- 1. The Fund invests in a diversified portfolio of the securities of Commodity Producers, being companies engaged in the extraction, production, processing and/or trading of commodities such as oil, gold, aluminium, coffee and sugar.
- 2. The Fund is subject to risks, such as investment, equities and equity-related securities, liquidity, counterparty, currency risks and the risks of investing in small and mid-capitalisation companies.
- 3. The Fund's investment may be concentrated in the Commodity Producers and the value of the Fund may be more volatile. Investing in emerging markets may involve increased risks, including liquidity, currency/currency control, political and economic uncertainties, legal and taxation, settlement, custody and volatility risks.
- 4. The Manager integrates environmental, social and governance (ESG) information into the investment process, which may affect the Fund's investment performance and, as such, may perform differently compared to similar collective investment schemes.
- 5. The Fund may invest in derivatives for investment or efficient portfolio management purposes which may involve counterparty/credit, liquidity, valuation, volatility and over-the-counter transaction risks. Exposure to derivatives may lead to a high risk of significant loss by the Fund.
- 6. Dividends may be paid out of unrealised capital gains at the discretion of the Managers which would effectively represent paying dividend out of capital. This amounts to a return or withdrawal of part of an investor's original investment or any capital gains attributable to that original investment. Payment of dividends may result in an immediate reduction of the net asset value of the Fund per unit.
- 7. Investors may suffer substantial loss of their investments in the Fund.





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1. What are global resources? Why should investors consider global resources?

Global resources are a major source of inputs for several economic activities and production around the world. There are three sub-categories of global resources:

METALS RESOURCES

Metals make up a substantial portion of known elements, and they have physical, electrical and thermal properties making them feasible for a number of industrial applications. Some widely used metals include iron ore, aluminum, copper, nickel and platinum.



AGRICULTURAL RESOURCES

These primarily include elements that are crucial for the growth of crops and plants, such as nitrogen, phosphate, and potash (potassium). The use of agricultural resources has helped drive significant progress in modern agriculture by improving crop yields. These resources are also essential to fulfilling the world's growing food demand.

ENERGY RESOURCES

These take many forms, including fossil fuel energy like oil, coal and natural gas, as well as renewable energy like solar, wind and hydropower. They can be used directly, such as to heat homes, or indirectly to generate electricity and power various infrastructure and machines.

There are both short- and long-term investment rationales for global resources. In the short term, global commodity prices have rallied as many developed regions have begun to recover from the pandemic, with supply chain disruptions and elevated demand pushing metals and energy prices higher. The geopolitical tension between Russia and Ukraine, two key exporters of various resources, has further caused supply-side concerns that will likely persist in the short to medium term.

The long-term investment case for global resources lies in the world's multidecade revolution to achieve net zero carbon emissions. Reaching 'net zero' emissions by 2050, as called for by the Paris Climate agreement, is a tremendous undertaking, requiring a complete transformation of a global energy grid designed to run off of fossil fuel to one with renewable power at its core. In addition to impacting a wide range of industries and companies, this transition will also likely create intense demand for industrial metals and renewable energy. In particular, the International Energy Agency estimates that "demand for critical minerals is set to soar over the next two decades as the world pursues net zero goals; overall requirements may rise by as much as six times, but individual minerals, led by lithium, may rise even faster."1



Copper² has become a major industrial metal owing to its properties of high ductility, malleability and thermal and electrical conductivity, as well as its resistance to corrosion. It ranks third after iron and aluminum in terms of quantities consumed. Electrical uses of copper, including power transmission and generation, building wiring, telecommunication, and electrical and electronic products, account for about three quarters of total copper use. Building construction is the singlelargest market, followed by electronics and electronic products, transportation, industrial machinery and consumer and general products.

Potash^{2,3} is used primarily as an agricultural fertilizer because it is a source of soluble potassium, one of the three primary plant nutrients that has no substitutes. It helps strengthen plants' ability to resist disease and plays an important role in increasing crop yields and overall quality. Potassium also protects the plant when the weather is cold or dry, strengthening its root system and preventing wilt. Potash represents a variety of salts containing the element potassium in water-soluble form, and is primarily supplied by two regions in the world: the United States and Canada, as well as Russia and Belarus.

Sunlight^{1,4} is a virtually unlimited source of energy, which can be converted into electrical energy through photovoltaic (PV) panels or through mirrors that concentrate solar radiation. This energy can be used to generate electricity or be stored in batteries or thermal storage. Solar energy is a form of renewable energy essential to achieving a "net zero" world. The production of PV panels, however, requires high amounts of copper and aluminum as key inputs to fulfilling the multi-decade demand.

Barings Equities team, in addition to categorizing global resources by industry, classifies the sector into commodity, consumer, and sustainable resources, based on the long-term structural trends driving them. Commodity resources are typically more industrial in nature, including areas like conventional oil and coal, and are generally underpinned by transitional or even negative long-term structural demands. Consumer resources include areas like food and agriculture that supply consumer demand. These are typically driven by neutral structural trends. Sustainable resources include those benefitting from positive structural trends and consumer demand, such as clean energy and health foods, and are often fast-growing. Over the longer term, we expect to see a growing focus on sustainable and consumer resources, while companies in the commodity resources space may also gradually restructure their businesses to become more sustainable.

- 2. Source: United States Geological Survey. As of March 2022.
- 3. Source: The Fertiliser Institute. As of May 2014. United States Geological Survey. As of March 2022.
- 4. Source: International Energy Agency World Energy Outlook Special Report. As of May 2021. Office of Energy Efficiency & Renewable Energy. As of March 2022

2. Which segment of the resources value chain is the Barings Global Resources Fund focused on?

The Barings Global Resources Fund has the flexibility to invest across diversified natural resources companies that cover the spectrum from upstream to downstream. Upstream companies include traditional mining companies that mine and refine metals and sell them to downstream manufacturers. Some companies are also vertically integrated to cover the full spectrum, from upstream commodity production to semi-fabrication. Within the energy sector, a number of companies are downstream manufacturers of energy equipment such as battery fuel cells, while some larger energy companies may also be considered as "all stream," covering upstream extraction to downstream production.

3. Is there an advantage to investing in both energy and materials, versus investing solely in energy or the energy transition sector, or the mining/materials sector, when the respective commodities rally?

We believe that a diversified investment strategy that considers a broad array of opportunities increases the potential for outperformance. This type of approach also enables investors to gain exposure to both the innovators and the enablers of the same theme. For example, within the energy transition theme, there are investment opportunities in innovators of clean energy, such as companies that generate green energy or those that enhance energy efficiency or reduce GHG emissions. There are also investment opportunities in the enablers of the transition—such as energy and materials companies that supply key ingredients for renewable energy generation, or companies that provide technologies enabling the energy transition.

There will also be periods where green energy companies face headwinds, such as from raw material cost inflation, a powerful driver today that is detrimental to profitability. However, a flexible approach can enable investors to target the key components within that theme, such as miners of copper.

4. What is "ESG" and how is it relevant to the global resources sector?

"ESG" stands for environmental, social, and governance. It is an important part of non-financial company analysis and an integral part of the investment process for the Barings Equities team. By analyzing companies using an ESG-driven perspective, our portfolio managers and analysts attempt to identify non-financial risks that could be material to a company's business, as well as attractive investment opportunities.

Climate change is one of the key areas of focus within the environmental considerations in ESG analysis. Factors such as resource intensity, corporate strategy and commitment to carbon reduction could reflect a company's ESG-related risks in the longer term.

The natural resources sector has historically been criticized as one of the largest contributors to climate change. In combination with the green revolution in the coming decades, where metals demand is expected to rise and the energy sector is set to go through a drastic transformation, ESG analysis provides a key perspective for identifying companies that are competitively positioned for long-term success.

5. What are "climate change" and "climate change mitigation"? Why are they important?

Climate change refers to both global warming and its impact on the Earth's weather patterns. Climate change has primarily come about as a result of greenhouse gas (GHG) emissions, which are mostly carbon dioxide (CO₂) and methane (CH₄). This is primarily caused by the burning of fossil fuels for energy use, and GHGs are emitted as a byproduct. GHGs cause more of the sun's energy to be retained in the Earth's atmosphere, thereby increasing the overall temperature over time.

Global warming impacts our societies and the global economy in a number of ways. Warmer temperatures have been shown to melt ice caps and glaciers in the polar regions, potentially leading to a significant rise in sea levels and flooding coastal areas and cities, including many global financial centers. Warmer temperatures are also correlated with more frequent, extreme weather events, such as heat waves, heavy storms and draughts. These natural catastrophes can result in a reduction of biodiversity and crop yield, a disruption of global supply chains, damage to physical properties, and social and economic challenges.

Climate change mitigation and "decarbonization" involve reducing the flow of heat-trapping GHGs into the atmosphere, either by reducing the sources of these gases (for example, the burning of fossil fuels for electricity, heat or transport) or enhancing the "sinks" that accumulate and store these gases (such as the oceans, forests and soil).⁵ The goal of mitigation is to avoid significant human interference with the climate system, and to "stabilize GHG levels in a timeframe sufficient to allow ecosystems to adapt naturally to climate change, ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner."⁶

Major economies and global leaders have been working together in order to mitigate climate change and steer the emission of GHGs to a controllable extent. Following a series of international agreements and accords, the Paris Agreement was signed by 193 parties in December 2015. Among other obligations, many countries around the world agreed to limit the global temperature increase before 2100 to 2 degrees Celsius, and to pursue efforts to limit the increase further to 1.5 degrees by 2050. This marks a major long-term shift toward sustainable development for the world.

- 5. Source: Intergovernmental Panel on Climate Change: Summary for Policymakers 2014.
- 6. Source: United Nations. As of March 2022





6. What are "carbon footprint" and "carbon intensity"?

A carbon footprint is the total GHG emissions, direct and indirect, caused by an individual, an organization, a company, or a product.

Carbon intensity refers to the carbon footprint per unit of a key metric of a product or company, such as dollar of revenues or number of employees. Measuring the carbon intensity of a company enables us to compare the carbon efficiency of similar companies to understand their resource utilization, as well as the potential risk of further regulation due to net zero objectives.



CARBON FOOTPRINT = TOTAL GHG EMISSIONS



CARBON INTENSITY = TOTAL GHG EMISSIONS IN CO2 EQUIVALENT / TOTAL REVENUES (OR OTHER COMPANY/INDUSTRY-SPECIFIC METRIC)

7. What are "Scope 1", "Scope 2", and "Scope 3" emissions?

Depending on the source of the GHG emissions, experts further categorize a carbon footprint into three scopes: Scopes 1, 2, and 3.7

Scope 1

Scope 1 emission refers to all direct emissions from sources owned or controlled by a company.

Scope 2

Scope 2 emission refers to indirect GHG emissions from consumption of purchased electricity, heat, or steam. Scope 2 emissions physically occur at the facility where the electricity is generated, but is consumed by the company in its own facilities.

Scope 3

Scope 3 emissions refers to other indirect emissions not covered in Scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions. This is particularly important for the fossil fuels sector as the majority of emissions are indirectly emitted further downstream in the supply chain.



SCOPE 1 (DIRECT) + SCOPE 2 (INDIRECT) + SCOPE 3 (INDIRECT) = TOTAL GHG EMISSION

Source: Greenhouse Gas Protocol. As of March 2004. Task Force on Climate-Related Financial Disclosures. As of June 2017.

8. What is "net zero"?8

"Net zero" refers to cutting total GHG emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere by oceans, forests, and other means. Scientific studies have shown that in order to avert the worst impacts of climate change and preserve a livable planet, the global temperature increase needs to be limited to 1.5°C above pre-industrial levels.

In recent years, major economies around the world have made pledges to achieve net zero emissions. The European Union, United States, and Japan have committed to be net zero by 2050, while China and India have committed to be net zero by 2060 and 2070, respectively. Transitioning to a net zero world will require a drastic transformation of our industries, businesses, and lifestyles. Achieving net zero would involve a variety of approaches, including reducing the total GHG emissions via reduction of usage of fossil fuels, enhancement of energy efficiency, and a number of carbon removal initiatives.

TOTAL GHG EMISSIONS - CARBON REMOVAL = NET GHG EMISSIONS

9. What is "carbon removal"?9

"Carbon removal" is the collection of methods that removes key GHGs from the atmosphere. These activities are considered "carbon negative". The most common carbon removal activity is carbon sequestration, whereby forests and agriculture land sequester carbon by capturing carbon dioxide from the atmosphere and transforming it into biomass through photosynthesis. Sequestered carbon is then accumulated in the form of biomass, deadwood, litter and in forest soils, removing them from the atmosphere. Another increasingly common method is Carbon Capture, Use, and Storage (CCUS), which is the process of capturing carbon dioxide (CO2) emissions from fossil power generation and industrial processes for storage deep underground or re-use. Carbon negative activities are crucial to achieving the "net zero" goal.

10. What is "carbon offset"?10

"Carbon offset" refers to the schemes where polluters who exceed permitted emission levels fund projects, such as reforestation—which can ultimately reduce GHGs. Companies and individuals may seek to "offset" their carbon emissions by purchasing these carbon offset credits to provide financing for carbon removal activities. The types of carbon offset projects that could be implemented are diverse—ranging from forestry, to energy efficiency, to renewable energy projects. Carbon offsets are part of the solution to climate change, by optimizing the emission reductions to its most economical projections. The resulting emission trading schemes (ETS) in various jurisdictions, including the European Union, United States, and China, also create opportunities for innovators to generate income on emission-reduction technologies.

- 8. Source: United Nations. As of March 2022
- 9. Source: United Nations Economic Commission for Europe. As of March 2022.
- 10. Source: United Nations Environment Programme. As of 2019. United Nations. As of March 2022.



11. What is the "energy transition"?¹¹

The "energy transition" refers to the gradual and necessary transition of the world's energy structure—which currently consists of predominately fossil fuels—toward a greener energy structure, which consists of predominately renewable sources of energy like solar and wind energy. The replacement of fossil fuel energy by renewable energy is the most crucial to this process, and presents a number of critical challenges. A poorly executed energy transition could result in power outages and stalls on economic activities. In order to build and maintain greener energy infrastructure, minerals are essential components in many of today's rapidly growing clean energy technologies—from wind turbines and electricity networks to electric vehicles. Demand for these minerals will grow quickly as clean energy transitions gather pace. Some fossil fuels, such as natural gas, are a clean alternative to stabilize electrical grids during peak usage hours when renewable energies alone may not be sufficient.

In essence, the energy transition is a key driver for strong demand for global resources over the long term.

Source: International Energy Agency World Energy Outlook Special Report and International Renewable Energy Agency.
As of March 2022



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