisitions and disposals of non-current assets

US$ million	Notes	2022	2021
Gain on bargain purchase of Cerrejón	26	1,029	–
Gain on sale of Ernest Henry	26	512	–
Loss on sale of Bolivia Zinc	26	(104)	–
Loss on sale of E&P Chad	26	(34)	–
Gain on sale of BaseCore	11	131	–
Loss on sale of Los Quenuales	26	(180)	–
Loss on sale of Access World	26	(23)	–
Derecognition of non-controlling interest on disposal of Mopani	26	–	(1,022)
Gain on sale of Chemoil Terminals	26	–	110
Net gain on sale of other investments/operations		71	98
(Loss)/gain on disposal of property, plant and equipment		(115)	207
Total		**1,287**	**(607)**

Acquisition of Cerrejón
In January 2022, Glencore completed the acquisition of the remaining 66.67% interest in Cerrejón, a coal mine in Colombia, resulting in a bargain purchase gain of $1,029 million (see note 26).

Disposal of Ernest Henry
In January 2022, Glencore completed the disposal of its interest in Ernest Henry Mining Pty Ltd, a copper-gold mine in Queensland, Australia, resulting in a gain on sale of $512 million (see note 26).

Disposal of Bolivia Zinc
In March 2022, Glencore completed the disposal of its interest in the Bolivia zinc assets (Sinchi Wayra and Illapa), resulting in a loss on sale of $104 million (see note 26).

Disposal of E&P Chad
In June 2022, Glencore completed the disposal of its Chad upstream oil operations, resulting in a loss on sale of $34 million (see note 26).

Disposal of BaseCore
In July 2022, BaseCore Metals (a Glencore joint venture) completed the disposal of a royalty package to Sandstrom Gold Ltd, resulting in an overall gain on sale to Glencore of $131 million (see note 11).

Disposal of Los quenuales
In December 2022, Glencore completed the disposal of its Los Quenuales zinc, lead, silver operations in Peru, facilitated by the earlier settlement of an underlying silver streaming arrangement, resulting in a loss on sale of $180 million (see note 26).

Disposal of Access World
In December 2022, Glencore completed the disposal of its interest in the Access World Group, a global commodities storage and logistics group, resulting in a loss on sale of $23 million (see note 26).

Disposal of Mopani
In March 2021, Glencore completed the disposal of its interest in Mopani to ZCCM Investments Holdings plc. The net loss on disposal reflects the derecognition to the statement of income of the previously recognised book value of the non-controlling interest equity balance, which largely related to the non-controlling interest's share of historical impairments and losses, and net liabilities in Mopani (see note 26).

Disposal of Chemoil Terminals
In December 2021, Glencore completed the disposal of its 100% interest in Chemoil Terminals LLC, which owns the Long Beach and Carson oil products storage terminals in California, resulting in a gain of $110 million (see note 26).

Notes to the financial statements *continued*

5. Other income/(expense) – net

US$ million	Notes	2022	2021
Net changes in mark-to-market valuations		–	64
Release of unfavourable contract provision	22	–	122
Gain on energy contracts		264	–
Other income – net		101	–
Total other income		**365**	**186**
Net changes in mark-to-market valuations		(106)	–
Net foreign exchange losses		(349)	(187)
Legal and regulatory proceedings		(302)	(1,640)
Closed sites rehabilitation provisioning		(370)	(177)
Other expenses – net		(149)	(129)
Total other expenses		**(1,276)**	**(2,133)**
Total other expense – net		**(911)**	**(1,947)**

Together with foreign exchange movements and mark-to-market valuations, other net income / (expense) includes other items that, due to their nature and variable financial impact or infrequency of the events giving rise to these items, are reported separately from operating segment results.

Gain on energy contracts

Following the significant appreciation in European traded power prices in the summer of 2022, the Group recognised a $264 million gain over a number of its physically settled electricity contracts within its European metallurgical operations.

Net changes in mark-to-market valuations

Primarily relates to movements on interests in investments and loans (see notes 11 and 14), the ARM Coal non-discretionary dividend obligation (see note 29) and deferred consideration related to Mototolo stake sale in 2018 (see notes 12 and 14), all carried at fair value.

Net foreign exchange losses

2022 net foreign exchange losses include realised foreign currency losses of $431 million (see page 158) recognised on the restructuring and partial repayment of ZAR-denominated intragroup debt and return of capital that were part of the Group's net investment in its South African operations. These repayments are considered a partial disposal of a net investment in a subsidiary, and thus a proportionate share of the total accumulated foreign exchange losses recognised in the net investment were recycled to the statement of income upon these repayments.

Legal and regulatory proceedings

Comprises various investigations (legal, expert and compliance) related costs and other costs for ongoing legal matters of $122 million (2021: $1,584 million) and a settlement with the DRC authorities of $180 million (see notes 23 and 32).

Closed sites rehabilitation provisioning

Comprises movements in restoration, rehabilitation and decommissioning estimates related to sites that are no longer operational (see note 23).

6. Interest income/(expense)

US$ million	Notes	**2022**	2021
Bank deposits and other financial assets		290	110
Interest income and accretion on certain advances repayable with product	12	133	90
Loans to associates		12	8
Interest income		**435**	**208**
Interest expense for financial liabilities not classified at FVTPL			
Capital market notes		(869)	(733)
Revolving credit facilities		(118)	(55)
Lease liabilities	9	(88)	(98)
Other bank loans		(225)	(93)
Less: capitalised interest	9	31	33
Other interest		(178)	(65)
		(1,447)	(1,011)
Other interest expense			
Post-retirement employee benefits	24	(19)	(23)
Deferred income	22	(97)	(115)
Restoration and rehabilitation	23	(155)	(153)
Other provisions	23	(36)	(33)
Other interest		(17)	(13)
		(324)	(337)
Interest expense		**(1,771)**	**(1,348)**

7. Impairments

US$ million	Notes	2022	2021
(Impairments)/reversal of impairments of non-current assets			
Property, plant and equipment and intangible assets	9/10	(1,984)	(1,452)
Investments	11	(167)	(333)
Advances and loans – current and non-current	12/14	(389)	31
VAT receivable – non-current	12	(632)	(151)
Inventory and other		(113)	–
		(3,285)	**(1,905)**
(Impairments)/reversal of impairments of financial assets			
Advances and loans – current and non-current	12/14	(52)	67
		(52)	**67**
Total impairments[1]		**(3,337)**	**(1,838)**

1 Impairments recognised during the year are allocated to Glencore's operating segments as follows: Marketing activities $515 million (2021: $270 million) and Industrial activities $2,822 million (2021: $1,568 million).

As part of a regular portfolio review, Glencore carries out an assessment of whether there are indicators of cash-generating unit (CGU) or asset impairments or whether a previously recorded impairment may no longer be required.

The recoverable amounts of the property, plant and equipment and intangible assets were measured based on fair value less costs of disposal (FVLCD). The FVLCD of all CGUs are determined by discounted cash flow techniques based on the most recent approved financial budgets, underpinned and supported by the life of asset plans of the respective operations. The valuation models use a combination of internal sources and those inputs available to a market participant, which comprise the most recent reserve and resource estimates, relevant cost assumptions and where possible, market forecasts of commodity price and foreign exchange rate assumptions, discounted using operation specific post-tax real discount rates (unless otherwise indicated) ranging from 7.4% – 14.9% (2021: 6.7% – 15.5%). The valuations generally remain most sensitive to price and a deterioration / improvement in the pricing outlook may result in additional impairments/reversals. The determination of FVLCD used Level 3 valuation techniques for both years. In providing sensitivity analysis (and particularly on commodity price assumptions), a 10% change, representing a typical deviation parameter common in the industry, has been provided. Where a higher percentage is reasonably possible on an operational assumption, that has been clearly identified.

As a result of the regular impairment assessment, the following significant impairment charges were recognised:

2022

Property, plant and equipment and intangible assets

During 2022, significant changes to key macro estimates ensued, exacerbated by the Russian/Ukrainian war, which contributed to significant supply/demand imbalances, extreme commodity price volatility, higher energy prices and, in some cases, which are generally linked, emboldening governments to raise royalties and taxes. 2022 saw broad based cost increases, reflecting:

- direct and indirect inflationary pressures on goods and services (particularly energy related flow-through impacts on electricity costs, coal, diesel, steel, explosives, chemicals, reagents and Original Equipment Manufacturer spare parts);
- competition for skilled employees and contractors; and
- supply chain pressures, including their secondary effects on shipping and handling costs, as trade flows adjusted in response to the war.

The weighting of the above macro factors on certain CGUs, combined with various operational challenges, resulted in a number of impairments in our Industrial activities segment, almost exclusively related to metals and minerals' CGUs. The valuations are most sensitive to price and discount rate assumptions and a deterioration/improvement in these assumptions could result in additional impairments/reversal of impairments. See below.

	2022 impairment/ (reversal of impairment)					Impairments/(reversal of impairments) resulting from changes in key assumptions			
US$ million	pre tax	post tax	Capital employed[1]	Discount rate	Short to Long-term price assumption	Decrease/(increase) in price of 10%[2]		Increase/(decrease) in discount rate of 1%	
Cash-generating unit									
Mt. Isa copper[3]	656	460	–	9.7%	Cu: 8,157 - 7,400	–	–	–	–
Mt. Isa zinc	455	318	630	9.7%	Zn: 3,250 - 2,450	504	(318)	50	(58)
McArthur River zinc	172	96	869	8.7%	Zn: 3,250 - 2,450	396	(96)	63	(71)
Zhairem zinc	185	148	565	11.0%	Zn: 3,250 - 2,450	161	(148)	21	(22)
Portovesme zinc[3]	143	105	72	9.9%	Zn: 3,250 - 2,450	–	–	–	–
Volcan zinc	164	116	1,243	9.4%	Zn: 3,250 - 2,450	303	(242)	69	(96)
Koniambo nickel[3]	227	227	–	10.7%	Ni: 19,500 - 18,400	–	–	–	–
Various other	(18)	(18)	–						
	1,984	**1,452**	**3,379**			**1,364**	**(804)**	**203**	**(247)**

1 Estimated recoverable non-current capital employed, post impairment. Non-current capital employed includes property, plant and equipment, non-current inventory, less rehabilitation provisions and net deferred tax liabilities.
2 Across the curve.
3 The estimated recoverable value of non-current capital employed of these CGUs is estimated to be de minimis. No reasonably possible change in assumptions would materially impact this value, hence no sensitivity analysis is presented.

Notes to the financial statements continued

7. Impairments *continued*

- $656 million, Mt. Isa Copper CGU. During the year, various options for copper mining activities were considered in the context of higher costs due to the above macro factors. These factors outweighed the significant efforts made over the past few years to make the operation more competitive, such that the entire carrying value of this CGU was impaired.
- $455 million, Mt. Isa Zinc CGU and $172 million, McArthur River Zinc CGU. Resulting primarily from the above noted macro impacts, during 2022, the zinc market and its related treatment and refinery cost / revenue / profit drivers were significantly impacted, particularly in relation to ex-China smelting, where updated Group assumptions have significantly impacted Australia Zinc's long-term through-the-cycle expected mining returns.
- $185 million, Zhairem zinc/lead CGU. In addition to the above noted macro impacts, the Zhairem CGU, located in Kazakhstan, was significantly impacted by additional logistical impositions, as traditional supply chains were re-routed and the Kazakhstan government increased mineral extraction tax by some 50% (e.g. the rate applicable to zinc increased from 7% to 10.5%).
- $143 million, Portovesme zinc/lead CGU. As a result of the above noted macro impacts, particularly relating to increases in European energy costs, Portovesme curtailed its primary zinc and lead smelting operations, with its remaining focus then being the treatment / recycling of waelz oxides. These macro factors outweighed the significant efforts made over the past few years to make the primary operations more competitive, such that the entire carrying value of these CGUs, other than the waelz-oxide line, was impaired.
- $164 million, Volcan zinc CGU. Resulting primarily from the above noted macro impacts, during 2022, the zinc market and its related treatment and refinery cost / revenue / profit drivers were significantly impacted, particularly in relation to ex-China smelting, whereby updated assumptions, including in relation to Peru's increasing political challenges, have impacted the long-term through-the-cycle expected returns of Volcan's southern cluster CGU.
- $227 million, Koniambo nickel CGU. As a result of persistent operational challenges, high ferro-nickel price discounts, and the above noted macro impacts, which have produced significantly higher energy and other costs, a strategic review of the long-term viability of Koniambo was initiated with one of the options being the potential cessation of operations. These factors outweigh the significant efforts made over the past few years to make the operation more competitive, such that the entire carrying value of this CGU was impaired.
- Net $18 million reversal of impairments. The balance of the impairment charges of $70 million on property, plant and equipment (none of which were individually material) relate to specific assets (Industrial activities segment) where utilisation is no longer required or to projects no longer progressed due to changes in production and development plans, net of reversals of impairment of $88 million on property, plant and equipment (none of which were individually material) as a result of improved market conditions in the oil and gas market (Industrial activities segment).

Investments
Primarily comprises impairment charges of $55 million in respect of our 26.3% interest in Trevali Mining Corporation (Industrial activities segment), reflecting the Company obtaining creditor protection, following a serious mining incident at its Perkoa Mine in Burkina Faso in April 2022, and $54 million in respect of our 2.1% interest in Britishvolt (Marketing activities segment), owing to its financial difficulties and recent entering into administration. As a result, the entire carrying values of these investments were impaired.

Advances and loans – current and non-current
During 2022, the originally expected production rate at Mopani was not achieved, in part due to a lack of funding. The new shareholder has conducted operational and strategic reviews, resulting in Mopani seeking additional funding and to restructure and extend repayment of the transaction debt (see note 12). As a result, the advance was impaired by $422 million to a value of $596 million. The valuation assumes a long-term copper price of $7,400/t and an asset specific discount rate of 19%, which is reflective of an increase in emerging market risk premiums and underlying interest rates. The valuation remains most sensitive to price, receipt of physical copper and discount rate assumptions, and a deterioration in these assumptions could result in additional impairments. Should the price assumptions fall by 10% (across the curve), a further $43 million of impairment would be recognised. Should the discount rate increase by 1%, a further $36 million of impairment would be recognised, while a 10% decrease in physical copper estimates could result in an additional impairment of $19 million. Conversely, a 10% increase in price assumptions (across the curve) would result in an impairment reversal of $44 million or a 10% increase in physical copper receipts would result in an impairment reversal of $18 million.

VAT receivable – non-current
As a result of the continued delay and non-performance by the DRC government in settling long outstanding Value Added Tax ('VAT') claims, impairment charges of $632 million were recognised in respect of balances outstanding at our Mutanda and Katanga CGUs (Industrial activities segment).

Inventories – non-current
As a result of geotechnical and other operational challenges, the Katanga CGU undertook an extensive technical review and operational optimisation exercise, resulting in a significant reduction in its shorter term production forecasts over the next 3-4 years, such that $113 million of inventory stockpile value has been impaired, consistent with its latest life of mine model.

7. Impairments *continued*

2021

Property, plant and equipment and intangible assets

- In H1 2021, Koniambo incurred failures at its power plant and suffered a slag leak in line 2 of its metallurgical plant, resulting in a suspension of production. Extensive investigation into the cause of the leak ensued, following which it was determined to target lower throughput, revise certain grade and process recovery assumptions and increase the frequency of major maintenance shut-downs, with the intention of delivering more sustainable long-term operations. These revised changes in volume and cost assumptions and the emergence of higher discounts on non-battery application nickel relative to the LME nickel benchmark price, resulted in a reduction of Koniambo's estimated recoverable value (Industrial activities segment) to $550 million and an impairment of $1,170 million. The valuation assumed a long-term realised nickel price of approximately $13,700/t and an operation specific discount rate of 9.8%. Further revisions to the operating plans are possible. As at 31 December 2021, a 10% reduction in either the long-term realised nickel price or life of mine production could have resulted in the remaining carrying value being fully impaired. A 10% increase in variable operating costs could have resulted in an additional impairment of $170 million. Conversely, a 10% increase in the long-term realised nickel price could have resulted in an impairment reversal of $450 million.
- The balance of the impairment charges on property, plant and equipment (none of which were individually material) relate to specific assets where utilisation is no longer required or to projects no longer progressed due to changes in production and development plans. As a result, the full carrying amount of these assets/projects was impaired, with $282 million recognised in our Industrial activities segment.

Investments

Primarily comprises an impairment charge of $331 million in respect of our 49% investment in HG Storage (Marketing activities segment), to an estimated recoverable value of $189 million following a review of the carrying value against valuation benchmarks. As at 31 December 2021, the valuation of this investment is not considered to be a significant source of estimation uncertainty as no change in assumptions reasonably possible within the next 12 months would materially affect the carrying value.

Advances and loans – current and non-current

In 2021, impairment reversals on advances and loans of $98 million (none of which were individually material) were recognised following an improvement in the underlying financial condition of various counterparties, with $63 million recognised in our Marketing activities segment and $35 million recognised in our Industrial activities segment. Of the total $98 million of impairment reversals, $67 million relate to financial assets and $31 million relate to non-financial assets.

VAT receivable – non-current

As a result of continued challenge and non-performance by certain government authorities in settling long outstanding VAT claims, an impairment charge of $151 million was recognised in our Industrial activities segment.

Notes to the financial statements *continued*

8. Income taxes

Income taxes consist of the following:

US$ million	**2022**	2021
Current income tax expense	(7,165)	(2,923)
Adjustments in respect of prior year current income tax	(274)	158
Deferred income tax credit/(expense)	998	(92)
Adjustments in respect of prior year deferred income tax	73	(169)
Total tax expense reported in the statement of income	**(6,368)**	**(3,026)**
Deferred income tax expense recognised directly in other comprehensive income	(65)	(67)
Total tax expense recognised directly in other comprehensive income	**(65)**	**(67)**

The effective Group tax rate is different from the statutory Swiss income tax rate applicable to the Company for the following reasons:

US$ million	**2022**	2021
Income before income taxes	22,879	7,375
Less: Share of income from associates and joint ventures	(2,300)	(2,618)
Parent Company's and subsidiaries' income before income tax and attribution	**20,579**	**4,757**
Income tax expense calculated at the Swiss income tax rate of 12% (2021: 12%)	(2,469)	(571)
Tax effects of:		
Different tax rates from the standard Swiss income tax rate	(3,057)	(1,486)
Tax-exempt income ($360 million (2021: $207 million) from recurring items and $178 million (2021: $25 million) from non-recurring items)	538	232
Items not tax deductible ($670 million (2021: $987 million) from recurring items and $582 million (2021: $378 million) from non-recurring items)	(1,252)	(1,365)
Foreign exchange fluctuations	(187)	52
Changes in tax rates	(47)	15
Utilisation and changes in recognition of tax losses and temporary differences	385	101
Tax losses not recognised	(98)	15
Adjustments in respect of prior years	(201)	(11)
Other	20	(8)
Income tax expense	**(6,368)**	**(3,026)**

The non-tax deductible items of $1,252 million (2021: $1,365 million) primarily relate to financing costs, impairments and various other expenses.

The impact of tax-exempt income of $538 million (2021: $232 million) primarily relates to non-taxable dividends, income that is not effectively connected to the taxable jurisdiction, and various other items.

The tax impact of foreign exchange fluctuations relates to the foreign currency movements on deferred tax balances where the underlying tax balances are denominated in a currency different to the functional currency determined for accounting purposes.

Notes to the financial statements *continued*

8. Income taxes *continued*

Deferred taxes

Deferred taxes as at 31 December 2022 and 2021 are attributable to the items in the table below:

US$ million	2022	Recognised in the statement of income	Recognised in other comprehensive income	Business combination and disposal of subsidiaries	Foreign currency exchange movements	Other	2021
Deferred tax assets[1]							
Tax losses carried forward	1,515	116	–	(4)	1	(16)	1,418
Other	322	(18)	(2)	(17)	(2)	–	361
Total	**1,837**	**98**	**(2)**	**(21)**	**(1)**	**(16)**	**1,779**
Deferred tax liabilities[1]							
Depreciation and amortisation	(3,299)	1,254	–	(625)	60	168	(4,156)
Mark-to-market valuations	(125)	(1)	(2)	5	–	–	(127)
Other	(227)	(280)	(61)	295	5	–	(186)
Total	**(3,651)**	**973**	**(63)**	**(325)**	**65**	**168**	**(4,469)**
Total Deferred tax - net	**(1,814)**	**1,071**	**(65)**	**(346)**	**64**	**152**	**(2,690)**

US$ million	2021	Recognised in the statement of income	Recognised in other comprehensive income	Business combination and disposal of subsidiaries	Foreign currency exchange movements	Other	2020
Deferred tax assets[1]							
Tax losses carried forward	1,418	(532)	–	–	–	(1)	1,951
Other	361	115	(10)	–	(2)	(43)	301
Total	**1,779**	**(417)**	**(10)**	**–**	**(2)**	**(44)**	**2,252**
Deferred tax liabilities[1]							
Depreciation and amortisation	(4,156)	(150)	–	19	98	–	(4,123)
Mark-to-market valuations	(127)	7	(6)	–	–	–	(128)
Other	(186)	299	(51)	–	(3)	39	(470)
Total	**(4,469)**	**156**	**(57)**	**19**	**95**	**39**	**(4,721)**
Total Deferred tax - net	**(2,690)**	**(261)**	**(67)**	**19**	**93**	**(5)**	**(2,469)**

1 Asset and liability positions in the same category reflect the impact of tax assets and liabilities arising in local tax jurisdictions that cannot be offset against tax assets and liabilities arising in other tax jurisdictions.

Deferred tax assets are net of $311 million (2021: $287 million) of uncertain tax liabilities related to tax estimation and judgement uncertainties with respect to various open tax disputes discussed below.

Deferred tax assets are recognised for tax losses carried forward only to the extent that realisation of the related tax benefit is probable. As at 31 December 2022, $1,915 million (2021: $2,016 million) of deferred tax assets related to available loss carry forwards have been brought to account, of which $1,515 million (2021: $1,418 million) are disclosed as deferred tax assets with the remaining balance being offset against deferred tax liabilities arising in the same tax entity. This balance is primarily comprised of:

- $652 million (2021: $629 million) in entities domiciled in the DRC;
- $493 million (2021: $482 million) in entities domiciled in Switzerland; and
- $277 million (2021: $238 million) in entities domiciled in the US.

In evaluating whether it is probable that taxable profits will be earned in future accounting periods prior to any tax loss expiry as may be the case, all available evidence was considered, including approved budgets, forecasts and business plans and, in certain cases, analysis of historical operating results. These forecasts are consistent with those prepared and used internally for business planning and impairment testing purposes. Following this evaluation, it was determined there would be sufficient taxable income generated to realise the benefit of the deferred tax assets. With the exception of the deferred tax assets raised in respect of the Group's DRC operations (see below), no reasonably possible change in any of the key assumptions would result in a material reduction in forecast headroom of tax profits so that the recognised deferred tax asset would not be realised.

Notes to the financial statements *continued*

8. Income taxes *continued*

The recognised losses carried forward in the DRC primarily relate to historical development, ramp-up and financing related costs at KCC. The losses carried forward have an unlimited carry forward period, but are subject to annual utilisation limitation. Deferred taxation assets have been recognised for the full estimated available tax losses at 31 December 2022 as sufficient future taxable profits are expected to fully utilise the recognised carry forward tax losses. In recognising these deferred tax assets, consideration was given to the range of possible outcomes to determine the expected value of the tax losses available for future offset, including to what extent previously incurred tax losses would be available to offset future taxable profits. Any adverse challenge by the DRC tax authorities could materially impact the currently recognised tax losses and could result in a reversal of part or all of the recognised deferred tax assets.

The recognised losses carried forward in Switzerland primarily relate to non-recurring events. Based on the core business activities conducted in Switzerland and taxable income forecasts going forward, sufficient taxable profits are expected to fully utilise the recognised tax losses prior to expiration.

The recognised losses carried forward in the US primarily relate to non-recurring events in 2011 and have a carry forward period of 20 years. The US entities comprise our core US marketing activities and based on taxable income forecasts going forward, sufficient taxable profits are expected to fully utilise the recognised tax losses prior to expiration.

Income tax receivable / payable

US$ million	**2022**	2021
Income tax receivable	401	364
Income tax payable	(4,660)	(1,785)
Net income tax payable	**(4,259)**	**(1,421)**

Income tax judgements and uncertain tax liabilities

Glencore assesses its liabilities and contingencies for all tax years open to audit based upon the latest information available. Inherent uncertainties exist in estimates of tax contingencies due to complexities of interpretation and changes in tax laws. For those matters where it is probable that an adjustment will be made, the Group records its reasoned estimate of these tax liabilities, including related interest charges. These current open tax matters are spread across numerous jurisdictions and consist primarily of legacy transfer pricing matters that have been open for a number of years and may take several more years to resolve. In recognising a provision for these taxation exposures, consideration was given to the range of possible outcomes to determine the Group's best estimate of the amount to provide. As at 31 December 2022, the Group has recognised $1,486 million (2021: $880 million) of uncertain tax liabilities related to possible adverse outcomes of these open matters, of which, $311 million (2021: $287 million) has been recognised net of deferred tax assets, with the balance of $1,175 million (2021: $593 million) recognised as an income tax payable. The change in the total uncertain tax position during the year reflects the issuance of various new assessments and the outcome of certain settlements and court rulings.

UK Tax Audit

In previous periods, HMRC have issued formal transfer pricing, unallowable purposes and diverted profits tax assessments for the 2008-2018 tax years, amounting to $746 million. The Group has appealed against, and continues to vigorously contest, these assessments, following, over the years, various legal opinions received and detailed analysis conducted, supporting its positions and policies applied. Therefore, the Group has not fully provided for the amount assessed. The matter is now proceeding through the Mutual Agreement Process, pursuant to article 24 of the Switzerland – United Kingdom Income Tax Treaty 1977. Management does not anticipate a significant risk of material changes in estimates in this matter within the next financial year.

DRC Tax Audit

As a matter of course, various tax authorities in the DRC issue draft assessments adjusting revenue and denying costs and other items, along with customs-related claims for alleged non-compliance or incorrect coding on certain filings. Upon receipt of such draft assessments, the Group engages with the tax authorities to defend its filing positions. As at 31 December 2022, there are various ongoing technical discussions and challenges, the ultimate outcome of which remains uncertain, and therefore there remains a risk that the outcome could materially impact the recognised balances within the next financial year. It is impractical to provide further sensitivity estimates of potential downside variances.

Notes to the financial statements *continued*

8. Income taxes *continued*

Available gross tax losses

Available gross tax losses carried forward and deductible temporary differences, for which no deferred tax assets have been recognised in the consolidated financial statements, are detailed below and will expire as follows:

US$ million	**2022**	2021
1 year	115	1,024
2 years	48	425
3 years	44	41
Thereafter	9,642	11,095
Unlimited	13,806	10,335
Total	**23,655**	**22,920**

As at 31 December 2022, unremitted earnings of $62,829 million (2021: $50,116 million) have been retained by subsidiaries for reinvestment. No provision is made for income taxes.

9. Property, plant and equipment

2022

US$ million	Notes	Freehold land and buildings	Plant and equipment	Right-of-use assets	Mineral and petroleum rights	Exploration and evaluation	Deferred mining costs	**Total**
Gross carrying amount:								
1 January 2022		6,854	44,580	3,048	30,019	665	15,552	100,718
Business combination	26	542	1,009	20	961	–	271	2,803
Disposal of subsidiaries	26	(169)	(256)	(37)	(163)	(255)	(382)	(1,262)
Additions		67	3,179	425	84	–	876	4,631
Disposals		(59)	(1,127)	(169)	(94)	(4)	(186)	(1,639)
Effect of foreign currency exchange movements		(8)	(171)	(1)	(145)	2	(30)	(353)
Reclassification to held for sale	16	(897)	(953)	(86)	(3,824)	–	(1,199)	(6,959)
Other movements[1]		174	(411)	(2)	417	5	192	375
31 December 2022		**6,504**	**45,850**	**3,198**	**27,255**	**413**	**15,094**	**98,314**
Accumulated depreciation and impairment:								
1 January 2022		2,940	27,361	1,343	15,777	577	9,561	57,559
Disposal of subsidiaries	26	(137)	(199)	(33)	(113)	(210)	(323)	(1,015)
Disposals		(53)	(1,003)	(134)	(50)	(2)	(185)	(1,427)
Depreciation		383	2,610	573	1,993	–	1,269	6,828
Impairment	7	91	910	–	323	(2)	660	1,982
Effect of foreign currency exchange movements		(3)	(89)	(2)	(54)	(1)	(7)	(156)
Reclassification to held for sale	16	(447)	(474)	(21)	(3,490)	–	(609)	(5,041)
Other movements[1]		33	26	–	(39)	–	–	20
31 December 2022		**2,807**	**29,142**	**1,726**	**14,347**	**362**	**10,366**	**58,750**
Net book value 31 December 2022		**3,697**	**16,708**	**1,472**	**12,908**	**51**	**4,728**	**39,564**

1 Primarily consists of increases in rehabilitation costs of $399 million and reclassifications within the various property, plant and equipment headings.

Plant and equipment includes expenditure for construction in progress of $3,731 million (2021: $3,387 million). Mineral and petroleum rights include biological assets of $25 million (2021: $24 million). Depreciation expenses included in cost of goods sold are $6,782 million (2021: $6,129 million) and in selling and administrative expenses, $46 million (2021: $52 million).

During 2022, $31 million (2021: $33 million) of interest was capitalised. With the exception of project specific borrowings, the rate used to determine the amount of borrowing costs eligible for capitalisation was 3.5% (2021: 3%).

As at 31 December 2022, with the exception of leases, no property, plant or equipment was pledged as security for borrowings (2021: $Nil).

Notes to the financial statements *continued*

9. Property, plant and equipment *continued*

2021

US$ million	Notes	Freehold land and buildings	Plant and equipment	Right-of-use assets	Mineral and petroleum rights	Exploration and evaluation	Deferred mining costs	**Total**
Gross carrying amount:								
1 January 2021		6,576	44,514	2,576	30,495	1,974	17,462	103,597
Disposal of subsidiaries	26	(100)	(352)	(12)	(132)	–	(101)	(697)
Additions		114	2,936	1,006	75	–	566	4,697
Disposals		(73)	(668)	(301)	(50)	–	(171)	(1,263)
Effect of foreign currency exchange movements		(18)	(250)	(17)	(211)	–	(47)	(543)
Reclassification to held for sale	16	(86)	(760)	(207)	(783)	(1,320)	(2,576)	(5,732)
Other movements[1]		441	(840)	3	625	11	419	659
31 December 2021		**6,854**	**44,580**	**3,048**	**30,019**	**665**	**15,552**	**100,718**
Accumulated depreciation and impairment:								
1 January 2021		2,626	25,438	1,004	14,838	1,884	10,697	56,487
Disposal of subsidiaries	26	(36)	(260)	(5)	(126)	–	(92)	(519)
Disposals		(9)	(600)	(213)	(48)	–	(171)	(1,041)
Depreciation		341	2,553	639	1,354	–	1,293	6,180
Impairment	7	16	902	3	495	–	36	1,452
Effect of foreign currency exchange movements		(5)	(118)	(6)	(74)	–	(13)	(216)
Reclassification to held for sale	16	(31)	(524)	(80)	(651)	(1,317)	(2,246)	(4,849)
Other movements[1]		38	(30)	1	(11)	10	57	65
31 December 2021		**2,940**	**27,361**	**1,343**	**15,777**	**577**	**9,561**	**57,559**
Net book value 31 December 2021		**3,914**	**17,219**	**1,705**	**14,242**	**88**	**5,991**	**43,159**

1 Primarily consists of increases in rehabilitation costs of $634 million and reclassifications within the various property, plant and equipment headings.

Leases

The Group leases various assets including land and buildings and plant and equipment. As at 31 December 2022, the net book value of recognised right-of use assets relating to land and buildings was $418 million (2021: $450 million) and plant and equipment $1,054 million (2021: $1,255 million). The depreciation charge for the period relating to those assets was $58 million (2021: $89 million) and $515 million (2021: $550 million), respectively.

Disclosure of amounts recognised as lease liabilities in the statement of financial position and cash outflows for leases in the year are included within note 21 and their maturity analysis within note 27.

Amounts recognised in the statement of income are detailed below:

US$ million	**2022**	2021
Depreciation on right-of-use assets	(573)	(639)
Interest expense on lease liabilities	(88)	(98)
Expense relating to short-term leases	(781)	(493)
Expense relating to low-value leases	(16)	(3)
Expense relating to variable lease payments not included in the measurement of the lease liability	(7)	(5)
Income from subleasing right-of-use assets	153	304
Total	**(1,312)**	**(934)**

At 31 December 2022, the Group is committed to $229 million of short-term lease payments (2021: $209 million) and $Nil (2021: $56 million) related to capitalised leases not yet commenced.

Notes to the financial statements *continued*

10. Intangible assets

2022

US$ million	Notes	Goodwill	Port allocation rights	Licences, trademarks and software	Customer relationships and other	Total
Cost:						
1 January 2022		13,293	1,203	561	669	15,726
Disposal of subsidiaries	26	(159)	–	(4)	(24)	(187)
Additions		–	1	6	7	14
Disposals		–	(1)	(25)	(2)	(28)
Effect of foreign currency exchange movements		–	(73)	3	2	(68)
Reclassification to held for sale	16	–	–	(1)	(10)	(11)
Other movements[1]		–	(2)	14	111	123
31 December 2022		**13,134**	**1,128**	**554**	**753**	**15,569**
Accumulated amortisation and impairment:						
1 January 2022		8,293	308	341	549	9,491
Disposal of subsidiaries	26	(159)	–	(4)	(24)	(187)
Disposals		–	–	(24)	(3)	(27)
Amortisation expense[2]		–	97	34	28	159
Impairment	7	–	–	2	–	2
Effect of foreign currency exchange movements		–	(24)	–	2	(22)
Reclassification to held for sale	16	–	–	–	(6)	(6)
Other movements		–	–	(1)	–	(1)
31 December 2022		**8,134**	**381**	**348**	**546**	**9,409**
Net book value 31 December 2022		**5,000**	**747**	**206**	**207**	**6,160**

1 Includes $109 million for Mutanda mining license renewal, which is being amortised over 15 years (see note 34).
2 Recognised in cost of goods sold.

2021

US$ million	Notes	Goodwill	Port allocation rights	Licences, trademarks and software	Customer relationships and other	Total
Cost:						
1 January 2021		13,293	1,312	585	693	15,883
Additions		–	–	4	7	11
Disposals		–	–	(33)	(3)	(36)
Effect of foreign currency exchange movements		–	(109)	(6)	(12)	(127)
Reclassification to held for sale	16	–	–	(19)	(5)	(24)
Other movements		–	–	30	(11)	19
31 December 2021		**13,293**	**1,203**	**561**	**669**	**15,726**
Accumulated amortisation and impairment:						
1 January 2021		8,293	247	342	534	9,416
Disposals	26	–	–	(22)	(3)	(25)
Amortisation expense[1]		–	89	37	29	155
Effect of foreign currency exchange movements		–	(28)	(2)	(5)	(35)
Reclassification to held for sale	16	–	–	(16)	(4)	(20)
Other movements		–	–	2	(2)	–
31 December 2021		**8,293**	**308**	**341**	**549**	**9,491**
Net book value 31 December 2021		**5,000**	**895**	**220**	**120**	**6,235**

1 Recognised in cost of goods sold.

Notes to the financial statements *continued*

10. Intangible assets *continued*

Goodwill

The carrying amount of goodwill has been allocated to cash-generating units (CGUs), or groups of CGUs as follows:

US$ million	**2022**	2021
Metals and minerals marketing business	3,326	3,326
Coal marketing business	1,674	1,674
Total	**5,000**	**5,000**

Metals and minerals and coal marketing businesses

Goodwill of $3,326 million and $1,674 million was recognised in connection with previous business combinations and was allocated to the metals and minerals marketing and coal marketing CGUs, respectively, based on the annual synergies expected to accrue to the respective marketing departments as a result of increased volumes, blending opportunities and freight and logistics arbitrage opportunities.

Port allocation rights

Port allocation rights represent contractual entitlements to export certain amounts of coal on an annual basis from Richards Bay Coal Terminal in South Africa recognised as part of previous business combinations. The rights are amortised on a units of production basis.

Licences, trademarks and software

Intangibles related to internally developed technology and patents were recognised in previous business combinations and are amortised over the estimated economic life of the technology which ranges between 3 – 20 years.

Customer relationships

Customer relationships mainly represent intangible assets related to long-standing customer relationships recognised in previous business combinations. These intangible assets are being amortised on a straight-line basis over their estimated economic life which ranges between 5 – 9 years.

Goodwill impairment testing

Given the nature of each CGU's activities, information on its fair value is usually difficult to obtain unless negotiations with potential purchasers or similar transactions are taking place. Consequently:

- The recoverable amount for each of the marketing CGUs is determined by reference to the FVLCD which utilises a price to earnings multiple approach based on the 2023 approved financial budget which includes factors such as marketing volumes handled and operating, interest and income tax charges, generally based on past experience. The price to earnings multiple of 12 times (2021: 12 times) is derived from observable market data for broadly comparable businesses; and
- Glencore believes that no reasonably possible changes in any of the above key assumptions would cause the recoverable amount to fall below the carrying value of the CGU over the next 12 months. The determination of FVLCD for each of the marketing CGUs used Level 3 valuation techniques in both years.

11. Investments in associates, joint ventures and other investments

Investments in associates and joint ventures

US$ million	Notes	2022	2021
1 January		12,294	12,400
Additions		157	53
Disposals		(232)	(2)
Share of income from associates and joint ventures		2,300	2,618
Share of other comprehensive loss from associates and joint ventures		(100)	(58)
Transfer of previously held equity accounted investment to subsidiary	26	(598)	–
Impairments	7	(113)	(333)
Dividends received		(1,691)	(2,375)
Reclassification to held for sale	16	(148)	(11)
Other movements		9	2
31 December		**11,878**	**12,294**
Of which:			
Investments in associates		4,806	5,567
Investments in joint ventures		7,072	6,727

As at 31 December 2022, the carrying value of our listed associates is $430 million (2021: $406 million), mainly comprising Century Aluminum and PT CITA, which have carrying values of $232 million (2021: $165 million) and $181 million (2021: $177 million), respectively. The fair value of our listed associates, using published price quotations (a Level 1 fair value measurement) is $652 million (2021: $967 million). As at 31 December 2021, Glencore's investment in Century Aluminum was pledged under a loan facility, with proceeds received and recognised in current borrowings of $120 million (see note 21).

Transfer of previously held equity accounted investment to subsidiary

In January 2022, Glencore completed the acquisition of the remaining 66.67% interest in Cerrejón, a coal mine in Colombia, that it did not own. Prior to the acquisition, Glencore owned a 33.33% interest in Cerrejón which was accounted for as an associate (see note 26).

Disposals

On 12 July 2022, Glencore effected the sale of a royalty package by BaseCore Metals LP ('BaseCore') to Sandstorm Gold Ltd. ('Sandstorm'). Glencore received, in aggregate, $300 million in cash and Sandstorm shares for its 50% interest in BaseCore. The disposal resulted in a gain on disposal of non-current assets of $131 million (see note 4).

Notes to the financial statements *continued*

11. Investments in associates, joint ventures and other investments *continued*

2022 Details of material associates and joint ventures

Summarised financial information in respect of Glencore's associates and joint ventures, reflecting 100% of the underlying associates' and joint ventures' relevant figures, is set out below.

US$ million	Antamina	**Total material associates**	Collahuasi	Viterra	**Total material joint ventures**	**Total material associates and joint ventures**
Non-current assets	5,137	**5,137**	5,540	7,207	**12,747**	**17,884**
Current assets	2,105	**2,105**	2,405	16,480	**18,885**	**20,990**
Non-current liabilities	(2,129)	**(2,129)**	(2,602)	(7,496)	**(10,098)**	**(12,227)**
Current liabilities	(681)	**(681)**	(436)	(10,958)	**(11,394)**	**(12,075)**
The above assets and liabilities include the following:						
Cash and cash equivalents	87	**87**	446	637	**1,083**	**1,170**
Current financial liabilities[1]	(50)	**(50)**	(21)	(4,007)	**(4,028)**	**(4,078)**
Non-current financial liabilities[1]	(1,089)	**(1,089)**	(1,084)	(6,759)	**(7,843)**	**(8,932)**
Net assets 31 December 2022	**4,432**	**4,432**	**4,907**	**5,233**	**10,140**	**14,572**
Glencore's ownership interest	33.8%		44.0%	49.9%		
Acquisition fair value and other adjustments	1,694	**1,694**	1,046	1,256	**2,302**	**3,996**
Carrying value	3,192	**3,192**	3,205	3,867	**7,072**	**10,264**

1 Financial liabilities exclude trade, other payables and provisions.

Summarised profit and loss in respect of Glencore's associates and joint ventures, reflecting 100% of the underlying associates' and joint ventures' relevant figures for the year ended 31 December 2022 including group adjustments relating to alignment of accounting policies or fair value adjustments, is set out below.

US$ million	Antamina	**Total material associates**	Collahuasi	Viterra	**Total material joint ventures**	**Total material associates and joint ventures**
Revenue	4,668	**4,668**	4,817	53,854	**58,671**	**63,339**
Income for the year	1,601	**1,601**	1,807	995	**2,802**	**4,403**
Other comprehensive loss	–	**–**	(13)	(155)	**(168)**	**(168)**
Total comprehensive income	1,601	**1,601**	1,794	840	**2,634**	**4,235**
Glencore's share of dividends paid	472	**472**	660	200	**860**	**1,332**
The above income for the year includes the following:						
Depreciation and amortisation	(1,039)	**(1,039)**	(658)	(936)	**(1,594)**	**(2,633)**
Interest income[1]	86	**86**	9	131	**140**	**226**
Interest expense[2]	(5)	**(5)**	(120)	(397)	**(517)**	**(522)**
Income tax expense	(952)	**(952)**	(832)	(463)	**(1,295)**	**(2,247)**

1 Includes foreign exchange gains and other income of $186 million.
2 Includes foreign exchange losses and other expenses of $62 million.

11. Investments in associates, joint ventures and other investments *continued*

2021 Details of material associates and joint ventures

Summarised financial information in respect of Glencore's associates and joint ventures, reflecting 100% of the underlying associates' and joint ventures' relevant figures, is set out below.

US$ million	Cerrejón	Antamina	**Total material associates**	Collahuasi	Viterra	**Total material joint ventures**	**Total material associates and joint ventures**
Non-current assets	2,033	5,288	**7,321**	5,398	6,118	**11,516**	**18,837**
Current assets	1,030	1,607	**2,637**	1,913	13,399	**15,312**	**17,949**
Non-current liabilities	(690)	(1,875)	**(2,565)**	(1,758)	(5,031)	**(6,789)**	**(9,354)**
Current liabilities	(509)	(973)	**(1,482)**	(994)	(9,682)	**(10,676)**	**(12,158)**
The above assets and liabilities include the following:							
Cash and cash equivalents	511	134	**645**	354	472	**826**	**1,471**
Current financial liabilities[1]	(27)	(45)	**(72)**	(21)	(4,516)	**(4,537)**	**(4,609)**
Non-current financial liabilities[1]	(14)	(847)	**(861)**	(402)	(4,409)	**(4,811)**	**(5,672)**
Net assets 31 December 2021	**1,864**	**4,047**	**5,911**	**4,559**	**4,804**	**9,363**	**15,274**
Glencore's ownership interest	33.3%	33.8%		44.0%	49.9%		
Acquisition fair value and other adjustments	(54)	1,756	**1,702**	1,059	1,265	**2,324**	**4,026**
Carrying value	567	3,124	**3,691**	3,065	3,662	**6,727**	**10,418**

1 Financial liabilities exclude trade, other payables and provisions.

Summarised profit and loss in respect of Glencore's associates and joint ventures, reflecting 100% of the underlying associates' and joint ventures' relevant figures for the year ended 31 December 2021, including group adjustments relating to alignment of accounting policies or fair value adjustments, is set out below.

US$ million	Cerrejón	Antamina	**Total material associates**	Collahuasi	Viterra	**Total material joint ventures**	**Total material associates and joint ventures**
Revenue	2,317	5,307	**7,624**	5,906	39,704	**45,610**	**53,234**
Income for the year	636	1,992	**2,628**	2,777	947	**3,724**	**6,352**
Other comprehensive loss	–	–	**–**	(13)	(94)	**(107)**	**(107)**
Total comprehensive (loss)/income	636	1,992	**2,628**	2,764	853	**3,617**	**6,245**
Glencore's share of dividends paid	240	749	**989**	1,144	150	**1,294**	**2,283**
The above (loss)/income for the year includes the following:							
Depreciation and amortisation	(267)	(919)	**(1,186)**	(653)	(776)	**(1,429)**	**(2,615)**
Interest income[1]	–	–	**–**	66	55	**121**	**121**
Interest expense[2]	(18)	(38)	**(56)**	(13)	(229)	**(242)**	**(298)**
Income tax credit/(expense)	(435)	(1,241)	**(1,676)**	(1,470)	(282)	**(1,752)**	**(3,428)**

1 Includes foreign exchange gains and other income of $114 million.
2 Includes foreign exchange losses and other expenses of $58 million.

Notes to the financial statements *continued*

11. Investments in associates, joint ventures and other investments *continued*

Aggregate information of associates and joint ventures that are not individually material:

US$ million	2022	2021
The Group's share of income	467	38
The Group's share of other comprehensive loss	(17)	(5)
The Group's share of total comprehensive income	450	33
Aggregate carrying value of the Group's interests	1,614	1,876

The amount of corporate guarantees in favour of associates and joint ventures as at 31 December 2022 was $463 million (2021: $611 million). No amounts have been claimed or provided as at 31 December 2022. Glencore's share of joint ventures' capital commitments amounts to $464 million (2021: $213 million).

Refer to note 35 for further details of the Group's principal associates and joint ventures.

Other investments

US$ million	2022	2021
Fair value through other comprehensive income[1]		
EN+ GROUP PLC	–	789
Yancoal	–	160
OSJC Rosneft	–	485
Press Metal Aluminium	129	–
Shenzhen Energy Gas Investment Holding	104	–
Other	186	186
	419	1,620
Fair value through profit and loss		
Sandstorm Gold Ltd	35	–
Other	2	–
	37	–
Total	**456**	**1,620**

1 Movements in fair value through other comprehensive income for the year comprise negative changes in fair value of $1,274 million relating to EN+ and Rosneft (see below) net of positive changes in fair value of $150 million (2021: negative changes of $52 million) relating to other investments.

During the year, dividend income from equity investments designated as at fair value through other comprehensive income amounted to $45 million (2021: $23 million).

Refer to note 35 for further details of the Group's principal other investments.

Investments in EN+ and Rosneft

In February 2022, the Russian government commenced a war against the people of Ukraine, resulting in a humanitarian crisis and significant disruption to financial and commodity markets. A number of countries including, the United States of America, European Union, Switzerland and United Kingdom imposed a series of sanctions against the Russian government, various companies, and certain individuals. In response to these sanctions, Russia implemented a number of counter-sanctions including restrictions on the divestment from Russian assets by foreign investors.

Glencore owns equity stakes in EN+ (10.6%) and Rosneft (0.57%), listed on the London Stock Exchange and Moscow Stock Exchange. On 3 March 2022, EN+ was suspended from trading on the London Stock Exchange and Rosneft stopped trading on the Moscow exchange. On 24 March, Rosneft resumed trading, however, Glencore is not able to sell its Rosneft shares on the Moscow Stock Exchange and is unable to ascribe probabilities to possible outcomes of any potential exit process.

IFRS defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Further, an entity should take into account the characteristics of the asset or liability if market participants would take those into account when pricing the asset or liability, where such characteristics would include restrictions on the sale or use of the asset. Under current market conditions, given the restrictions noted above, the quoted share prices for both investments are not deemed to be reliable evidence of fair value and thus it was determined that it is no longer appropriate to classify these investments as Level 1 financial instruments in accordance with IFRS, but rather as Level 3 financial instruments. In valuing these investments as a Level 3 investment, Glencore concluded that there is no realistic way to exit these stakes in the current environment and considered that the measure of fair value is subject to high measurement uncertainty. Both equity interests were written down to $Nil on the basis that their fair value is not materially different to $Nil given the valuation a market participant would ascribe to a hypothetical transfer reflecting their inability to access the market. The corresponding negative mark-to-market adjustments was recognised in other comprehensive income.

Notes to the financial statements *continued*

12. Advances and loans

US$ million	Notes	2022	2021
Financial assets at amortised cost			
Loans to associates		130	128
Other non-current receivables and loans		309	519
Deferred consideration	26	142	–
Rehabilitation trust fund[1]		148	148
		729	**795**
Financial assets at fair value through profit and loss			
Other non-current receivables and loans	28	22	28
Convertible loan	28	168	–
Contingent consideration	28	103	135
		293	**163**
Non-financial assets			
Pension surpluses	24	148	125
Advances repayable with product[2]		1,254	1,673
Land rights prepayment		150	150
Other tax and related non-current receivables[3]		80	621
		1,632	**2,569**
Total		**2,654**	**3,527**

1 The balance has been assessed for impairment and is deemed recoverable.
2 Net of $538 million (2021: $1,074 million) provided by various banks, the repayment terms of which are contingent upon and connected to the future delivery of contractual production.
3 Includes VAT impairment charges of $632 million (see note 7).

Financial assets at amortised cost

Loans to associates

Loans to associates generally bear interest at applicable floating market rates plus a premium.

Other non-current receivables and loans

Other non-current receivables and loans comprise the following:

US$ million	2022	2021
Secured financing arrangements	306	511
Other	3	8
Total	**309**	**519**

Various financing facilities, generally marketing related and secured against certain assets and/or payable from the future sale of production of the counterparty. The non-current receivables and loans are interest-bearing and on average are to be repaid over a three-year period.

Rehabilitation trust fund

Glencore makes contributions to controlled funds established to meet the costs of its restoration and rehabilitation liabilities, primarily in South Africa. These funds are not available for the general purposes of the Group, and there is no present obligation to make any further contributions.

Loss allowances of financial assets at amortised cost

The Group determines the expected credit loss of loans to associates, other non-current receivables and loans (at amortised cost) and deferred consideration based on different scenarios of probability of default and expected loss applicable to each of the material underlying balances. Expected credit losses for these assets are measured as either 12-month expected credit losses, taking into account prior experience regarding probability of default adjusted for forward looking information, or as lifetime expected credit losses (when there is significant increase in credit risk or the asset is credit-impaired). The movement in loss allowance for financial assets classified at amortised cost is detailed below:

Notes to the financial statements *continued*

12. Advances and loans *continued*

2022	Loans to associates			Other non-current receivables and loans and deferred consideration			
US$ million	12-Month ECL	Lifetime ECL[1]	Total	12-Month ECL	Lifetime ECL[2]	Total	**Total**
Gross carrying value 31 December 2022[3]	15	191	206	365	431	796	1,002
Allowance for credit loss							
1 January 2022	–	62	62	14	240	254	316
Released during the period[4]	–	–	–	–	(9)	(9)	(9)
Charged during the period[4]	–	14	14	–	91	91	105
Effect of foreign currency exchange movements	–	–	–	(5)	–	(5)	(5)
Reclassifications from current accounts receivable	–	–	–	–	14	14	14
31 December 2022	**–**	**76**	**76**	**9**	**336**	**345**	**421**
Net carrying value 31 December 2022	**15**	**115**	**130**	**356**	**95**	**451**	**581**

1 Comprises stage 3 credit losses of $76 million.
2 Comprises stage 2 credit losses of $51 million and stage 3 credit losses of $285 million.
3 Increases in lifetime ECL gross carrying values during the year result primarily from reclassifications from 12 months ECL.
4 $37 million recognised as impairment (see note 7) and the balancing charge of $59 million recognised in cost of goods sold.

2021	Loans to associates			Other non-current receivables and loans and deferred consideration			
US$ million	12-Month ECL	Lifetime ECL[1]	Total	12-Month ECL	Lifetime ECL[2]	Total	**Total**
Gross carrying value 31 December 2021	31	159	190	529	244	773	963
Allowance for credit loss							
1 January 2021	–	62	62	37	303	340	402
Released during the period[3]	–	–	–	(23)	(5)	(28)	(28)
Charged during the period[3]	–	–	–	15	–	15	15
Utilised during the period	–	–	–	(13)	(35)	(48)	(48)
Reclassifications to current accounts receivable	–	–	–	(2)	(23)	(25)	(25)
31 December 2021	**–**	**62**	**62**	**14**	**240**	**254**	**316**
Net carrying value 31 December 2021	**31**	**97**	**128**	**515**	**4**	**519**	**647**

1 Comprises stage 3 credit losses of $62 million.
2 Comprises stage 3 credit losses of $240 million.
3 $22 million recognised as impairment (see note 7) and the balancing charge of $9 million recognised in cost of goods sold.

Financial assets at fair value through profit and loss

Other non-current receivables and loans

During 2022, no fair value movements were recognised (2021: positive $35 million)(see note 7).

Convertible loan

In May 2022, Glencore subscribed for $200 million of convertible debt in Li-Cycle Holdings Corp. ('Li-Cycle'), a lithium-ion battery recycler in North America, listed on the New York Stock Exchange. The convertible loan is repayable by 2027 at an effective interest rate of SOFR plus 5% per annum. If Glencore elects to convert during the conversion option period, Glencore would hold an approximate 10% equity stake in Li-Cycle. The loan is classified as financial asset at fair value through profit and loss in accordance with IFRS (see notes 28 and 29). During 2022, fair value movements of negative $40 million were recognised (see note 5).

Contingent consideration

In 2022, fair value movements of positive $117 million (2021: $39 million) were recognised (see note 5).

Notes to the financial statements *continued*

12. Advances and loans *continued*

Non-financial assets

Advances repayable with product

US$ million	2022	2021
Counterparty		
Mopani transaction debt	579	881
Société Nationale d'Electricité (SNEL) power advances	338	304
Chad State National Oil Company	199	293
Société Nationale des Pétroles du Congo	86	129
Other[1]	52	66
Total	**1,254**	**1,673**

1 Comprises no individually material items.

Mopani

On 31 March 2021, Glencore completed the disposal of its 90% interest in Mopani to ZCCM Investments Holdings plc, the holder of the remaining 10% interest in Mopani, in exchange for $1 and the rights to offtake copper and other metals from Mopani until $1.5 billion of existing intercompany debt (the 'transaction debt') has been repaid to Glencore. The transaction debt attracts interest at a floating benchmark rate plus 3%. The repayment of the transaction debt is in substance based on Glencore receiving physical product deliveries from Mopani through its offtake rights and retaining defined percentages of Mopani's annual gross revenues until the transaction debt is fully repaid. On the date of completion, the fair value of the transaction debt was determined to be $838 million (see note 26). During 2022, the originally expected production rate at Mopani was not achieved, in part due to a lack of funding. The new shareholder has conducted operational and strategic reviews, resulting in Mopani seeking additional funding and to restructure and extend repayment of the transaction debt. As a result, an impairment of $422 million was recognised (see note 7). As at 31 December 2022, $596 million (2021: $904 million) of debt is outstanding, of which $579 million (2021: $881 million) is due after 12 months and is presented above and $17 million (2021: $23 million) is due within 12 months and is included in Accounts receivable.

SNEL power advances

In early 2012, a joint agreement with Société Nationale d'Électricité (SNEL), the Democratic Republic of the Congo's (DRC) national electricity utility, was signed whereby Glencore's operations would contribute $375 million to a major electricity infrastructure refurbishment programme, including transmission and distribution systems. This facilitated a progressive increase in power availability to 450 megawatts by the end of Q1 2020. Funding commenced in the second quarter of 2012 and completed in Q4 2021. The loans are being repaid via discounts on electricity purchases.

Chad State National Oil Company

The net outstanding amount of advances to the Chad State National Oil Company (SHT) is $232 million (2021: $321 million). These amounts are to be settled through future oil deliveries over ten years. As at 31 December 2022, the advance is net of $393 million (2021: $604 million) provided by a syndicate of lenders, the repayment terms of which are contingent upon and connected to the receipt of oil due from SHT under the prepayment. Of the net amount advanced, $199 million (2021: $293 million) is receivable after 12 months and is presented within Other non-current receivables and loans and $33 million (2021: $31 million) is due within 12 months and included within Accounts receivable.

Société Nationale des Pétroles du Congo (SNPC)

The net outstanding amount of advances to SNPC is $131 million (2021: $156 million). These amounts are to be settled through future oil deliveries over five years. As at 31 December 2022, the advance is net of $385 million (2021: $498 million) provided by the lenders, the repayment terms of which are contingent upon and connected to the future receipt of oil contractually due from SNPC. Of the net amount advanced, $86 million (2021: $129 million) is due after 12 months and is presented within Other long-term receivables and loans and $45 million (2021: $27 million) is due within 12 months and included within Accounts receivable.

Land rights prepayment

In 2019, Kamoto Copper Company ('KCC') entered into an agreement with La Générale des Carrières et des Mines ('Gécamines'), Glencore's 25% joint venture partner in KCC, to acquire from Gécamines a comprehensive land package covering areas adjacent to KCC's existing mining concessions for $250 million. The package includes multiple blocks for construction of a new long-term tailings facility and the possible exploitation of additional resources that will enhance KCC's ability to more efficiently operate its mines, facilities and other key infrastructure requirements.

12. Advances and loans *continued*

In addition to the above consideration, the agreement includes the following key additional undertakings:

- obligations on KCC to remove tailings (estimated at circa 15m dmt), currently in a sub-section of these areas, to another suitable location;
- contingent obligations to pay 'Pas de Porte' payments to Gécamines if KCC declares a JORC compliant reserve or otherwise elects to mine any resources in the Resource Areas; and
- a new royalty to Gécamines of 2.5% of net sales from the acquired land areas if KCC elects to mine any resources in such areas.

In August 2020, KCC advanced $150 million to Gécamines as an agreed prepayment of the consideration due. If the closing conditions as prescribed in the agreement are not fulfilled, Glencore has the right to accrue interest on the prepaid amount, terminate the agreement and, if funds are not returned, offset against future amounts owing to Gécamines. The balance of the consideration is due 5 days after the respective closing conditions of each area to be transferred are satisfied. During 2022, activities to progress the transfer of these land packages (e.g. removal of tailings and drilling activities to confirm resource availability) continued.

13. Inventories

US$ million	**2022**	2021
Inventory at fair value less costs of disposal	**19,157**	**16,073**
Raw materials and consumables	5,970	5,077
Semi finished products	5,527	4,901
Finished goods	2,806	2,383
Inventory at the lower of cost or net realisable value	**14,303**	**12,361**
Total current inventory	**33,460**	**28,434**
Raw materials and consumables	605	662
Inventory at the lower of cost or net realisable value	**605**	**662**
Total non-current inventory	**605**	**662**

Current inventory

The amount of inventories and related ancillary costs recognised as an expense during the period was $211,666 million (2021: $177,704 million).

Fair value of inventories are predominantly a Level 2 fair value measurement (see note 29) using observable market prices obtained from exchanges, traded reference indices or market survey services adjusted for relevant location and quality differentials. There are no significant unobservable inputs in the fair value measurement of such inventories.

Glencore has a number of dedicated financing facilities, which finance a portion of its inventories. In each case, the inventory has not been derecognised as the Group has not transferred control. The proceeds received are recognised as current borrowings (see note 21). As at 31 December 2022, the total amount of inventory pledged under such facilities was $3,455 million (2021: $17 million). The proceeds received and recognised as current borrowings were $3,092 million (2021: $2 million) and $80 million (2021: $80 million) as non-current borrowings.

Non-current inventory

Non-current inventories valued at lower of cost or net realisable value are not expected to be utilised or sold within the normal operating cycle and are therefore classified as non-current inventory.

Notes to the financial statements *continued*

14. Accounts receivable

US$ million	Notes	2022	2021
Financial assets at amortised cost			
Trade receivables		7,202	4,943
Margin calls paid and other broker balances		7,515	5,914
Receivables from associates		441	413
Deferred consideration	26	333	–
Other receivables[1]		528	402
		16,019	**11,672**
Financial assets at fair value through profit and loss			
Trade receivables containing provisional pricing features	28	5,426	5,267
Finance lease receivable	28	–	2
Contingent consideration	28	128	175
Other receivables	28	73	79
		5,627	**5,523**
Non-financial assets			
Advances repayable with product[2]		1,416	876
Other tax and related receivables[3]		1,503	1,422
		2,919	**2,298**
Total		**24,565**	**19,493**

1 Includes current portion of non-current loans receivable of $319 million (2021: $296 million).
2 Includes advances, net of $487 million (2021: $409 million) provided by banks, the repayment terms of which are contingent upon and connected to the future delivery of contractual production over the next 12 months.
3 Comprises sales and other tax receivables of $1,351 million (2021: $1,253 million) and other receivables of $152 million (2021: $169 million).

The average credit period on sales of goods is 17 days (2021: 16 days). The carrying value of trade receivables approximates fair value.

The Group applies a simplified approach to measure the loss allowance for trade receivables classified at amortised cost, using the lifetime expected loss provision. The expected credit loss on trade receivables is estimated using a provision matrix by reference to past default experience and credit rating, adjusted as appropriate for current observable data. Expected credit loss provisions are recognised in cost of goods sold and during the period, $148 million (2021: $11 million) of such losses were recognised. Current year provision is up over prior year due primarily to higher over-all gross receivable balances on-hand at period-end as a result of higher commodity prices and a specific slow-moving exposure which is expected to be settled during 2023. The following table details the risk profile of trade receivables based on the Group's provision matrix.

US$ million	Trade receivables – days past due					
As at 31 December 2022	**Not past due**	**<30**	**31 – 60**	**61 – 90**	**>90**	**Total**
Gross carrying amount	5,014	444	158	85	1,673	7,374
Weighted average expected credit loss rate	0.45%	0.67%	0.98%	1.17%	7.34%	
Lifetime expected credit loss	(23)	(3)	(2)	(1)	(143)	(172)
Total	**4,991**	**441**	**156**	**84**	**1,530**	**7,202**

US$ million	Trade receivables – days past due					
As at 31 December 2021	**Not past due**	**<30**	**31 – 60**	**61 – 90**	**>90**	**Total**
Gross carrying amount	4,034	287	157	152	337	4,967
Weighted average expected credit loss rate	0.27%	0.55%	0.82%	1.10%	2.33%	
Lifetime expected credit loss	(11)	(2)	(1)	(2)	(8)	(24)
Total	**4,023**	**285**	**156**	**150**	**329**	**4,943**

Notes to the financial statements *continued*

14. Accounts receivable *continued*

The Group determines the expected credit loss of receivables from associates, deferred consideration and other receivables (at amortised cost) based on different scenarios of probability of default and expected loss applicable to each of the material underlying balances. Expected credit losses for these assets are measured as either 12-month expected credit losses, taking into account prior experience regarding probability of default adjusted for forward looking information, or as lifetime expected credit losses (when there is significant increase in credit risk or the asset is credit-impaired). The movement in allowance for credit loss relating to receivables from associates and other receivables is detailed below:

2022	Receivables from associates			Other receivables and deferred consideration			
US$ million	12-Month ECL	Lifetime ECL[1]	Total	12-Month ECL	Lifetime ECL[2]	Total	**Total**
Gross carrying value 31 December 2022	432	136	568	896	108	1,004	1,572
Allowance for credit loss							
1 January 2022	–	116	116	23	106	129	245
Released during the period[3]	–	(2)	(2)	(5)	–	(5)	(7)
Charged during the period[3]	–	21	21	34	16	50	71
Utilised during the period	–	–	–	(3)	(4)	(7)	(7)
Effect of foreign currency exchange movements	–	(8)	(8)	–	(4)	(4)	(12)
Reclassification to held for sale	–	–	–	–	(6)	(6)	(6)
Reclassifications to non-current receivables and loans	–	–	–	(10)	(4)	(14)	(14)
31 December 2022	**–**	**127**	**127**	**39**	**104**	**143**	**270**
Net carrying value 31 December 2022	**432**	**9**	**441**	**857**	**4**	**861**	**1,302**

1 Comprises stage 2 credit losses of $2 million and stage 3 credit losses of $125 million.
2 Comprises stage 2 credit losses of $29 million and stage 3 credit losses of $75 million.
3 $15 million recognised as impairment (see note 7) and the balancing $49 million net charge recognised in cost of goods sold.

2021	Receivables from associates			Other receivables and deferred consideration			
US$ million	12-Month ECL	Lifetime ECL[1]	Total	12-Month ECL	Lifetime ECL[2]	Total	**Total**
Gross carrying value 31 December 2021	391	138	529	387	144	531	1,060
Allowance for credit loss							
1 January 2021	–	122	122	51	81	132	254
Released during the period[3]	–	–	–	(10)	–	(10)	(10)
Charged during the period[3]	–	3	3	15	15	30	33
Utilised during the period	–	–	–	(29)	(19)	(48)	(48)
Effect of foreign currency exchange movements	–	(9)	(9)	–	–	–	(9)
Reclassifications from non-current receivables and loans	–	–	–	(4)	29	25	25
31 December 2021	**–**	**116**	**116**	**23**	**106**	**129**	**245**
Net carrying value 31 December 2021	**391**	**22**	**413**	**364**	**38**	**402**	**815**

1 Comprises stage 2 credit losses of $2 million and stage 3 credit losses of $114 million.
2 Comprises stage 2 credit losses of $33 million and stage 3 credit losses of $73 million.
3 $7 million recognised as a reversal of impairment (see note 7) and the balancing $30 million net charge recognised in cost of goods sold.

Glencore has a number of dedicated financing facilities, which finance a portion of its receivables. The receivables have not been derecognised, as the Group retains the principal risks and rewards of ownership. The proceeds received are recognised as current borrowings (see note 21). As at 31 December 2022, the total amount of trade receivables pledged was $278 million (2021: $Nil) and proceeds received and classified as current borrowings amounted to $200 million (2021: $Nil).

15. Cash and cash equivalents

US$ million	**2022**	2021
Bank and cash on hand	1,445	2,403
Deposits and treasury bills	478	838
Total	**1,923**	**3,241**

Cash and cash equivalents comprise cash held at bank, cash in hand and short-term bank deposits with an original maturity of three months or less. The carrying amount of these assets approximates their fair value.

As at 31 December 2022, $78 million (2021: $547 million) was restricted, including $Nil (2021: $477 million) held in on-shore accounts in our DRC operations, available to effect payment to on-shore counterparts only.

Notes to the financial statements *continued*

16. Assets and liabilities held for sale

Net assets held for sale are measured at their carrying amount, being the lower of carrying amount and fair value less costs to sell. As of 31 December 2022, the carrying amounts of assets and liabilities held for sale were lower than their fair value less costs to sell, hence no gains or losses were recognised in the statement of income for the period.

The carrying value of the assets and liabilities classified as held for sale are detailed below:

2022

US$ million	Cobar	Volcan	**Total**
Non-current assets			
Property, plant and equipment	451	1,467	1,918
Intangible assets	1	4	5
Investments in associates and joint ventures	–	148	148
Advances and loans	–	71	71
Deferred tax assets	–	32	32
	452	**1,722**	**2,174**
Current assets			
Inventories	25	57	82
Accounts receivable	4	68	72
Income tax receivable	–	29	29
Prepaid expenses	3	5	8
Cash and cash equivalents	1	74	75
	33	**233**	**266**
Total assets held for sale	**485**	**1,955**	**2,440**
Non-current liabilities			
Borrowings	–	(777)	(777)
Deferred tax liabilities	(25)	(151)	(176)
Provisions	(20)	(322)	(342)
Deferred income	–	(6)	(6)
Post-retirement and other employee benefits	(1)	–	(1)
	(46)	**(1,256)**	**(1,302)**
Current liabilities			
Borrowings	(1)	(22)	(23)
Accounts payable	(42)	(315)	(357)
Provisions	–	(31)	(31)
Income tax payable	–	(28)	(28)
	(43)	**(396)**	**(439)**
Total liabilities held for sale	**(89)**	**(1,652)**	**(1,741)**
Total net assets held for sale	**396**	**303**	**699**
Non-controlling interest	**–**	**201**	**201**

Cobar

In March 2022, Glencore entered into an agreement with Metals Acquisition Corp (MAC) for the disposal of its 100% interest in Cobar, a copper mine in New South Wales, Australia for $775 million in cash and an additional up to $100 million cash or equity stake in MAC, plus $75 million dependent on a future equity raise with an equity back-stop provision for Glencore's benefit, plus $75 million contingent payment when copper averages exceed $4.25/lb for 18 continuous months over the life of mine and a $75 million contingent payment when copper averages exceed US$4.50/lb for 24 continuous months over the life of mine. Completion of the sale is conditional on approval of MAC's shareholders and receipt of certain regulatory approvals and is expected to occur in H1 2023.

Volcan

In Q4 2022, Glencore commenced a process exploring the possible disposal of its 23.3% economic interest in Volcan.

Notes to the financial statements *continued*

16. Assets and liabilities held for sale *continued*

2021

US$ million	Ernest Henry	Bolivia	Access World	E&P Chad	**Total**
Non-current assets					
Property, plant and equipment	311	161	171	240	883
Intangible assets	–	2	2	–	4
Investments	–	–	11	–	11
Advances and loans	–	–	10	–	10
Deferred tax assets	30	10	4	–	44
	341	**173**	**198**	**240**	**952**
Current assets					
Inventories	16	36	–	22	74
Accounts receivable	26	82	93	14	215
Income tax receivable	–	–	1	–	1
Prepaid expenses	2	–	10	–	12
Cash and cash equivalents	1	21	45	–	67
	45	**139**	**149**	**36**	**369**
Total assets held for sale	**386**	**312**	**347**	**276**	**1,321**
Non-current liabilities					
Borrowings	–	(3)	(111)	–	(114)
Deferred income	(138)	–	–	–	(138)
Deferred tax liabilities	–	(4)	(1)	(4)	(9)
Provisions	(74)	(29)	(1)	(85)	(189)
Post-retirement and other employees benefits	(1)	(17)	(1)	–	(19)
	(213)	**(53)**	**(114)**	**(89)**	**(469)**
Current liabilities					
Borrowings	–	(7)	(17)	–	(24)
Accounts payable	(32)	(55)	(97)	(6)	(190)
Deferred income	(53)	–	–	–	(53)
Provisions	(1)	(35)	(3)	–	(39)
Income tax payable	–	(14)	(1)	–	(15)
	(86)	**(111)**	**(118)**	**(6)**	**(321)**
Total liabilities held for sale	**(299)**	**(164)**	**(232)**	**(95)**	**(790)**
Total net assets held for sale	**87**	**148**	**115**	**181**	**531**
Non-controlling interest	**–**	**–**	**(2)**	**–**	**(2)**

Ernest Henry
In November 2021, Glencore agreed to dispose of its 100% interest in Ernest Henry Mining Pty Ltd, a copper-gold mine in Queensland, Australia for AUD $1 billion (c.US$720 million), comprising AUD $800 million on closing and the balance (AUD $200 million) due 12 months post closing. The transaction closed in January 2022 (see note 26).

Bolivia
In October 2021, Glencore agreed to sell its Bolivian zinc assets (Sinchi Wayra and Illapa), to Santacruz Silver Mining Ltd, for approximately $110 million and a 1.5% NSR royalty over the life of the mines. $20 million was due on completion with the balance (c.$90 million) due over the following four years. The transaction closed in March 2022 (see note 26).

Access World
At 31 December 2021, Glencore was in advanced negotiations with a prospective buyer to dispose of its 100% interest in the Access World Group, a global storage and logistics group, for $180 million. The share purchase agreement was subsequently signed on 31 January 2022 and the transaction closed in December 2022 (see note 26).

E&P Chad
In August 2021, Glencore agreed to dispose 100% of its Chad upstream oil operations to Perenco S.A.. The transaction closed in June 2022 (see note 26).

Notes to the financial statements *continued*

17. Share capital and reserves

	Number of ordinary shares (thousand)	Share capital (US$ million)	Share premium (US$ million)
Authorised:			
31 December 2022 and 2021 Ordinary shares with a par value of $0.01 each	50,000,000		
Issued and fully paid up:			
1 January 2021 and 31 December 2021 – Ordinary shares	**14,586,200**	**146**	**43,679**
Own shares cancelled during the year	(500,000)	(5)	(2,130)
Distributions paid (see note 19)	–	–	(4,832)
31 December 2022 – Ordinary shares	**14,086,200**	**141**	**36,717**

	Treasury Shares		Trust Shares		**Total**	
	Number of shares (thousand)	Own shares (US$ million)	Number of shares (thousand)	Own shares (US$ million)	**Number of shares (thousand)**	**Own shares (US$ million)**
Own shares:						
1 January 2021	1,261,887	(4,801)	103,001	(503)	**1,364,888**	**(5,304)**
Own shares purchased during the year	128,501	(616)	32,000	(130)	**160,501**	**(746)**
Own shares disposed during the year	–	–	(35,788)	173	**(35,788)**	**173**
31 December 2021	**1,390,388**	**(5,417)**	**99,213**	**(460)**	**1,489,601**	**(5,877)**
1 January 2022	1,390,388	(5,417)	99,213	(460)	**1,489,601**	**(5,877)**
Own shares purchased during the year	425,309	(2,503)	–	–	**425,309**	**(2,503)**
Own shares transferred to satisfy employee share awards	(50,000)	225	50,000	(271)	**–**	**(46)**
Own shares disposed during the year	–	–	(93,567)	430	**(93,567)**	**430**
Own shares cancelled during the year	(500,000)	2,135	–	–	**(500,000)**	**2,135**
31 December 2022	**1,265,697**	**(5,560)**	**55,646**	**(301)**	**1,321,343**	**(5,861)**

Own shares

Own shares comprise shares acquired under the Company's share buyback programmes ('Treasury Shares') and shares of Glencore plc held by Group employee benefit trusts ('the Trusts') to satisfy the potential future settlement of the Group's employee stock plans ('Trust Shares').

The Trusts also coordinate the funding and manage the delivery of Trust Shares and free share awards under certain of Glencore's share plans. The Trust Shares have been acquired by either stock market purchases or share issues from the Company. The Trusts may hold an aggregate of Trust Shares up to 5% of the issued share capital of the Company at any one time and are permitted to sell them. The Trusts have waived the right to receive distributions from the Trust Shares that they hold. Costs relating to the administration of the Trusts are expensed in the period in which they are incurred.

In July 2022, Glencore announced a $3 billion share buyback programme to be completed by February 2023, effected in accordance with the terms of the authority granted by shareholders at the 2022 Annual General Meeting. As at 31 December 2022, $1,920 million of shares have been purchased. No liability has been recognised in respect of this share buyback programme as the terms of the arrangement do not result in a contractual obligation.

During the year, Glencore also purchased the remaining $33 million of shares under the $650 million share buyback programme announced in August 2021 and $550 million shares under the share buyback programme announced in February 2022.

In October 2022, Glencore cancelled 500 million of treasury shares, adopting a policy to reduce and maintain from time to time treasury shares below 10% of total issued share capital.

As at 31 December 2022: 1,321,342,547 shares (2021: 1,489,601,292 shares), including 1,265,696,812 Treasury Shares (2021: 1,390,388,731 shares), equivalent to 9.38% (2021: 9.36%) of the issued share capital were held at a cost of $5,861 million (2021: $5,877 million) and market value of $8,809 million (2021: $7,559 million).

Notes to the financial statements *continued*

17. Share capital and reserves *continued*

Other reserves

US$ million	Foreign currency translation reserve	Cash flow hedge reserve	Net unrealised gain/(loss)	Net ownership changes in subsidiaries	**Total**
1 January 2022	(2,898)	(124)	(300)	(2,609)	(5,931)
Exchange loss on translation of foreign operations	(290)	–	–	–	(290)
Items recycled to the statement of income on restructuring of intragroup debt (see note 5)	431	–	–	–	431
Items recycled to the statement of income upon disposal of subsidiaries (see note 26)	84	–	–	(34)	50
Gain on cash flow hedges, net of tax	–	27	–	–	27
Loss on equity investments accounted for at fair value through other comprehensive income, net of tax	–	–	(1,122)	–	(1,122)
Change in ownership interest in subsidiaries (see note 34)	–	–	–	(3)	(3)
Gain due to changes in credit risk on financial liabilities accounted for at fair value through profit and loss	–	–	2	–	2
Reclassifications	–	–	3	–	3
31 December 2022	**(2,673)**	**(97)**	**(1,417)**	**(2,646)**	**(6,833)**
1 January 2021	(2,832)	(147)	(266)	(2,603)	(5,848)
Exchange loss on translation of foreign operations	(66)	–	–	–	(66)
Gain on cash flow hedges, net of tax	–	23	–	–	23
Loss on equity investments accounted for at fair value through other comprehensive income, net of tax	–	–	(52)	–	(52)
Change in ownership interest in subsidiaries (see note 34)	–	–	–	(6)	(6)
Loss due to changes in credit risk on financial liabilities accounted for at fair value through profit and loss	–	–	(7)	–	(7)
Reclassifications	–	–	25	–	25
31 December 2021	**(2,898)**	**(124)**	**(300)**	**(2,609)**	**(5,931)**

The translation adjustment reserve is used to capture the cumulative impact of foreign currency translation adjustments arising from the Group's non-USD denominated functional currency subsidiaries.

The cash flow hedge reserve is used to accumulate the gains and losses from the effective portion of hedging instruments contained within hedge relationships until the hedged item impacts profit or loss. Cost of hedging is recorded within the cash flow hedge reserve due to its immaterial amount.

The net unrealised gain/loss reserve is used to accumulate the gains and losses associated with the remeasurement of the Group's investments carried at FVTOCI and changes in credit risk on financial liabilities measured at FVTPL.

The net ownership changes in subsidiaries reserve is used to capture equity movements arising from changes in the Group's ownership in its subsidiaries.

Notes to the financial statements *continued*

18. Earnings per share

US$ million	2022	2021
Income attributable to equity holders of the Parent for basic earnings per share	17,320	4,974
Weighted average number of shares for the purposes of basic earnings per share (thousand)	13,042,304	13,204,101
Effect of dilution:		
Equity-settled share-based payments (thousand)	98,454	132,503
Weighted average number of shares for the purposes of diluted earnings per share (thousand)	13,140,758	13,336,604
Basic earnings per share (US$)	**1.33**	**0.38**
Diluted earnings per share (US$)	**1.32**	**0.37**

Headline earnings:

Headline earnings is a Johannesburg Stock Exchange (JSE) defined performance measure. The calculation of basic and diluted earnings per share, based on headline earnings as determined by the requirements of the Circular 1/2021 as issued by the South African Institute of Chartered Accountants (SAICA), is reconciled using the following data:

US$ million	2022	2021
Income attributable to equity holders of the Parent for basic earnings per share	17,320	4,974
Net (gain)/loss on acquisitions and disposals[1]	(1,287)	652
Net (gain)/loss on acquisitions and disposals – non-controlling interest	(4)	–
Net (gain)/loss on acquisitions and disposals – tax	86	75
Impairments[2]	3,181	1,906
Impairments – non-controlling interest	(404)	(689)
Impairments – tax	(585)	(34)
Headline and diluted earnings for the year	**18,307**	**6,884**
Headline earnings per share (US$)	**1.40**	**0.52**
Diluted headline earnings per share (US$)	**1.39**	**0.52**

1 See note 4.
2 Comprises impairments of property, plant and equipment and intangible assets, investments, advances and loans, VAT receivable (see note 7) and Glencore's share of impairments booked directly by associates (see note 2).

19. Distributions

US$ million	2022	2021
Paid during the year:		
First tranche distribution – $0.13 per ordinary share (2021: $0.06)	1,707	794
Second tranche and additional distribution – $0.24 per ordinary share (2021: $0.10)	3,125	1,321
Total	**4,832**	**2,115**

The proposed distribution in respect of the year ended 31 December 2022 of $0.44 per ordinary share amounting to some $5.6 billion is subject to approval by shareholders at the Annual General Meeting and has not been included as a liability in these financial statements. Such declared distributions are expected to be paid equally ($0.22 each) in June 2023 and September 2023.

A distribution of $0.37 per ordinary share amounting to $4,832 million was paid in 2022.

Notes to the financial statements *continued*

20. Share-based payments

	Number of awards granted (thousands)	Fair value at grant date (US$ million)	**Number of awards outstanding 2022 (thousands)**	Number of awards outstanding 2021 (thousands)	**Expense recognised 2022 (US$ million)**	Expense recognised 2021 (US$ million)
Deferred awards						
2018 Series	12,891	65	3,535	3,535	3	–
2019 Series	10,791	37	667	667	–	–
2020 Series	45,798	85	–	31,538	–	(2)
2021 Series[1]	21,327	94	13,016	20,565	(1)	90
2022 Series	6,403	38	5,267	–	30	–
	97,210		**22,485**	**56,305**	**32**	**88**
Performance share awards						
2017 Series	19,750	95	344	400	–	3
2018 Series	28,499	104	2,293	9,823	2	12
2019 Series	29,705	90	9,066	18,504	9	23
2020 Series	33,583	104	19,555	31,466	26	55
2021 Series[1]	26,803	129	24,918	16,005	69	8
2022 Series	20,928	135	19,793	–	12	–
	159,268		**75,969**	**76,198**	**118**	**101**
Total	**256,478**		**98,454**	**132,503**	**150**	**189**

1 During the current year, 762 thousand shares have been granted as part of the deferred awards 2021 series and 10,798 thousand shares have been granted as part of the performance share awards 2021 series, resulting in an increase of the fair value at grant date amount by $3 million for deferred share awards and $53 million for performance share awards.

Between 2011-2021 deferred awards were made under the Company's Deferred Bonus Plan and performance share awards were made under the Company's Performance Share Plan. In May 2021 the Company introduced a single Incentive Plan which replaced both of these plans and under which both deferred awards and performance share awards continue to be made.

Deferred awards

Under a deferred award the payment of a portion of a participant's annual bonus is deferred for a period of one to seven years as an award of either ordinary shares (a "Bonus Share Award") or cash. Awards vest over a specified period, subject to continued employment and forfeiture for malus events. The Bonus Share Awards may be satisfied, at Glencore's option, in shares by the issue of new ordinary shares, by the transfer of ordinary shares held in treasury or by the transfer of ordinary shares purchased in the market or in cash, with a value equal to the market value of the award at settlement, including distributions paid between award and settling. Glencore currently intends to settle all Bonus Share Awards in shares. The associated expense is recorded in the statement of income/loss as part of the expense for performance bonuses. The fair value at grant date is determined as the monthly volume-weighted average share price (VWAP) of Glencore plc prior to the respective award date.

Performance Share awards

Performance share awards vest in tranches over a specified period, subject to continued employment and forfeiture for malus events. At grant date, each award is equivalent to one ordinary share of Glencore. Awards vest in one, two or three tranches on 31 January or 30 June of the years following the year of grant, as may be the case. The awards may be satisfied, at Glencore's option, in shares by the issue of new ordinary shares, by the transfer of ordinary shares held in treasury or by the transfer of ordinary shares purchased in the market or in cash, with a value equal to the market value of the award at vesting, including distributions paid between award and vesting. Glencore currently intends to settle these awards in shares. The fair value at grant date is determined as the monthly volume-weighted average share price (VWAP) of Glencore plc prior to the respective award date.

Notes to the financial statements *continued*

20. Share-based payments *continued*

Share-based awards assumed in previous business combinations

	Total options outstanding (thousands)	Weighted average exercise price (GBP)
1 January 2022	44,537	3.91
Exercised	(44,537)	4.16
31 December 2022	**–**	**–**
1 January 2021	71,667	4.25
Lapsed	(27,130)	4.80
Exercised	–	–
31 December 2021	**44,537**	**3.91**

As at 31 December 2021, a total of 44,536,755 options were outstanding and exercisable, having an exercise price of GBP3.91 and a weighted average exercise price of GBP3.91. Since the share price leading up to the expiry date of 17 February 2022 was above the exercise price, all of these options were exercised. Glencore settled these awards by the transfer of ordinary shares held as Trust Shares.

21. Borrowings

US$ million	Notes	2022	2021
Non-current borrowings			
Capital market notes		17,229	22,376
Amount drawn under syndicated revolving credit facilities		–	2,543
Lease liabilities		934	1,093
Other bank loans		688	799
Total non-current borrowings		**18,851**	**26,811**
Current borrowings			
Secured inventory/receivables/other facilities	11/13/14	3,292	122
US commercial paper		333	1,764
Capital market notes		2,977	2,884
Lease liabilities		445	525
Other bank loans[1]		2,879	2,535
Total current borrowings		**9,926**	**7,830**
Total borrowings		**28,777**	**34,641**

1 Comprises various uncommitted bilateral bank credit facilities and other financings.

Changes in liabilities arising from financing activities

Liabilities arising from financing activities are those for which cash flows are classified in the Group's consolidated cash flow statement as cash flows from financing activities. The table below details changes in the Group's liabilities arising from financing activities, including both cash and non-cash changes.

Notes to the financial statements *continued*

21. Borrowings *continued*

2022

US$ million	Borrowings excluding lease liabilities	Lease liabilities	**Total borrowings**	Cross currency and interest rate swaps and net margins[1]	**Total liabilities arising from financing activities**
1 January 2022	33,023	1,618	34,641	23	34,664
Cash related movements[2]					
Repayment of capital market notes	(2,850)	–	(2,850)	–	(2,850)
Repurchase of capital market notes	(103)	–	(103)	–	(103)
Repayment of revolving credit facilities	(2,563)	–	(2,563)	–	(2,563)
Proceeds from other non-current borrowings	430	–	430	–	430
Repayment of other non-current borrowings	(73)	–	(73)	–	(73)
Repayment of lease liabilities	–	(577)	(577)	–	(577)
Margin payments for financing related hedging activities	–	–	–	(1,824)	(1,824)
Repayment of US commercial papers	(1,407)	–	(1,407)	–	(1,407)
Proceeds from current borrowings	3,306	–	3,306	–	3,306
	(3,260)	**(577)**	**(3,837)**	**(1,824)**	**(5,661)**
Non-cash related movements					
Borrowings acquired in business combinations[3]	52	30	82	–	82
Borrowings reclassified to held for sale[4]	(762)	(38)	(800)	–	(800)
Borrowings disposed of on disposal of subsidiaries	–	(2)	(2)	–	(2)
Fair value adjustment to fair value hedged borrowings	(1,250)	–	(1,250)	–	(1,250)
Fair value movement of hedging derivatives	–	–	–	1,647	1,647
Foreign exchange movements	(436)	(41)	(477)	–	(477)
Change in lease liabilities	–	389	389	–	389
Interest on convertible bonds	21	–	21	–	21
Other movements	10	–	10	–	9
	(2,365)	**338**	**(2,027)**	**1,647**	**(381)**
31 December 2022	**27,398**	**1,379**	**28,777**	**(154)**	**28,623**

1 The currency and interest rate swaps are reported on the balance sheet within the headings 'Other financial assets' and 'Other financial liabilities' (see note 27) and margin calls paid/received within accounts receivable/payable (see notes 14 and 25).
2 See consolidated statement of cash flows.
3 See note 26.
4 See note 16.

Notes to the financial statements *continued*

21. Borrowings *continued*

2021

US$ million	Borrowings excluding lease liabilities	Lease liabilities	**Total borrowings**	Cross currency and interest rate swaps and net margins[1]	**Total liabilities arising from financing activities**
1 January 2021	35,958	1,521	37,479	91	37,570
Cash related movements[2]					
Proceeds from issuance of capital market notes	4,877	–	4,877	–	4,877
Repayment of capital market notes	(2,807)	–	(2,807)	–	(2,807)
Repurchase of capital market notes	(125)	–	(125)	–	(125)
Repayment of revolving credit facilities	(2,244)	–	(2,244)	–	(2,244)
Proceeds from other non-current borrowings	231	–	231	–	231
Repayment of other non-current borrowings	(493)	–	(493)	–	(493)
Repayment of lease liabilities	–	(634)	(634)	–	(634)
Margin payments for financing related hedging activities	–	–	–	(970)	(970)
Proceeds from US commercial papers	675	–	675	–	675
Repayment of current borrowings	(2,016)	–	(2,016)	–	(2,016)
	(1,902)	**(634)**	**(2,536)**	**(970)**	**(3,506)**
Non-cash related movements					
Borrowings (disposed of)/acquired in business combinations[3]	(1)	(7)	(8)	–	(8)
Borrowings reclassified to held for sale[4]	–	(138)	(138)	–	(138)
Fair value adjustment to fair value hedged borrowings	(499)	–	(499)	–	(499)
Fair value movement of hedging derivatives	–	–	–	902	902
Foreign exchange movements	(599)	(45)	(644)	–	(644)
Change in lease liabilities	–	922	922	–	922
Interest on convertible bonds	21	–	21	–	21
Other movements	45	(1)	44	–	44
	(1,033)	**731**	**(302)**	**902**	**600**
31 December 2021	**33,023**	**1,618**	**34,641**	**23**	**34,664**

1 The currency and interest rate swaps are reported on the balance sheet within the headings 'Other financial assets' and 'Other financial liabilities' (see note 27) and margin calls paid/received within accounts receivable/payable (see notes 14 and 25).
2 See consolidated statement of cash flows.
3 See note 26.
4 See note 16.

Notes to the financial statements *continued*

21. Borrowings *continued*

Capital Market Notes

US$ million	Maturity	2022	2021
Euro 1,000 million 1.875% coupon bonds	Sep 2023	–	1,136
Euro 400 million 3.70% coupon bonds	Oct 2023	–	467
Euro 600 million 0.625% coupon bonds	Sep 2024	644	682
Euro 750 million 1.75% coupon bonds	Mar 2025	749	862
Euro 500 million 3.75% coupon bonds	Apr 2026	499	598
Euro 500 million 1.50% coupon bonds	Oct 2026	470	566
Euro 950 million 1.125% coupon bonds	Mar 2028	1,014	1,079
Euro 600 million 0.75% coupon bonds	Mar 2029	510	653
Euro 500 million 1.25% coupon bonds	Mar 2033	367	526
Eurobonds		**4,253**	**6,569**
GBP 500 million 3.125% coupon bonds	Mar 2026	541	677
Sterling bonds		**541**	**677**
CHF 175 million 1.25% coupon bonds	Oct 2024	184	194
CHF 250 million 0.35% coupon bonds	Sep 2025	270	274
CHF 225 million 1.00% coupon bonds	Mar 2027	244	248
CHF 150 million 0.51% coupon bonds	Sep 2028	142	160
Swiss Franc bonds		**840**	**876**
US$ 1,500 million 4.125% coupon bonds	May 2023	–	1,538
US$ 1,000 million 4.125% coupon bonds	Mar 2024	972	970
US$ 1,000 million 4.625% coupon bonds	Apr 2024	960	1,029
US$ 625 million non-dilutive convertible bonds	Mar 2025	574	552
US$ 500 million 4.00% coupon bonds	Apr 2025	470	510
US$ 1,000 million 1.625% coupon bonds	Sep 2025	995	994
US$ 365 million 4.375% coupon bonds[1]	Feb 2026	–	469
US$ 600 million 1.625% coupon bonds	Apr 2026	503	587
US$ 1,000 million 4.00% coupon bonds	Mar 2027	926	1,043
US$ 50 million 4.00% coupon bonds	Mar 2027	50	50
US$ 500 million 3.875% coupon bonds	Oct 2027	460	522
US$ 750 million 4.875% coupon bonds	Mar 2029	697	811
US$ 1,000 million 2.50% coupon bonds	Sep 2030	993	992
US$ 600 million 2.85% coupon bonds	Apr 2031	535	598
US$ 750 million 2.65% coupon bonds	Sep 2031	621	745
US$ 250 million 6.20% coupon bonds	Jun 2035	269	269
US$ 500 million 6.90% coupon bonds	Nov 2037	580	582
US$ 497 million 6.00% coupon bonds	Nov 2041	535	536
US$ 468 million 5.55% coupon bonds	Oct 2042	473	473
US$ 500 million 3.875% coupon bonds	Apr 2051	496	496
US$ 500 million 3.375% coupon bonds	Sep 2051	486	488
US$ bonds		**11,595**	**14,254**
Total non-current bonds		**17,229**	**22,376**
Euro 1,000 million 1.875% coupon bonds	Sep 2023	1,070	–
Euro 400 million 3.70% coupon bonds	Oct 2023	422	–
GBP 500 million 6.00% coupon bonds	Apr 2022	–	677
JPY 10 billion 1.075% coupon bonds	May 2022	–	87
US$ 600 million 5.375% coupon bonds	Feb 2022	–	410
US$ 250 million LIBOR plus 1.65% coupon bonds	May 2022	–	250
US$ 996 million 4.25% coupon bonds	Oct 2022	–	999
US$ 500 million 3.00% coupon bonds	Oct 2022	–	461
US$ 1,500 million 4.125% coupon bonds	May 2023	1,485	–
Total current bonds		**2,977**	**2,884**

1 The book value of $361 million has been reclassified to liabilities held for sale (see note 16).

21. Borrowings *continued*

2022 Bond activities

There were no bond activities during the year.

2021 Bond activities

- In February 2021, issued:
  - 5 year $475 million, 4.375% coupon bond (Volcan)
- In March 2021, issued:
  - 8 year EUR600 million, 0.75% coupon bond
  - 12 year EUR500 million, 1.25% coupon bond
- In April 2021, issued:
  - 5 year $600 million, 1.625% coupon bond
  - 10 year $600 million, 2.85% coupon bond
  - 30 year $500 million, 3.875% coupon bond
- In September 2021, issued:
  - 7 year CHF150 million, 0.5% coupon bond
  - 10 year $750 million, 2.625% coupon bond
  - 30 year $500 million, 3.375% coupon bond

Committed syndicated revolving credit facilities

In March 2022 (effective May 2022), Glencore refinanced its short term revolving credit facilities. The borrowing rate of the short term facilities now aligns with the LIBOR reform protocols, and stands at SOFR compounded in arrears across the relevant borrowing period, plus a margin of 45bps. The borrowing rate of the medium term facility remains unchanged, at US$ LIBOR plus 27.5bps subject to a ratings grid, but will be updated during a planned 2023 refinancing exercise, into a SOFR-based rate.

As at 31 December 2022, the facilities comprise:

- a $6,535 million one year revolving credit facility with a one-year borrower's term-out option (to May 2024);
- a $450 million medium-term revolving credit facility (to May 2025); and
- a $4,200 million medium-term revolving credit facility (to May 2026).

As in previous years, these committed unsecured facilities contain no financial covenants, no rating triggers, no material adverse change clauses and no external factor clauses.

Secured facilities

US$ million	Maturity[1]	Interest	**2022**	2021
Syndicated committed metals inventory/receivables facilities[2]	Nov 2024	5.7%	101	82
Syndicated uncommitted metals and oil inventory/receivables facilities[2]	Jul 2023	SOFR + 65 bps	610	–
Other secured facilities[2,3]	Jan 2023	5.0%	2,661	120
Total			**3,372**	**202**
Current			3,292	122
Non-current			80	80

1 Uncommitted facilities are re-drawn several times until actual expiry of the facility contract.
2 Comprises various facilities. The maturity and interest detail represent the weighted average of the various debt balances outstanding at year end.
3 Inventory related. Since year end, in the ordinary course of business, these maturities have been rolled/extended. The maturity and interest detail represent the weighted average of the various debt balances outstanding at year end.

Notes to the financial statements *continued*

22. Deferred income

US$ million	Notes	Unfavourable contracts	Prepayments	**Total**
1 January 2022		336	3,325	3,661
Additions		–	562	562
Accretion in the year		–	97	97
Revenue recognised in the year		(66)	(1,633)	(1,699)
Reclassification to held for sale	16	–	(6)	(6)
Effect of foreign currency exchange difference		(5)	(3)	(8)
31 December 2022		**265**	**2,342**	**2,607**
Current		72	988	1,060
Non-current		193	1,354	1,547
1 January 2021		529	3,131	3,660
Additions		–	1,336	1,336
Accretion in the year		–	115	115
Revenue recognised in the year		(70)	(1,066)	(1,136)
Released in the year	5	(122)	–	(122)
Reclassification to held for sale	16	–	(191)	(191)
Effect of foreign currency exchange difference		(1)	–	(1)
31 December 2021		**336**	**3,325**	**3,661**
Current		56	1,517	1,573
Non-current		280	1,808	2,088

Unfavourable contracts

In several business combinations, Glencore recognised liabilities related to various assumed contractual agreements to deliver tonnes of coal over various periods ending until 2032 at fixed prices lower than the prevailing market prices on the respective acquisition dates.

These amounts are released to revenue as the underlying commodities are delivered to the buyers over the life of the contracts at rates consistent with the extrapolated forward price curves at the time of the acquisitions.

In 2021, certain contractual terms were renegotiated and related unfavourable contract provisions in the amount of $122 million were released (see note 5).

Prepayments

Prepayments comprise various short- to long-term product supply agreements whereby an upfront prepayment is received in exchange for the future delivery of a specific product, such as gold, silver or cobalt. The arrangements are accounted for as executory contracts whereby the advance payment is recorded as deferred revenue. The revenue from the advance payment is recognised as the specific product identified in the contract is delivered consistent with the implied forward price curve at the time of the transaction and an accretion expense, representing the time value of the upfront deposit, is also recognised.

Prepayments mainly comprise:

- Life of mine arrangements – long-term streaming agreements for the future delivery of gold and/or silver produced over the life of mine from our Antamina and Antapaccay operations. In addition to the upfront payment received Glencore receives an ongoing amount equal to 20% of the spot silver and gold price. Once certain delivery thresholds have been met at Antapaccay, the ongoing cash payment increases to 30% of the spot gold and silver prices. As at 31 December 2022, $1,025 million (2021: $1,068 million) of product delivery obligations remain, of which $42 million (2021: $35 million) are due within 12 months.
- Silver supply arrangement – Various silver prepayment arrangements for the future delivery of an average of 13 million ounces of silver per annum, over a remaining three-year period. As at 31 December 2022, $507 million (2021: $784 million) of product delivery obligations remain, of which $277 million (2021: $408 million) are due within 12 months.
- Palladium supply arrangements – Various palladium prepayment arrangements for the future delivery of an average of 31 thousand ounces of palladium per annum, over a remaining three-year period. As at 31 December 2022, $85 million (2021: $141 million) of product delivery obligations remain, of which $41 million (2021: $58 million) are due within 12 months.
- Gold supply arrangements – Various gold supply arrangements for the future delivery of 269 thousand ounces (2021: 518 thousand ounces) of gold over a six-month period. As at 31 December 2022, $391 million (2021: $765 million) of product delivery obligations remain, which are due within 12 months.

22. Deferred income *continued*

- Cobalt supply arrangement – In March 2019, Glencore signed a six year cobalt prepayment arrangement in exchange for an upfront advance payment of $100 million. Under the terms of the arrangement Glencore is required to deliver an average of 1,621 metric tons of cobalt per annum over a four-year period starting 2021. As at 31 December 2022, $58 million (2021: $94 million) of product delivery obligations remain, of which $47 million (2021: $26 million) are due within 12 months.
- Iron ore supply arrangement – In November 2021, Glencore signed an 18-month iron ore prepayment arrangement in exchange for an upfront advance payment of $200 million. Under the terms of the arrangement, Glencore is required to deliver an average of 3,600,000 metric tons of iron ore per annum. As at 31 December 2022, $100 million (2021: $200 million) of product delivery obligations remain of which, $100 million (2021: $117 million) are due within 12 months.

23. Provisions

US$ million	Notes	Rehabilitation costs	Onerous contracts	Legal investigations	Other provisions	**Total**
1 January 2022		5,731	455	1,500	524	8,210
Utilised		(238)	(143)	(883)	(152)	(1,416)
Released		(30)	(71)	(133)	(30)	(264)
Accretion		155	26	–	10	191
Assumed in business combination	26	998	–	–	73	1,071
Disposal of subsidiaries	26	(158)	–	–	(9)	(167)
Additions		840	265	–	285	1,390
Reclassification to held for sale	16	(290)	–	–	(83)	(373)
Effect of foreign currency exchange movements		(45)	(2)	–	(7)	(54)
31 December 2022		**6,963**	**530**	**484**	**611**	**8,588**
Current		531	185	484	225	1,425
Non-current		6,432	345	–	386	7,163
1 January 2021		5,182	535	–	746	6,463
Utilised		(190)	(122)	–	(276)	(588)
Released		(14)	(103)	–	(31)	(148)
Accretion		153	31	–	2	186
Disposal of subsidiaries	26	(67)	–	–	(10)	(77)
Additions		918	116	1,500	137	2,671
Reclassification to held for sale	16	(191)	–	–	(37)	(228)
Effect of foreign currency exchange movements		(60)	(2)	–	(7)	(69)
31 December 2021		**5,731**	**455**	**1,500**	**524**	**8,210**
Current		337	109	1,500	147	2,093
Non-current		5,394	346	–	377	6,117

Rehabilitation costs

Rehabilitation provision represents the accrued costs required to provide adequate restoration and rehabilitation upon the completion of production activities. These amounts will be settled when rehabilitation is undertaken, generally at the end of a project's life, which ranges from two to in excess of 50 years with an average for all sites, weighted by closure provision, of some 19 years (2021: 23 years). Discount rates were determined for each relevant jurisdiction by reference to the average annual real-terms return on a relevant government security with a tenor of 20 years.

As at 31 December 2022, the discount rate applied in calculating the restoration and rehabilitation provision is a pre-tax risk free rate specific to the liability and the currency in which they are denominated as follows: US dollar 1.25% (2021: 1.5%), South African rand 3.75% (2021: 3.75%), Australian dollar 2.0% (2021: 2.0%), Canadian dollar 1.25% (2021: 1.5%), and Chilean peso 2.5% (2021: 2.5%).

Notes to the financial statements *continued*

23. Provisions *continued*

The sensitivity of the rehabilitation costs provision to changes in the discount rate assumptions as at 31 December 2022, assuming that all other assumptions are held constant, is set out below:

	Discount rate	
US$ million	**Increase 1%**	**Decrease 1%**
Decrease/(increase) in overall rehabilitation provision	822	(1,096)
(Decrease)/increase in property, plant and equipment	(662)	878
Net increase/(decrease) in statement of income	160	(218)
Effect in the following year		
Decrease/(increase) in depreciation expense	35	(46)
(Increase)/decrease in interest expense	(22)	36
Net increase/(decrease) in statement of income	13	(10)

Onerous contracts

Onerous contracts represent liabilities related to contractual take or pay commitments for securing coal logistics capacity at fixed prices and quantities higher than the acquisition date forecasted usage and prevailing market price. The provision is released to costs of goods sold as the underlying commitments are incurred.

Investigations by regulatory and enforcement authorities

The Board has appointed a committee, the Investigations Committee, to oversee the response to the investigations on behalf of the Board.

On 24 May 2022 the Group announced that it had resolved the previously disclosed investigations by authorities in the United States, the United Kingdom and Brazil.

Under the terms of the US resolutions, Glencore agreed to pay penalties of $701 million to resolve bribery investigations and $486 million to resolve market manipulation investigations by the Department of Justice ('DOJ') and the Commodity Futures Trading Commission ('CFTC'). Of this amount, up to $166 million would be credited against other parallel matters, including in the UK, so that the net amount payable to the US authorities is expected to be $1,020 million. Glencore further agreed to pay $40 million under a resolution signed with the Brazilian Federal Prosecutor's Office ('MPF') in connection with its bribery investigation into the Group. On 3 November 2022, Glencore Energy UK Limited was sentenced to pay a financial penalty and costs of £281 million in the Serious Fraud Office ('SFO') investigation.

The Group has settled the amounts due to the CFTC, the DOJ in respect of the market manipulation matter and the SFO and expects to settle the amounts due to the DOJ in respect of the bribery matter and the MPF during the first half of 2023.

Accordingly, the Group has retained a provision for the United States and Brazil resolutions which at 31 December 2022 amounts to $484 million.

The Group remains subject to the following ongoing investigations:

- The Office of the Attorney General of Switzerland ('OAG') is investigating Glencore International AG for failure to have the organisational measures in place to prevent alleged corruption.
- The Dutch authorities are conducting a criminal investigation into Glencore International AG related to potential corruption pertaining to the DRC. The scope of the investigation is similar to that of the OAG investigation. The Dutch authorities are coordinating their investigation with the OAG and the Group expects any possible resolution to avoid duplicative penalties for the same conduct.

The timing and outcome of the OAG and Dutch investigations remains uncertain – see note 32.

Other provisions

Other comprises provisions for possible demurrage, mine concession and construction-related claims, a royalty indemnification related to the disposal of the Ernest Henry operations (see note 26) and various other individually immaterial legal matters. This balance comprises no individually material provisions.

Notes to the financial statements *continued*

24. Personnel costs and employee benefits

US$ million	Notes	Post-retirement employee benefits	Other employee entitlements	**Total**
1 January 2022		782	157	939
Utilised		(82)	(37)	(119)
Released		(1)	(1)	(2)
Accretion		19	–	19
Additions		97	79	176
Actuarial gain		(298)	–	(298)
Reclassification to held for sale	16	–	(1)	(1)
Effect of foreign currency exchange movements		(29)	(8)	(37)
31 December 2022		**488**	**189**	**677**
1 January 2021		980	181	1,161
Utilised		(84)	(9)	(93)
Released		(1)	(7)	(8)
Accretion		23	–	23
Additions		151	14	165
Actuarial gain		(284)	–	(284)
Reclassification to held for sale	16	–	(19)	(19)
Effect of foreign currency exchange movements		(3)	(3)	(6)
31 December 2021		**782**	**157**	**939**

The provision for post-retirement employee benefits includes pension plan liabilities of $178 million (2021: $352 million) and post-retirement medical plan liabilities of $310 million (2021: $430 million).

The other employee entitlements provision represents the value of governed employee entitlements due to employees upon their termination of employment. The associated expenditure will occur in a pattern consistent with when employees choose to exercise their entitlements.

Total personnel costs, which include salaries, wages, social security, other personnel costs and share-based payments, incurred for the years ended 31 December 2022 and 2021, were $6,319 million and $6,012 million, respectively. Personnel costs related to consolidated industrial subsidiaries of $4,284 million (2021: $4,188 million) are included in cost of goods sold. Other personnel costs, including deferred bonus and performance share plans, are included in selling and administrative expenses.

The Company and certain subsidiaries sponsor various pension schemes in accordance with local regulations and practices. Eligibility for participation in the various plans is either based on completion of a specified period of continuous service, or date of hire. Among these schemes are defined contribution plans as well as defined benefit plans.

Defined contribution plans
Glencore's contributions under these plans amounted to $171 million in 2022 (2021: $173 million).

Post-retirement medical plans
The Company participates in a number of post-retirement medical plans in Canada, USA and South Africa, which provide coverage for prescription drugs, medical, dental, hospital and life insurance to eligible retirees. Almost all of the post-retirement medical plans in the Group are unfunded.

Notes to the financial statements *continued*

24. Personnel costs and employee benefits *continued*

Defined benefit pension plans

The Company operates defined benefit plans in various countries, the main locations being Canada, Switzerland, UK and the US. Approximately 63% of the present value of the pension obligations accrued relates to the defined benefit plans in Canada, which are pension plans that provide benefits to members in the form of a guaranteed level of pension payable for life. Contributions to the Canadian plans are made to meet or exceed minimum funding requirements based on provincial statutory requirements and associated federal taxation rules.

The majority of benefit payments are from trustee-administered funds; however, there are also a number of unfunded plans where Glencore meets the benefit payments as they fall due. Plan assets held in trusts are governed by local regulations and practices in each country. Responsibility for governance of the plans – overseeing all aspects of the plans including investment decisions and contribution schedules – lies with Glencore. Glencore has set up committees to assist in the management of the plans and has also appointed experienced, independent professional experts such as investment managers, actuaries, custodians, and trustees.

The movement in the defined benefit pension and post-retirement medical plans over the year is as follows:

			Defined benefit pension plans		
US$ million	Notes	Post-retirement medical plans	Present value of defined benefit obligation	Fair value of plan assets	Net liability for defined benefit pension plans
1 January 2022		**430**	2,760	(2,533)	**227**
Current service cost		8	52	–	52
Past service cost – plan amendments		1	3	–	3
Settlement of pension plan disposal		–	(115)	121	6
Interest expense/(income)		17	67	(65)	2
Total expense recognised in consolidated statement of income		**26**	7	56	**63**
Loss on plan assets, excluding amounts included in interest expense – net		–	–	383	383
Gain from change in demographic assumptions		(7)	(26)	–	(26)
Gain from change in financial assumptions		(91)	(576)	–	(576)
(Gain)/loss from actuarial experience		(6)	25	–	25
Actuarial (gains)/losses recognised in consolidated statement of comprehensive income		**(104)**	(577)	383	**(194)**
Employer contributions		–	–	(64)	(64)
Benefits paid directly by the Company		(18)	(8)	8	–
Benefits paid from plan assets		–	(130)	130	–
Net cash (outflow)/inflow		**(18)**	(138)	74	**(64)**
Exchange differences		(24)	(140)	138	(2)
31 December 2022		**310**	1,912	(1,882)	**30**
Of which:					
Pension surpluses	12	–			(148)
Pension deficits		310			178

The actual return on plan assets in respect of defined benefit pension plans amounted to a loss of $456 million (2021: gain of $107 million), comprising interest income and the re-measurement of plan assets, including exchange differences.

During the next financial year, the Group expects to make a contribution of $76 million in respect of the defined benefit pension and post-retirement medical plans across all countries, including current service costs and contributions required by pension legislation. Contributions over the next five years for the Canadian plans only, based on the most recently filed actuarial reports, approximate $115 million. Future funding requirements and contributions are reviewed and adjusted on an annual basis.

Notes to the financial statements *continued*

24. Personnel costs and employee benefits *continued*

			Defined benefit pension plans		
US$ million	Notes	Post-retirement medical plans	Present value of defined benefit obligation	Fair value of plan assets	Net liability for defined benefit pension plans
1 January 2021		**476**	3,138	(2,674)	**464**
Current service cost		7	62	–	62
Past service cost – plan amendments		(6)	–	–	–
Settlement of pension plan disposal		–	(137)	138	1
Interest expense/(income)		18	64	(59)	5
Total expense/(income) recognised in consolidated statement of income		**19**	(11)	79	**68**
Gain on plan assets, excluding amounts included in interest expense – net		–	–	(46)	(46)
Gain from change in demographic assumptions		–	(12)	–	(12)
Loss from change in financial assumptions		(37)	(188)	–	(188)
Loss from actuarial experience		(4)	3	–	3
Actuarial losses/(gains) recognised in consolidated statement of comprehensive income		**(41)**	(197)	(46)	**(243)**
Employer contributions		–	–	(63)	(63)
Employee contributions		–	1	(1)	–
Benefits paid directly by the Company		(22)	(8)	8	–
Benefits paid from plan assets		–	(165)	166	1
Net cash (outflow)/inflow		**(22)**	(172)	110	**(62)**
Exchange differences		(2)	2	(2)	–
31 December 2021		**430**	2,760	(2,533)	**227**
Of which:					
Pension surpluses	12	–			(125)
Pension deficits		430			352

The defined benefit obligation accrued in Canada represents the majority for the Company. The breakdown below provides details of the Canadian plans for both the statement of financial position and the weighted average duration of the defined benefit obligation as at 31 December 2022 and 2021. The net liability of any of the Group's defined benefit plans outside of Canada as at 31 December 2022 does not exceed $34 million (2021: $70 million).

Notes to the financial statements *continued*

24. Personnel costs and employee benefits *continued*

2022

US$ million	Canada	Other	**Total**
Post-retirement medical plans			
Present value of defined benefit obligation	264	46	**310**
of which: amounts owing to active members	74	8	82
of which: amounts owing to pensioners	190	38	228
Defined benefit pension plans			
Present value of defined benefit obligation	1,203	709	**1,912**
of which: amounts owing to active members	261	364	625
of which: amounts owing to non-active members	14	91	105
of which: amounts owing to pensioners	928	254	1,182
Fair value of plan assets	(1,277)	(605)	**(1,882)**
Net defined benefit (asset)/liability at 31 December 2022	**(74)**	**104**	**30**
Of which:			
Pension surpluses	(126)	(22)	(148)
Pension deficits	52	126	178
Weighted average duration of defined benefit obligation – years	10	12	**11**

2021

US$ million	Canada	Other	**Total**
Post-retirement medical plans			
Present value of defined benefit obligation	379	51	**430**
of which: amounts owing to active members	123	11	134
of which: amounts owing to pensioners	256	40	296
Defined benefit pension plans			
Present value of defined benefit obligation	1,753	1,007	**2,760**
of which: amounts owing to active members	434	484	918
of which: amounts owing to non-active members	25	167	192
of which: amounts owing to pensioners	1,294	356	1,650
Fair value of plan assets	(1,772)	(761)	**(2,533)**
Net defined benefit (asset)/liability at 31 December 2021	**(19)**	**246**	**227**
Of which:			
Pension surpluses	(115)	(10)	(125)
Pension deficits	96	256	352
Weighted average duration of defined benefit obligation – years	13	15	**13**

Estimated future benefit payments of the Canadian plans, which reflect expected future services but exclude plan expenses, up until 2032 are as follows:

US$ million	Post-retirement medical plans	Defined benefit pension plans	**Total**
2023	18	83	101
2024	18	83	101
2025	18	82	100
2026	17	82	99
2027	17	82	99
2028-2032	85	402	487
Total	**173**	**814**	**987**

Notes to the financial statements *continued*

24. Personnel costs and employee benefits *continued*

The plan assets consist of the following:

	2022		2021	
	Active market	Non-active market	Active market	Non-active market
Cash and short-term investments	37	–	40	–
Fixed income	569	182	823	195
Equities	567	–	851	–
Other	329	198	416	208
Total	**1,502**	**380**	**2,130**	**403**

The fair value of plan assets includes none of Glencore's own financial instruments and no property occupied by or other assets used by Glencore. For many of the plans, representing a large portion of the global plan assets, asset-liability matching strategies are in place, where the fixed-income assets are invested broadly in alignment with the duration of the plan liabilities, and the proportion allocated to fixed-income assets is raised when the plan funding level increases. The asset mix for each plan reflects the nature, expected changes in, and size of the liabilities and the assessment of long-term economic conditions, market risk, expected investment returns as considered during a formal asset mix study, including sensitivity analysis and/or scenario analysis, conducted periodically for the plans.

Through its defined benefit plans, Glencore is exposed to a number of risks, the most significant of which are detailed below:

Asset volatility: The plan liabilities are calculated using a discount rate set with reference to corporate bond yields; if plan assets underperform this yield, this will create a deficit. The funded plans hold a significant proportion of equities, which are expected to outperform bonds in the long term while contributing volatility and risk in the short term. Glencore believes that due to the long-term nature of the plan liabilities, a level of continuing equity investment is an appropriate element of Glencore's long-term strategy to manage the plans efficiently.

Change in bond yields: A decrease in bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plans' bond holdings.

Inflation risk: Some of the plans' benefit obligations are linked to inflation, and higher inflation will lead to higher liabilities, although, in most cases, caps on the level of inflationary increases are in place to protect the plan against extreme inflation.

Life expectancy: The majority of the plans' obligations are to provide benefits for the life of the member, so increases in life expectancy will result in an increase in the plans' liability.

Salary increases: Some of the plans' benefit obligations related to active members are linked to their salaries. Higher salary increases will therefore tend to lead to higher plan liabilities.

The principal weighted-average actuarial assumptions used were as follows:

	Post-retirement medical plans		Defined benefit pension plans	
	2022	2021	**2022**	2021
Discount rate	6.2%	4.1%	4.9%	2.7%
Future salary increases	–	–	2.7%	2.6%
Future pension increases	–	–	0.4%	0.5%
Ultimate medical cost trend rate	3.5%	4.6%	–	–

Mortality assumptions are based on the latest available standard mortality tables for the individual countries concerned. As at 31 December 2022, these tables imply expected future life expectancy, for employees aged 65, 16 to 24 years for males (2021: 16 to 23) and 20 to 25 years for females (2021: 20 to 25). The assumptions for each country are reviewed regularly and are adjusted where necessary to reflect changes in fund experience and actuarial recommendations.

Notes to the financial statements *continued*

24. Personnel costs and employee benefits *continued*

The sensitivity of the defined benefit obligation to changes in principal assumptions as at 31 December 2022 is set out below, assuming that all other assumptions are held constant and the effect of interrelationships is excluded.

	Increase/(decrease) in pension obligation		
US$ million	Post-retirement medical plans	Defined benefit pension plans	**Total**
Discount rate			
Increase by 100 basis points	(34)	(168)	**(202)**
Decrease by 100 basis points	38	194	**232**
Rate of future salary increase			
Increase by 100 basis points	–	23	**23**
Decrease by 100 basis points	–	(22)	**(22)**
Rate of future pension benefit increase			
Increase by 100 basis points	–	24	**24**
Decrease by 100 basis points	–	(22)	**(22)**
Medical cost trend rate			
Increase by 100 basis points	36	–	**36**
Decrease by 100 basis points	(29)	–	**(29)**
Life expectancy			
Increase in longevity by one year	8	41	**49**

25. Accounts payable

US$ million	Notes	**2022**	2021
Financial liabilities at amortised cost			
Trade payables		11,044	10,397
Margin calls received and other broker balances		112	729
Associated companies		903	1,124
Other payables and accrued liabilities		644	889
		12,703	**13,139**
Financial liabilities at fair value through profit and loss			
Trade payables containing provisional pricing features	28	14,079	13,806
Other payables	28	102	–
		14,181	**13,806**
Non-financial liabilities			
Advances settled in product		676	459
Other payables and accrued liabilities[1]		1,839	1,460
Other tax and related payables		327	449
		2,842	**2,368**
Total		**29,726**	**29,313**

1 Primarily comprised of employee benefits accruals.

Trade payables are obligations to pay for goods and services. Trade payables typically have maturities up to 90 days depending on the type of material and the geographic area in which the purchase transaction occurs and the agreed terms. The carrying value of trade payables approximates fair value.

26. Acquisition and disposal of subsidiaries and other entities

2022 Acquisitions

In 2022, Glencore acquired the remaining 66.67% interest in Cerrejón that it did not already own, and various other businesses, none of which are individually material. The acquisition accounting for Cerrejón has now been finalised, with no adjustments to the previously reported provisional fair values.

The net cash acquired/(used) in the acquisition of subsidiaries and the fair value of assets acquired and liabilities assumed on the acquisition date are detailed below:

US$ million	Cerrejón	Other	**Total**
Non-current assets			
Property, plant and equipment	2,470	333	2,803
	2,470	333	**2,803**
Current assets			
Inventories	315	51	366
Accounts receivable[1]	312	13	325
Cash and cash equivalents	511	5	516
	1,138	69	**1,207**
Non-current liabilities			
Non-current borrowings	(13)	–	(13)
Deferred tax liabilities	(278)	(50)	(328)
Provisions	(1,033)	(8)	(1,041)
	(1,324)	(58)	**(1,382)**
Current liabilities			
Borrowings	(17)	(52)	(69)
Accounts payable	(232)	(70)	(302)
Provisions	(30)	–	(30)
Income tax payable	(309)	–	(309)
	(588)	(122)	**(710)**
Total fair value of net assets acquired	**1,696**	**222**	**1,918**
Cash and cash equivalents paid	(100)	(95)	(195)
Less: amounts previously recognised as investments	(567)	(31)	(598)
Gain on bargain purchase of subsidiaries	**1,029**	**96**	**1,125**
Cash and cash equivalents paid	(100)	(95)	(195)
Cash and cash equivalents acquired	511	5	516
Net cash acquired/(used) in acquisition of subsidiaries	**411**	**(90)**	**321**

1 There is no material difference between the gross contractual amounts for accounts receivable and their fair value.

26. Acquisition and disposal of subsidiaries and other entities *continued*

Cerrejón

On 11 January 2022, Glencore completed the acquisition of the remaining 66.67% interest in Cerrejón, a coal mine in Colombia, that it did not own. The purchase price consideration of $588 million was based on an economic effective date of 31 December 2020. After taking into account the dividends generated during 2021, together with certain other adjustments, the completion cash payment made by Glencore amounted to $100 million. As Glencore holds 100% of the voting shares, providing it the ability to control the key strategic, operating and capital decisions of the business, it is required to account for Cerrejón using the full consolidation method in accordance with IFRS 10.

Prior to the acquisition, Glencore owned a 33.33% interest in Cerrejón which was accounted for as an associate. In accordance with IFRS 3 *Business Combinations*, the equity interest is required to be revalued, at the date of acquisition, to its fair value with any resulting gain or loss recognised in the statement of income. On the date of acquisition, the fair value of 100% of the net assets acquired was determined to be $1,696 million, a value broadly consistent with the carrying value of the initial 33.33% equity interest and as a result, no gain or loss was recognised on the revaluation of the original equity interest.

The valuation was determined using a bottom-up approach to identify the fair value of the specific assets and liabilities within the Cerrejón Group, with the mineral reserves being valued using a discounted cash-flow method that assumes life of mine saleable coal production of 223 million tonnes over the period 2022-2032, at a long-term CIF price of $67/t, adjusted as appropriate for coal quality, applying a discount rate of 8.56%.

As the assessed fair value of $1,696 million was in excess of the completion cash payment and the fair value of the previously held investment, a bargain purchase gain on acquisition of $1,029 million was recognised in the consolidated statement of income. Glencore assessed that all identifiable assets and liabilities had been included in the valuation prior to recognising the gain as noted above. The gain effectively represents the discount that the selling joint venture partners were willing to accept in order to achieve timely execution of their respective decarbonisation strategies. The immediate near-term valuation was also supported by the net $411 million of unencumbered cash assumed on completion, benefitting from the transaction effective date of 31 December 2020.

From the date of acquisition, the operation contributed $5,393 million of revenue and $2,909 million of attributable income (including the bargain purchase gain) for the period ended 31 December 2022.

Other

From the date of acquisition, the other operations contributed $223 million of revenue and $241 million of attributable income (including the bargain purchase gain) for the period ended 31 December 2022.

2021 Acquisitions

There were no material acquisitions.

Notes to the financial statements *continued*

26. Acquisition and disposal of subsidiaries and other entities *continued*

2022 Disposals

The carrying value of the assets and liabilities over which control was lost and consideration receivable from the 2022 disposals are detailed below:

US$ million	Ernest Henry[1]	Bolivia Zinc[1]	E&P Chad[1]	Access World[1]	Los Quenuales	Other	Total
Non-current assets							
Property, plant and equipment	311	163	247	206	126	121	1,174
Intangible assets	–	2	–	11	–	–	13
Investments in associates	–	–	–	10	–	–	10
Advances and loans	–	43	–	9	2	–	54
Deferred tax assets	16	13	–	4	21	–	54
	327	221	247	240	149	121	**1,305**
Current assets							
Inventories	16	97	21	–	5	6	145
Accounts receivable	24	90	19	159	9	19	320
Prepaid expenses	–	–	–	12	–	1	13
Cash and cash equivalents	1	17	5	42	7	3	75
	41	204	45	213	21	29	**553**
Non-controlling interest	–	–	–	(2)	(2)	(24)	**(28)**
Non-current liabilities							
Non-current borrowings	–	(8)	–	(110)	(1)	–	(119)
Deferred income	(138)	–	–	–	–	–	(138)
Deferred tax liabilities	–	(4)	(3)	(1)	–	(3)	(11)
Non-current provisions	(74)	(26)	(86)	(3)	(97)	(59)	(345)
Post-retirement and other employee benefits	(1)	(16)	–	(1)	–	–	(18)
	(213)	(54)	(89)	(115)	(98)	(62)	**(631)**
Current liabilities							
Borrowings	–	(2)	–	(19)	(1)	–	(22)
Accounts payable	(30)	(139)	(7)	(154)	(23)	(19)	(372)
Provisions	(38)	(44)	–	(3)	(9)	(2)	(96)
Income tax payable	–	(13)	–	(4)	–	–	(17)
	(68)	(198)	(7)	(180)	(33)	(21)	**(507)**
Carrying value of net assets disposed	**87**	**173**	**196**	**156**	**37**	**43**	**692**
Cash and cash equivalents (received)/paid	(585)	–	(17)	(40)	10	(30)	(662)
Items recycled to the statement of income	–	–	–	22	1	27	50
Reclassified to investment in associate	–	–	–	–	–	(17)	(17)
Royalty indemnification[2]	125	–	–	–	–	–	125
Streaming settlement	–	–	–	–	132	–	132
Future consideration	(139)	(69)	(145)	(115)	–	(3)	(471)
Net (gain)/loss on disposal	**(512)**	**104**	**34**	**23**	**180**	**20**	**(151)**
Cash and cash equivalents received/(paid)	585	–	17	40	(142)	30	530
Less: cash and cash equivalents disposed	(1)	(17)	(5)	(42)	(7)	(3)	(75)
Net cash received/(used) in disposal	**584**	**(17)**	**12**	**(2)**	**(149)**	**27**	**455**

1 As at 31 December 2021, total assets and liabilities were presented as current assets and liabilities 'held for sale' (see note 16).
2 See note 23.

26. Acquisition and disposal of subsidiaries and other entities *continued*

Ernest Henry

In January 2022, Glencore disposed of its 70% interest in Ernest Henry Mining Pty Ltd, a copper-gold mine in Queensland, Australia. After closing adjustments, $585 million was received with $139 million receivable in January 2023. The contractual terms of the deferred consideration give rise to cash flows that are solely payments of principal and interest, therefore the receivable is accounted for as financial asset at amortised cost. A $125 million provision was recognised for the indemnification of future royalty payments under an existing agreement.

Bolivia Zinc

In March 2022, Glencore disposed of its 100% interest in the Bolivian zinc assets (Sinchi Wayra and Illapa), to Santacruz Silver Mining Ltd. After closing adjustments, $90 million is receivable over a four-year period and a 1.5% NSR royalty over the life of the mines. The fair value of the future consideration was determined to be $69 million using a discounted cash flow model of the projected amount and timing of receipts, discounted using an asset specific discount rate of 11%. The contractual terms of the deferred consideration give rise to cash flows that are solely payments of principal and interest, therefore the receivable is accounted for as financial asset at amortised cost.

E&P Chad

In June 2022, Glencore disposed of its Chad upstream oil operations to Perenco S.A. for $197 million, of which $17 million was due on closing and $180 million is due through a price and production participation arrangement payable annually. The fair value of the future consideration was determined to be $145 million using a discounted cash flow model of the projected amount and timing of receipts, discounted using an asset specific discount rate of 13%. The contractual terms of the deferred consideration give rise to cash flows that are solely payments of principal and interest, therefore the receivable is accounted for as financial asset at amortised cost.

Los Quenuales

In December 2022, Glencore disposed of its 100% interest in Los Quenuales, a zinc-lead-silver mine in Peru, to Alpayana S.A for $10 million in cash. Conditional on completion of the transaction, Glencore earlier settled its silver streaming arrangement over one of Los Quenuales' mining properties with Wheaton Precious Metals for a payment of $132 million.

Access World

In December 2022, Glencore disposed of its 100% interest in the Access World Group, a global commodities storage and logistics group, for $180 million. $40 million was received in December and, after closing adjustments, $115 million is receivable over 2023. The contractual terms of the deferred consideration give rise to cash flows that are solely payments of principal and interest, therefore the receivable is accounted for as financial asset at amortised cost.

26. Acquisition and disposal of subsidiaries and other entities *continued*

2021 Disposals

The carrying value of the assets and liabilities over which control was lost and consideration receivable from the 2021 disposals are detailed below:

US$ million	Mopani	Chemoil Terminals	Others	**Total**
Non-current assets				
Property, plant and equipment	748	158	20	926
Advances and loans	5	–	–	5
	753	158	20	**931**
Current assets				
Inventories	168	–	–	168
Accounts receivable	99	3	14	116
Prepaid expenses	3	–	–	3
Cash and cash equivalents	–	10	10	20
	270	13	24	**307**
Non-current liabilities				
Non-current borrowings	–	(6)	–	(6)
Deferred tax liabilities	–	(18)	(1)	(19)
Non-current provisions	(55)	–	(61)	(116)
Post-retirement and other employee benefits	(9)	–	–	(9)
	(64)	(24)	(62)	**(150)**
Current liabilities				
Borrowings	–	(1)	(1)	(2)
Accounts payable	(81)	(8)	–	(89)
Provisions	(23)	–	(16)	(39)
Income tax payable	(12)	–	–	(12)
	(116)	(9)	(17)	**(142)**
Carrying value of net assets disposed	**843**	**138**	**(35)**	**946**
Cash and cash equivalents received	–	(248)	(24)	(272)
Future consideration	(838)	–	–	(838)
Net loss/(gain) on disposal before non-controlling interest	**5**	**(110)**	**(59)**	**(164)**
Derecognition of non-controlling interest	1,017	–	–	1,017
Net loss/(gain) on disposal after non-controlling interest	**1,022**	**(110)**	**(59)**	**853**
Cash and cash equivalents received	–	248	24	272
Less: cash and cash equivalents disposed	–	(10)	(10)	(20)
Net cash received in disposal	**–**	**238**	**14**	**252**

Mopani

On 31 March 2021, Glencore completed the disposal of its 90% interest in Mopani to ZCCM Investments Holdings plc, the holder of the remaining 10% interest in Mopani, in exchange for $1 and the rights to offtake copper and other metals from Mopani until $1.5 billion of existing intercompany debt (the 'transaction debt') has been repaid to Glencore. The repayment of the transaction debt is based on Glencore receiving physical commodities from Mopani through its offtake rights and applying fixed percentages of annual gross revenues generated from the sale of such commodities against the transaction debt until it is fully repaid. As Glencore is no longer able to unilaterally direct the key strategic, operating and capital decisions of Mopani, it was deemed to have disposed of its controlling interest at the fair value of the transaction debt on the date of completion, being $838 million. Fair value was determined using a discounted cash flow model of the projected amount and timing of metal volumes received from Mopani under the offtake rights and market forecasts of commodity prices, discounted using an asset specific discount rate of 11.4%.

The net loss on disposal reflects the derecognition to the statement of income of the previously recognised book value of the non-controlling interest equity balance, which largely related to the non-controlling interests' share of historical impairments and losses, and resulting net liabilities in Mopani.

Chemoil Terminals

On 17 December 2021, Glencore completed the disposal of its 100% interest in Chemoil Terminals LLC, which owns the Long Beach and Carson oil products storage terminals in California, for a consideration of $248 million.

27. Financial and capital risk management

Financial risks arising in the normal course of business from Glencore's operations comprise market risk (including commodity price risk, interest rate risk and currency risk), credit risk (including performance risk) and liquidity risk. It is Glencore's policy and practice to identify and, where appropriate and practical, actively manage such risks (for management of 'margin' risk within Glencore's extensive and diversified industrial portfolio, refer net present value at risk below) to support its objectives in managing its capital and future financial security and flexibility. Glencore's overall risk management programme focuses on the unpredictability of financial markets and seeks to protect its financial security and flexibility by using derivative financial instruments where possible to substantially hedge these financial risks. Glencore's finance and risk professionals, working in coordination with the commodity departments, monitor, manage and report regularly to senior management and the Board of Directors on the approach and effectiveness in managing financial risks along with the financial exposures facing the Group.

Glencore's objectives in managing its 'capital attributable to equity holders' include preserving its overall financial health and strength for the benefit of all stakeholders, maintaining an optimal capital structure in order to provide a high degree of financial flexibility at an attractive cost of capital and safeguarding its ability to continue as a going concern, while generating sustainable long-term profitability. Central to meeting these objectives is maintaining an investment grade credit rating status. Glencore's current credit ratings are Baa1 (positive) from Moody's and BBB+ (positive) from S&P.

Distribution policy and other capital management initiatives

Glencore's base cash distribution policy comprises two components: (1) a fixed $1 billion component and (2) a variable element representing 25% of free cash flow generated by our industrial assets during the preceding year. Distributions are expected to be formally declared by the Board annually (with the preliminary full-year results). Distributions, when declared, will be settled equally in May/June and September of the year they are declared in. In addition, reflecting the Group's through the cycle Net debt objective of c.$10 billion, and consideration of the cyclical nature of the industry and other relevant factors, the Board could declare additional distributions to be included with the distribution confirmed with respect to the prior year, consider top-up distributions during the year and/or initiate or continue share buyback programmes. Notwithstanding that the cash distribution is declared and paid in US dollars, shareholders will be able to elect to receive their distribution payments in Pounds Sterling, Euros or Swiss Francs based on the exchange rates in effect around the date of payment. Shareholders on the JSE will receive their distributions in South African Rand.

Commodity price risk

Glencore is exposed to price movements for the inventory it holds and the products it produces which are not held to meet priced forward contract obligations and forward priced purchase or sale contracts. Glencore manages a significant portion of this exposure through futures and options transactions on worldwide commodity exchanges or in over the counter (OTC) markets, to the extent available. Commodity price risk management activities are considered an integral part of Glencore's physical commodity marketing activities and the related assets and liabilities are included in other financial assets from and other financial liabilities to derivative counterparties, including clearing brokers and exchanges. Whilst it is Glencore's policy to substantially hedge its commodity price risks, there remains the possibility that the hedging instruments chosen may not always provide effective mitigation of the underlying price risk. The hedging instruments available to the marketing businesses may differ in specific characteristics to the risk exposure to be hedged, resulting in an ongoing and unavoidable basis risk exposure. Residual basis risk exposures represent a key focus point for Glencore's commodity department teams who actively engage in the management of such.

Value at risk

One of the tools used by Glencore to monitor and limit its primary market risk exposure, principally commodity price risk related to its physical marketing activities, is a value at risk (VaR) computation. VaR is a risk measurement technique which estimates a threshold for potential loss that could occur on risk positions as a result of movements in risk factors over a specified time horizon, given a specific level of confidence and based on a specific price history. The VaR methodology is a statistically defined, probability-based approach that takes into account market volatilities, as well as risk diversification by recognising offsetting positions and correlations between commodities and markets. In this way, risks can be measured consistently across markets and commodities and risk measures can be aggregated to derive a single risk value.

Glencore uses a VaR approach based on Monte Carlo simulations computed at a 95% confidence level and utilising a weighted data history for a one-day time horizon. Glencore's Board, as part of its annual review process in H2 2021, approved an increase in the Group's consolidated VaR limit (one day 95% confidence level) from $100 million to $150 million, with effect from 1 January 2022, which represents approximately 0.3% of total equity.

Prior to the Russia/Ukraine conflict, Glencore operated within the $150 million limit. Around the time of the invasion, the Group's VaR spiked due to the unprecedented levels of volatility in commodity markets (primarily energy but also certain metals), rather than due to any change in the Group's marketing positions or trading strategies. Given the market backdrop, prior to any likely breach, the Chief Risk Officer proactively consulted with the Board and received a temporary waiver from the application of a Group VaR limit. During the waiver period, the Chief Risk Officer reported regularly to the Board.

27. Financial and capital risk management *continued*

In mid-May, as some non-energy markets started to normalise, the temporary waiver was rescinded and replaced with a VaR limit of $200 million, to account for the statistically elevated energy market risk environment.

Similarly, prior to any breach, a temporary waiver was approved in mid-August due to increasing LNG volatilities as the European gas market was under significant pressure. In mid-September, following a comprehensive review, the Board determined it was appropriate to revert to the prior VaR limit of $150 million, but to exclude LNG from the Group VaR limit, while maintaining a separate multipronged LNG risk reporting and control structure, including the continued calculation and highlighting of VaR outcomes.

Position sheets are regularly distributed and monitored and daily Monte Carlo simulations are applied to the various business groups' net marketing positions to determine potential losses.

Market risk VaR (one-day 95% confidence level) ranges and year-end positions were as follows:

US$ million (all including LNG)	**2022**	2021
Year-end position [1]	88	72
Average during the year	158	54
High during the year	451	126
Low during the year	66	27

1 The year-end VaR, excluding LNG, was $76 million, comfortably within the Group's $150 million limit. Average Group VaR, excluding LNG since its exclusion in mid-September, was $70 million.

VaR does not purport to represent actual gains or losses in fair value in earnings to be incurred by Glencore, nor does Glencore claim that these VaR results are indicative of future market movements or representative of any actual impact on its future results. VaR should always be viewed in the context of its limitations; notably, the use of historical data as a proxy for estimating future events, market illiquidity risks and tail risks. Glencore recognises these limitations, and thus complements and continuously refines its VaR analysis by analysing forward looking stress scenarios, benchmarking against an alternative VaR computation based on historical simulations and back testing calculated VaR against the hypothetical portfolio returns arising in the next business day.

Glencore's VaR computation currently covers its business in the key base metals (including aluminium, nickel, zinc, copper and lead), cobalt, coal, coal freight, iron ore and oil products and natural gas/LNG, and assesses the open priced positions which are subject to price risk, including inventories of these commodities. Due to the lack of a liquid terminal market, Glencore does not include a VaR calculation for products such as alumina, molybdenum and some risk associated with metals' concentrates as it does not consider the nature of these markets to be suited to this type of analysis. Alternative measures are used to monitor exposures related to these products.

Net present value at risk

Glencore's future cash flows related to its forecast Industrial production activities are also exposed to commodity price movements. Glencore manages this exposure through a combination of portfolio diversification, occasional shorter-term hedging via futures and options transactions, insurance products and continuous internal monitoring, reporting and quantification of the underlying operations' estimated cash flows and valuations.

Interest rate risk

Glencore is exposed to various risks associated with the effects of fluctuations in the prevailing levels of market interest rates on its assets and liabilities and cash flows. Matching of assets and liabilities is utilised as the dominant method to hedge interest rate risks; other methods include the use of interest rate swaps and similar derivative instruments with the same critical terms as the underlying interest rate exposures. See details on swap instruments used below.

Floating rate debt which is predominantly used to fund fast turning working capital (interest is internally charged on the funding of this working capital) is now primarily based on SOFR plus an appropriate premium. Accordingly, prevailing market interest rates are continuously factored into transactional pricing and terms.

Assuming the amount of floating rate liabilities at the reporting period end were outstanding for the whole year, interest rates were 100 basis points higher/lower and all other variables held constant, Glencore's income for the year ended 31 December 2022 would decrease/increase by $188 million (2021: $197 million).

Interest rate benchmark reform

The Group established a multidisciplinary working group to assess the impact of LIBOR reform and prepare and implement a LIBOR transition plan. This transition plan included updating policies, systems and processes.

The Group is primarily exposed to the transition of USD LIBOR into an alternative reference rate. Exposures arise on derivatives and non-derivative financial assets and liabilities.

Notes to the financial statements *continued*

27. Financial and capital risk management *continued*

To cater for the transition of interest rate hedging arrangements, the Group has adhered to the ISDA Fallback Protocol. All USD LIBOR derivative contracts will transition to the Secured Overnight Funding Rate (SOFR) upon cessation date and in accordance with the terms of the Protocol. Starting from 1 January 2022, all newly executed interest rate hedging arrangements directly reference an alternative reference rate/SOFR.

To cater for the transition of interest rates within other financial and non-financial assets and liabilities, the Group has adopted a combination of Term SOFR, daily SOFR compounded in arrears, and the cost of funds quoted by the bank (if any) involved in such financing. The decision as to which one to adopt is made on a case-by-case basis and generally reflects the need to either have a fixed rate known in advance of the interest period (Term SOFR/cost of funds), or not (SOFR compounded in arrears). It may be that a particular agreement switches from one reference rate to another, with these decisions being made on a case-by-case basis.

As of 31 December 2022, only one financial debt facility had not transitioned to SOFR/cost of funds, being the medium term RCF.

Currency risk

The US dollar is the predominant functional currency of the Group. Currency risk is the risk of loss from movements in exchange rates related to transactions and balances in currencies other than the US dollar. Such transactions include operating expenditure, capital expenditure and to a lesser extent purchases and sales in currencies other than the functional currency. Purchases or sales of commodities concluded in currencies other than the functional currency, apart from certain limited domestic sales at industrial operations which act as a hedge against local operating costs, are ordinarily economically hedged through forward exchange contracts. Consequently, foreign exchange movements against the US dollar on recognised transactions would have an immaterial financial impact. Glencore enters into currency hedging transactions with leading financial institutions.

Glencore's debt-related payments (both principal and interest) are primarily denominated in or swapped using hedging instruments into US dollars. Glencore's operating expenses, being a small portion of its revenue base, are incurred in a mix of currencies of which the US dollar, Swiss Franc, Pound Sterling, Canadian dollar, Australian dollar, Euro, Kazakhstan Tenge, Colombian Peso and South African Rand are the predominant currencies.

Glencore has issued Euro, Swiss Franc, Sterling and Yen denominated bonds (see note 21). Cross currency swaps were concluded to hedge the currency risk on the principal and related interest payments of these bonds. These contracts were designated as fair value or cash flow hedges of the associated foreign currency risks. The critical terms of these swap contracts and their corresponding hedged items are matched and the Group expects a highly effective hedging relationship with the swap contracts and the value of the corresponding hedged items to change systematically in opposite direction in response to movements in the underlying exchange rates. The corresponding fair value and notional amounts of these derivatives is as follows:

	Notional amounts		Average FX rates		Carrying amount Assets (Note 29)		Carrying amount Liabilities (Note 29)		Average maturity[1]
US$ million	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021	
Cross currency swap agreements									
Cash flow hedges – currency risk									
Eurobonds	2,907	2,907	1.14	1.14	–	3	203	42	2025
Sterling bonds	–	798	–	1.60	–	–	–	129	2022
Swiss franc bonds	504	504	1.06	1.06	20	12	–	–	2026
Fair value hedges – currency and interest rate risk									
Eurobonds	3,947	3,947	1.22	1.22	3	67	903	285	2027
Yen bonds	–	81	–	0.01	–	5	–	–	2022
Sterling bonds	663	663	1.33	1.33	1	33	106	–	2026
Swiss franc bonds	347	347	1.07	1.07	–	11	24	5	2026
	8,368	9,247			24	131	1,236	461	
Interest rate swap agreements									
Fair value hedges – interest rate risk									
US$ bonds	7,200	6,450	–	–	2	272	507	12	2026
	15,568	**15,697**			**26**	**403**	**1,743**	**473**	

1 Refer to note 21 for details.

27. Financial and capital risk management *continued*

The carrying amounts of the fair value hedged items are as follows:

	Carrying amount of the hedged item (Note 21)		Of which, accumulated fair value hedge adjustments and FX	
US$ million	**2022**	2021	**2022**	2021
Foreign exchange and interest rate risk				
Eurobonds	3,017	3,672	(866)	(255)
Yen bonds	–	87	–	5
Swiss franc bonds	326	354	(20)	38
Sterling bonds	541	677	(122)	22
US$ bonds	6,657	6,638	(505)	226
	10,541	**11,428**	**(1,513)**	**36**

Credit risk

Credit risk arises from the possibility that counterparties may not be able to settle obligations due to Glencore within their agreed payment terms. Financial assets which potentially expose Glencore to credit risk consist principally of cash and cash equivalents, receivables and advances, derivative instruments and non-current advances and loans. Glencore's credit management process includes the assessment, monitoring and reporting of counterparty exposure on a regular basis. Glencore's cash and cash equivalents are placed overnight with a diverse group of highly credit rated financial institutions. Margin calls paid are similarly held with credit rated financial institutions. Glencore determines these instruments to have low credit risk at the reporting date. Credit risk with respect to receivables and advances is mitigated by the large number of customers comprising Glencore's customer base, their diversity across various industries and geographical areas, as well as Glencore's policy to mitigate these risks through letters of credit, netting, collateral and insurance arrangements where appropriate. Additionally, it is Glencore's policy that transactions and activities in trade-related financial instruments be concluded under master netting agreements or long form confirmations to enable offsetting of balances due to/from a common counterparty in the event of default by the counterparty. Glencore actively and continuously monitors the credit quality of its counterparties through internal reviews and a credit scoring process, which includes, where available, public credit ratings. Balances with counterparties not having a public investment grade or equivalent internal rating are typically enhanced to investment grade through the extensive use of credit enhancement products, such as letters of credit or insurance products. Glencore has a diverse customer base, with no customer representing more than 7.1% (2021: 4.7%) of its trade receivables (taking into account credit enhancements) or accounting for more than 3.2% of its revenues over the year ended 31 December 2022 (2021: 3.6%) (see notes 3 and 14).

The maximum exposure to credit risk (including performance risk – see below), without considering netting agreements or without taking account of any collateral held or other credit enhancements, is equal to the carrying amount of Glencore's financial assets (see note 28) and physically settled advances (see notes 12 and 14).

Management information used to monitor credit risk indicates that the prima facie risk profile % categories of financial assets which are subject to review for impairment under IFRS 9, is as set out below. The total balance for those assets as at 31 December 2022 is $11,469 million (2021: $10,765 million)(see notes 12, 14 and 15).

in %	**2022**	2021
AAA to AA-	8	8
A+ to A-	55	59
BBB+ to BBB-	17	11
BB+ to BB-	6	3
B+ to B-	8	8
CCC+ and below	6	11

Movements in credit losses for accounts receivable and advances and loans are shown in notes 12 and 14.

Notes to the financial statements *continued*

27. Financial and capital risk management *continued*

Performance risk

Performance risk (part of the broader credit risk subject matter, discussed above) is inherent in contracts, with agreements in the future, to physically purchase or sell commodities with fixed price attributes, and arises from the possibility that counterparties may not be willing or able to meet their future contractual physical sale or purchase obligations to/from Glencore. Glencore undertakes the assessment, monitoring and reporting of performance risk within its overall credit management process. Glencore's market breadth, diversified supplier and customer base as well as the standard pricing mechanism in the vast majority of Glencore's commodity portfolio which does not fix the primary commodity price beyond three months, ensure that performance risk is adequately mitigated.

The commodity industry has trended towards shorter-term fixed price contract periods, in part to mitigate against such potential performance risk, but also due to the continuous development of transparent and liquid spot commodity markets, with their associated derivative products and indexes.

Liquidity risk

Liquidity risk is the risk that Glencore is unable to meet its payment obligations when due, or that it is unable, on an ongoing basis, to borrow funds in the market on an unsecured or secured basis at an acceptable price to fund actual or proposed commitments. Prudent liquidity risk management implies maintaining sufficient cash and cash equivalents and availability of adequate committed funding facilities. Glencore has set itself an internal minimum liquidity target to maintain at all times, including via available committed undrawn credit facilities, of $3 billion (2021: $3 billion), which has purposely been substantially exceeded in recent years, accounting for the more volatile market backdrop. Glencore's credit profile, diversified funding sources and committed credit facilities, ensure that sufficient liquid funds are maintained to meet its liquidity requirements. As part of its liquidity management, Glencore closely monitors and plans for its future capital expenditure, working capital needs and proposed investments, as well as credit facility refinancing/extension requirements, well ahead of time (see notes 1, 12, 21, 22 and 25).

As at 31 December 2022, Glencore had available committed undrawn credit facilities and cash amounting to $13,000 million (2021: $10,296 million), refer to Other reconciliations section. The maturity profile of Glencore's financial liabilities based on the contractual terms is presented in the table below.

The liquidity risk related to physical forward purchase obligations represents the gross contractual cash outflows expected to be paid upon transfer of control of the underlying physical commodity. Gross cash inflows expected from physical forward sales are not presented in the below table, but would approximate the expected gross cash outflows related to forward purchase obligations plus an appropriate margin. Prior year balances have been restated to conform with current year presentation.

The gross liquidity risk relating to cross currency swaps entered into for the purposes of hedging foreign currency and interest rate risks arising from the Group's non-US dollar denominated bonds is presented below. The amounts reflect the expected gross settlement of the US dollar pay leg of these swaps. The inflows from the related foreign currency receive leg of these swaps are not presented in the below table, but would approximate the foreign currency equivalent of the US dollar pay leg. Counterparty settlement date risk related to these swaps is limited, as the Group has entered into margining arrangements for both the outflow and inflow legs of the swap.

Notes to the financial statements *continued*

27. Financial and capital risk management *continued*

2022

US$ million	After 5 years	Due 3 - 5 years	Due 2 - 3 years	Due 1 - 2 years	Due 0 - 1 year	**Total**
Non-derivative financial liabilities						
Borrowings excluding lease liabilities, fair value hedge adjustments and other non-cash items	8,203	4,330	3,262	3,350	9,821	28,966
Expected future interest payments	2,876	722	456	553	720	5,327
Lease liabilities – undiscounted	637	196	167	328	526	1,854
Accounts payable	–	–	–	–	26,884	26,884
Derivative financial liabilities						
Physical forward purchases	13,078	25,750	26,884	32,321	58,919	156,952
Cross currency swaps	2,840	2,408	1,289	1,138	2,072	9,747
Other financial liabilities[1]	384	242	296	63	2,090	3,075
Total	**28,018**	**33,648**	**32,354**	**37,753**	**101,032**	**232,805**

2021

US$ million	After 5 years	Due 3 - 5 years	Due 2 - 3 years	Due 1 - 2 years	Due 0 - 1 year	**Total**
Non-derivative financial liabilities						
Borrowings excluding lease liabilities, fair value hedge adjustments and other non-cash items	10,310	6,365	3,014	6,106	7,496	33,291
Expected future interest payments	3,219	861	547	716	830	6,173
Lease liabilities – undiscounted	730	257	209	345	596	2,137
Accounts payable	–	–	–	–	26,945	26,945
Derivative financial liabilities						
Physical forward purchases	7,920	16,260	15,023	27,121	54,595	120,919
Cross currency swaps	3,088	3,242	1,034	1,895	1,109	10,368
Other financial liabilities[1]	108	131	21	32	3,743	4,035
Total	**25,375**	**27,116**	**19,848**	**36,215**	**95,314**	**203,868**

1 Other financial liabilities exclude physical forwards and cross currency swaps as separately disclosed.

Notes to the financial statements *continued*

28. Financial instruments

Fair value of financial instruments

The following tables present the carrying values and fair values of Glencore's financial instruments. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (most advantageous) market at the measurement date under current market conditions. Where available, market values have been used to determine fair values. When market values are not available, fair values have been calculated by discounting expected cash flows at prevailing market interest and exchange rates. The estimated fair values have been determined using market information and appropriate valuation methodologies, but are not necessarily indicative of the amounts that Glencore could realise in the normal course of business.

The financial assets and liabilities are presented by class in the tables below at their carrying values, which generally approximate the fair values with the exception of $27,398 million (2021: $33,023 million) of borrowings, the fair value of which at 31 December 2022 was $26,675 million (2021: $34,169 million). $6,918 million (2021: $10,132 million) represents the listed portion of the borrowing portfolio, based on quoted prices on active markets (a Level 1 fair value measurement), and $19,757 million (2021: $24,037 million) is based on observable market prices (a Level 2 fair value measurement).

2022 US$ million	Amortised cost	FVTPL[1]	FVTOCI[2]	**Total**
Assets				
Other investments	–	37	419	456
Non-current other financial assets	–	206	–	206
Advances and loans	729	293	–	1,022
Accounts receivable	16,019	5,627	–	21,646
Other financial assets	–	6,109	–	6,109
Cash and cash equivalents	1,923	–	–	1,923
Total financial assets	**18,671**	**12,272**	**419**	**31,362**
Liabilities				
Borrowings	28,777	–	–	28,777
Non-current other financial liabilities	14	2,041	–	2,055
Accounts payable	12,703	14,181	–	26,884
Other financial liabilities	–	4,882	–	4,882
Total financial liabilities	**41,494**	**21,104**	**–**	**62,598**

2021 US$ million	Amortised cost	FVTPL[1]	FVTOCI[2]	**Total**
Assets				
Other investments	–	–	1,620	1,620
Non-current other financial assets	–	458	–	458
Advances and loans	795	163	–	958
Accounts receivable	11,672	5,523	–	17,195
Other financial assets	–	4,636	–	4,636
Cash and cash equivalents	3,241	–	–	3,241
Total financial assets	**15,708**	**10,780**	**1,620**	**28,108**
Liabilities				
Borrowings	34,641	–	–	34,641
Non-current other financial liabilities	87	623	–	710
Accounts payable	13,139	13,806	–	26,945
Other financial liabilities	–	6,077	–	6,077
Total financial liabilities	**47,867**	**20,506**	**–**	**68,373**

1 FVTPL – Fair value through profit and loss.
2 FVTOCI – Fair value through other comprehensive income.

Notes to the financial statements *continued*

28. Financial instruments *continued*

Offsetting of financial assets and liabilities

In accordance with IAS 32 the Group reports financial assets and liabilities on a net basis in the consolidated statement of financial position only if there is a legally enforceable right to set off the recognised amounts and there is intention to settle on a net basis, or to realise the asset and settle the liability simultaneously. The financial assets and liabilities subject to offsetting, enforceable master netting and similar agreements as at 31 December 2022 and 2021 were as follows:

2022 US$ million	Amounts eligible for set off under netting agreements: Gross amount	Amounts offset	**Net amount**	Related amounts not set off under netting agreements: Financial instruments	Financial collateral	Net amount	**Amounts not subject to netting agreements**	**Total as presented in the consolidated statement of financial position**
Derivative assets[1]	3,422	(2,141)	**1,281**	(608)	(26)	647	**5,034**	**6,315**
Derivative liabilities[1]	(5,929)	2,141	**(3,788)**	608	2,638	(542)	**(3,149)**	**(6,937)**

2021 US$ million	Amounts eligible for set off under netting agreements: Gross amount	Amounts offset	**Net amount**	Related amounts not set off under netting agreements: Financial instruments	Financial collateral	Net amount	**Amounts not subject to netting agreements**	**Total as presented in the consolidated statement of financial position**
Derivative assets[1]	19,327	(17,846)	**1,481**	(437)	(315)	729	**3,613**	**5,094**
Derivative liabilities[1]	(22,166)	17,846	**(4,320)**	437	3,522	(361)	**(2,467)**	**(6,787)**

1 Presented within current and non-current other financial assets and other financial liabilities.

For the financial assets and liabilities subject to enforceable master netting or similar arrangements above, each agreement between the Group and the counterparty allows for net settlement of the relevant financial assets and liabilities in the ordinary course of business. Where practical reasons may prevent net settlement, financial assets and liabilities may be settled on a gross basis, however, each party to the master netting or similar agreement will have the option to settle all such amounts on a net basis in the event of default of the other party. Per the terms of each agreement, an event of default includes failure by a party to make payment when due, failure by a party to perform any obligation required by the agreement (other than payment) if such failure is not remedied within periods of 30 to 60 days after notice of such failure is given to the party or bankruptcy.

29. Fair value measurements

Fair values are primarily determined using quoted market prices or standard pricing models using observable market inputs where available and are presented to reflect the expected gross future cash in/outflows. Glencore classifies the fair values of its financial instruments into a three-level hierarchy based on the degree of the source and observability of the inputs that are used to derive the fair value of the financial asset or liability as follows:

Level 1 Inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that Glencore can assess at the measurement date; or

Level 2 Inputs other than quoted inputs included in Level 1 that are observable for the assets or liabilities, either directly or indirectly; or

Level 3 Unobservable inputs for the assets or liabilities, requiring Glencore to make market-based assumptions.

Level 1 classifications primarily include futures with a tenor of less than one year and options that are exchange traded, whereas Level 2 classifications primarily include futures with a tenor greater than one year, over the counter options, swaps and physical forward transactions which derive their fair value primarily from exchange quotes and readily observable broker quotes. Level 3 classifications primarily include physical forward transactions which derive their fair value predominantly from models that use broker quotes and applicable market-based estimates surrounding location, quality and credit differentials and financial liabilities linked to the fair value of certain mining operations. In circumstances where Glencore cannot verify fair value with observable market inputs (Level 3 fair values), it is possible that a different valuation model could produce a materially different estimate of fair value.

It is Glencore's policy that transactions and activities in trade-related financial instruments be concluded under master netting agreements or long form confirmations to enable balances due to/from a common counterparty to be offset in the event of default, insolvency or bankruptcy by the counterparty.

29. Fair value measurements *continued*

The following tables show the fair values of the derivative financial instruments including trade-related financial and physical forward purchase and sale commitments by type of contract and non-current other financial assets and liabilities as at 31 December 2022 and 2021. Other assets and liabilities which are measured at fair value on a recurring basis are marketing inventories, other investments, cash and cash equivalents. There are no non-recurring fair value measurements.

Financial assets

2022

US$ million	Level 1	Level 2	Level 3	**Total**
Financial assets				
Trade receivables	–	5,426	–	**5,426**
Contingent consideration	–	–	128	**128**
Other receivables	–	–	73	**73**
Other non-current receivables and loans	–	–	22	**22**
Convertible loan	–	–	168	**168**
Non-current contingent consideration	–	–	103	**103**
Other investments	280	176	–	**456**
Financial assets	**280**	**5,602**	**494**	**6,376**
Other financial assets				
Commodity-related contracts				
Futures	809	156	–	**965**
Options	120	4	–	**124**
Swaps	40	165	18	**223**
Physical forwards	–	1,786	2,949	**4,735**
Financial contracts				
Foreign currency and interest rate contracts	–	62	–	**62**
Current other financial assets	**969**	**2,173**	**2,967**	**6,109**
Non-current other financial assets				
Cross currency swaps	–	24	–	**24**
Foreign currency and interest rate contracts	–	1	–	**1**
Purchased call options over Glencore shares[1]	–	181	–	**181**
Non-current other financial assets	**–**	**206**	**–**	**206**
Total	**1,249**	**7,981**	**3,461**	**12,691**

1 Call options over the Company's shares in relation to conversion rights of the $500 million non-dilutive convertible bond, due in 2025.

29. Fair value measurements *continued*

2021

US$ million	Level 1	Level 2	Level 3	**Total**
Financial assets				
Trade receivables[2]	–	5,269	–	**5,269**
Contingent consideration[2]	–	–	175	**175**
Other receivables[2]	–	–	79	**79**
Other non-current receivables and loans[2]	–	–	28	**28**
Non-current contingent consideration	–	–	135	**135**
Other investments	1,536	84	–	**1,620**
Financial assets	**1,536**	**5,353**	**417**	**7,306**
Other financial assets				
Commodity-related contracts				
Futures[3]	420	138	–	**558**
Options	133	31	–	**164**
Swaps[3]	5	245	40	**290**
Physical forwards	–	2,878	646	**3,524**
Financial contracts				
Cross currency swaps	–	5	–	**5**
Foreign currency and interest rate contracts	–	95	–	**95**
Current other financial assets	**558**	**3,392**	**686**	**4,636**
Non-current other financial assets				
Cross currency swaps	–	125	–	**125**
Foreign currency and interest rate contracts	–	272	–	**272**
Purchased call options over Glencore shares[1]	–	61	–	**61**
Non-current other financial assets	**–**	**458**	**–**	**458**
Total	**2,094**	**9,203**	**1,103**	**12,400**

1 Call options over the Company's shares in relation to conversion rights of the $500 million non-dilutive convertible bond, due in 2025.
2 Prior year Level 3 other receivables have increased by $79 million and Level 3 other non-current receivables and loans have increased by $28 million after being restated to conform with current year presentation of financial assets.
3 Commodity-related contracts have been restated to conform with current year presentation of financial assets and commodity-related contracts classification. $251 million Level 1 and $9 million Level 2 swaps have been reclassified as $240 million Level 1 and $20 million Level 2 futures.

Notes to the financial statements *continued*

29. Fair value measurements *continued*

Financial liabilities

2022

US$ million	Level 1	Level 2	Level 3	**Total**
Financial liabilities				
Accounts payable	–	14,079	–	**14,079**
Non-discretionary dividend obligation[1]	–	–	102	**102**
Financial liabilities	**–**	**14,079**	**102**	**14,181**
Other financial liabilities				
Commodity-related contracts				
Futures	714	459	–	**1,173**
Options	32	119	–	**151**
Swaps	–	660	–	**660**
Physical forwards	–	2,498	113	**2,611**
Financial contracts				
Cross currency swaps	–	181	–	**181**
Foreign currency and interest rate contracts	1	105	–	**106**
Current other financial liabilities	**747**	**4,022**	**113**	**4,882**
Non-current other financial liabilities				
Cross currency swaps	–	1,055	–	**1,055**
Foreign currency and interest rate contracts	–	490	–	**490**
Non-discretionary dividend obligation[1]	–	–	219	**219**
Option over non-controlling interest in Ale	–	–	22	**22**
Contingent consideration	–	–	74	**74**
Embedded call options over Glencore shares[2]	–	181	–	**181**
Non-current other financial liabilities	**–**	**1,726**	**315**	**2,041**
Total	**747**	**19,827**	**530**	**21,104**

1 A ZAR denominated derivative liability payable to ARM Coal, a partner in one of the Group's principal coal joint operations based in South Africa. The liability arises from ARM Coal's rights as an investor to a share of agreed free cash flows from certain coal operations in South Africa and is valued based on those cash flows using a risk-adjusted discount rate. The derivative liability is settled over the life of those operations with a modelled mine life of 13 years as at 31 December 2022.
2 Embedded call option bifurcated from the 2025 convertible bond.

29. Fair value measurements *continued*

2021

US$ million	Level 1	Level 2	Level 3	**Total**
Financial liabilities				
Accounts payable	–	13,806	–	**13,806**
Financial liabilities	**–**	**13,806**	**–**	**13,806**
Other financial liabilities				
Commodity-related contracts				
Futures[3]	2,126	365	–	**2,491**
Options	52	92	–	**144**
Swaps[3]	859	161	–	**1,020**
Physical forwards	–	1,872	235	**2,107**
Financial contracts				
Cross currency swaps	–	227	–	**227**
Foreign currency and interest rate contracts	–	88	–	**88**
Current other financial liabilities	**3,037**	**2,805**	**235**	**6,077**
Non-current other financial liabilities				
Cross currency swaps	–	331	–	**331**
Foreign currency and interest rate contracts	–	12	–	**12**
Non-discretionary dividend obligation[1]	–	–	148	**148**
Option over non-controlling interest in Ale	–	–	22	**22**
Contingent consideration	–	–	49	**49**
Embedded call options over Glencore shares[2]	–	61	–	**61**
Non-current other financial liabilities	**–**	**404**	**219**	**623**
Total	**3,037**	**17,015**	**454**	**20,506**

1 A ZAR denominated derivative liability payable to ARM Coal, a partner in one of the Group's principal coal joint operations based in South Africa. The liability arises from ARM Coal's rights as an investor to a share of agreed free cash flows from certain coal operations in South Africa and is valued based on those cash flows using a risk-adjusted discount rate. The derivative liability is settled over the life of those operations with a modelled mine life of 13 years as at 31 December 2022.
2 Embedded call option bifurcated from the 2025 convertible bond.
3 Prior-year balances have been restated to conform with current year presentation of commodity-related contracts classification. $140 million Level 1 and $14 million Level 2 swaps have been reclassified as $133 million Level 1 and $21 million Level 2 futures.

Notes to the financial statements *continued*

29. Fair value measurements *continued*

The following table shows the net changes in fair value of Level 3 other financial assets and other financial liabilities:

US$ million	Contingent consideration	Convertible loan	Physical forwards	Swaps	Other[1]	Total Level 3
1 January 2022	261	–	411	40	(63)	**649**
Total gain recognised in revenue	–	–	231	67	–	**298**
Total gain/(loss) recognised in cost of goods	–	–	2,403	(70)	–	**2,333**
Acquisition	(20)	200	–	–	–	**180**
Fair value recognised in other income/(expense)	105	(32)	–	–	(173)	**(100)**
Realised	(189)	–	(209)	(19)	(12)	**(429)**
31 December 2022	**157**	**168**	**2,836**	**18**	**(248)**	**2,931**
1 January 2021	376	–	6	–	(70)	**312**
Total gain recognised in revenue	–	–	117	337	–	**454**
Total gain/(loss) recognised in cost of goods	–	–	389	(297)	–	**92**
Fair value recognised in other income/(expense)	26	–	–	–	7	**33**
Realised	(141)	–	(101)	–	–	**(242)**
31 December 2021	**261**	**–**	**411**	**40**	**(63)**	**649**

1 Certain prior year balances have been restated to conform with current year presentation of financial assets.

During the year, no amounts were transferred between Level 1 and Level 2 of the fair value hierarchy and no amounts were transferred into or out of Level 3 of the fair value hierarchy for either other financial assets or other financial liabilities.

Fair value of financial assets / financial liabilities

Some of the Group's financial assets and financial liabilities are measured at fair value at the end of each reporting period.

Futures, options and swaps classified as Level 1 financial assets and liabilities are measured using quoted prices in an active market.

Accounts receivable and payables, and certain futures, options, swaps, physical forwards, cross currency swaps, foreign currency and interest rate contracts classified as Level 2 financial assets and liabilities are measured using discounted cash flow models. Key inputs include observable quoted prices sourced from exchanges or traded reference indices in active markets for identical assets or liabilities. Prices are adjusted by a discount rate which captures the time value of money and counterparty credit considerations, as required.

Call options over Glencore shares classified as Level 2 financial assets and liabilities are measured using an option pricing model. Key inputs include the current price of Glencore shares, strike price, maturity date of the underlying convertible debt security, risk-free rate and volatility.

Given the extent to which the Group recognises financial instrument assets and liabilities at fair value, the preparation of the Group's consolidated financial statements requires management to consider on an on-going basis, the key valuation metrics and judgements involved in the determination of the fair value of financial instruments. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgement. Management reviewed the key valuation metrics, assumptions and methodologies involved in the determination of the Level 3 fair value of financial instruments and determined that the valuations were materially reasonable.

The following table provides information on the valuation techniques and inputs used to determine the fair value of Level 3 financial assets and financial liabilities.

29. Fair value measurements *continued*

US$ million			**2022**	2021
Swaps – Level 3		Assets	**18**	**40**
		Liabilities	**–**	**–**
Valuation techniques and key inputs:	Discounted cash flow model			
Significant and other unobservable inputs:	– Long term commodity prices The significant unobservable inputs represent the long-term commodity prices to which the valuation remains sensitive to. A 10% increase/decrease in commodity price assumptions would result in a $2 million (2021: $4 million) adjustment to the current carrying value.			
Physical Forwards – Level 3		Assets	**2,949**	**646**
		Liabilities	**(113)**	**(235)**
Valuation techniques and key inputs:	Discounted cash flow model			
Significant and other unobservable inputs:	Valuation of the Group's commodity physical forward contracts categorised within this level is based on observable market prices that are adjusted by unobservable differentials, as required, including: – quality; – geographic location; – local supply & demand; – customer requirements; and – counterparty credit considerations. These unobservable inputs generally represent 1%–30% of the overall value of the instruments. The valuation prices are applied consistently to value physical forward sale and purchase contracts, and changing a particular input to reasonably possible alternative assumptions does not result in a material change in the underlying value of the portfolio. As at 31 December 2022, physical forward Level 3 assets relating to LNG contracts amount to $2,552 million (2021: $322 million) and liabilities of $19 million (2021: $12 million). Valuation of these contracts is based on observable Oil and Global Gas prices that are adjusted by unobservable differentials which collectively represent, but are not limited to, transportation, storage, liquification and regasification premiums. The value of our Level 3 long term LNG physical supply contracts reflects the price dislocation between Europe and other international markets and uncertainty of pricing inputs beyond the observable range. There is limited observable LNG pricing data beyond 2025 and an estimation uncertainty exists over global gas supply and demand and to extent to which the current dislocation impacts long term LNG pricing. For the longer dated portion of the curve, complex modelling techniques are also required where there is limited observable market data. Extrapolation of observable pricing is applied and correlated to third party long-term forecast macro pricing assumptions for various Oil and Global Gas indices, on which the long-term LNG prices are based. Given the resulting inherent estimation uncertainty, reasonable valuation ranges are developed to reflect the expected transfer value of these arrangements to another market participant in accordance with IFRS 13. The Group considers the risks associated with realising market value from unobservable long term prices in selecting pricing from within those ranges. The potential impact of a 10% favourable and unfavourable change in the unobservable valuation inputs could result in a gain of $0.1 billion and loss of $0.1 billion, respectively, both of which would be reflected in the consolidated statement of income.			

29. Fair value measurements *continued*

US$ million			2022	2021
Contingent consideration and Other Receivables (Mototolo) – Level 3		Assets	**231**	**282**
		Liabilities	–	–
Valuation techniques and key inputs:	Discounted cash flow model			
Significant and other unobservable inputs:	– Long-term forecast commodity prices; and – Discount rates using weighted average cost of capital methodology; The significant unobservable inputs represent the long-term forecast commodity prices to which the valuation remains sensitive to. A 10% increase/decrease in commodity price assumptions would result in a $19 million (2021: $27 million) adjustment to the current carrying value.			
Contingent consideration (Orion) – Level 3		Assets	–	**28**
		Liabilities	–	–
Valuation techniques and key inputs:	Discounted cash flow model			
Significant and other unobservable inputs:	– Estimated production plan; – Long-term forecast commodity prices; and – Discount rates using weighted average cost of capital methodology. The significant unobservable inputs represent the long-term forecast commodity prices to which the valuation remains sensitive to. In 2021, a 10% increase in gold price would have resulted in no adjustment to the carrying value of the asset, while a 10% decrease in gold price would have resulted in a $9 million negative adjustment.			
Other receivables and non-current receivables and loans – Level 3		Assets	**95**	**107**
		Liabilities	–	–
Valuation techniques and key inputs:	Discounted cash flow model			
Significant and other unobservable inputs:	– Discount rates specific to the operation; and – Underlying business plans and forecasts. The valuation remains sensitive to repayment cash flows dependent upon the underlying business plans and forecasts. A one-year delay in the underlying cash flows would result in a $19 million (2021: $9 million) reduction to the current carrying value of the asset while bringing forward repayments by one-year would result in a $11 million (2021: $8 million) increase.			
Convertible loan (Li-Cycle) – Level 3		Assets	**168**	–
		Liabilities	–	–
Valuation techniques and key inputs:	Discounted cash flow and option pricing model			
Significant and other unobservable inputs:	– Share price; and – Risk-free rate and volatility. The valuation remains sensitive to the share price and a 10% increase/decrease in share price assumptions would result in an $6 million adjustment to the current carrying value.			

Notes to the financial statements *continued*

29. Fair value measurements *continued*

US$ million			2022	2021
Non-discretionary dividend obligation (ARM Coal) – Level 3		Assets	–	–
		Liabilities	**(321)**	**(148)**
Valuation techniques:	Discounted cash flow model			
Significant and other unobservable inputs:	– Long-term forecast commodity prices; – Discount rates using weighted average cost of capital methodology; – Production models; – Operating costs; and – Capital expenditures. The resultant liability is essentially a discounted cash flow valuation of the underlying mining operation. Increases/decreases in forecast commodity prices will result in an increase/decrease to the value of the liability though this will be partially offset by associated increases/decreases in the assumed production levels, operating costs and capital expenditures, which are inherently linked to forecast commodity prices. The significant unobservable inputs represent the long-term forecast commodity prices to which the valuation remains sensitive to. A 10% increase/decrease in commodity price assumptions would result in an $108 million (2021: $94 million) adjustment to the current carrying value.			
Option over non-controlling interest (AleSat) – Level 3		Assets	–	–
		Liabilities	**(22)**	**(22)**
Valuation techniques and key inputs:	Discounted cash flow model The resultant liability is the value of the remaining minority stake in the subsidiary, measured as the higher value of the acquisition date valuation of the shares, and a discounted future earnings based valuation. The valuation is additionally sensitive to			
Significant unobservable inputs:	movement in the spot exchange rates between the Brazilian real and US dollar.			
Contingent consideration – Level 3		Assets	–	–
		Liabilities	**(74)**	**(49)**
Valuation techniques and key inputs:	Discounted cash flow models			
Significant and other unobservable inputs:	– Estimated production plans; – Forecast commodity prices; and – Discount rates using weighted average cost of capital methodology. The resultant liabilities was mainly determined using forecasted production estimates and assumed actual coal prices higher than a royalty trigger price. Should production volumes increase/decrease by 10% the value of the liability would increase/decrease by $7 million (2021: $6 million), and for any given quarter should commodity prices be lower than the royalty trigger, no amounts would be due under the price contingent royalty arrangement.			

Notes to the financial statements *continued*

30. Auditor's remuneration

US$ million	2022	2021[1]
Remuneration in respect of the audit of Glencore's consolidated financial statements	21	20
Other audit fees, primarily in respect of audits of accounts of subsidiaries	5	5
Audit-related assurance services[2]	2	3
Total audit and related assurance fees	**28**	**28**
Other assurance services[3]	1	1
Total non-audit fees	**1**	**1**
Total professional fees	**29**	**29**

1 2021 restated to better reflect the nature of audit services.
2 Audit-related assurance services primarily related to interim reviews of the Group's half-year accounts as well as bond issuances and comfort letters.
3 Other assurance services primarily comprises assurance in respect of certain aspects of the Group's sustainability reporting.

31. Future commitments

Capital expenditure for the acquisition of property, plant and equipment is generally funded through the cash flow generated by the respective industrial entities. As at 31 December 2022, $1,295 million (2021: $1,111 million), of which 94% (2021: 86%) relates to expenditure to be incurred over the next year, was contractually committed for the acquisition of property, plant and equipment.

Certain of Glencore's exploration tenements and licences require it to spend a minimum amount per year on development activities, a significant portion of which would have been incurred in the ordinary course of operations. As at 31 December 2022, $118 million (2021: $118 million) of such development expenditures are to be incurred, of which 20% (2021: 27%) are for commitments to be settled over the next year.

As part of Glencore's ordinary sourcing and procurement of physical commodities and other ordinary marketing obligations, the selling party may request that a financial institution act as either a) the paying party upon the delivery of product and qualifying documents through the issuance of a letter of credit or b) the guarantor by way of issuing a bank guarantee accepting responsibility for Glencore's contractual obligations. Similarly, Glencore is required to post rehabilitation and pension guarantees in respect of some of these future, primarily industrial, long-term obligations. As at 31 December 2022, $7,965 million (2021: $8,965 million) of procurement and $4,256 million (2021: $4,353 million) of rehabilitation and pension commitments have been issued on behalf of Glencore, which will generally be settled simultaneously with the payment for such commodity and rehabilitation and pension obligations.

Astron related commitments

As part of the regulatory approval process relating to the acquisition of a 75% shareholding in Astron Energy, Glencore and Astron Energy entered into certain commitments (subject to variation for good cause) with the South Africa Competition Tribunal and the South African Economic Development Department. These commitments include investment expenditure of up to ZAR 6.5 billion ($384 million) over the period to 2024 so as to debottleneck and improve the performance of the Cape Town oil refinery, contribute to the rebranding of certain retail sites and establish a development fund to support small and black-owned businesses in Astron Energy's value chain.

32. Contingent liabilities

There were no corporate guarantees in favour of third parties as at 31 December 2022 (2021: None), except those disclosed in note 11. The Group is subject to various legal and regulatory proceedings as detailed below. These contingent liabilities are reviewed on a regular basis and where appropriate an estimate is made of the potential financial impact on the Group. As at 31 December 2022 and 2021, it was not feasible to make such an assessment.

Legal and regulatory proceedings

Under IAS 37 Provisions, Contingent Liabilities and Contingent Assets, a provision is recognised when Glencore has a present obligation (legal or constructive), as a result of a past event, and it is probable that an outflow of resources embodying economic benefits, that can be reliably estimated, will be required to settle the liability. A contingent liability is a possible obligation that arises from a past event and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of Glencore. If it is not clear whether there is a present obligation, a past event is deemed to give rise to a present obligation if, taking account of all available evidence, it is more likely than not that a present obligation exists at the end of the reporting period. When a present obligation arises but it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation or the amount of the obligation cannot be measured with sufficient reliability, a contingent liability is disclosed.

Investigations by regulatory and enforcement authorities

As described in note 23, the Group remains subject to investigations by the OAG and Dutch authorities. At 31 December 2022, taking account of all available evidence, the Investigations Committee concluded that, with respect to these investigations, it is not probable that a present obligation existed at the end of the reporting period. In addition, the timing and amount, if any, of the possible financial effects (such as fines, penalties or damages, which could be material) or other consequences, including external costs, from the OAG and Dutch investigations and any change in their scope are not currently possible to predict or estimate.

The Group notes that other authorities may commence investigations against the Group in connection with the resolved investigations or the matters under investigation. In respect of these investigations, taking into account all available evidence, the Investigations Committee does not consider it probable that a present obligation existed in relation to these potential investigations as at the balance sheet date, and the amount of any financial effects, which could be material, is not currently possible to predict or estimate.

Claims against the Company in connection with investigations by regulatory and enforcement authorities

Claims have been issued against the Group in the United Kingdom in connection with the various Government investigations, constituting claims on behalf of approximately 400 current and former shareholders. The claims are, inter alia, made under s90 of the Financial Services and Markets Act 2000 ('FSMA') relating to prospectus liability, while two currently include s90A FSMA claims relating to misstatements in other information by the Company. The bases for the claims are that the prospectuses issued in 2011 and 2013 and other published information by the Company were untrue, misleading or contained omissions. The claims are at a very early stage.

The Group may be the subject of further legal claims brought by other parties in connection with the Government investigations, including collective, group or representative actions.

In respect of these claims, taking into account all available evidence, the Investigations Committee does not consider it probable that a present obligation existed in relation to these claims or potential claims as at the balance sheet date, and the amount of any financial effects, which could be material, is not currently possible to predict or estimate.

Other legal proceedings

Other claims and unresolved disputes are pending against Glencore. However, based on the Group's current assessment of these matters any future individually material financial obligations are considered to be remote.

Environmental contingencies

Glencore's operations are subject to various environmental laws and regulations. Glencore is not aware of any material non-compliance with those laws and regulations. Glencore accrues for environmental contingencies when such contingencies are probable and reasonably estimable. Such accruals are adjusted as new information develops or circumstances change. Recoveries of environmental remediation costs from insurance companies and other parties are recorded as assets when the recoveries are virtually certain. At this time, Glencore is unaware of any material environmental incidents at its locations. Any potential liability arising from environmental incidents in the ordinary course of the Group's business would not usually be expected to have a material adverse effect on its consolidated income, financial position or cash flows.

33. Related party transactions

In the normal course of business, Glencore enters into various arm's length transactions with related parties, including fixed price commitments to sell and to purchase commodities, forward sale and purchase contracts, agency agreements and management service agreements. Outstanding balances at period end are unsecured and settlement occurs in cash (see notes 12, 14 and 25). There have been no guarantees provided or received for any related party receivables or payables.

All transactions between Glencore and its subsidiaries are eliminated on consolidation along with any unrealised profits and losses between its subsidiaries, associates and joint ventures. In 2022, sales and purchases with associates and joint ventures amounted to $3,941 million (2021: $3,877 million) and $8,091 million (2021: $8,021 million), respectively.

Remuneration of key management personnel

Glencore's key management personnel are the members of the Board of Directors, CEO, CFO, General Counsel and Head of the Industrial activities segment. The remuneration of Directors and other members of key management personnel recognised in the consolidated statement of income including salaries and other current employee benefits amounted to $29 million (2021: $27 million). Amounts expensed relating to long-term benefits or share-based payments to key management personnel amounted to $7 million (2021 restated: $4 million). Further details on remuneration of Directors are set out in the Directors' remuneration report on page 119.

34. Principal subsidiaries with material non-controlling interests

Non-controlling interest is comprised of the following:

US$ million	**2022**	2021
Kazzinc	1,156	1,368
Koniambo	(5,745)	(5,180)
Kamoto Copper Company (KCC)	88	474
Volcan	(201)	(106)
Other[1]	511	430
Total	**(4,191)**	**(3,014)**

1 Other comprises various subsidiaries in which no individual balance attributable to non-controlling interests is material, including a balance of $98 million relating to Mutanda. See below.

Renewal of Mutanda's mining licence and 5% dilution

Three mining permits ('permis d'exploitation') (PE662, PE643 and PE662) were successfully renewed by Mutanda Mining in 2022 for an additional period of 15 years. The renewal of the mining titles triggered the transfer of 5% of the equity of Mutanda Mining to the DRC government in accordance with the DRC Mining Code, which resulted in a $109 million non-controlling interest and an intangible asset related to the right to mine over a 15-year period being recognised (see note 10).

34. Principal subsidiaries with material non-controlling interests *continued*

Summarised financial information in respect of Glencore's subsidiaries that have material non-controlling interest as at 31 December 2022 and 2021, reflecting 100% of the underlying subsidiary's relevant figures, is set out below.

US$ million	Kazzinc	Koniambo	KCC	Volcan
31 December 2022				
Non-current assets	3,377	507	4,429	1,723
Current assets	1,613	519	1,351	241
Total assets	**4,990**	**1,026**	**5,780**	**1,964**
Non-current liabilities	494	15,019	9,602	1,256
Current liabilities	673	147	1,456	405
Total liabilities	**1,167**	**15,166**	**11,058**	**1,661**
Net assets	**3,823**	**(14,140)**	**(5,278)**	**303**
Equity attributable to owners of the Company	2,667	(8,395)	(5,366)	504
Non-controlling interest	1,156	(5,745)	88	(201)
Non-controlling interest %	30.3%	51.0%	25.0%	76.7%
2022				
Revenue	3,564	713	2,545	1,000
Expenses	(3,615)	(1,823)	(3,127)	(1,124)
Net loss for the year	**(51)**	**(1,110)**	**(582)**	**(124)**
Loss attributable to owners of the Company	(35)	(544)	(407)	(29)
Loss attributable to non-controlling interests	(16)	(566)	(175)	(95)
Total comprehensive loss for the year	**(51)**	**(1,110)**	**(582)**	**(124)**
Dividends paid to non-controlling interests	(196)	–	(211)	–
Net cash inflow/(outflow) from operating activities	549	(78)	898	234
Net cash outflow from investing activities	(335)	(19)	(393)	(245)
Net cash (outflow)/inflow from financing activities	(309)	112	(632)	(146)
Total net cash (outflow)/inflow	**(95)**	**15**	**(127)**	**(157)**

US$ million	Kazzinc	Koniambo	KCC	Volcan
31 December 2021				
Non-current assets	4,210	434	5,266	1,796
Current assets	1,515	461	1,135	400
Total assets	**5,725**	**895**	**6,401**	**2,196**
Non-current liabilities	721	13,822	9,313	980
Current liabilities	480	104	804	789
Total liabilities	**1,201**	**13,926**	**10,117**	**1,769**
Net assets	**4,524**	**(13,031)**	**(3,716)**	**427**
Equity attributable to owners of the Company	3,156	(7,851)	(4,190)	533
Non-controlling interest	1,368	(5,180)	474	(106)
Non-controlling interest %	30.3%	51.0%	25.0%	76.7%
2021				
Revenue	3,502	242	3,899	981
Expenses	(2,940)	(2,364)	(2,820)	(941)
Net profit/(loss) for the year	**562**	**(2,122)**	**1,079**	**40**
Profit/(loss) attributable to owners of the Company	392	(1,040)	837	9
Profit/(loss) attributable to non-controlling interests	170	(1,082)	242	31
Total comprehensive income/(loss) for the year	**562**	**(2,122)**	**1,079**	**40**
Dividends paid to non-controlling interests	(150)	–	–	–
Net cash inflow/(outflow) from operating activities	837	(165)	1,708	318
Net cash outflow from investing activities	(318)	(13)	(301)	(174)
Net cash (outflow)/inflow from financing activities	(394)	193	(1,294)	(28)
Total net cash inflow	**125**	**15**	**113**	**116**

Notes to the financial statements *continued*

35. Principal operating, finance and industrial subsidiaries and investments

	Country of incorporation	**% interest 2022**	% interest 2021	Main activity
Principal subsidiaries				
Industrial activities				
Cobar Management Pty Limited	Australia	100.0	100.0	Copper production
Compania Minera Lomas Bayas	Chile	100.0	100.0	Copper production
Complejo Metalurgico Altonorte SA	Chile	100.0	100.0	Copper production
Compania Minera Antapaccay S.A.	Peru	100.0	100.0	Copper production
Pasar Group	Philippines	78.2	78.2	Copper production
Glencore Recycling LLC	USA	100.0	100.0	Copper production
Polymet Mining Corp.	Canada	71.0	71.5	Copper production
Kamoto Copper Company SA[1]	DRC	75.0	75.0	Copper/Cobalt production
Mutanda Group	DRC	95.0	100.0	Copper/Cobalt production
Mount Isa Mines Limited	Australia	100.0	100.0	Copper/Zinc/Lead production
Kazzinc Ltd	Kazakhstan	69.7	69.7	Copper/Zinc/Lead production
Zhayremsky Gorno-Obogatitelny Kombinat JSC	Kazakhstan	69.7	69.7	Copper/Zinc/Lead production
Altyntau Kokshetau JSC	Kazakhstan	69.7	69.7	Gold production
Britannia Refined Metals Limited	UK	100.0	100.0	Lead production
Access World Group	Switzerland	–	100.0	Logistics services
Murrin Murrin Operations Pty Ltd	Australia	100.0	100.0	Nickel production
Koniambo Nickel S.A.S.[2]	New Caledonia	49.0	49.0	Nickel production
Glencore Nikkelverk AS	Norway	100.0	100.0	Nickel production
McArthur River Mining Pty Limited	Australia	100.0	100.0	Zinc production
Nordenhamer Zinkhütte GmbH	Germany	100.0	100.0	Zinc production
Asturiana de Zinc S.A.U.	Spain	100.0	100.0	Zinc production
Volcan Companja Minera S.A.A.[3]	Peru	23.3	23.3	Zinc production
Portovesme S.r.L.	Italy	100.0	100.0	Zinc/Lead production
Empresa Minera Los Quenuales S.A.	Peru	–	97.6	Zinc/Lead production
Sinchi Wayra Group	Bolivia	–	100.0	Zinc/Tin production

1 Refer to note 34.
2 The Group has control of Koniambo Nickel S.A.S. as a result of the ability to direct the key activities of the operation and to appoint key management personnel provided by the terms of the financing arrangements underlying the Koniambo project.
3 The Group has control of Volcan Compania Minera S.A.A. as a result of the ability to control the entity through the voting of its 63.0% of the voting shares (Class A); the economic interest is diluted by the outstanding non-voting shares (Class B).

Notes to the financial statements *continued*

35. Principal operating, finance and industrial subsidiaries and investments *continued*

	Country of incorporation	**% interest 2022**	% interest 2021	Main activity
Industrial activities				
Oakbridge Pty Limited	Australia	98.2	98.2	Coal production
Cumnock No. 1 Colliery Pty Limited	Australia	100.0	100.0	Coal production
Rolleston Coal Holdings Pty Limited	Australia	100.0	100.0	Coal production
Mangoola Coal Operations Pty Limited	Australia	100.0	100.0	Coal production
Mt Owen Pty Limited	Australia	100.0	100.0	Coal production
NC Coal Company Pty Limited	Australia	100.0	100.0	Coal production
Ravensworth Operations Pty Limited	Australia	100.0	100.0	Coal production
Ulan Coal Mines Pty Limited	Australia	100.0	100.0	Coal production
Prodeco group	Colombia	100.0	100.0	Coal production
Umcebo Mining (Pty) Ltd[4]	South Africa	48.7	48.7	Coal production
ARM Coal (Proprietary) Limited[4]	South Africa	47.5	47.5	Coal production
Carbones del Cerrejón Limited[5]	Anguilla	100.0	–	Coal production
Glencore Exploration Cameroon Ltd.	Bermuda	100.0	100.0	Oil production
Glencore Exploration (EG) Limited	Bermuda	100.0	100.0	Oil production
Petrochad (Mangara) Limited	Bermuda	–	100.0	Oil exploration/production
Astron Energy (Pty) Ltd	South Africa	72.0	72.0	Oil refining / distribution
Marketing activities and other operating and finance				
Xstrata Limited	UK	100.0	100.0	Holding
Glencore Australia Investment Holdings Pty Ltd	Australia	100.0	100.0	Holding
Glencore Operations Australia Pty Limited	Australia	100.0	100.0	Holding
Glencore Queensland Limited	Australia	100.0	100.0	Holding
Glencore Investment Pty Limited	Australia	100.0	100.0	Holding
Glencore Australia Holdings Pty Limited	Australia	100.0	100.0	Finance
Glencore Finance (Bermuda) Ltd.	Bermuda	100.0	100.0	Finance
Alesat Combustiveis S.A.	Brazil	88.0	88.0	Oil distribution
Topley Corporation	B.V.I.	100.0	100.0	Ship owner
Glencore Finance (Canada) Limited	Canada	100.0	100.0	Finance
Glencore Finance (Europe) Limited	Jersey	100.0	100.0	Finance
Glencore Capital Finance Designated Activity Company	Ireland	100.0	100.0	Finance
Finges Investment B.V.	Netherlands	100.0	100.0	Finance
Glencore (Schweiz) AG	Switzerland	100.0	100.0	Finance
Glencore Group Funding Limited	UAE	100.0	100.0	Finance
Glencore Funding LLC	USA	100.0	100.0	Finance
Glencore Australia Oil Pty Limited	Australia	100.0	100.0	Operating
Glencore Canada Corporation	Canada	100.0	100.0	Operating
Glencore Chile SpA	Chile	100.0	100.0	Operating
Glencore China Ltd.	China	100.0	100.0	Operating
Glencore Singapore Pte. Ltd.	Singapore	100.0	100.0	Operating
ST Shipping and Transport Pte. Ltd.	Singapore	100.0	100.0	Operating
Glencore AG (Ltd/SA)	Switzerland	100.0	100.0	Operating
Glencore International AG (Ltd/SA)	Switzerland	100.0	100.0	Operating
Glencore Commodities Ltd	UK	100.0	100.0	Operating
Glencore Energy UK Ltd.	UK	100.0	100.0	Operating
Glencore UK Ltd.	UK	100.0	100.0	Operating

4 Although Glencore holds less than 50% of the voting rights, it has the ability to exercise control over Umcebo as a result of shareholder agreements which provide Glencore the ability to control the Board of Directors.
5 In 2022, Glencore completed the acquisition of the remaining 66.67% interest in Cerrejón (see note 26).

Notes to the financial statements *continued*

35. Principal operating, finance and industrial subsidiaries and investments *continued*

	Country of incorporation	**% interest 2022**	% interest 2021	Main activity
Principal joint ventures[6]				
Viterra Group	Jersey	49.9	49.9	Agriculture business
Compania Minera Dona Ines de Collahuasi SCM	Chile	44.0	44.0	Copper production
Principal joint operation and other unincorporated arrangement[7]				
Bulga Joint Venture	Australia	87.5	85.9	Coal production
Hail Creek Joint Venture	Australia	84.7	84.7	Coal production
Hunter Valley Operations Joint Venture	Australia	49.0	49.0	Coal production
Liddell and Foybrook Joint Ventures	Australia	67.5	67.5	Coal production
Oaky Creek Coal Joint Venture	Australia	55.0	55.0	Coal production
United Wambo Joint Venture	Australia	47.5	47.5	Coal production
Goedgevonden Joint Venture	South Africa	74.0	74.0	Coal production
Ernest Henry Mining Pty Ltd	Australia	–	70.0	Copper production
Glencore Merafe Chrome Pooling and Share Joint Venture	South Africa	79.5	79.5	Ferroalloys production
Glencore Bakwena-Ba-Mogopa Rhovan Pooling and Sharing Joint Venture	South Africa	74.0	74.0	Vanadium production

6 The principal joint arrangements are accounted for as joint ventures as the shareholder agreements do not provide the Group the ability to solely control the entities.
7 Classified as joint operations under IFRS 11, as these joint arrangements convey a direct right to a share of the underlying operations' assets, liabilities, revenues and expenses. The Hail Creek interest is an 'other unincorporated arrangement' accounted for similar to a joint operation.

	Country of incorporation	**% interest 2022**	% interest 2021	Main activity
Principal associates				
Carbones del Cerrejón LLC[8]	Anguilla	–	33.3	Coal production
Newcastle Coal Shippers Pty Limited	Australia	50.2	50.2	Coal terminal
GS Coal Holdings Pty Ltd	Australia	50.0	50.0	Coal production
Richards Bay Coal Terminal Company Limited	South Africa	19.3	19.3	Coal terminal
Century Aluminum Company[9]	USA	46.1	46.4	Aluminium production
PT CITA Mineral Investindo Tbk	Indonesia	31.7	31.7	Alumina production
HG Storage International Limited	Jersey	49.0	49.0	Oil storage
Noranda Income Fund	Canada	25.0	25.0	Zinc production
Compania Minera Antamina S.A.	Peru	33.8	33.8	Zinc/Copper production
Minera Agua Rica Alumbrera Limited	Cayman Islands	43.7	25.0	Copper production

8 In 2022, Glencore completed the acquisition of the remaining 66.67% interest in Cerrejón (see note 26).
9 Represents the Group's economic interest in Century, comprising 42.9% (2021: 42.9%) voting interest and 3.2% non-voting interest (2021: 3.4%). Century is publicly traded on NASDAQ under the symbol CENX.

	Country of incorporation	**% interest 2022**	% interest 2021	Main activity
Other investments				
Shenzhen Energy Gas Investment Holding Co., Ltd	China	7.8	–	Energy distribution
EN+ GROUP IPJSC	Russia	10.6	10.6	Aluminium production

36. Subsequent events

- On 1 February 2023, the Group cancelled 286,200,066 of treasury shares amounting to $1,115 million. Following the cancellation, the total number of issued ordinary shares is 13,800,000,000 and the number of ordinary shares in treasury is 1,079,521,793.
- On 24 February 2023, the Group announced the commencement of a new $1.5 billion share buyback programme, with intended completion by the time of the Group's interim results announcement in August 2023.

Alternative performance measures

Alternative performance measures are denoted by the symbol ◊.

When assessing and discussing the Group's reported financial performance, financial position and cash flows, Glencore makes reference to Alternative performance measures (APMs), which are not defined or specified under the requirements of IFRS, but are derived from the financial statements prepared in accordance with IFRS. The APMs are consistent with how business performance is measured and reported within the internal management reporting to the Board and management and assist in providing meaningful analysis of the Group's results both internally and externally in discussions with the financial analyst and investment community.

The Group uses APMs to aid the comparability of information between reporting periods and segments and to aid the understanding of the activity taking place across the Group by adjusting for items that are of an infrequent nature and by aggregating or disaggregating (notably in the case of relevant material associates and joint ventures accounted for on an equity basis) certain IFRS measures. APMs are also used to approximate the underlying operating cash flow generation of the operations (Adjusted EBITDA).

Investments in the extractive industry are typically significant and the initial spend generally occurs over several years, 'upfront', prior to the operations generating cash. As a result, the investments are sometimes made with partners and an assessment to approximate the operating cash flow generation/pay-back of the investment (Adjusted EBITDA) is required. Against this backdrop, the key APMs used by Glencore are Adjusted EBITDA, Net funding/Net debt and the disaggregation of the equivalent key APMs of our relevant material associates and joint ventures ('Proportionate adjustment') to enable a consistent evaluation of the financial performance and returns attributable to the Group.

Adjusted EBITDA is a useful approximation of the operating cash flow generation by eliminating depreciation and amortisation adjustments. Adjusted EBITDA is not a direct measure of our liquidity, which is shown by our cash flow statement and needs to be considered in the context of our financial commitments.

Proportionate adjustments are useful to enable a consistent evaluation of the financial performance and returns available to the Group, irrespective of the differing accounting treatments required to account for our minority/joint ownership interests of our relevant material investments.

Net funding is an aggregation of IFRS measures (Borrowings less cash and cash equivalents) and Net debt is Net funding less Readily marketable inventories and provides a measure of our financial leverage and, through Net debt to Adjusted EBITDA relationships, provides an indication of relative financial strength and flexibility.

APMs used by Glencore may not be comparable with similarly titled measures and disclosures by other companies. APMs have limitations as an analytical tool, and a user of the financial statements should not consider these measures in isolation from, or as a substitute for, analysis of the Group's results of operations; and they may not be indicative of the Group's historical operating results, nor are they meant to be a projection or forecast of its future results.

Listed below are the definitions and reconciliations to the underlying IFRS measures of the various APMs used by the Group.

Proportionate adjustment

For internal reporting and analysis, management evaluates the performance of Antamina copper/zinc mine (34% owned) and Collahuasi copper mine (44% owned) under the proportionate consolidation method reflecting Glencore's proportionate share of the revenues, expenses, assets and liabilities of these investments. In January 2022, Glencore completed the acquisition of the remaining 66.67% interest in Cerrejón (coal), that it did not previously own (see note 26), increasing Glencore's ownership to 100% and providing it with the ability to exercise control and fully consolidate Cerrejón. Prior to the transaction, Glencore evaluated the performance of its 33.33% interest in Cerrejón under the proportionate consolidation method, such that 2021 segment comparatives reflect Glencore's proportionate share of the revenues, expenses, assets and liabilities of this investment.

Although Glencore has a voting interest in Volcan of 63%, its total economic interest is only 23.3%. For internal reporting and analysis, management evaluates the performance of Volcan under the equity method, reflecting the Group's relatively low 23.3% economic ownership in this fully ring-fenced listed entity, with its stand-alone, independent and separate capital structure. The impact is that we reflect 23.3% of Volcan's net income in the Group's Adjusted EBIT/EBITDA and its consolidated results are excluded from all other APM's, including production data. In Q4 2022, Glencore commenced a process exploring the possible disposal of its 23.3% economic interest in Volcan. As a result, the carrying amounts of Volcan assets and liabilities as at 31 December 2022 are classified as held for sale (see note 16).

The Viterra joint venture is a stand-alone group with a fully independent capital structure, governance and credit profile, supporting a global business, across many geographies, products and activities. Glencore's management evaluates this investment's financial performance on a net return basis, as opposed to an Adjusted EBITDA basis and thus, the financial results of Viterra are presented on a basis consistent with its underlying IFRS treatment (equity accounting).

See reconciliation of revenue and relevant material associates' and joint ventures' Adjusted EBIT to 'Share of net income from associates and joint ventures' below.

Alternative performance measures *continued*

APMs derived from the statement of income

Revenue

Revenue represents revenue by segment (see note 2 of the financial statements), as reported on the face of the statement of income plus the relevant Proportionate adjustments. See reconciliation table below.

US$ million	**2022**	2021
Revenue – Marketing activities	215,102	177,583
Revenue – Industrial activities	78,332	60,810
Intersegment eliminations	(34,755)	(30,461)
Revenue – segmental	**258,679**	**207,932**
Proportionate adjustment material associates and joint ventures – revenue	(3,695)	(5,162)
Proportionate adjustment Volcan – revenue	1,000	981
Revenue – reported measure	**255,984**	**203,751**

Share of income from relevant material associates and joint ventures

US$ million	**2022**	2021
Associates' and joint ventures' Adjusted EBITDA	2,687	4,001
Depreciation and amortisation	(641)	(687)
Associates' and joint ventures' Adjusted EBIT	2,046	3,314
Net finance costs	(22)	4
Income tax expense	(688)	(1,211)
	(710)	(1,207)
Share of income from relevant material associates and joint ventures	**1,336**	**2,107**
Share of income from other associates and joint ventures	964	511
Share of income from associates and joint ventures[1]	**2,300**	**2,618**

1 Comprises share in earnings of $528 million (2021: $492 million) from Marketing activities and share in earnings of $1,772 million (2021: $2,126 million) from Industrial activities.

Adjusted EBIT/EBITDA

Adjusted EBIT/EBITDA provide insight into our overall business performance (a combination of cost management, seizing market opportunities and growth), and are the corresponding flow drivers towards our objective of achieving industry-leading returns.

Adjusted EBIT is the net result of revenue less cost of goods sold and selling and administrative expenses, plus share of income from associates and joint ventures, dividend income and the attributable share of Adjusted EBIT of relevant material associates and joint ventures, which are accounted for internally by means of proportionate consolidation, excluding Significant items, see below.

Alternative performance measures *continued*

Adjusted EBITDA consists of Adjusted EBIT plus depreciation and amortisation, including the related Proportionate adjustments. See reconciliation table below.

US$ million	**2022**	2021
Reported measures		
Revenue	255,984	203,751
Cost of goods sold	(228,723)	(191,370)
Selling and administrative expenses	(2,430)	(2,115)
Share of income from associates and joint ventures	2,300	2,618
Dividend income	45	23
	27,176	**12,907**
Adjustments to reported measures		
Share of associates' significant items	9	11
Movement in unrealised inter-segment profit elimination	(1,176)	549
Proportionate adjustment material associates and joint ventures – net finance and income tax expense	710	1,207
Proportionate adjustment Volcan – net finance, income tax expense and non-controlling interests	(62)	(179)
Adjusted EBIT	**26,657**	**14,495**
Depreciation and amortisation	6,987	6,335
Proportionate adjustment material associates and joint ventures – depreciation	641	687
Proportionate adjustment Volcan – depreciation	(225)	(194)
Adjusted EBITDA	**34,060**	**21,323**

Significant items

Significant items of income and expense which, due to their variable financial impact or the expected infrequency of the events giving rise to them, are separated for internal reporting and analysis of Glencore's results to aid in an understanding and comparative basis of the underlying financial performance. Refer to reconciliation below.

Reconciliation of net significant items 2022

US$ million	Gross significant charges	Non-controlling interests' share	Significant items tax	**Equity holders' share**
Share of Associates' significant items[1]	(9)	–	–	(9)
Movement in unrealised inter-segment profit elimination[1]	1,176	–	(141)	1,035
Gain on acquisitions and disposals of non-current assets[2]	1,287	4	(115)	1,176
Other expense – net[3]	(911)	–	(26)	(937)
Tax significant items in their own right[4]	–	–	(486)	(486)
	1,543	4	(768)	779
Impairments attributable to equity holders				
Impairments[5]	(3,173)	338	521	(2,314)
Impairment Volcan[5]	(164)	89	48	(27)
	(3,337)	427	569	(2,341)
Total significant items	**(1,794)**	**431**	**(199)**	**(1,562)**

1 See note 2 of the financial statements.
2 See note 4 of the financial statements.
3 See note 5 of the financial statements.
4 Relates to foreign exchange fluctuations ($187 million), tax losses not recognised ($98 million) and adjustments in respect of prior years ($201 million), see note 8 of the financial statements.
5 See note 7 of the financial statements.

Alternative performance measures *continued*

Reconciliation of net significant items 2021

US$ million	Gross significant charges	Non-controlling interests' share	Significant items tax	**Equity holders' share**
Share of Associates' significant items[1]	(11)	–	–	(11)
Movement in unrealised inter-segment profit elimination[1]	(549)	–	77	(472)
Loss on acquisitions and disposals of non-current assets[2]	(607)	–	(23)	(630)
Other expense – net[3]	(1,947)	(4)	(6)	(1,957)
Tax significant items in their own right[4]	–	–	56	56
	(3,114)	(4)	104	(3,014)
Impairments attributable to equity holders				
Impairments[5]	(1,838)	668	33	(1,137)
Total significant items	**(4,952)**	**664**	**137**	**(4,151)**

1 See note 2 of the financial statements.
2 See note 4 of the financial statements.
3 See note 5 of the financial statements.
4 Relates to foreign exchange fluctuations ($52 million) and tax losses not recognised ($15 million) less adjustments in respect of prior years ($11 million), see note 8 of the financial statements.
5 See note 7 of the financial statements.

Net income attributable to equity holder pre-significant items

Net income attributable to equity holders pre-significant items is a measure of our ability to generate shareholder returns. The calculation of tax items to be excluded from Net income, includes the tax effect of significant items and significant tax items themselves. Refer to reconciliation below.

US$ million	**2022**	2021
Income for the year attributable to equity holders of the Parent	17,320	4,974
Significant items	1,562	4,151
Income attributable to equity holders of the Parent pre-significant items	**18,882**	**9,125**

APMs derived from the statement of financial position

Net funding/Net debt and Net debt to Adjusted EBITDA

Net funding/debt demonstrates how our debt is being managed and is an important factor in ensuring we maintain investment grade credit rating status and a competitive cost of capital. Net funding is defined as total current and non-current borrowings less cash and cash equivalents and related Proportionate adjustments. Net debt is defined as Net funding less readily marketable inventories and related Proportionate adjustments. Consistent with the general approach in relation to our internal reporting and evaluation of Volcan, its consolidated net debt has also been adjusted to reflect the Group's relatively low 23.3% economic ownership (compared to its 63% voting interest) in this still fully ring-fenced listed entity, with its standalone, independent and separate capital structure. Furthermore, the relationship of Net debt to Adjusted EBITDA provides an indication of financial flexibility. See reconciliation table below.

Readily marketable inventories (RMI)

RMI, comprising the core inventories which underpin and facilitate Glencore's marketing activities, represent inventories, that in Glencore's assessment, are readily convertible into cash in the short term due to their liquid nature, widely available markets and the fact that price risk is primarily covered either by a forward physical sale or hedge transaction. Glencore regularly assesses the composition of these inventories and their applicability, relevance and availability to the marketing activities. As at 31 December 2022, $27,425 million (2021: $24,795 million) of inventories were considered readily marketable. This comprises $19,157 million (2021: $16,073 million) of inventories carried at fair value less costs of disposal and $8,268 million (2021: $8,722 million) carried at the lower of cost or net realisable value. Total readily marketable inventories includes $230 million (2021: $125 million) related to the relevant material associates and joint ventures (see note 2) presented under the proportionate consolidation method, comprising inventory carried at lower of cost or net realisable value. Given the highly liquid nature of these inventories, which represent a significant share of current assets, the Group believes it is appropriate to consider them together with cash equivalents in analysing Group net debt levels and computing certain debt coverage ratios and credit trends.

Alternative performance measures *continued*

Net funding/net debt at 31 December 2022

US$ million	Reported measure	Proportionate adjustment material associates and joint ventures	Proportionate adjustment Volcan	**Adjusted measure**
Non-current borrowings	18,851	845	–	19,696
Current borrowings	9,926	26	–	9,952
Total borrowings	**28,777**	**871**	**–**	**29,648**
Less: cash and cash equivalents	(1,923)	(225)	–	(2,148)
Net funding[1]	**26,854**	**646**	**–**	**27,500**
Less: Readily marketable inventories	(27,195)	(230)	–	(27,425)
Net debt/(cash)[1]	**(341)**	**416**	**–**	**75**
Adjusted EBITDA				**34,060**
Net debt to Adjusted EBITDA				**0.00**

Net funding/net debt at 31 December 2021

US$ million	Reported measure	Proportionate adjustment material associates and joint ventures	Proportionate adjustment Volcan	**Adjusted measure**
Non-current borrowings	26,811	467	(485)	26,793
Current borrowings	7,830	29	(434)	7,425
Total borrowings	**34,641**	**496**	**(919)**	**34,218**
Less: cash and cash equivalents	(3,241)	(371)	231	(3,381)
Net funding[1]	**31,400**	**125**	**(688)**	**30,837**
Less: Readily marketable inventories	(24,670)	(125)	–	(24,795)
Net debt[1]	**6,730**	**–**	**(688)**	**6,042**
Adjusted EBITDA				**21,323**
Net debt to Adjusted EBITDA				**0.28**

1 Includes $595 million (2021: $857 million) of Marketing related lease liabilities.

Capital expenditure ('Capex')

Capital expenditure is expenditure capitalised as property, plant and equipment. For internal reporting and analysis, Capex includes related Proportionate adjustments. See reconciliation table below.

US$ million	**2022**	2021
Capital expenditure – Marketing activities	299	801
Capital expenditure – Industrial activities	4,807	4,423
Capital expenditure – segmental	**5,106**	**5,224**
Proportionate adjustment material associates and joint ventures – capital expenditure	(694)	(713)
Proportionate adjustment Volcan – capital expenditure	233	197
Capital expenditure – reported measure	**4,645**	**4,708**

Alternative performance measures *continued*

APMs derived from the statement of cash flows

Net purchase and sale of property, plant and equipment

Net purchase and sale of property, plant and equipment is cash purchase of property, plant and equipment, net of proceeds from sale of property, plant and equipment. For internal reporting and analysis, Net purchase and sale of property, plant and equipment includes proportionate adjustments. See reconciliation table below.

2022 US$ million	Reported measure	Proportionate adjustment material associates and joint ventures	Proportionate adjustment Volcan	**Adjusted measure**
Purchase of property, plant and equipment	(4,177)	(674)	245	(4,606)
Proceeds from sale of property, plant and equipment	63	–	–	63
Net purchase and sale of property, plant and equipment	**(4,114)**	**(674)**	**245**	**(4,543)**

2021 US$ million	Reported measure	Proportionate adjustment material associates and joint ventures	Proportionate adjustment Volcan	**Adjusted measure**
Purchase of property, plant and equipment	(3,618)	(695)	174	(4,139)
Proceeds from sale of property, plant and equipment	342	3	(8)	337
Net purchase and sale of property, plant and equipment	**(3,276)**	**(692)**	**166**	**(3,802)**

Funds from operations (FFO) and FFO to Net debt

FFO is a measure that reflects our ability to generate cash for investment, debt servicing and returns to shareholders. It comprises cash provided by operating activities before working capital changes, less tax and net interest payments plus dividends received and related Proportionate adjustments. Furthermore, the relationship of FFO to net debt is an indication of our financial flexibility and strength. See reconciliation table below.

2022 US$ million	Reported measure	Proportionate adjustment material associates and joint ventures	Proportionate adjustment Volcan	**Adjusted measure**
Cash generated by operating activities before working capital changes, interest and tax	32,915	–	–	32,915
Addback EBITDA of relevant material associates and joint ventures	–	2,687	(285)	2,402
Non-cash adjustments included within EBITDA	–	46	(11)	35
Adjusted cash generated by operating activities before working capital changes, interest and tax	32,915	2,733	(296)	35,352
Income taxes paid	(4,881)	(1,066)	43	(5,904)
Interest received	234	3	(5)	232
Interest paid	(1,340)	(18)	57	(1,301)
Dividends received from associates and joint ventures	1,691	(1,132)	–	559
Funds from operations (FFO)	**28,619**	**520**	**(201)**	**28,938**

Alternative performance measures *continued*

2021 US$ million	Reported measure	Proportionate adjustment material associates and joint ventures	Proportionate adjustment Volcan	**Adjusted measure**
Cash generated by operating activities before working capital changes, interest and tax	16,725	–	–	16,725
Addback EBITDA of relevant material associates and joint ventures	–	4,001	(382)	3,619
Adjusted cash generated by operating activities before working capital changes, interest and tax	16,725	4,001	(382)	20,344
Income taxes paid	(1,837)	(855)	16	(2,676)
Interest received	100	–	(1)	99
Interest paid	(1,003)	(9)	60	(952)
Dividends received from associates and joint ventures	2,375	(2,133)	–	242
Funds from operations (FFO)	**16,360**	**1,004**	**(307)**	**17,057**
Net debt				**6,042**
FFO to net debt				**282.3%**

Other reconciliations

Available committed liquidity[1]

US$ million	**2022**	2021
Cash and cash equivalents – reported	1,923	3,241
Proportionate adjustment – cash and cash equivalents	225	140
Headline committed syndicated revolving credit facilities	11,185	11,222
Amount drawn under syndicated revolving credit facilities	–	(2,543)
Amounts drawn under US commercial paper programme	(333)	(1,764)
Total	**13,000**	**10,296**

1 Presented on an adjusted measure basis.

Cash flow related adjustments 2022

US$ million	Reported measure	Proportionate adjustment material associates and joint ventures	Proportionate adjustment Volcan	**Adjusted measure**
Funds from operations (FFO)	28,619	520	(201)	28,938
Net movements in inventories	(5,035)	(111)	(3)	(5,149)
Net other working capital changes	(8,234)	(61)	(39)	(8,334)
Increase in long-term advances and loans	(200)	–	–	(200)
Net cash received in acquisitions of subsidiaries	321	(167)	–	154
Net cash received from disposal of subsidiaries	455	–	–	455
Purchase of investments	(476)	–	–	(476)
Proceeds from sale of investments	604	–	–	604
Purchase of property, plant and equipment	(4,177)	(674)	245	(4,606)
Proceeds from sale of property, plant and equipment	63	–	–	63
Margin payments in respect of financing related hedging activities	(1,824)	–	–	(1,824)
Return of capital/distributions to non-controlling interests	(442)	–	–	(442)
Purchase of own shares	(2,503)	–	–	(2,503)
Disposal of own shares	238	–	–	238
Distributions paid to equity holders of the Parent	(4,832)	–	–	(4,832)
Cash movement in net funding	**2,577**	**(493)**	**2**	**2,086**

Cash flow related adjustments 2021

US$ million	Reported measure	Proportionate adjustment material associates and joint ventures	Proportionate adjustment Volcan	**Adjusted measure**
Funds from operations (FFO)	16,360	1,004	(307)	17,057
Net movements in inventories	(5,660)	(28)	(1)	(5,689)
Net other working capital changes	535	(151)	16	400
Net cash received from disposal of subsidiaries	252	–	–	252
Purchase of investments	(86)	–	–	(86)
Proceeds from sale of investments	194	–	–	194
Purchase of property, plant and equipment	(3,618)	(695)	174	(4,139)
Proceeds from sale of property, plant and equipment	342	3	(8)	337
Margin payments in respect of financing related hedging activities	(970)	–	–	(970)
Proceeds paid on acquisition of non-controlling interests in subsidiaries	10	–	–	10
Return of capital/distributions to non-controlling interests	(163)	–	–	(163)
Purchase of own shares	(746)	–	–	(746)
Distributions paid to equity holders of the Parent	(2,115)	–	–	(2,115)
Cash movement in net funding	**4,335**	**133**	**(126)**	**4,342**

Other reconciliations *continued*

Applicable tax rate

The applicable tax rate represents the effective tax rate which is computed based on the income tax expense, pre-significant items and related Proportionate adjustments, divided by the earnings before tax, pre-significant items and related Proportionate adjustments. See reconciliation table below.

Reconciliation of tax expense 2022

US$ million	**Total**
Adjusted EBIT, pre-significant items	26,657
Net finance costs	(1,336)
Adjustments for:	
Net finance costs from material associates and joint ventures	(22)
Proportional adjustment and net finance costs – Volcan	60
Share of income from other associates pre-significant items	(973)
Profit on a proportionate consolidation basis before tax and pre-significant items	**24,386**
Income tax expense, pre-significant items	(6,169)
Adjustments for:	
Tax expense from material associates and joint ventures	(688)
Tax expense from Volcan	10
Tax expense on a proportionate consolidation basis	**(6,847)**
Applicable tax rate	**28.1%**

US$ million	Pre-significant tax expense	Significant items tax[1]	**Total tax expense**
Tax expense on a proportionate consolidation basis	6,847	247	7,094
Adjustment in respect of material associates and joint ventures – tax	(688)	–	(688)
Adjustment in respect of Volcan – tax	10	(48)	(38)
Tax expense on the basis of the income statement	**6,169**	**199**	**6,368**

Reconciliation of tax expense 2021

US$ million	**Total**
Adjusted EBIT, pre-significant items	14,495
Net finance costs	(1,140)
Adjustments for:	
Net finance costs from material associates and joint ventures	4
Proportional adjustment and net finance costs – Volcan	55
Share of income from other associates pre-significant items	(522)
Profit on a proportionate consolidation basis before tax and pre-significant items	**12,892**
Income tax expense, pre-significant items	(3,163)
Adjustments for:	
Tax expense from material associates and joint ventures	(1,211)
Tax credit from Volcan	54
Tax expense on a proportionate consolidation basis	**(4,320)**
Applicable tax rate	**33.5%**

US$ million	Pre-significant tax expense	Significant items tax[1]	**Total tax expense**
Tax expense/(credit) on a proportionate consolidation basis	4,320	(137)	4,183
Adjustment in respect of material associates and joint ventures – tax	(1,211)	–	(1,211)
Adjustment in respect of Volcan – tax	54	–	54
Tax expense/(credit) on the basis of the income statement	**3,163**	**(137)**	**3,026**

1 See table above.

Production by quarter – Q4 2021 to Q4 2022

Metals and minerals

Production from own sources – Total[1]

		Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	**2022**	2021	Change 2022 vs 2021 %	Change Q4 22 vs Q4 21 %
Copper	kt	300.2	257.8	252.4	260.3	287.6	1,058.1	1,195.7	(12)	(4)
Cobalt	kt	7.9	9.7	11.0	12.4	10.7	43.8	31.3	40	35
Zinc	kt	262.0	241.5	239.2	218.9	238.9	938.5	1,117.8	(16)	(9)
Lead	kt	48.9	46.8	48.3	41.8	54.7	191.6	222.3	(14)	12
Nickel	kt	31.2	30.7	27.1	23.8	25.9	107.5	102.3	5	(17)
Gold	koz	216	189	145	170	157	661	809	(18)	(27)
Silver	koz	7,725	6,515	6,064	5,299	5,872	23,750	31,519	(25)	(24)
Ferrochrome	kt	397	387	399	324	378	1,488	1,468	1	(5)
Coal	mt	27.0	28.5	26.9	26.5	28.1	110.0	103.3	6	4
Oil (entitlement interest basis)	kboe	1,129	1,500	1,632	1,690	1,309	6,131	5,274	16	16

Production from own sources – Copper assets[1]

			Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	**2022**	2021	Change 2022 vs 2021 %	Change Q4 22 vs Q4 21 %
African Copper (Katanga, Mutanda, Mopani)											
Katanga	Copper metal	kt	61.0	50.3	45.8	56.7	67.3	220.1	264.4	(17)	10
	Cobalt[2]	kt	5.0	4.9	6.4	7.6	6.6	25.5	23.8	7	32
Mutanda	Copper metal	kt	6.3	5.3	8.6	8.2	11.2	33.3	6.3	429	78
	Cobalt[2]	kt	1.8	3.9	3.8	3.8	3.2	14.7	3.9	277	78
Mopani	Copper metal	kt	–	–	–	–	–	–	6.5	(100)	n.m.
	Total Copper metal	**kt**	**67.3**	**55.6**	**54.4**	**64.9**	**78.5**	**253.4**	**277.2**	**(9)**	**17**
	Total Cobalt[2]	**kt**	**6.8**	**8.8**	**10.2**	**11.4**	**9.8**	**40.2**	**27.7**	**45**	**44**
Collahuasi[3]	**Copper in concentrates**	**kt**	**66.0**	**65.7**	**62.1**	**60.4**	**62.9**	**251.1**	**277.2**	**(9)**	**(5)**
	Silver in concentrates	**koz**	**990**	**939**	**864**	**738**	**809**	**3,350**	**4,219**	**(21)**	**(18)**
	Gold in concentrates	**koz**	**12**	**11**	**8**	**9**	**10**	**38**	**45**	**(16)**	**(17)**
Antamina[4]	**Copper in concentrates**	**kt**	**38.7**	**36.8**	**40.4**	**38.9**	**36.4**	**152.5**	**150.0**	**2**	**(6)**
	Zinc in concentrates	**kt**	**34.6**	**37.7**	**34.5**	**39.6**	**32.5**	**144.3**	**153.7**	**(6)**	**(6)**
	Silver in concentrates	**koz**	**1,452**	**1,279**	**1,327**	**1,340**	**1,018**	**4,964**	**6,135**	**(19)**	**(30)**
Other South America (Antapaccay, Lomas Bayas)											
Antapaccay	Copper in concentrates	kt	45.5	37.4	36.3	34.8	42.5	151.0	170.8	(12)	(7)
	Gold in concentrates	koz	22	14	15	13	19	61	90	(32)	(14)
	Silver in concentrates	koz	416	343	300	263	316	1,222	1,382	(12)	(24)
Lomas Bayas	Copper metal	kt	16.5	17.6	17.4	18.2	19.4	72.6	64.3	13	18
	Total Copper metal	**kt**	**16.5**	**17.6**	**17.4**	**18.2**	**19.4**	**72.6**	**64.3**	**13**	**18**
	Total Copper in concentrates	**kt**	**45.5**	**37.4**	**36.3**	**34.8**	**42.5**	**151.0**	**170.8**	**(12)**	**(7)**
	Total Gold in concentrates and in doré	**koz**	**22**	**14**	**15**	**13**	**19**	**61**	**90**	**(32)**	**(14)**
	Total Silver in concentrates and in doré	**koz**	**416**	**343**	**300**	**263**	**316**	**1,222**	**1,382**	**(12)**	**(24)**

Production by quarter – Q4 2021 to Q4 2022 *continued*

Metals and minerals

Production from own sources – Copper assets[1] *continued*

			Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	**2022**	2021	Change 2022 vs 2021 %	Change Q4 22 vs Q4 21 %
Australia (Ernest Henry, Cobar)											
Ernest Henry											
	Copper metal	kt	10.7	–	–	–	–	–	44.8	(100)	(100)
	Gold	koz	15	–	–	–	–	–	64	(100)	(100)
	Silver	koz	45	–	–	–	–	–	195	(100)	(100)
Cobar	Copper in concentrates	kt	11.8	9.3	9.5	7.3	11.2	37.3	40.5	(8)	(5)
	Silver in concentrates	koz	136	111	101	95	139	446	459	(3)	2
	Total Copper metal	**kt**	**10.7**	**–**	**–**	**–**	**–**	**–**	**44.8**	**(100)**	**(100)**
	Total Copper in concentrates	**kt**	**11.8**	**9.3**	**9.5**	**7.3**	**11.2**	**37.3**	**40.5**	**(8)**	**(5)**
	Total Gold	**koz**	**15**	**–**	**–**	**–**	**–**	**–**	**64**	**(100)**	**(100)**
	Total Silver	**koz**	**181**	**111**	**101**	**95**	**139**	**446**	**654**	**(32)**	**(23)**
Total Copper department											
	Copper	**kt**	**256.5**	**222.4**	**220.1**	**224.5**	**250.9**	**917.9**	**1,024.8**	**(10)**	**(2)**
	Cobalt	**kt**	**6.8**	**8.8**	**10.2**	**11.4**	**9.8**	**40.2**	**27.7**	**45**	**44**
	Zinc	**kt**	**34.6**	**37.7**	**34.5**	**39.6**	**32.5**	**144.3**	**153.7**	**(6)**	**(6)**
	Gold	**koz**	**49**	**25**	**23**	**22**	**29**	**99**	**199**	**(50)**	**(41)**
	Silver	**koz**	**3,039**	**2,672**	**2,592**	**2,436**	**2,282**	**9,982**	**12,390**	**(19)**	**(25)**

Production from own sources – Zinc assets[1]

			Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	**2022**	2021	Change 2022 vs 2021 %	Change Q4 22 vs Q4 21 %
Kazzinc											
	Zinc metal	**kt**	**42.7**	**35.9**	**31.6**	**30.2**	**28.0**	**125.7**	**147.9**	**(15)**	**(34)**
	Zinc in concentrates	**kt**	**–**	**0.3**	**6.1**	**5.7**	**8.6**	**20.7**	**–**	**n.m.**	**n.m.**
	Lead metal	**kt**	**4.9**	**5.4**	**4.4**	**3.3**	**3.8**	**16.9**	**19.8**	**(15)**	**(22)**
	Lead in concentrates	**kt**	**–**	**–**	**–**	**–**	**0.4**	**0.4**	**–**	**n.m.**	**n.m.**
	Copper metal[5]	**kt**	**7.3**	**6.1**	**4.2**	**5.9**	**4.3**	**20.5**	**25.6**	**(20)**	**(41)**
	Gold	**koz**	**163**	**158**	**119**	**144**	**125**	**546**	**595**	**(8)**	**(23)**
	Silver	**koz**	**980**	**837**	**603**	**583**	**698**	**2,721**	**2,921**	**(7)**	**(29)**
	Silver in concentrates	**koz**	**–**	**–**	**–**	**–**	**12**	**12**	**–**	**n.m.**	**n.m.**
Kazzinc – total production including third party feed											
	Zinc metal	*kt*	*76.4*	*71.7*	*68.5*	*61.2*	*55.5*	*256.9*	*291.4*	*(12)*	*(27)*
	Lead metal	*kt*	*28.9*	*27.7*	*28.0*	*26.1*	*25.8*	*107.6*	*111.1*	*(3)*	*(11)*
	Copper metal	*kt*	*15.9*	*15.3*	*12.3*	*14.3*	*13.9*	*55.8*	*52.2*	*7*	*(13)*
	Gold	*koz*	*269*	*216*	*210*	*224*	*262*	*912*	*925*	*(1)*	*(3)*
	Silver	*koz*	*6,378*	*5,731*	*5,517*	*5,798*	*4,959*	*22,005*	*22,454*	*(2)*	*(22)*
Australia (Mount Isa, McArthur River)											
Mount Isa	Zinc in concentrates	kt	75.6	63.7	72.9	66.4	87.2	290.2	329.8	(12)	15
	Copper metal	kt	25.0	16.8	12.2	18.4	23.1	70.5	91.5	(23)	(8)
	Lead in concentrates	kt	24.5	22.6	29.3	26.6	36.0	114.5	132.9	(14)	47
	Silver	koz	235	113	125	112	207	557	625	(11)	(12)
	Silver in concentrates	koz	869	741	1,080	921	1,383	4,125	4,718	(13)	59
Mount Isa, Townsville – total production including third party feed											
	Copper metal	*kt*	*51.9*	*46.7*	*37.0*	*51.6*	*56.2*	*191.5*	*226.8*	*(16)*	*8*
	Gold	*koz*	*42*	*34*	*36*	*35*	*43*	*148*	*161*	*(8)*	*2*
	Silver	*koz*	*700*	*427*	*457*	*423*	*578*	*1,885*	*1,829*	*3*	*(17)*

Production by quarter – Q4 2021 to Q4 2022 *continued*

Metals and minerals

Production from own sources – Zinc assets[1] *continued*

			Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	**2022**	2021	Change 2022 vs 2021 %	Change Q4 22 vs Q4 21 %
McArthur River	Zinc in concentrates	kt	72.0	71.6	67.8	63.9	70.5	273.8	279.6	(2)	(2)
	Lead in concentrates	kt	15.7	15.5	12.5	10.3	13.1	51.4	55.2	(7)	(17)
	Silver in concentrates	koz	602	539	330	227	371	1,467	1,803	(19)	(38)
	Total Zinc in concentrates	**kt**	**147.6**	**135.3**	**140.7**	**130.3**	**157.7**	**564.0**	**609.4**	**(7)**	**7**
	Total Copper	**kt**	**25.0**	**16.8**	**12.2**	**18.4**	**23.1**	**70.5**	**91.5**	**(23)**	**(8)**
	Total Lead in concentrates	**kt**	**40.2**	**38.1**	**41.8**	**36.9**	**49.1**	**165.9**	**188.1**	**(12)**	**22**
	Total Silver	**koz**	**235**	**113**	**125**	**112**	**207**	**557**	**625**	**(11)**	**(12)**
	Total Silver in concentrates	**koz**	**1,471**	**1,280**	**1,410**	**1,148**	**1,754**	**5,592**	**6,521**	**(14)**	**19**
North America (Matagami, Kidd)											
Matagami	Zinc in concentrates	kt	10.0	8.9	8.4	–	–	17.3	47.4	(64)	(100)
	Copper in concentrates	kt	1.7	1.5	1.7	–	–	3.2	7.1	(55)	(100)
Kidd	Zinc in concentrates	kt	10.7	9.0	13.6	8.2	8.4	39.2	48.7	(20)	(21)
	Copper in concentrates	kt	3.1	4.8	8.3	7.1	4.9	25.1	23.2	8	58
	Silver in concentrates	koz	307	220	529	305	292	1,346	1,383	(3)	(5)
	Total Zinc in concentrates	**kt**	**20.7**	**17.9**	**22.0**	**8.2**	**8.4**	**56.5**	**96.1**	**(41)**	**(59)**
	Total Copper in concentrates	**kt**	**4.8**	**6.3**	**10.0**	**7.1**	**4.9**	**28.3**	**30.3**	**(7)**	**2**
	Total Silver in concentrates	**koz**	**307**	**220**	**529**	**305**	**292**	**1,346**	**1,383**	**(3)**	**(5)**
Other Zinc: South America (Argentina, Bolivia, Peru)[6]											
	Zinc in concentrates	**kt**	**16.4**	**14.4**	**4.3**	**4.9**	**3.7**	**27.3**	**110.7**	**(75)**	**(77)**
	Lead in concentrates	**kt**	**3.8**	**3.3**	**2.1**	**1.6**	**1.4**	**8.4**	**14.4**	**(42)**	**(63)**
	Copper in concentrates	**kt**	**0.5**	**0.4**	**0.3**	**0.4**	**0.3**	**1.4**	**1.7**	**(18)**	**(40)**
	Silver in concentrates	**koz**	**1,634**	**1,351**	**757**	**670**	**567**	**3,345**	**7,383**	**(55)**	**(65)**
Total Zinc department											
	Zinc	**kt**	**227.4**	**203.8**	**204.7**	**179.3**	**206.4**	**794.2**	**964.1**	**(18)**	**(9)**
	Lead	**kt**	**48.9**	**46.8**	**48.3**	**41.8**	**54.7**	**191.6**	**222.3**	**(14)**	**12**
	Copper	**kt**	**37.6**	**29.6**	**26.7**	**31.8**	**32.6**	**120.7**	**149.1**	**(19)**	**(13)**
	Gold	**koz**	**163**	**158**	**119**	**144**	**125**	**546**	**595**	**(8)**	**(23)**
	Silver	**koz**	**4,627**	**3,801**	**3,424**	**2,818**	**3,530**	**13,573**	**18,833**	**(28)**	**(24)**

Production by quarter – Q4 2021 to Q4 2022 *continued*

Metals and minerals

Production from own sources – Nickel assets[1]

			Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	**2022**	2021	Change 2022 vs 2021 %	Change Q4 22 vs Q4 21 %
Integrated Nickel Operations (Sudbury, Raglan, Nikkelverk)											
	Nickel metal	**kt**	**14.3**	**15.9**	**11.8**	**8.8**	**9.7**	**46.2**	**55.0**	**(16)**	**(32)**
	Nickel in concentrates	**kt**	**–**	**–**	**0.1**	**–**	**0.1**	**0.2**	**0.2**	**–**	**n.m.**
	Copper metal	**kt**	**3.7**	**4.0**	**3.2**	**2.2**	**2.5**	**11.9**	**13.5**	**(12)**	**(32)**
	Copper in concentrates	**kt**	**2.4**	**1.8**	**2.4**	**1.8**	**1.6**	**7.6**	**8.3**	**(8)**	**(33)**
	Cobalt metal	**kt**	**0.3**	**0.2**	**0.1**	**0.2**	**0.1**	**0.6**	**1.1**	**(45)**	**(67)**
	Gold	**koz**	**4**	**6**	**3**	**4**	**3**	**16**	**15**	**7**	**(25)**
	Silver	**koz**	**59**	**42**	**48**	**45**	**60**	**195**	**296**	**(34)**	**2**
	Platinum	**koz**	**9**	**7**	**10**	**7**	**8**	**32**	**33**	**(3)**	**(11)**
	Palladium	**koz**	**23**	**25**	**25**	**17**	**16**	**83**	**83**	**–**	**(30)**
	Rhodium	**koz**	**1**	**1**	**1**	**1**	**1**	**4**	**4**	**–**	**–**
	Nickel metal	*kt*	*21.8*	*22.6*	*19.8*	*15.9*	*23.6*	*81.9*	*91.2*	*(10)*	*8*
	Nickel in concentrates	*kt*	*0.1*	*0.1*	*–*	*0.1*	*–*	*0.2*	*0.3*	*(33)*	*(100)*
	Copper metal	*kt*	*5.2*	*5.1*	*5.0*	*3.7*	*4.7*	*18.5*	*20.1*	*(8)*	*(10)*
	Copper in concentrates	*kt*	*2.5*	*2.2*	*3.3*	*2.4*	*2.7*	*10.6*	*10.3*	*3*	*8*
	Cobalt metal	*kt*	*1.0*	*0.9*	*0.7*	*0.6*	*0.9*	*3.1*	*4.0*	*(23)*	*(10)*
	Gold	*koz*	*8*	*9*	*7*	*7*	*6*	*29*	*29*	*–*	*(25)*
	Silver	*koz*	*121*	*126*	*127*	*111*	*130*	*494*	*511*	*(3)*	*7*
	Platinum	*koz*	*20*	*17*	*22*	*14*	*16*	*69*	*73*	*(5)*	*(20)*
	Palladium	*koz*	*58*	*62*	*63*	*47*	*49*	*221*	*220*	*–*	*(16)*
	Rhodium	*koz*	*1*	*1*	*1*	*1*	*2*	*5*	*4*	*25*	*100*
Murrin Murrin											
	Total Nickel metal	**kt**	**9.6**	**7.7**	**9.4**	**9.5**	**9.1**	**35.7**	**30.1**	**19**	**(5)**
	Total Cobalt metal	**kt**	**0.8**	**0.7**	**0.7**	**0.8**	**0.8**	**3.0**	**2.5**	**20**	**–**
Murrin Murrin – total production including third party feed											
	Total Nickel metal	*kt*	*11.0*	*8.9*	*10.7*	*10.5*	*10.3*	*40.4*	*33.7*	*20*	*(6)*
	Total Cobalt metal	*kt*	*0.9*	*0.8*	*0.8*	*0.8*	*0.9*	*3.3*	*2.8*	*18*	*–*
Koniambo	**Nickel in ferronickel**	**kt**	**7.3**	**7.1**	**5.8**	**5.5**	**7.0**	**25.4**	**17.0**	**49**	**(4)**
Total Nickel department											
	Nickel	**kt**	**31.2**	**30.7**	**27.1**	**23.8**	**25.9**	**107.5**	**102.3**	**5**	**(17)**
	Copper	**kt**	**6.1**	**5.8**	**5.6**	**4.0**	**4.1**	**19.5**	**21.8**	**(11)**	**(33)**
	Cobalt	**kt**	**1.1**	**0.9**	**0.8**	**1.0**	**0.9**	**3.6**	**3.6**	**–**	**(18)**
	Gold	**koz**	**4**	**6**	**3**	**4**	**3**	**16**	**15**	**7**	**(25)**
	Silver	**koz**	**59**	**42**	**48**	**45**	**60**	**195**	**296**	**(34)**	**2**
	Platinum	**koz**	**9**	**7**	**10**	**7**	**8**	**32**	**33**	**(3)**	**(11)**
	Palladium	**koz**	**23**	**25**	**25**	**17**	**16**	**83**	**83**	**–**	**(30)**
	Rhodium	**koz**	**1**	**1**	**1**	**1**	**1**	**4**	**4**	**–**	**–**

Production by quarter – Q4 2021 to Q4 2022 *continued*

Metals and minerals

Production from own sources – Ferroalloys assets[1]

		Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	**2022**	2021	Change 2022 vs 2021 %	Change Q4 22 vs Q4 21 %
Ferrochrome[7]	kt	397	387	399	324	378	1,488	1,468	1	(5)
Vanadium pentoxide	mlb	5.3	5.5	4.4	4.4	5.5	19.8	20.5	(3)	4

Total production – Custom metallurgical assets[1]

		Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	**2022**	2021	Change 2022 vs 2021 %	Change Q4 22 vs Q4 21 %
Copper (Altonorte, Pasar, Horne, CCR)										
Copper metal	kt	114.3	108.8	123.2	94.2	130.7	456.9	490.6	(7)	14
Copper anode	kt	123.4	111.4	126.8	104.8	131.9	474.9	454.0	5	7
Zinc (Portovesme, San Juan de Nieva, Nordenham, Northfleet)										
Zinc metal	kt	195.5	179.0	171.9	176.9	155.2	683.0	800.6	(15)	(21)
Lead metal	kt	80.4	82.0	77.0	57.1	57.3	273.4	244.9	12	(29)

Energy products

Production from own sources – Coal assets[1]

		Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	**2022**	2021	Change 2022 vs 2021 %	Change Q4 22 vs Q4 21 %
Australian coking coal	mt	2.5	2.1	1.8	2.3	2.5	8.7	9.1	(4)	–
Australian semi-soft coal	mt	1.0	0.9	0.9	1.0	1.2	4.0	4.5	(11)	20
Australian thermal coal (export)	mt	15.4	13.4	14.2	12.1	13.7	53.4	55.9	(4)	(11)
Australian thermal coal (domestic)	mt	1.8	1.4	1.6	2.4	2.4	7.8	6.0	30	33
South African thermal coal (export)	mt	3.1	3.4	2.9	3.5	2.9	12.7	14.7	(14)	(6)
South African thermal coal (domestic)	mt	1.0	1.1	0.9	0.9	0.8	3.7	5.3	(30)	(20)
Cerrejón[8]	mt	2.2	6.2	4.6	4.3	4.6	19.7	7.8	153	109
Total Coal department	**mt**	**27.0**	**28.5**	**26.9**	**26.5**	**28.1**	**110.0**	**103.3**	**6**	**4**

Oil assets

		Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	**2022**	2021	Change 2022 vs 2021 %	Change Q4 22 vs Q4 21 %
Glencore entitlement interest basis										
Equatorial Guinea	kboe	818	1,227	1,318	1,458	1,104	5,107	4,141	23	35
Cameroon	kbbl	311	273	314	232	205	1,024	1,133	(10)	(34)
Total Oil department	**kboe**	**1,129**	**1,500**	**1,632**	**1,690**	**1,309**	**6,131**	**5,274**	**16**	**16**
Gross basis										
Equatorial Guinea	kboe	4,086	5,956	6,406	7,089	6,858	26,309	20,137	31	68
Cameroon	kbbl	730	680	676	571	508	2,435	2,866	(15)	(30)
Total Oil department	**kboe**	**4,816**	**6,636**	**7,082**	**7,660**	**7,366**	**28,744**	**23,003**	**25**	**53**

1 Controlled industrial assets and joint ventures only. Production is on a 100% basis except for joint ventures, where the Group's attributable share of production is included.
2 Cobalt contained in concentrates and hydroxides.
3 The Group's pro-rata share of Collahuasi production (44%).
4 The Group's pro-rata share of Antamina production (33.75%).
5 Copper metal includes copper contained in copper concentrates and blister.
6 South American production excludes Volcan Compania Minera.
7 The Group's attributable 79.5% share of the Glencore-Merafe Chrome Venture.
8 2021 numbers represented the Group's pro-rata share of Cerrejón production (33.3%). Glencore acquired the remaining 66.7% of Cerrejón in January 2022, such that 2022 production is presented on a 100% basis.

Resources and reserves

The resource and reserve data in the following tables comprise summary extracts of the Glencore Resources and Reserves report as at 31 December 2022, as published on the Glencore website on 1 February 2023. The Glencore Resources and Reserves report was publicly reported, as appropriate for individual components, in accordance with the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code), the 2016 edition of the South African Code for Reporting of Mineral Resources and Mineral Reserves (SAMREC), the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves (2014 edition) and the Petroleum Resources Management System (PRMS) for reporting of oil and natural gas reserves and resources.

Data is reported as at 31 December 2022, unless otherwise noted. For comparison purposes, data for 2021 has been included. Metric units are used throughout, and all data is presented on a 100% asset basis with the exception of Oil assets which are shown on a working interest basis. All tonnage information has been rounded to reflect the relative uncertainty in the estimates; there may therefore be small differences in the totals. The application of a revised rounding convention in 2022 has led to small differences in the 2021 comparatives.

Metals and minerals: Copper

Copper mineral resources

		Measured Mineral Resources		Indicated Mineral Resources		Measured and Indicated Resources		Inferred Mineral Resources	
Name of operation	Commodity	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021
African copper									
Katanga	(Mt)	**–**	–	**245**	269	**245**	269	**73**	77
	Copper (%)	**–**	–	**4.68**	4.71	**4.68**	4.71	**1.59**	1.70
	Cobalt (%)	**–**	–	**0.57**	0.56	**0.57**	0.56	**0.46**	0.50
Mutanda	(Mt)	**369**	370	**97**	97	**467**	468	**17**	17
	Copper (%)	**1.39**	1.39	**0.96**	0.96	**1.31**	1.31	**0.72**	0.72
	Cobalt (%)	**0.55**	0.55	**0.44**	0.44	**0.53**	0.53	**0.54**	0.53
Collahuasi	(Mt)	**848**	883	**4,673**	4,713	**5,522**	5,599	**4,850**	4,850
	Copper (%)	**0.78**	0.80	**0.79**	0.79	**0.79**	0.79	**0.73**	0.73
	Molybdenum (%)	**0.02**	0.02	**0.03**	0.02	**0.02**	0.02	**0.02**	0.02
Antamina	(Mt)	**282**	306	**607**	619	**889**	925	**1,250**	1,260
	Copper (%)	**0.82**	0.83	**0.89**	0.88	**0.86**	0.87	**1.02**	1.00
	Zinc (%)	**0.58**	0.61	**0.72**	0.73	**0.67**	0.69	**0.57**	0.57
	Silver (g/t)	**10**	10	**12**	11	**11**	11	**11**	11
	Molybdenum (%)	**0.02**	0.02	**0.02**	0.02	**0.02**	0.02	**0.02**	0.02
Other South America	(Mt)	**595**	556	**2,089**	2,231	**2,684**	2,787	**830**	1,076
	Copper (%)	**0.42**	0.42	**0.38**	0.38	**0.39**	0.39	**0.27**	0.27
	Gold (g/t)	**0.041**	0.038	**0.034**	0.036	**0.035**	0.037	**0.007**	0.011
	Silver (g/t)	**0.79**	0.75	**0.82**	0.80	**0.82**	0.79	**0.13**	0.18
Australia (Cobar)	(Mt)	**4.9**	3.9	**3.5**	3.5	**8.4**	7.4	**4**	4
	Copper (%)	**5.58**	5.74	**4.85**	4.92	**5.28**	5.36	**5.55**	5.41
	Silver (g/t)	**23**	24	**19**	20	**22**	22	**20**	20
Other projects[1]	(Mt)	**818**	852	**2,262**	2,314	**3,077**	3,163	**3,300**	3,220
(El Pachon, West Wall, Polymet)	Copper (%)	**0.53**	0.51	**0.46**	0.45	**0.48**	0.47	**0.39**	0.39

1 The above listed Copper projects also include other metallic content, as noted in the Resources and Reserves report published on 1 February 2023

Resources and reserves *continued*

Copper ore reserves

Name of operation	Commodity	Proved Ore Reserves 2022	Proved Ore Reserves 2021	Probable Ore Reserves 2022	Probable Ore Reserves 2021	Total Ore Reserves 2022	Total Ore Reserves 2021
African copper							
Katanga	(Mt)	**–**	–	**113**	127	**113**	127
	Copper (%)	**–**	–	**3.59**	3.86	**3.59**	3.86
	Cobalt (%)	**–**	–	**0.48**	0.52	**0.48**	0.52
Mutanda	(Mt)	**8.6**	52	**124**	82	**133**	134
	Copper (%)	**3.57**	1.43	**1.36**	1.59	**1.51**	1.52
	Cobalt (%)	**1.35**	0.64	**0.65**	0.75	**0.70**	0.70
Collahuasi	(Mt)	**446**	476	**3,710**	3,690	**4,160**	4,170
	Copper (%)	**1.03**	1.00	**0.77**	0.77	**0.79**	0.80
	Molybdenum (%)	**0.02**	0.02	**0.02**	0.02	**0.02**	0.02
Antamina	(Mt)	**156**	186	**127**	150	**283**	336
	Copper (%)	**0.90**	0.92	**0.98**	0.98	**0.94**	0.94
	Zinc (%)	**0.61**	0.66	**0.91**	1.01	**0.74**	0.81
	Silver (g/t)	**9**	9	**11**	11	**10**	10
	Molybdenum (%)	**0.03**	0.03	**0.02**	0.02	**0.03**	0.03
Other South America	(Mt)	**385**	352	**409**	454	**793**	806
	Copper (%)	**0.39**	0.40	**0.34**	0.35	**0.35**	0.37
	Gold (g/t)	**0.047**	0.043	**0.047**	0.050	**0.044**	0.047
	Silver (g/t)	**0.70**	0.64	**0.81**	0.71	**0.76**	0.68
Australia (Cobar)	(Mt)	**4.8**	4.2	**3.1**	2.6	**7.9**	6.8
	Copper (%)	**4.34**	4.00	**3.46**	3.60	**4.00**	3.80
	Silver (g/t)	**18**	16	**14**	14	**16**	16
Other projects[1]	(Mt)	**157**	157	**106**	106	**264**	264
(El Pachon, West Wall, Polymet)	Copper (%)	**0.29**	0.29	**0.29**	0.29	**0.29**	0.29

1 The above listed Copper projects also include other metallic content, as noted in the Resources and Reserves report published on 1 February 2023.

Resources and reserves *continued*

Metals and minerals: Zinc

Zinc mineral resources

Name of operation	Commodity	Measured Mineral Resources 2022	Measured Mineral Resources 2021	Indicated Mineral Resources 2022	Indicated Mineral Resources 2021	Measured and Indicated Resources 2022	Measured and Indicated Resources 2021	Inferred Mineral Resources 2022	Inferred Mineral Resources 2021
Kazzinc									
Kazzinc Polymetallic	(Mt)	**66**	94	**128**	112	**195**	206	**153**	167
	Zinc (%)	**2.12**	2.75	**1.78**	1.35	**1.90**	1.99	**2.11**	2.05
	Lead (%)	**0.73**	0.82	**0.64**	0.39	**0.67**	0.59	**1.04**	1.17
	Copper (%)	**0.38**	0.34	**0.16**	0.21	**0.24**	0.27	**0.31**	0.29
	Silver (g/t)	**18**	18	**14**	13	**15**	15	**18**	21
	Gold (g/t)	**1.2**	1.2	**0.79**	1.00	**0.9**	1.1	**0.74**	0.69
Kazzinc Gold (Vasilkovskoye)	(Mt)	**31**	64	**70**	53	**101**	117	**12.0**	2.4
	Gold (g/t)	**2.2**	1.9	**2.1**	2.1	**2.2**	2.0	**1.7**	1.5
Australia									
Mount Isa – Zinc bearing	(Mt)	**81**	83	**310**	310	**391**	393	**290**	290
	Zinc (%)	**9.09**	9.11	**6.34**	6.34	**6.90**	6.92	**5.22**	5.25
	Lead (%)	**4.01**	4.04	**3.38**	3.37	**3.51**	3.52	**2.44**	2.42
	Silver (g/t)	**77**	78	**67**	67	**69**	69	**48**	48
Mount Isa – Copper bearing	(Mt)	**51**	56	**106**	110	**157**	166	**11**	12
	Copper (%)	**2.00**	2.04	**1.56**	1.59	**1.70**	1.76	**1.52**	1.45
McArthur River	(Mt)	**102**	103	**44.3**	49.1	**146**	152	**–**	–
	Zinc (%)	**9.67**	9.70	**10.36**	10.46	**9.88**	9.95	**–**	–
	Lead (%)	**4.23**	4.20	**4.92**	5.02	**4.44**	4.47	**–**	–
	Silver (g/t)	**42**	42	**53**	53	**46**	46	**–**	–
Mount Margaret	(Mt)	**4.6**	4.6	**7.9**	7.9	**12.5**	12.5	**–**	–
	Copper (%)	**0.70**	0.70	**0.81**	0.81	**0.78**	0.78	**–**	–
	Gold (g/t)	**0.20**	0.20	**0.25**	0.25	**0.23**	0.23	**–**	–
North America									
Zinc North America	(Mt)	**21.3**	20.9	**43.9**	40.5	**65**	62	**68**	72
	Zinc (%)	**4.04**	3.99	**4.31**	4.35	**4.23**	4.23	**3.51**	3.48
	Lead (%)	**0.48**	0.49	**0.44**	0.47	**0.46**	0.48	**0.45**	0.43
	Copper (%)	**1.37**	1.41	**0.87**	0.78	**1.05**	1.00	**0.50**	0.56
	Silver (g/t)	**45**	46	**93**	99	**77**	81	**108**	103
	Gold (g/t)	**0.39**	0.40	**0.25**	0.27	**0.29**	0.31	**0.20**	0.19
Copper North America	(Mt)	**75**	75	**255**	255	**330**	330	**120**	120
	Copper (%)	**0.38**	0.38	**0.38**	0.38	**0.38**	0.38	**0.38**	0.38
	Gold (g/t)	**0.18**	0.18	**0.18**	0.18	**0.18**	0.18	**0.18**	0.18

Resources and reserves *continued*

Zinc mineral resources *continued*

Name of operation	Commodity	Measured Mineral Resources 2022	Measured Mineral Resources 2021	Indicated Mineral Resources 2022	Indicated Mineral Resources 2021	Measured and Indicated Resources 2022	Measured and Indicated Resources 2021	Inferred Mineral Resources 2022	Inferred Mineral Resources 2021
Volcan									
Lead/zinc/silver deposits	(Mt)	**22.5**	24.8	**74**	75	**97**	99	**172**	145
	Zinc (%)	**5.96**	5.92	**4.20**	4.37	**4.61**	4.76	**4.50**	4.50
	Lead (%)	**1.56**	1.48	**1.22**	1.23	**1.30**	1.30	**1.16**	1.41
	Silver (g/t)	**87**	86	**82**	86	**84**	88	**75**	84
Copper deposits	(Mt)	**18.4**	18.4	**34.3**	34.3	**53**	53	**148**	148
	Gold (g/t)	**–**	–	**–**	–	**–**	–	**0.19**	0.19
	Copper (%)	**0.48**	0.50	**0.49**	0.50	**0.49**	0.50	**0.38**	0.41
Pallas Green	(Mt)	**–**	–	**–**	–	**–**	–	**45**	45
	Zinc (%)	**–**	–	**–**	–	**–**	–	**7.21**	7.20
	Lead (%)	**–**	–	**–**	–	**–**	–	**1.22**	1.20

Zinc ore reserves

Name of operation	Commodity	Proved Ore Reserves 2022	Proved Ore Reserves 2021	Probable Ore Reserves 2022	Probable Ore Reserves 2021	Total Ore Reserves 2022	Total Ore Reserves 2021
Kazzinc							
Kazzinc Polymetallic	(Mt)	**34**	70	**30.8**	15.1	**65**	85
	Zinc (%)	**2.99**	3.36	**4.20**	3.07	**3.56**	3.30
	Lead (%)	**0.81**	0.99	**1.03**	0.32	**0.91**	0.86
	Copper (%)	**0.19**	0.13	**0.15**	0.42	**0.17**	0.17
	Silver (g/t)	**18**	17	**14**	14	**16**	16
	Gold (g/t)	**0.85**	0.70	**0.5**	1.3	**0.68**	0.81
Kazzinc Gold (Vasilkovskoye)	(Mt)	**24.6**	35.4	**33.2**	36.0	**58**	71
	Gold (g/t)	**2.1**	2.0	**2.0**	1.8	**2.1**	1.9
Australia							
Mount Isa – Zinc bearing	(Mt)	**21.6**	21.7	**46**	47	**67**	68
	Zinc (%)	**7.47**	7.95	**6.78**	7.10	**7.00**	7.45
	Lead (%)	**3.60**	3.61	**3.55**	3.49	**3.56**	3.58
	Silver (g/t)	**69**	66	**63**	62	**64**	63
Mount Isa – Copper bearing	(Mt)	**3.9**	5.9	**13.3**	17.2	**17.2**	23.1
	Copper (%)	**2.08**	2.27	**1.84**	2.00	**1.84**	2.06
McArthur River	(Mt)	**67**	71	**14.0**	20.0	**81**	91
	Zinc (%)	**9.28**	9.10	**7.59**	7.80	**8.99**	8.80
	Lead (%)	**4.26**	4.10	**3.80**	4.00	**4.18**	4.10
	Silver (g/t)	**43**	41	**40**	42	**42**	41
North America	(Mt)	**1.6**	1.9	**1.3**	1.5	**2.9**	3.4
	Zinc (%)	**3.13**	2.84	**3.54**	4.47	**3.31**	3.56
	Copper (%)	**1.75**	1.89	**1.31**	1.67	**1.55**	1.79
	Silver (g/t)	**44**	45	**30**	43	**38**	45
Volcan	(Mt)	**6.9**	6.2	**18.6**	17.4	**25.5**	23.6
	Zinc (%)	**5.46**	5.98	**3.78**	4.13	**4.23**	4.62
	Lead (%)	**1.07**	1.08	**0.87**	0.93	**0.93**	0.97
	Silver (g/t)	**77**	80	**72**	81	**73**	81

Resources and reserves *continued*

Metals and minerals: Nickel

Nickel mineral resources

Name of operation	Commodity	Measured Mineral Resources 2022	Measured Mineral Resources 2021	Indicated Mineral Resources 2022	Indicated Mineral Resources 2021	Measured and Indicated Resources 2022	Measured and Indicated Resources 2021	Inferred Mineral Resources 2022	Inferred Mineral Resources 2021
INO	(Mt)	**10.0**	9.1	**38.1**	42.8	**48.1**	52	**54**	47
	Nickel (%)	**2.81**	2.43	**2.45**	2.50	**2.52**	2.49	**1.57**	1.41
	Copper (%)	**0.87**	0.81	**1.90**	1.79	**1.68**	1.61	**1.76**	1.92
	Cobalt (%)	**0.06**	0.05	**0.06**	0.05	**0.06**	0.05	**0.03**	0.03
	Platinum (g/t)	**0.83**	0.73	**1.0**	0.93	**0.98**	0.89	**0.77**	0.82
	Palladium (g/t)	**1.8**	1.5	**1.9**	1.6	**1.8**	1.6	**1.2**	1.3
Murrin Murrin	(Mt)	**164**	140	**52**	52	**215**	192	**9**	9
	Nickel (%)	**1.01**	1.02	**0.98**	0.98	**1.00**	1.01	**0.95**	0.95
	Cobalt (%)	**0.08**	0.09	**0.07**	0.07	**0.08**	0.08	**0.06**	0.06
Koniambo	(Mt)	**9.5**	11.0	**43.8**	43.8	**53**	55	**85**	85
	Nickel (%)	**2.47**	2.47	**2.41**	2.41	**2.42**	2.42	**2.50**	2.50

Nickel ore reserves

Name of operation	Commodity	Proved Ore Reserves 2022	Proved Ore Reserves 2021	Probable Ore Reserves 2022	Probable Ore Reserves 2021	Total Ore Reserves 2022	Total Ore Reserves 2021
INO	(Mt)	**8.2**	7.6	**20.6**	21.2	**28.8**	28.8
	Nickel (%)	**2.11**	2.01	**1.89**	2.07	**1.96**	2.06
	Copper (%)	**0.70**	0.68	**0.85**	0.90	**0.81**	0.84
	Cobalt (%)	**0.05**	0.05	**0.04**	0.04	**0.05**	0.05
	Platinum (g/t)	**0.63**	0.62	**0.53**	0.48	**0.56**	0.52
	Palladium (g/t)	**1.3**	1.3	**0.74**	0.79	**0.90**	0.89
Murrin Murrin	(Mt)	**83**	60	**7.4**	9.0	**90**	69
	Nickel (%)	**1.03**	1.09	**1.08**	1.07	**1.03**	1.09
	Cobalt (%)	**0.09**	0.11	**0.09**	0.09	**0.09**	0.11
Koniambo	(Mt)	**9.5**	11.0	**26.0**	26.0	**35.5**	37.0
	Nickel (%)	**2.22**	2.22	**2.19**	2.19	**2.20**	2.20

Resources and reserves *continued*

Metals and minerals: Ferroalloys

Ferroalloys mineral resources

Name of operation	Commodity	Measured Mineral Resources 2022	Measured Mineral Resources 2021	Indicated Mineral Resources 2022	Indicated Mineral Resources 2021	Measured and Indicated Resources 2022	Measured and Indicated Resources 2021	Inferred Mineral Resources 2022	Inferred Mineral Resources 2021
Western Chrome Mines									
Western Chrome Mines	(Mt)	**59**	60	**65**	64	**123**	124	**96**	91
	Cr_2O_3 (%)	**41.98**	42.05	**41.48**	41.49	**41.72**	41.76	**42.01**	42.01
Tailings	(Mt)	**–**	–	**–**	–	**–**	–	**2.5**	3.1
	Cr_2O_3 (%)	**–**	–	**–**	–	**–**	–	**16.65**	18.00
Eastern Chrome Mines									
Eastern Chrome Mines	(Mt)	**70**	69	**55**	44.1	**125**	113	**179**	182
	Cr_2O_3 (%)	**40.25**	39.99	**38.38**	40.06	**39.42**	40.01	**38.25**	38.53
Tailings	(Mt)	**–**	–	**–**	–	**–**	–	**5**	5
	Cr_2O_3 (%)	**–**	–	**–**	–	**–**	–	**18.82**	20.00
Vanadium	(Mt)	**50**	52	**38.3**	33.5	**88**	85	**110**	90
	V_2O_5 (%)	**0.47**	0.47	**0.45**	0.50	**0.46**	0.48	**0.49**	0.50
Manganese	(Mt)	**27.2**	26.2	**19.0**	19.6	**46.3**	45.8	**3**	3
	Mn (%)	**37.21**	37.56	**36.38**	36.40	**36.87**	37.06	**36.49**	36.00

Ferroalloys ore reserves

Name of operation	Commodity	Proved Ore Reserves 2022	Proved Ore Reserves 2021	Probable Ore Reserves 2022	Probable Ore Reserves 2021	Total Ore Reserves 2022	Total Ore Reserves 2021
Western Chrome Mines	(Mt)	**8.8**	10.3	**2.0**	2.0	**10.8**	12.3
	Cr_2O_3 (%)	**30.18**	30.40	**28.17**	28.34	**29.81**	30.07
Eastern Chrome Mines	(Mt)	**22.8**	23.2	**7.6**	5.1	**30.4**	28.2
	Cr_2O_3 (%)	**34.67**	34.38	**30.27**	32.75	**33.58**	34.11
Vanadium	(Mt)	**18.1**	20.0	**8.2**	8.2	**26.3**	28.2
	V_2O_5 (%)	**0.46**	0.46	**0.43**	0.43	**0.45**	0.45
Manganese	(Mt)	**18.6**	20.5	**2.9**	5.7	**21.5**	26.2
	Mn (%)	**36.36**	36.27	**35.79**	35.90	**36.28**	36.19

Metals and minerals: Aluminium/Alumina

Alumina mineral resources

Name of operation	Commodity	Measured Mineral Resources 2022	Measured Mineral Resources 2021	Indicated Mineral Resources 2022	Indicated Mineral Resources 2021	Measured and Indicated Resources 2022	Measured and Indicated Resources 2021	Inferred Mineral Resources 2022	Inferred Mineral Resources 2021
Aurukun	(Mt)	**96**	96	**331**	331	**427**	427	**3**	3
	Al_2O_3 (%)	**53.50**	53.50	**49.90**	49.90	**50.70**	50.70	**49.40**	49.40

Resources and reserves *continued*

Energy products: Coal

Coal resources

Name of operation	Commodity	Measured Coal Resources 2022	Measured Coal Resources 2021	Indicated Coal Resources 2022	Indicated Coal Resources 2021	Inferred Coal Resources 2022	Inferred Coal Resources 2021
Australia							
New South Wales	Coking/Thermal Coal (Mt)	**3,665**	3,570	**3,563**	3,653	**7,491**	7,491
Queensland	Coking/Thermal Coal (Mt)	**3,964**	3,986	**6,004**	5,247	**7,930**	9,220
South Africa	Thermal Coal (Mt)	**2,219**	2,256	**835**	837	**340**	343
Cerrejón	Thermal Coal (Mt)	**3,200**	3,250	**1,200**	1,250	**600**	600
Canada projects							
(Suska, Sukunka)	Coking/Thermal Coal (Mt)	**45**	45	**113**	113	**130**	130

Coal reserves

Name of operation	Commodity	Coal Reserves Proved 2022	Coal Reserves Probable 2022	Marketable Coal Reserves Proved 2022	Marketable Coal Reserves Probable 2022	Total Marketable Coal Reserves 2022	Total Marketable Coal Reserves 2021
Australia							
New South Wales	Coking/Thermal Coal (Mt)	**978**	**535**	**708**	**383**	**1,094**	1,214
Queensland	Coking/Thermal Coal (Mt)	**296**	**118**	**266**	**98**	**364**	452
South Africa	Thermal Coal (Mt)	**488**	**236**	**313**	**129**	**442**	463
Cerrejón	Thermal Coal (Mt)	**170**	**120**	**170**	**120**	**290**	320

Energy products: Oil

Net reserves (2P – Proven and Probable)[1]

	Working Interest Basis								
	Equatorial Guinea		Chad		Cameroon		**Total**		
	Oil mmbbl	Gas bcf	Oil mmbbl	Gas bcf	Oil mmbbl	Gas bcf	Oil mmbbl	Gas bcf	Combined mmboe
31 December 2021	10	164	97	–	3	–	**110**	**164**	**139**
Revisions	1	(6)	–	–	–	–	1	(6)	(1)
Divestment	–	–	(97)	–	–	–	(97)	–	(97)
Production	(2)	(31)	–	–	(1)	–	(3)	(31)	(8)
31 December 2022	9	127	–	–	2	–	**11**	**127**	**33**

Net contingent resources (2C)[1]

	Working Interest Basis								
	Equatorial Guinea		Chad		Cameroon				**Total**
	Oil mmbbl	Gas bcf	Oil mmbbl	Gas bcf	Oil mmbbl	Gas bcf	Oil mmbbl	Gas bcf	Combined mmboe
31 December 2021	27	310	–	–	–	–	**27**	**310**	**80**
31 December 2022	27	310	–	–	–	–	**27**	**310**	**80**

1 "Net" reserves or resources are equivalent to Glencore's working interest in the asset/property.

Independent Limited Assurance Report to the Directors of Glencore plc on selected key performance indicators in the 2022 Annual Report

Independent Limited Assurance Report by Deloitte LLP to the Directors of Glencore on selected Environmental, Social and Governance ("ESG") metrics (the "Selected Information") within the Annual Report for the reporting year ended 31 December 2022.

What we looked at: scope of our work

Glencore has engaged us to provide independent limited assurance in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised) *Assurance Engagements other than Audits or Reviews of Historical Financial Information* issued by the International Auditing and Assurance Standards Board and our agreed terms of engagement.

The Selected Information in scope of our engagement, as presented on pages 1, 4, 7, 14, 19, 22, 39, 41 and 45-47 of the Annual Report and as listed below and indicated with a Δ in the Annual Report is as follows:

Selected Information subject matter for assurance

Environment	Assured figure	Safety	Assured figure
Total direct energy consumption (PJ)	116.5	Total working hours (employee and contractor)	310,376,099
Total indirect energy consumption (PJ)	76.8	Total number of Lost Time Injuries (employee and contractor)	260
Total direct (Scope 1) greenhouse gas (GHG) emissions (million tonnes of CO_2e)	16.61	Total number of Medical Treatment Injuries (employee and contractor)	290
Total Scope 2 GHG emissions (location-based) (million tonnes of CO_2e)	10.43	Total number of Restricted Work Injuries (employee and contractor)	134
Total Scope 2 GHG emissions (market-based) (million tonnes of CO_2e)	11.43	Total number of Fatalities (employee and contractor)	4
Total Scope 3 GHG emissions – losses from transmission and distribution of electricity (million tonnes of CO_2e)	1	Total Recordable Injury Frequency Rate (employee and contractor)	2.22
Total Scope 3 GHG emissions - use of product; Coal and Oil (million tonnes of CO_2e)	303.3	Lost Time Injury Frequency Rate (employee and contractor)	0.84
Total water withdrawn (million m3)	1,078	Economic	
Total water discharge (million m3)	679.6	Total amounts of payments to governments (millions USD)	11,970
Total number of catastrophic (class 5) and major (class 4) environmental incidents and spills	0		

The Basis of Reporting defined by Glencore and the nature of the Selected Information, allow for different, but acceptable, measurement methodologies to be adopted which may result in variances between entities. The adopted measurement methodologies may also impact comparability of the Selected Information reported by different organisations.

In relation to the Selected Information, as listed in the above table, the Selected Information needs to be read and understood together with the Basis of Reporting, which can be found at *glencore.com/publications*.

Our assurance conclusion

Based on our procedures described in this report, nothing has come to our attention that causes us to believe that the selected ESG metrics stated above, which will be reported on pages 1, 4, 7, 14, 19, 22, 39, 41 and 45-47 of the Annual Report for the year ended 31 December 2022, have not been prepared, in all material respects, in accordance with Glencore's Basis of Reporting.

What we did: Key procedures

We are required to plan and perform our work to address the areas where we have identified that a material misstatement of the description of activities undertaken in respect of the Selected Information is likely to arise. The procedures we performed were based on our professional judgment. In carrying out our limited assurance engagement on the description of activities undertaken in respect of the Selected Information, we performed the following procedures:

- Making enquiries of management and senior executives to obtain an understanding of the overall internal control environment, risk assessment processes and information management systems relevant to the management and reporting of sustainability issues and selected performance indicators.
- Evaluation of the design of controls and functionality of the Group sustainability information management and reporting database (GCP database) at a corporate level.
- Analytical reviews and trend analysis of reported data per commodity department.
- Reading the Health, Safety, Environment and Communities (HSEC) Committee meeting minutes and monthly management reports to understand the implementation of governance procedures related to the Selected Information.
- Reviewing emissions factors used in the calculations of emissions related Selected Information.
- Reviewing the classification of fatalities and environmental incidents classed at or above Category 3.
- Substantive testing of payments to governments for sampled material entities.
- Holding interviews with the HSEC lead for each commodity department.
- Conducting reviews at a sample of Industrial assets, selected on a judgemental basis on materiality of contribution to reported group KPI data, geographic coverage (Africa, Australia, North America, South America) and commodity coverage (Coal, Copper, Ferroalloys, Nickel and Zinc). This work was performed to:
  - corroborate consistency in understanding and application of Basis of Reporting; and

Independent Limited Assurance Report to the Directors of Glencore plc on selected key performance indicators in the 2022 Annual Report *continued*

- identify systemic challenges to data measurement, collection, reporting and control processes, or issues pervasive to region, department and / or group, for the Selected Information.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Inherent limitations of the Selected Information

We obtained limited assurance over the preparation of the Selected Information in accordance with the Basis of Reporting. Inherent limitations exist in all assurance engagements.

Any internal control structure, no matter how effective, cannot eliminate the possibility that fraud, errors or irregularities may occur and remain undetected and because we use selective testing in our engagement, we cannot guarantee that errors or irregularities, if present, will be detected.

The self-defined Basis of Reporting, the nature of the Selected Information, and absence of consistent external standards allow for different, but acceptable, measurement methodologies to be adopted which may result in variances between entities. The adopted measurement methodologies may also impact comparability of the Selected Information reported by different organisations and from year to year within an organisation as methodologies develop.

Directors' responsibilities

The Directors are responsible for preparing an Annual Report which complies with the requirements of the Companies Act 2006 and for being satisfied that the Annual Report, taken as a whole, is fair, balanced and understandable. Additionally, the directors are responsible for the maintenance and integrity of the corporate and financial information included on the company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The Directors are also responsible for:

1. Selecting and establishing the Basis of Reporting.
2. Preparing, measuring, presenting and reporting the Selected Information in accordance with the Basis of Reporting.
3. Publishing the Basis of Reporting publicly in advance of, or at the same time as, the publication of the Selected Information.
4. Designing, implementing, and maintaining internal processes and controls over information relevant to the preparation of the Selected Information to ensure that they are free from material misstatement, including whether due to fraud or error.
5. Providing sufficient access and making available all necessary records, correspondence, information and explanations to allow the successful completion of the Services.
6. Confirming to us through written representations that you have provided us with all information relevant to our Services of which you are aware, and that the measurement or evaluation of the underlying subject matter against the Basis of Reporting including that all relevant matters, are reflected in the Selected Information.

Our responsibilities

We are responsible for:

1. Planning and performing procedures to obtain sufficient appropriate evidence in order to express an independent limited assurance conclusion on the Selected Information.
2. Communicating matters that may be relevant to the Selected Information to the appropriate party including identified or suspected non-compliance with laws and regulations, fraud or suspected fraud, and bias in the preparation of the Selected Information.
3. Reporting our conclusion in the form of an independent limited Assurance Report to the Directors.

Our independence and competence

In conducting our engagement, we complied with the independence requirements of the FRC's Ethical Standard and the ICAEW Code of Ethics. The ICAEW Code is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We applied the International Standard on Quality Control (UK) 1 ("ISQC (UK) 1"), issued by the Financial Reporting Council. Accordingly, we maintained a comprehensive system of quality including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Use of Report

This report is made solely to the Directors of Glencore in accordance with ISAE 3000 (Revised) and our agreed terms of engagement. Our work has been undertaken so that we might state to the Directors of Glencore those matters we have agreed to state to them in this report and for no other purpose.

Without assuming or accepting any responsibility or liability in respect of this report to any party other than Glencore and the Directors of Glencore we acknowledge that the Directors of Glencore may choose to make this report publicly available for others wishing to have access to it, which does not and will not affect or extend for any purpose or on any basis our responsibilities. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than Glencore and the Directors of Glencore as a body, for our work, for this report, or for the conclusions we have formed.

Deloitte LLP

Deloitte LLP
London, United Kingdom

22 March 2023

Shareholder Information

Glencore plc is registered in Jersey, is headquartered in Switzerland and its Group has operations around the world.

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CH-6340 Baar
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Registered office

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Channel Islands

The Company has a primary listing on the London Stock Exchange (LSE) and a secondary listing on the Johannesburg Stock Exchange (JSE).

Our website contains further information on our business and for shareholders including as to share transfer and distributions: *glencore.com/investors/shareholder-centre*

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Given the focus of this document, it is necessarily oriented towards future events and therefore contains statements that are, or may be deemed to be, "forward-looking statements" which are prospective in nature. Such statements may include (without limitation)statements in respect of trends in commodity prices and currency exchange rates; demand for commodities; reserves and resources and production forecasts; expectations, plans, strategies and objectives of management; climate scenarios; sustainability performance (including, without limitation, environmental, social and governance) related goals, ambitions, targets, intentions, visions, milestones and aspirations; approval of certain projects and consummation of certain transactions (including, without limitation, acquisitions and disposals); closures or divestments of certain assets, operations or facilities (including, without limitation, associated costs); capital costs and scheduling; operating costs and supply of materials and skilled employees; financings; anticipated productive lives of projects, mines and facilities; provisions and contingent liabilities; and tax, legal and regulatory developments.

These forward-looking statements may be identified by the use of forward-looking terminology, or the negative thereof including, without limitation, "outlook", "guidance", "trend", "plans", "expects", "continues", "assumes", "is subject to", "budget", "scheduled", "estimates", "aims", "forecasts", "risks", "intends", "positioned", "predicts", "projects", "anticipates", "believes", or variations of such words or comparable terminology and phrases or statements that certain actions, events or results "may", "could", "should", "shall", "would", "might" or "will" be taken, occur or be achieved. The information in this document provides an insight into how we currently intend to direct the management of our businesses and assets and to deploy our capital to help us implement our strategy. The matters disclosed in this document are a 'point in time' disclosure only. Forward-looking statements are not based on historical facts, but rather on current predictions, expectations, beliefs, opinions, plans, objectives, goals, intentions and projections about future events, results of operations, prospects, financial conditions and discussions of strategy, and reflect judgments, assumptions, estimates and other information available as at the date of this document or the date of the corresponding planning or scenario analysis process.

By their nature, forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements to differ materially from any future event, results, performance, achievements or other outcomes expressed or implied by such forward-looking statements. Important factors that could impact these uncertainties include (without limitation) those disclosed in the risk management section of our latest Annual Report and Half-Year Report (which can each be found on our website). These risks and uncertainties may materially affect the timing and feasibility of particular developments. Other factors which impact risks and uncertainties include, without limitation: the ability to produce and transport products profitably; demand for our products; changes to the assumptions regarding the recoverable value of our tangible and intangible assets; changes in environmental scenarios and related regulations, including (without limitation) transition risks and the evolution and development of the global transition to a low carbon economy; recovery rates and other operational capabilities; health, safety, environmental or social performance incidents; natural catastrophes or adverse geological conditions, including (without limitation) the physical risks associated with climate change; the outcome of litigation or enforcement or regulatory proceedings; the effect of foreign currency exchange rates on market prices and operating costs; actions by governmental authorities, such as changes in taxation or regulation or changes in the decarbonisation plans of other countries; and political uncertainty.

Readers, including (without limitation) investors and prospective investors, should review and take into account these risks and uncertainties (as well as the other risks identified in this document) when considering the information contained in this document. Readers should also note that the high degree of uncertainty around the nature, timing and magnitude of climate-related risks, and the uncertainty as to how the energy transition will evolve, makes it difficult to determine and disclose the risks and their potential impacts with precision. Neither Glencore nor any of its affiliates, associates, employees, directors, officers or advisers, provides any representation, warranty, assurance or guarantee that the occurrence of the events, results, performance, achievements or other outcomes expressed or implied in any forward-looking statements in this document will actually occur. Glencore cautions readers against reliance on any forward-looking statements contained in this document, particularly in light of the long-term time horizon which this report discusses and the inherent uncertainty in possible policy, market and technological developments in future.

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Glencore operates in a dynamic and uncertain market and external environment. Plans and strategies can and must adapt in response to dynamic market conditions, joint venture decisions, new opportunities that might arise or other changing circumstances. Investors should not assume that our strategy on climate change will not evolve and be updated as time passes. Additionally, a number of aspects of our strategy involve developments or workstreams that are complex and may be delayed, more costly than anticipated or unsuccessful for many reasons, including (without limitation) reasons that are outside of Glencore's control.

There are inherent limitations to scenario analysis and it is difficult to predict which, if any, of the scenarios might eventuate. Scenario analysis relies on assumptions that may or may not be, or prove to be, correct and that may or may not eventuate and scenarios may also be impacted by additional factors to the assumptions disclosed. Given these limitations we treat these scenarios as one of several inputs that we consider in our climate strategy.

Due to the inherent uncertainty and limitations in measuring greenhouse gas (GHG) emissions and operational energy consumption under the calculation methodologies used in the preparation of such data, all CO_2e emissions and operational energy consumption data or volume references (including, without limitation, ratios and/or percentages) in this document are estimates. There may also be differences in the manner that third parties calculate or report such data compared to Glencore, which means that third-party data may not be comparable to Glencore's data. For information on how we calculate our emissions and operational energy consumption data, see our latest *Basis of Reporting*, *Climate Report* and *Extended ESG Data*, which can be found on our website.

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