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
- 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, 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 via reporting from the Group corporate functions:

- Industrial and Marketing risk functions (Group Risk Functions)
- Compliance
- Legal
- Finance
- Internal Audit
- HSEC-HR / HSEC audit
- Sustainable Development
- Human Resources
- IT

The Committees' work concerning these various risks is set out in their reports on pages 96 to 100.

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. These reports cover various topics, including Group 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.

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

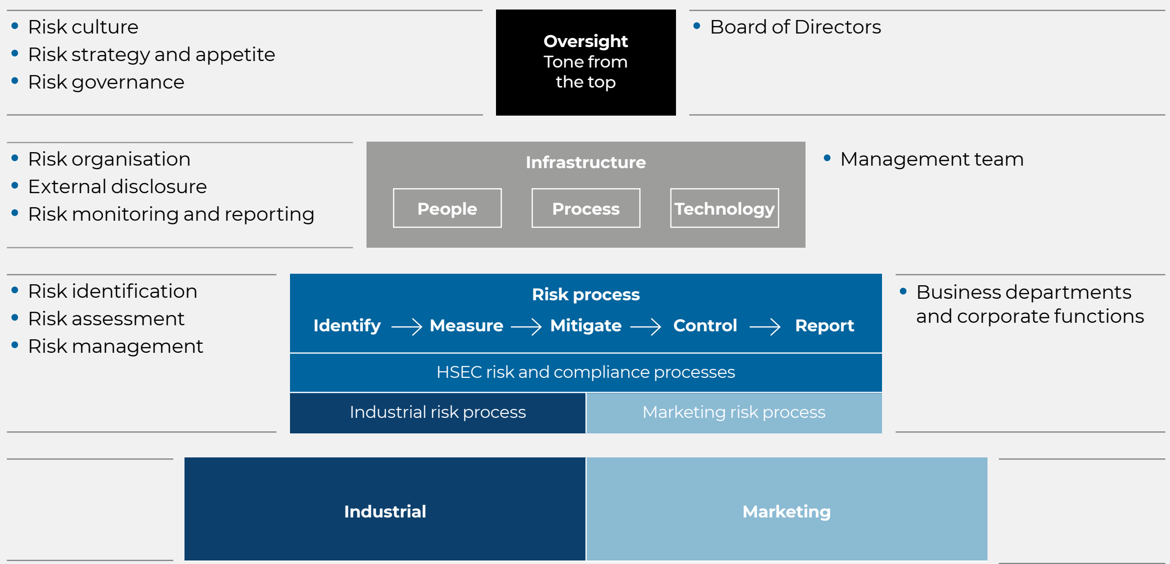
Our Group functions support senior management and those with responsibilities for risk within the business, in the development and maintenance of an appropriate institutional risk culture of managing and mitigating risk across the Group, as appropriate.

Industrial risk management

Responsibilities for business risk management are decentralised across the departments and 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 operation are responsible for

Risk management framework



Risk management continued

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 asset level, with the support and guidance from the central Sustainability and HSEC and Human Rights (HSEC-HR) 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 97 and will be published in the Group's Sustainability Report for 2021.

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 central 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 central 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 its 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 Value at Risk (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

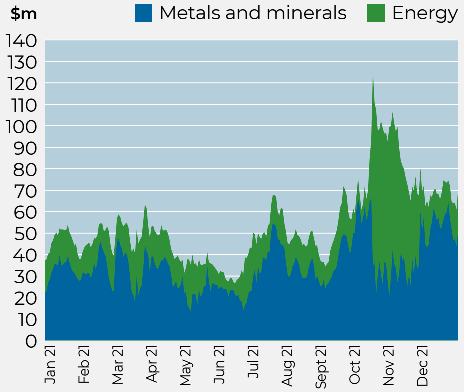
Value at risk

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 all markets and commodities and risk measures can be aggregated to derive a single risk value. Glencore's Board has set a consolidated VaR limit (one day 95% confidence level) of $150 million (2020: $100 million) representing less than 0.4% of total equity, which the Board reviews annually. Given 2021's elevated implied market volatilities, together with statistically higher commodity correlations and the nature / extent (e.g. increased size and tenor of the LNG business) of transaction volumes, the Board approved an increase in the VaR limit in H2 2021, initially to $130 million on a temporary basis and then to $150 million going forward, with effect from 1 January 2022.

Glencore uses a one-day VaR approach based on a Monte Carlo simulation with a weighted data history computed at a 95% confidence level. Average market risk VaR (1 day 95%) during 2021 was $54 million, with an observable high of $126 million and low of $27 million, while average equivalent VaR during 2020 was $39 million. There were no limit breaches during the period.

The Group remains aware of the extent of coverage of risk exposures and their limitations. In addition, VaR does not purport to represent actual gains or losses in fair value on earnings to be incurred by the Group, nor are these VaR results considered indicative of future market movements or representative of any actual impact on its future results. VaR remains viewed in the context of its limitations; notably, the use of historical data as a proxy for estimating future events, market illiquidity risks and risks associated with longer time horizons as well as tail risks. Recognising these limitations, the Group complements and refines this risk analysis through the use of stress and scenario analysis. The Group regularly back-tests its VaR to establish adequacy of accuracy and to facilitate analysis of significant differences, if any.

The Board has approved the Audit Committee's recommendation of a one day, 95% VaR limit of $150 million for 2022.



Risk management continued

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 the CEO (relating to unsecured amounts in excess of $75 million with BBB- (or equivalent) or lower rated counterparts). 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.

Managing risk for joint ventures (JVs)

The Board, through the ECC and HSEC Committees, reviews and determines the appropriate level of risk management oversight for the Group's material JVs. We ensure that our material risk management programmes are implemented at the JVs that we 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.

Legal and compliance

For legal and compliance risk, see Ethics and Compliance section on page 43, and the laws and enforcement risk on page 75.

Internal audit

Glencore's Internal Audit function reports directly to the Audit Committee. Its role is to evaluate and improve the effectiveness of business risk management, internal control, and business governance processes.

A risk-based audit approach is applied in order to focus on high-risk areas during the audit process. It involves discussions with management on key risk areas identified in the Group's budgeting process, emerging risks, operational changes, new investments and capital projects. On an annual basis, Internal Audit also performs reviews at the direction of senior management and the Audit Committee. Internal Audit reviews these areas of potential risk, and suggests controls to mitigate exposures identified.

The Audit Committee considers and approves the risk-based Internal Audit plan, areas of audit focus and resources and is regularly updated on audits performed and relevant findings, as well as the progress on implementing the actions arising. In particular, the Committee considers Internal Audit's main conclusions, its KPIs and the effectiveness and timeliness of management's responses to its findings. The Audit Committee has concluded that the Internal Audit 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.

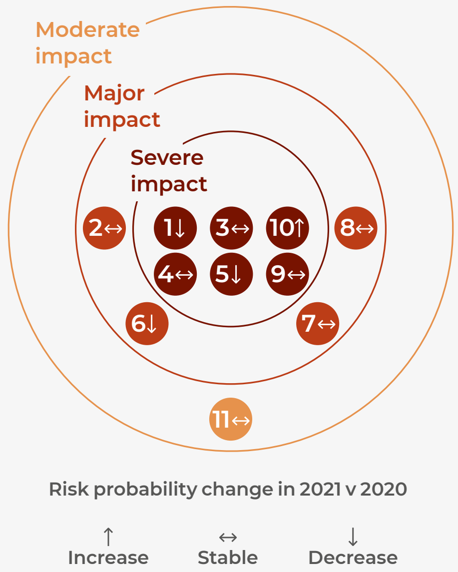
Emerging risks typically have their origin outside Glencore and there is often insufficient information for these risks to be fully understood and prevention by the Group may not be possible.

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 five times a year and are always followed by a meeting of the Board 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 72.

2021 developments and overview of principal risks and uncertainties



Principal risks

1. Supply, demand and prices of commodities
2. Currency exchange rates
3. Geopolitical, permits and licences to operate
4. Laws and enforcement
5. Liquidity
6. Counterparty credit and performance
7. Operating
8. Cyber
9. Health, safety and environment
10. Climate change
11. Community relations and human rights

Risk management continued

Evolution in principal and emerging risks

Covid-19

Globally, Covid-19 has continued to disrupt and affect our business. The main issues this year have been:

- the implementation of several new health and safety measures at our industrial sites and offices around the globe
- further mandatory shutdowns imposed by governments and shifts to remote working
- the various restrictions in travel, domestically and internationally, and
- strained supply chains.

Notwithstanding these challenges and their related impact on our risks, Covid-19's impact on our industry and the Company has been uneven. Global trading flows continue to operate and no critical infrastructure assets have been suspended. The benefits of global policy responses to tackle the impacts of the pandemic have helped reduce the negative consequences on the global economy.

This year has also seen significant increases in energy prices.

Russia/Ukraine conflict

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. 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. Glencore complies with all sanctions applicable to our business activities.

Given the importance of Russian/Ukrainian supply to a number of key commodities including oil, natural gas, coal, grain, aluminium and nickel, volatilities in all of these have spiked. Applicable Sanctions are also significantly impacting traditional commodity trade flows.

Glencore has no operational footprint in Russia and our trading exposure is not significant. We are reviewing all our business activities in the country including our equity stakes in En+ and Rosneft (see note 35).

Over time, global commodity trade flows will need to adapt to some or all of Russian/Ukrainian supply being unavailable, whether due to infrastructure damage, sanctions or ethical concerns.

2021 update

Consistent with the prior year, there are 11 principal risks of the Group, of which the following six 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
- geopolitical, permits and licences to operate
- laws and enforcement
- health, safety, environment, including catastrophic hazards
- liquidity, and
- climate change risks.

The pages which follow provide a detailed analysis of each of the principal risks and uncertainties with comments on changes of impact, mitigation, controls, actions, and other relevant comments.

Longer-term viability

In accordance with the requirements of the UK Corporate Governance Code, the Board has assessed the prospects of the Group's viability over the four-year period from 1 January 2022. This period is consistent with the Group's established annual business planning and forecasting processes and cycle, which is subject to review and approval each year by the Board.

The Board also assessed the 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 co-ordinated implementation of government policy and regulation frameworks, which will materially fall outside the four-year period selected for assessment of longer term viability. 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, more than compensated however (from a financial perspective) by materially stronger demand for battery and new energy infrastructure required metals.

The four-year plan considers Glencore's Adjusted EBITDA, capital expenditure, funds from operations (FFO) and Net debt, and the key financial ratios of Net debt to adjusted EBITDA and FFO to Net debt over the forecast years and incorporates stress tests to simulate the potential impacts of exposure to the Group's principal risks and uncertainties.

For the 2022-25 plan these scenarios included:

- a prolonged downturn in the price and demand of commodities most impacting Glencore's operations. Prices and FX over Q2 2020 (lowest average quarter in recent history, accounting for Covid-19) are assumed to prevail for the outlook period to 2025;
- foreign exchange movements to which the Group is exposed as a result of its global operations;
- actions at the Group's disposal to mitigate the adverse impacts of the above, principally the ability to defer or cancel capital expenditure, to manage the working capital cycle and to reduce or stop distributions to shareholders; and
- consideration of the potential impact of adverse movements in macroeconomic assumptions and their effect on the above key financial KPIs and ratios which could increase the Group's access to or cost of funding.

The scenarios were assessed taking into account current risk appetite and any mitigating actions Glencore could take, as required, in response to the potential realisation of any of the stressed scenarios.

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. They also believe that the review period of four years is appropriate having regard to the Group's business model, strategy, principal risks and uncertainties, and viability.

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 259.

Identifying, quantifying and managing risk is complex and challenging. Although it is our policy to identify and, where appropriate and practical, actively manage risk, our policies and procedures may not adequately identify, monitor and quantify all risks.

This section describes our attempts to manage, balance or offset 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 2021 financial statements
- a reference to the sustainability report is our 2021 sustainability report to be published in April 2022.

Risk management continued

Strategic priorities

Responsible production and supply

Responsible portfolio management

Responsible product use

1. Supply, demand, and prices of commodities

2021 vs 2020	Risk appetite	Link to strategy
↓	High **Medium** Low	

Being a resources company, we are subject to the inherent risk of sustained low prices of our main commodities, particularly affecting our industrial business.

Description and potential impact

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. Commodity prices are influenced by several external factors, including the supply of and demand for commodities, speculative activities by market participants, global political and economic conditions, related industry cycles and production costs in major producing countries.

The dependence of the Group (especially our industrial business) on commodity prices, supply, and demand of commodities, make this the Group's foremost risk.

We are dependent on the expected volumes of supply or demand for commodities which can vary for many reasons, such as competitor supply, changes in resource availability, government policies and regulation, costs of production, global and regional economic conditions and demand in end markets for products in which the commodities are used. Supply and demand volumes can also be impacted by technological developments, e.g. commodity substitutions, fluctuations in global production capacity, geopolitical events, global and regional weather conditions, natural disasters, and diseases, all of which impact global markets and demand for commodities.

Future demand for certain commodities might decline (e.g. fossil fuels), whereas others might increase (e.g. copper, cobalt, and nickel for their use in electric vehicles and batteries more broadly), taking into consideration the transition to a low carbon economy.

Furthermore, changes in expected supply and demand conditions impact the expected future prices (and thus the price curve) of each commodity and significant falls in the prices of certain commodities (e.g. copper, coal, zinc 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.

This risk is more prevalent in fossil fuels, given the drive towards net zero emissions over the long term. Net zero emissions requires demand for unabated coal and other hydrocarbon fuel sources to materially reduce over time, driven on by political pressures, societal expectations, and generally increased access to, and cost competitiveness of, lower carbon alternatives (i.e. renewables) and the likelihood of increased and broader implementation of carbon pricing/taxes across the geographies where the Group operates.

The new or improved energy production possibilities and/or technologies are likely to reduce the demand for some commodities such as coal, however, at the same time, are likely to materially increase demand for other commodities.

Any adverse economic developments, particularly those impacting China and fast growing developing countries, could lead to reductions in demand for, and consequently price reductions of, commodities, with particular risk to commodities used in steelmaking such as iron ore, metallurgical coal and zinc.

Developments

Energy markets tightened significantly in H2 2021 leading to energy price increases across the board. Industrial metals prices remained at strong levels throughout the year.

In this environment, our long-term plans for our industrial operations remained appropriate with no market-driven corrections required. Material portfolio changes were the acquisition of the two-thirds of the Cerrejon thermal coal business we did not already own, and the restart of the Mutanda copper/cobalt operation.

Marketing operations benefited from underlying supply/demand tightness and volatility spikes across a number of commodities, also leading to the Board approving a temporary (and ultimately permanent) increase request to the Group's Value at Risk limit.

The Russia/Ukraine conflict in 2022 has led to elevated volatility across many asset classes, including commodities. Depending on the duration of the conflict and the sanctions regime, global commodity flows may change materially from their pre-2022 situation.

Mitigating factors

We continue to maintain focus on cost discipline and achieving greater operational efficiency, and we actively manage marketing risk, including daily analysis of Group value at risk (VaR).

We maintain both a diverse portfolio of commodities, geographies, currencies, assets and liabilities and a global portfolio of customers 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 recycling, and by closely monitoring fossil fuel (particularly thermal coal) demands. We can also reduce the production of any commodity within our portfolio in response to changing market conditions.

Risk management continued

2. Currency exchange (FX) rates

2021 v 2020	Risk appetite	Link to strategy
	High Medium **Low**	

This affects us as a global company usually selling in US dollars but having costs in a large variety of other currencies.

Description and potential impact

FX changes happen all the time but are often difficult to predict. 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.

The vast majority of our sales transactions are denominated in US dollars, while operating costs are spread across many different countries, the currencies of which fluctuate against the US dollar. 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.

The main currency exchange rate exposure is through our industrial assets, as a large proportion of the costs incurred by these operations is denominated in the currency of the country in which each asset is located.

Developments

Higher commodity prices supported a level of producer currency strengthening versus the US dollar in 2021.

Near term confidence in stability of global demand (and thus indirectly FX rates for relevant producer countries) hinges on many factors, particularly those that relate to the prospects of global economic recovery and growth, including U.S./China trade relationship, political/economic tension across the CIS and the ongoing disruption caused by the coronavirus pandemic.

Mitigating factors

Ordinarily, where material, FX exposure to non-operating FX risks is hedged. 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 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.

3. Geopolitical, permits and licences to operate

2021 v 2020	Risk appetite	Link to strategy
	High Medium Low	

We operate in many countries across the globe. Regulatory regimes applicable to resource companies can often be subject to adverse and short-term changes.

Description and potential impact

We operate and own assets in a large number of geographic regions and countries, 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. The Group transacts business in locations where it is exposed to a risk of overt or effective expropriation or nationalisation. Our operations may also be affected by political and economic instability, including terrorism, civil disorder, violent crime, war, and social unrest.

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 or may increase sustainability obligations. The tax codes of some countries can be uncertain in their application and the access to impartial administrative and judicial redress may be limited. In certain cases, a government authority may make material demands without robust justification with a view to negotiating a settlement.

The terms attaching to any permit or licence to operate may be onerous and obtaining these and other approvals, which may be revoked, 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.

Adverse actions by governments and others can result in operational/project delays or loss of permits or licences to operate. Policies or laws in the countries in which we do business may change in a manner that may negatively affect the Group.

The suspension or loss of our permits or licences to operate could have a material adverse effect on the Group and could also preclude Glencore from participating in bids and tenders for future business and projects, therefore affecting the Group's long-term viability.

Our licences to operate through mining rights are dependent on a number of factors, including compliance with regulations and constructive relationships with a wide and diverse range of stakeholders.

The continued operation of our existing assets and future plans are in part dependent upon broad support, our 'social licence to operate', and a healthy relationship with the respective local communities – see further Community Relations and Operating risks concerning workforce disputes.

Risk management continued

Developments

The Group has increased its engagement, including due to Covid-19 with employees, relevant governmental authorities, regulators, and other stakeholders.

Resource nationalism continues to be a challenging issue in many countries.

Emerging uncertainty regarding global supply of commodities due to the Russia/Ukraine conflict may disrupt certain global trade flows and place significant upwards pressure on commodity prices and input costs as seen through early March 2022. Challenges for market participants may include availability of funding to ensure access to raw materials, ability to finance margin payments and heightened risk of contractual non-performance.

Ongoing scrutiny by governments and tax authorities has maintained potential tax exposures for the Group at elevated levels, with some tax authorities taking an aggressive approach to engaging with the Group, which has in some cases led to litigation.

In 2021, we published our annual Payments to Governments report. This detailed total government contributions in 2020 of $5.8 billion. It also set out details of payments on a project by project basis.

Also see Community relations and Human Rights risk below.

Mitigating factors

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 (see sustainability risks later in this section). This commitment is essential to enable us to effectively manage these risks and to maintain our permits and licences to operate.

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'.

The Group's industrial assets are diversified across various countries. The Group has an active engagement strategy with the governments, regulators, and other stakeholders in 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.

4. Laws and Enforcement

2021 v 2020	Risk appetite	Link to strategy
↔	High **Medium** Low	

Some of our existing industrial and marketing activities are located 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, and therefore there will always be residual risk in relation to our compliance with laws and external requirements.

Description and potential impact

We are exposed to extensive laws, 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, development of natural resources, licences over resources, exploration, production and post-closure reclamation, employment of labour and occupational health and safety standards. 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.

The costs associated with compliance with these laws and regulations, including the costs of regulatory permits, are substantial and increasing. Any changes to these laws 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. 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 industrial assets.

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. Our marketing activities are large in scale, which may make fraudulent, corrupt, or other unlawful transactions difficult to detect.

In addition, some of our industrial activities are located in countries where corruption is more prevalent; and some of our counterparties have in the past, and may in the future, become the targets of sanctions. Corruption and sanctions risks remain highly relevant for businesses operating in international markets, as shown by recent enforcement actions both inside and outside the resources sector.

Governmental and other authorities have commenced, and may in the future commence, investigations against the Group (including those listed in note 23 to the 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. The cost of cooperating with investigations and/or

Risk management continued

defending proceedings can be substantial. Investigations or proceedings could lead to reputational damage, the imposition of material fines, penalties, redress or other restitution requirements, or other civil or criminal sanctions on the Group (and/or on individual employees of the Group), the curtailment or cessation of operations, orders to pay compensation, orders to remedy the effects of violations and/or orders to take preventative steps against possible future violations. The impact of any monetary fines, penalties, redress or other restitution requirements, and the reputational damage that could be associated with them as a result of proceedings that are decided adversely to the Group, could be material.

In addition, the Group may be the subject of legal claims brought by private parties in connection with alleged non-compliance with these laws, including class or collective action suits in connection with governmental and other investigations and proceedings, and lawsuits based upon damage resulting from our operations. 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.

Developments

The Group has been cooperating extensively with the relevant authorities in order to resolve as expeditiously as possible the government investigations disclosed in note 23 to the financial statements. The Investigations Committee ('Committee') of the Board manages the Group's responses to these investigations. While the Committee cannot forecast with certainty the cost, extent, timing or terms of the outcomes of the investigations, the Committee presently expects to resolve the US, UK and Brazilian investigations in 2022. Accordingly, and based on the Company's current information and understanding, the Group has raised a provision as at 31 December 2021 in the amount of $1.5 billion representing the Committee's current best estimate of the costs to resolve these investigations (included in other expenses, see note 5).

Glencore continues to cooperate with a previously disclosed 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. The timing and outcome of this investigation remain uncertain.

Glencore has also been notified by the Dutch authorities of a criminal investigation into Glencore International AG related to potential corruption pertaining to the DRC and is in contact with the Dutch authorities in respect of this investigation. The scope of the investigation is similar to that of the OAG investigation. The Dutch authorities are coordinating their investigation with the OAG and we would expect any possible resolution to avoid duplicative penalties for the same conduct.

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, engagement with government and regulators, and compliance with the terms of permits and licences.

We seek to mitigate the risk of breaching applicable laws and external requirements through our risk management framework.

We have implemented a Group Ethics and Compliance programme that includes risk assessments, a range of policies, standards, procedures, guidelines, training and awareness, monitoring and investigations. See also the Ethics and Compliance section of this report on page 43.

We have increased in recent years our focus on, and resources dedicated to, the Group Ethics and Compliance 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 function. We engage with reputable external legal firms and consultants as necessary to support these efforts.

However, there can be no assurance that such policies, standards, procedures, and controls will adequately protect the Group against fraud, bribery and corruption, market abuse, sanctions breaches or other unlawful activities.

Risk management continued

5. Liquidity

2021 v 2020	Risk appetite	Link to strategy
	High Medium Low	

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 price to fund our commitments.

Description and potential impact

While we adjust our minimum internal liquidity threshold from time to time in response to changes in market conditions, 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 ourselves.

Our failure to access funds (liquidity) would severely limit our ability to engage in desired 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.

Funding costs may rise owing to ratings agency downgrades and the possibility of more restricted access to funding.

Developments

Note 28 details the fair value of our financial assets and liabilities. Note 27 details our financial and capital risk management including liquidity risk.

The Group's strong 2021 profitability and cash flows led to the reduction of Net debt from $15.8 billion at 31 December 2020 to $6.0 billion at 31 December 2021. Our net funding at 31 December 2021 was $30.8 billion (31 December 2020: $35.4 billion).

The Group's business model relies on ready access to substantial borrowings at reasonable cost, which has continued to be forthcoming, noting the Group's successful issuance of some $4.3 billion of long-term bonds in 2021 at attractive interest rates, and the ongoing availability of supplier financing arrangements in the form of extended letters of credit provided by the Group's various banks.

During 2021 the Group issued $2.95 billion in US markets and EUR 1.1 billion debt under its EMTN programme. Certain tranches of the refinancing were longer dated than the instruments they replaced, up to 30 year maturities. This provided the opportunity to lock in attractive funding rates for the long term while maintaining our overall maturity profile of no more than approximately $3 billion in any one year.

In September, Moody's affirmed its Baa1 rating for the Group and changed its outlook to stable from negative. The outlook from S&P (BBB+) is also stable.

Mitigating factors

It is the Group's policy to operate 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 funding sources is sought via bank borrowings, bonds, and trade finance, further diversified by currency, interest rate and maturity.

In light of the Group's extensive funding activities, maintaining investment grade credit rating status is a financial priority.

In support of this, Glencore targets a maximum 2x Net debt/Adjusted EBITDA ratio through the cycle, and a c.$10 billion net debt cap in the ordinary course of business. 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, even in periods of elevated market volatility.

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.

Risk management continued

6. Counterparty credit and performance

2021 v 2020	Risk appetite	Link to strategy
↓	High Medium **Low**	

We are subject to non-performance risk by our suppliers, customers, and hedging counterparties, in particular via our marketing activities.

Description and potential impact

Financial assets consisting principally of receivables and advances, derivative instruments and long-term advances and loans can expose us to concentrations of credit risk.

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 subject to prepayment may find themselves unable to honour their contractual obligations due to financial distress or other reasons

Open account risk is taken but this is governed by the Group-wide Corporate Credit Risk Management procedure for higher levels of credit risk exposure, with an established threshold for referral of credit decisions by department heads to the CEO, CFO and CRO, relating to unsecured amounts in excess of $75 million with BBB- or lower rated counterparts.

Developments

Some of our customers and suppliers are experiencing financial difficulties particularly arising from Covid-19 or the recent material price volatility in some commodity markets. However, the overall credit quality of our counterparty portfolio significantly improved in 2021 as global economic growth improved, Covid-19 restrictions eased and, in particular, energy prices rebounded strongly. We have regular contact with our key counterparties and, in the vast majority of cases, deliveries and payments have continued in the normal course of business.

The Group's accounts receivable balance, including assessment of doubtful accounts, is set out in note 14.

Mitigating factors

We seek to diversify our counterparties and to ensure adherence to open account limits.

The Group makes extensive use of credit enhancement tools, seeking letters of credit, insurance cover, discounting, and other means of reducing credit risk with counterparts. Where desirable and possible, credit exposures are to be 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.

Specific credit risk rules apply to open account risk with an established threshold for referral of credit positions by departments to central management.

Risk management continued

7. Operating

2021 v 2020	Risk appetite	Link to strategy
	High Medium Low	

Our industrial activities are subject to a level of significant residual risk throughout each operation's life cycle, from initiation through development, operation and/or expansion and ultimate closure

Description and potential impact

Notwithstanding our enterprise risk management practices, some of these risks are beyond our control. These include 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, unavailability of materials and equipment, unreliability and/or constraints of infrastructure, industrial accidents, labour force challenges, disasters, protests, force majeure factors, cost overruns, delays in permitting or other regulatory matters, vandalism and crime.

The maintenance of positive employee and union relations and engagement, and the ability to attract and retain skilled workers, including senior management, are key to our success. This attraction and retention of highly qualified and skilled personnel can be challenging, especially in locations experiencing political or civil unrest, or in which employees may be exposed to other hazardous conditions.

Many employees, especially at the Group's industrial activities, are represented by labour unions under various collective labour agreements. Their employing company may not be able to satisfactorily renegotiate its collective labour agreements when they expire and may face tougher negotiations or higher wage demands than would be the case for non-unionised labour. In addition, existing labour agreements may not prevent a strike or work stoppage.

The development and operating of assets may lead to future upward revisions in estimated costs, delays or other operational difficulties or damage to properties or facilities. This may cause production to be reduced or to cease and may further result in personal injury or death, third party damage or loss or require greater infrastructure spending. Also, the realisation of these risks could require significant additional capital and operating expenditures.

Some of the Group's interests in industrial assets do not constitute controlling stakes. Although the Group has various agreements in place which seek to protect its position where it does not exercise control, the other shareholders in these entities may have interests or goals that are inconsistent with ours and may take action contrary to the Group's interests or be unable or unwilling to fulfil their obligations.

Severe operating or market difficulties may result in impairments, details of which are recorded in note 7.

Developments

Businesses continued to be affected by the Covid-19 pandemic. The response to the pandemic has varied by jurisdiction, with authorities imposing different requirements, often changing as the pandemic evolves. Operations sought to develop protocols/ working practices to minimise virus transmission risks in the workplace. Some businesses continued to be affected as a result of new outbreaks which led to challenges such as the inability to mobilise skilled resources when required.

Glencore's Nickel operations in New Caledonia continued to face particular operating challenges; in 2021 there was a significantly extended shutdown on a furnace because of the pandemic leading to an extended run time on the other furnace resulting in difficulties being experienced with this furnace. We continue to experience challenges with this complex operation.

Following a detailed business review, Glencore disposed of its majority stake in Mopani in Zambia. The structure of the transaction should result in some recovery of the residual economic value in the asset whilst reducing operating and country risks that had proven to be challenging.

Cost control remains a significant area of management focus, noting that in the context of mineral resources, absolute costs tend to increase over time as incremental resources are likely further away from the processing plant and/or deeper with sometimes decreasing grades. A number of operations have adopted structured programmes to analyse their costs and identify marginal savings which are then implemented. Maintenance and, where possible, reduction of unit costs is regularly reviewed by management.

Infrastructure availability remains a key risk. Exposures continue to include the delivery of reliable electrical power to our DRC operations. This has improved over the last several years but is not yet at a consistent level of reliability, and management continues to work with local entities to improve the service. Our South African operations have been significantly adversely affected by local rail and power issues. Our Astron Energy refinery continues to carry out repairs to the refinery following the 2020 explosion which tragically also resulted in the loss of two lives. Improved governance and operating management systems are being developed and implemented to address the underlying issues that led to the incident.

Despite the challenges created by the global pandemic, we have maintained engagement campaigns with employees to receive direct feedback on the Group's culture and practices.

Risk management continued

Mitigating factors

Development and operating risks and hazards are managed through our continuous project status evaluation and reporting processes and ongoing assessment, reporting and communication of the risks that affect our operations along with updates to the risk register.

We publish our production results quarterly and 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, economics of the particular commodities concerned and the impact on the communities in which we operate.

Local cost control measures are complemented by global procurement that leverages our scale to seek to achieve favourable terms on high-consumption materials such as fuel, explosives, and tyres.

One of the key factors in our success is a good and trustworthy relationship with our people. This priority is reflected in the principles of our sustainability programme and related guidance, which require regular, open, fair, and respectful communication, zero tolerance for human rights violations, fair remuneration and, above all, a safe working environment as outlined in the Our people section on page 34 and our website at: **glencore.com/careers/our-culture**

8. Cyber

2021 v 2020	Risk appetite	Link to strategy
	High Medium Low	

A cyber security breach, incident or failure of Glencore's IT systems could disrupt our businesses, put employees at risk, result in the disclosure of confidential information, damage our reputation, and create significant financial and legal exposure for the Group.

Description and potential impact

Cyber risks for firms have increased significantly in recent years owing in part to the proliferation of new digital technologies (e.g. ransomware), nation-state activity, increasing degree of connectivity and a material increase in monetisation of cybercrime.

Our activities depend on digital capabilities for industrial production, efficient operations, environmental management, health and safety, communications, transaction processing and risk management. We also depend on third parties in long supply chains that are exposed to the same cyber risks, but which are largely outside our control.

The security of long interconnected commodity supply chains is an area of concern that we monitor closely to reduce the impact on the Group.

The emergence of machine learning and artificial intelligence increases the volume and sophistication of fraud attempts. The rise of 'Deepfake' technology using machine learning makes it easier to manipulate audio content that could be used in phishing or fraud attacks by impersonating senior executives.

Although Glencore invests heavily to monitor, maintain, and regularly upgrade its systems, processes and networks, absolute security is not possible.

Developments

Our cyber security monitoring platforms frequently detect attempts to breach our networks and systems. During 2021, none of these events resulted in a significant breach of our IT environment nor resulted in any material business impact.

Covid-19 has increased the degree of remote working and the potential attack surface area. We continue to witness a heightened level of sophistication and frequency of cyberattacks against all firms.

We anticipate that 'supply chain cyberattacks' through which legitimate third party software is manipulated in an attempt to spread malware or gain access to systems will increase. We also expect that ransomware will remain an area of heightened threat focus.

Mitigating factors

We publish IT security standards and proactively educate our employees in order to raise awareness of cyber security threats.

Where possible, cyber exposure risks are mitigated through layered cyber security, proactive monitoring, and independent cyber security penetration tests to confirm the security of systems.

We seek to keep our system software patches up to date and have global platforms to proactively manage patch compliance. We have adopted strict privileged access management to ensure administrator rights on critical systems are protected. We have multiple layers of email security and harden our computers and servers to protect against malware. Corporate applications and communications are secured with multiple layers of security including two-factor authentication and virtual private network (VPN) technology for remote access.

We use global IT security platforms to proactively monitor and manage our cyber risks. We routinely conduct third party penetration tests to independently assess the security of our IT systems. We have a dedicated programme to enhance the monitoring and security of our Operational Technology (OT) platforms.

Our IT Security Council sets the global cyber security strategy, conducts regular risk assessments, and designs cyber security solutions that seek to protect against emerging malware, viruses, vulnerabilities, and other cyber threats. Our Cyber Defence Centre is responsible for day-to-day monitoring of cyber vulnerabilities across the Group and driving remediation of threats. We have an incident response team that is accountable for coordinating the response in the event of a major cyber incident.

During 2021, we continued to implement new capabilities to further enhance protection against ransomware, enhance perimeter security and enhance the security of our OT platforms.

Risk management continued

9. Health, safety, and environment

2021 v 2020	Risk appetite	Link to strategy
	High Medium Low	

Industrial operations are inherently dangerous. Catastrophic events that take place in the natural resource sector can have disastrous impacts on workers, communities, the environment, and corporate reputation, as well as a substantial financial cost.

Description and potential impact

The success of our business is dependent on a safe and healthy workforce. Identifying and managing risks to the safety and health of our people is essential for their long-term wellbeing. It also helps us to maintain our productivity.

A number of our assets are in regions with poor approaches towards personal safety, little or no access to health facilities, and poor working conditions, and organisational cultures.

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.

Environmental, safety and health regulations may result in increased costs or, in the event of non-compliance or incidents causing injury or death or other damage at or to our facilities or surrounding areas, may result in significant losses. Failure to perform well may have long-term negative impacts for host communities and erode trust in the integrity of our organisation. Examples include, those arising from (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.

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.

We operate in some countries characterised with complex and challenging political and/or social climates. This results in a residual risk for compliance with our HSEC&HR policies and standards, as well as with external laws and regulations.

Developments

In response to Covid-19, Glencore focused on efforts to ensure the resilience of the business, including daily monitoring of global conditions, anticipation of potential impacts, and development of action plans and controls to mitigate risks. At the start of the crisis, the corporate Covid-19 Global Response Incident Management Team and Steering Committee were established to maintain continuous communication and response support for our global industrial and marketing teams, resolving potential threats to business continuity, and focusing on the health and well-being of our workforce. In June 2021, Glencore developed its Covid-19 Vaccination Policy and Guiding Principles, in consultation with leading medical experts and released it to the business.

Starting In 2020 and continuing through 2021, we conducted a review of our SafeWork programme, which is Glencore's approach to eliminating fatalities. SafeWork focuses on identifying and managing the hazards in every workplace and is built on a set of minimum expectations and mandatory protocols, standards, behaviours, and safety tools. Well-led, consistent application of SafeWork drives operating discipline and prevents fatal incidents.

Reflecting the review's findings, we launched a refreshed SafeWork in early 2021, which included performance expectations and 2022 and 2023 targets. The Group continues to invest in its sustainability risks assurance process and its focus continues to be on the Group's HSEC catastrophic hazards.

We continued the implementation of our Group-wide Tailings Storage Facility and Dam Management Standard throughout the business and participated in the development of the new Global Industry Standard on Tailings Management, in association with International Council on Mining & Metals member companies. In collaboration with industry tailings experts, we also initiated the development of our Tailings Management Academy, to provide training and capacity-building for our employees in tailings management, and environmental, closure, and community-related practices.

We regret that we have recorded 4 fatalities at our operations (2020: 8). Our Board and senior management are committed to ongoing efforts to improve practices to provide a safe working environment. No major or catastrophic environmental, community or human rights incidents have occurred during the year.

Mitigating factors

We are committed to ensuring the safety and wellbeing of our people, communities, and environment around us.

We implement Health, Safety, Environment, Community and Human Rights (HSEC&HR) policies and standards designed to (1) protect our people, communities, and the environment, and (2) ensure we comply with laws and external regulations.

Our approach to the management of health, safety and the environment and our expectations of our workers and our business partners, are outlined in our policies and standards. These underpin our approach towards social, environmental, health, safety, and compliance indicators, providing clear guidance on the standards we expect all our operations to achieve.

During 2021, the corporate HSEC&HR team continued its work in enhancing Group-level HSEC&HR governance and technical standards to ensure an efficient and consistent approach to managing HSEC&HR related issues across the business.

Risk management continued

We are working towards creating a workplace without fatalities, injuries, or occupational diseases through establishing a positive safety culture. We strive to achieve our ambitions of zero workplace fatalities and no major or catastrophic environmental incidents.

Our commitment to complying with or exceeding the health, safety and environmental laws, regulations, and best practice guidelines applicable to our operations and products is driven through our sustainability and policies frameworks.

We remain focused on the significant risks facing our industry arising from operational catastrophic events and take steps to implement appropriate controls to mitigate them.

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.

Further details will also be published in our 2021 Sustainability Report.

There can be no assurances that our policies, standards, procedures and guidelines will protect the Group against health, safety, and environmental risks.

10. Climate change

2021 v 2020	Risk appetite	Link to strategy
↑	High Medium Low	

Climate change is a material issue that can affect our business through regulations to reduce emissions, carbon pricing mechanisms, extreme climatic events, access to capital, permitting risks and fluctuating energy costs, as well as changing demand for the commodities we produce and market. We consider our risk appetite as high due to our significant exposure to coal producing assets.

Description and potential impact

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 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 potentially impacts Glencore's reputation, access to capital and financial performance
- import duties / carbon taxes in our customer's markets potentially affect our access to those markets as well as our commodities' delivery costs
- increased costs for energy and for other resources, which may impact the productivity of our assets and associated costs
- the imposition of levies related to greenhouse gas emissions
- impacts on the development or maintenance of our assets due to restrictions in operating permits, licences, or similar authorisations.

These cost increases are likely to reduce demand for fossil fuels and could lead to coal assets no longer being economically viable.

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. Some may choose not to invest in or transact with us, due to our fossil fuels operations.

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.

Implementing low-carbon processes and technologies at our assets may increase our operating costs, while also potentially growing/changing our customer base.

Social concerns may increase pressure to divest our coal assets, limit/stop our access to finance, close assets and impact our ability to optimise our portfolio.

Socio-economic concerns associated with the transition to a low-carbon economy may increase expectations of our closure plans and increase closure liabilities.

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.

Developments

The commitments made by a number of countries, including China, Australia and the US, to achieve carbon neutrality by 2050 or 2060, and subsequent introduction of supporting policies, such as import taxes and carbon trading mechanisms, are a strong indicator of the pace of change and the longer-term global trajectory. New European regulation, particularly the 'EU Taxonomy' and the 'EU Green Deal' is likely to accelerate the flow of capital to products and technologies needed in the low-carbon economy, and place greater scrutiny on the carbon footprint of European industrial companies, as well as on those importing products into the Eurozone. This is relevant for Glencore because of the carbon footprint of our products.

While the transition to renewables technologies continues to accelerate, the global economic recovery from Covid-19 has highlighted the ongoing importance in the short term of traditional fuels in meeting global energy needs.

Risk management continued

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.

We balance our ownership of coal assets with our interests in our metals' businesses which are considered crucial to the green economy such as copper, nickel, and cobalt.

Our internal Climate Change Taskforce, led by our CEO, co-ordinates our analysis and planning of the effects of climate change on our business.

We have set ourselves a short-term target of an absolute 15% reduction of our total emissions (Scope 1, 2 and 3) by 2026, and a medium-term target of an absolute 50% reduction of our total emissions by 2035. Our medium-term target is consistent with the midpoint of Intergovernmental Panel on Climate Change's 1.5°C scenarios, and with the Net Zero scenario set out by the International Energy Agency. Post 2035, we have set ourselves the ambition to achieve, with a supportive policy environment, net zero total emissions by 2050.

We monitor and report our Scope 1, 2 and 3 emissions, and use this data in managing our operational carbon footprint, as well as for the development and tracking of our targets.

To better understand and plan for the effects of climate change on our business, we have a framework for identifying, understanding, quantifying 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, permitting risk, product demand and litigation risks.

Further information is available at:
glencore.com/sustainability/climate-change

11. Community relations and human rights

2021 v 2020	Risk appetite	Link to strategy
	High Medium Low	

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.

Description and potential impact

Respecting human rights and building strong relationships are fundamental to the current and future viability of our business.

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.

We have a geographically diverse business, operating in both developed and developing countries in an array of different contexts. In a number of regions where we operate, the socio-political environment is complex which presents additional business, social and security risks if not well understood and managed.

The consequences of adverse community reactions or allegations of human rights 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.

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. Robust planning and stakeholder engagement are key to mitigating environmental and social closure risks.

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.

Risk management continued

Developments

During 2021, Covid-19 continued to impact people's quality-of-life and contributed to localised areas of uncertainty around the world. Our first and foremost priority during the pandemic has been the health and wellbeing of our employees and communities, especially vulnerable groups. We have sought to support our communities by augmenting communication programmes to promote prevention measures, providing basic sanitation and medical materials and supporting local health systems and services.

We continue where possible to work to support local health authorities in encouraging and delivering vaccines, where needed.

The ensuing economic impacts of Covid-19 have amplified existing inequalities around the world, resulting in an escalation of civil unrest in many countries. In the Espinar region of Peru, social protests impacted our Antapaccay operation. The government deployed public security to return law and order in the region around the operation without harm to community members, security forces or our workforce.

Artisanal and small-scale mining (ASM) continues to be a challenge at certain operations, most notably in the DRC. An area of the Mutanda permits, Chabara, has been illegally occupied by ASM cooperatives supported by semi-mechanised operators. We have been engaging with DRC authorities to try to recover control of Chabara following a peaceful relocation of the ASM cooperatives.

Mitigating factors

Our approach is to minimise the local detrimental impacts of our business, engage openly and honestly to build lasting relationships and foster socio-economic resilient communities.

In 2021, we enhanced our Closure Planning expectations and governance through our new Closure Planning Standard to ensure consistent and proactive performance in this important aspect of our operations' lifecycle.

While our Group policies and standards apply to all our businesses, we tailor our community approach to be relevant and appropriate to the local context. 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 (UNGPs), and support resilience and capacity within our host communities. We have processes to identify, prevent and mitigate human rights risks and impacts across our business, and are committed to understanding and documenting the social risk and opportunities in the communities in which we operate. In the event that we cause or contribute to a negative impact on human rights, we strive to provide appropriate remedy to those affected in line with the UNGPs.

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 respect communities' perspectives and actively seek to consult with them to inform our decision-making. Our ambition is to be a responsible, engaged and valued company wherever we operate and to contribute to healthy, resilient communities. We support the advancement of the interests of both our host communities and our assets.

We seek to build enduring and trusting relationships by engaging openly and honestly and participating as an active member of society. We focus our social investments on initiatives and programmes to deliver long-term benefits fostering socio-economic resilience.

We implement locally appropriate complaints and grievance processes in line with the UNGPs and welcome feedback and comments on our performance. We review all complaints received and take actions when necessary to address the issues raised.

During late 2020, our Social Performance and Human Rights policies were updated following consultation with external subject matter experts and internal and external stakeholders. In 2021 we reviewed and/or updated our Social Performance, Human Rights and Security Standards.

Our approach to ASM considers how ASM and large-scale mining can sustainably co-exist as distinct yet complementary sectors of a successful mining industry. We believe that legal ASM can play an important and sustainable role in many economies when carried out responsibly and transparently, including the DRC. We partner with the Fair Cobalt Coalition, an NGO aiming to positively transform ASM in the DRC. It is working towards eliminating child and forced labour, improving work practices in ASM operations and supporting alternative livelihoods to help increase incomes and reduce poverty.

We continue to review and implement new or revised policies concerning cultural heritage management.

Further information is available on our website at: **glencore.com/sustainability/community-and-human-rights**