

investing responsibly

The use of commodities





**Earth provides enough to
satisfy every man's needs,
but not every man's greed.**

Mahatma Gandhi (political ethicist and anticolonial activist)

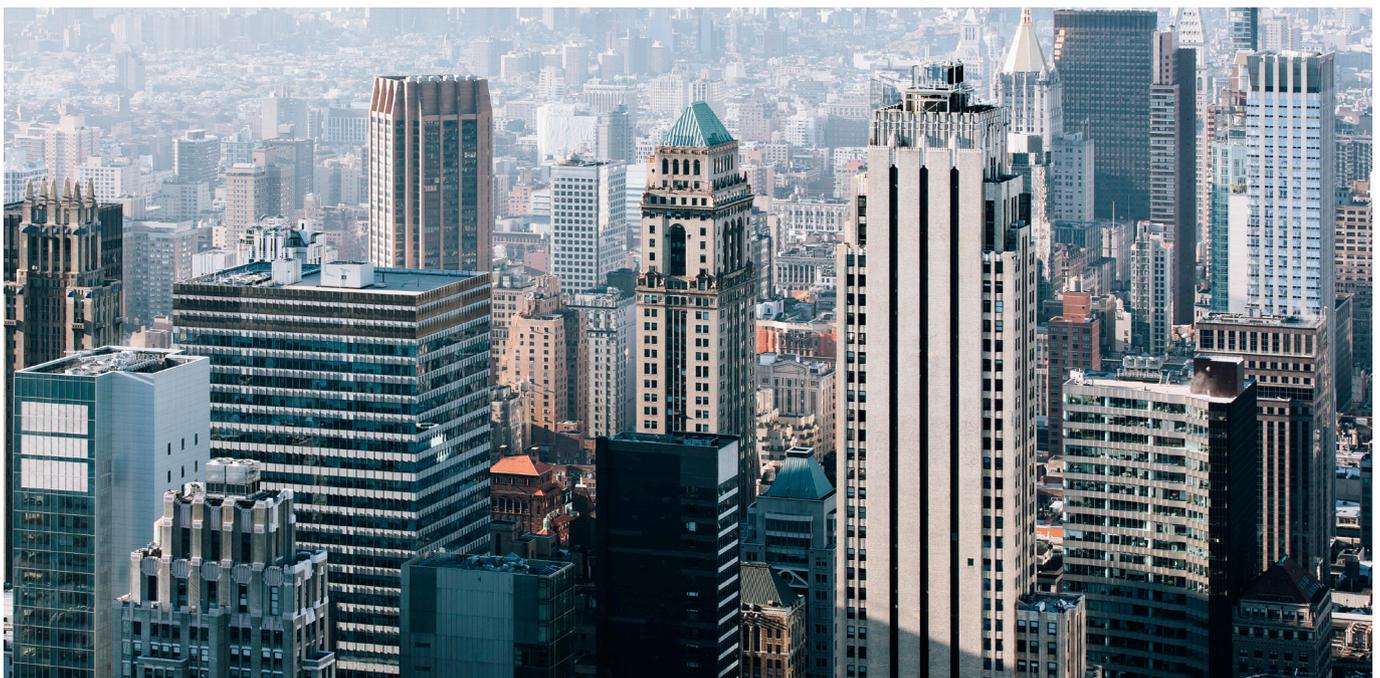


Introduction

In their zeal to remove emissions from their portfolios, many investors focussed on sustainability treat commodities with skepticism. Although such skepticism is merited in some cases, commodities will remain an essential component of the economy, and investors should note that there is no transition pathway to a climate-neutral world that does not involve commodities. As our introductory quote implies, humanity must replace its significant and often inappropriate use of commodities with good and innovative stewardship of the natural world, lest our finite natural resources be exhausted. Responsible investors should rightly consider looking at commodity-related investments, but do so with a keen eye for improving sustainability.

Institutional investors have historically allocated to commodities because of their diversifying and inflation-protecting attributes. These investors have tended to look to the futures market, attracted by its liquidity and easy access. In the following section, we consider why investments in commodity futures are challenging from the perspective of responsible investment.

Accessing commodity markets without investing in the futures market is possible and potentially preferable — for example, by investing in commodity producers (in either private or public markets). With equity, you get a say: Investors can engage with firms to improve their sustainability and working practices. In this paper, we provide some guidance on good stewardship as an investor in different commodity sectors. We also delve deeper into the controversy surrounding the use of futures to access commodities.



Futures investing

There are two main reasons why commodity futures investments are challenging to sustainability:

1. As a long-futures investor, you become part of the demand for finite resources that are themselves relatively anonymized. You have a limited understanding of where the commodity came from and no say over how it was produced. There is no prospect of engagement.
2. There is a strong possibility that treating commodity futures as an asset class can destabilize commodities markets. One such case was the volatility of food price markets during and after the global financial crisis. Although the evidence is disputed, if this was the result of the financialization of soft commodity futures, institutional investors should be alarmed. And even if there is no connection, there is still reputational risk in investing in these futures.

The controversial nature of the second point means we should consider the evidence for the volatility of commodities markets in more detail. This requires an understanding of the commodity futures market. Historically, two types of participants dominated the market: hedgers, who usually bought protection, and insurers, who usually sold it. Insurers sold at prices that promised a premium, and they accepted the risk of doing so. These participants, and the monies they managed, were largely segregated from those of other financial markets, such as the equity and bond markets.

The US Commodity Futures Modernization Act of 2000 liberalized commodities markets by allowing investors to trade commodity futures when neither party was hedging a risk. In response, institutional investors accustomed to operating in stocks and bonds began to trade in commodity futures markets, treating indexed long-futures positions as an asset class like any other — with an expected risk, return and correlation — resulting in the “financialization” of commodities markets. Over time, the entry of this new type of investor into the futures market disrupted market prices and their structure. In theory, this led to persistent contangos¹ and price spikes in some commodity classes when other asset classes were facing crises.



¹ Futures being in contango means the commodity investor faces a structural drag on returns from investing in commodity futures. To maintain exposure to the futures market, investors repeatedly buy contracts high and sell them low in the future (ignoring the effect of price-relevant factors such as geopolitical turbulence or adverse weather). In technical terms, contango is when the prices of futures fall toward the expected spot price over time.

Assuming futures prices are an influence on current (or spot) prices, speculative flows of money into commodity futures from other asset classes can create price volatility. A study following the food price crisis of 2008 found that “the futures markets analyzed generally dominate the spot markets. Price changes in futures markets lead price changes in spot markets more often than the reverse, especially when examining returns.”² If food prices rise because of institutional investors spreading their risk into the commodity futures market, this can have a severe social impact.

With the financialization of commodities markets enabled, money flowed in from other asset classes in the run-up to and during the global financial crisis. Some critics implicated this movement in the formation of food-price bubbles.³ Academic literature on this phenomenon is mixed. Some papers criticize the causality analysis used by many of the studies,⁴ suggesting other reasons food prices might have risen, such as bad weather, greater use of biofuels, higher energy prices and governments’ use of commodity export controls.

In the aftermath of the food crisis, the UN Special Rapporteur on the right to food recommended restricting food commodity derivatives to “qualified and knowledgeable investors who deal with such instruments on the basis of expectations regarding market

fundamentals, rather than mainly or only by speculative motives.”⁵ Major investment banks and many investment managers and investors responded by withdrawing from the agricultural futures markets.

The basis of the argument that speculative activity helped push up food prices is that when agricultural commodity markets were in contango, commodity hoarding was encouraged because investors expected spot prices to rise, while commodity purchases rose in fear of future spot price increases. Financialized flows into commodity futures markets maintained these contangos and led to a spiral of rising prices. The counterargument is that warehouse stocks did not increase sufficiently to suggest that commodities were being hoarded.

Investors wishing to avoid the futures markets can also access commodities through commodity-linked equities. These are defined as companies whose economic activities are mostly or wholly related to the production or distribution of commodities.



² Hernandez A and Torero M. “Examining the Dynamic Relation Between Spot and Future Prices of Agricultural Commodities,” *FAO Commodity Market Review 2009–2010*.

³ Phillips PCB and Yu J. “Dating the Timeline of Financial Bubbles During the Subprime Crisis,” *Cowles Foundation Discussion Papers No. 1770* (2010), Cowles Foundation for Research in Economics, Yale University.

⁴ Grosche S. “Limitations of Granger Causality Analysis to Assess the Price Effects From the Financialization of Agricultural Commodity Markets Under Bounded Rationality,” *Institute for Food and Resource Economics Discussion Paper 1* (2012).

⁵ De Schutter O. *Food Commodities Speculation and Food Price Crises: Regulation to Reduce the Risks of Price Volatility*, 2010, available at https://www2.ohchr.org/english/issues/food/docs/Briefing_Note_02_September_2010_EN.pdf.

Commodity-sector considerations

Below, we consider sustainability issues for commodity sectors and suggest ways investors can achieve commodity-like exposure more responsibly.

Oil and gas

Oil is a dirty fuel that is difficult and damaging to extract and refine, and it releases pollutants once combusted (sulfur dioxide, nitrogen oxides, ammonia and particulates). Many reading this will have grown up seeing oil-coated seabirds from maritime spills, for example. The role of oil in the twin crises of climate change and plastic pollution is well-documented. We have also seen the devastation of boreal forests caused by the exploitation of oil sands and the proliferation of massive and toxic tailings ponds. (A dam containing a tailings pond in Alberta, Canada, has been listed as the largest structure on earth.) Although natural gas burns more cleanly than other fossil fuels, it is a potent greenhouse gas, and estimates are that more than 1% of its volume is accidentally released during capture and storage.⁶ As a result of our reliance on oil and gas, preindustrial levels of methane emissions are estimated at between 1.6 and 5.4 million metric tons per year, while current annual levels of emissions are between 172 and 195 million metric tons.⁷

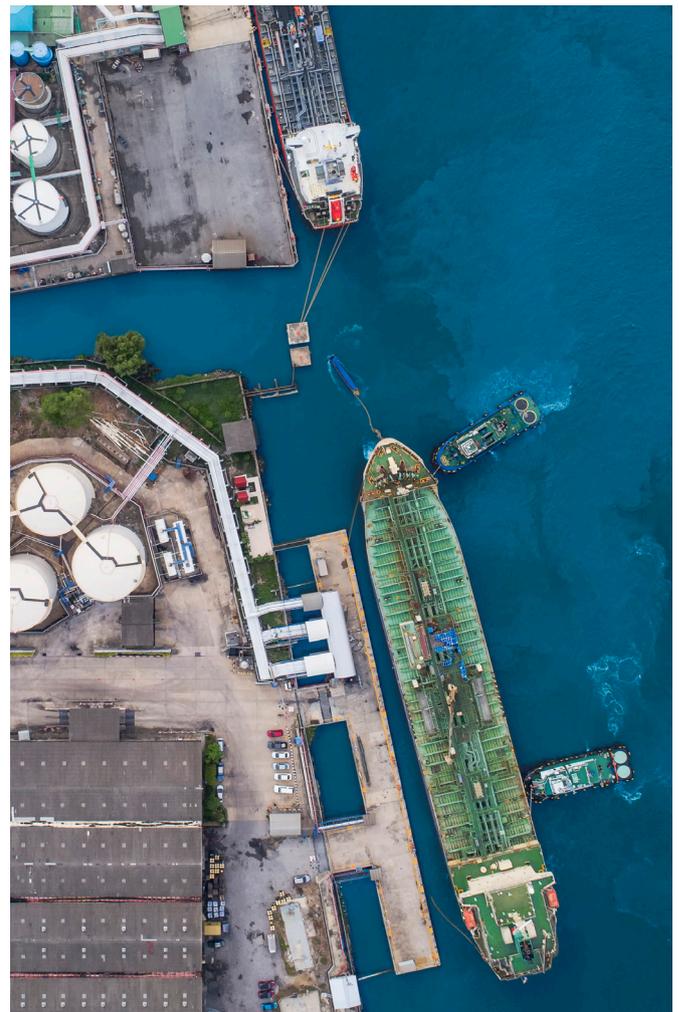
Hydraulic fracturing (or “fracking”) is a method of accessing natural gases from the ground by using pressurized liquids to fracture rocks. Fracking has the potential to contaminate ground and surface waters and cause earthquakes. Consequently, France and Germany, among other countries, have banned the practice. Oil and gas are often found together, and, at some wells, pockets of natural gas are burned off in a process called “flaring.”

Responsible access: Oil and gas are unsustainable sources of energy. Global demand for these fuels continues to rise thanks to the requirements of emerging markets. However, this demand growth will slow (and eventually fall) as renewable energy is more widely adopted. Investors entering this part of the energy supply chain should understand that some reliance on oil and gas is necessary during the transition to a low-carbon economy, but stewardship and guidance are required. Many natural resource firms are also focused on the transition to a

low-carbon future and on developing renewable fuels. An investor could view firms taking this approach as contributors to a future carbon-free economy.

Engaged investors can distinguish between those companies with better or worse practices and between leaders and laggards in a given sector. For example, some gas firms are better than others at managing the environmental degradation from flaring and fracking. Some investors aware of environmental, social and governance (ESG) measures will choose to focus on firms with credibility in these areas, while others may exclude these companies entirely.

One potential option for commodity investors is to use renewable energy as a substitute for oil and gas investments. Although this addresses sustainability, investors who like the characteristics of commodities should also consider the price behavior of renewable energy versus oil and gas, as well as the relationship between renewables and inflation.



⁶ United States Environmental Protection Agency. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2016, 2018*, available at <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2016>.

⁷ Hmiel B, Petrenko VV, Dyonisius MN, et al. “Preindustrial 14CH4 Indicates Greater Anthropogenic Fossil CH4 Emissions,” *Nature*, Volume 578 (2020), pp. 409–412.

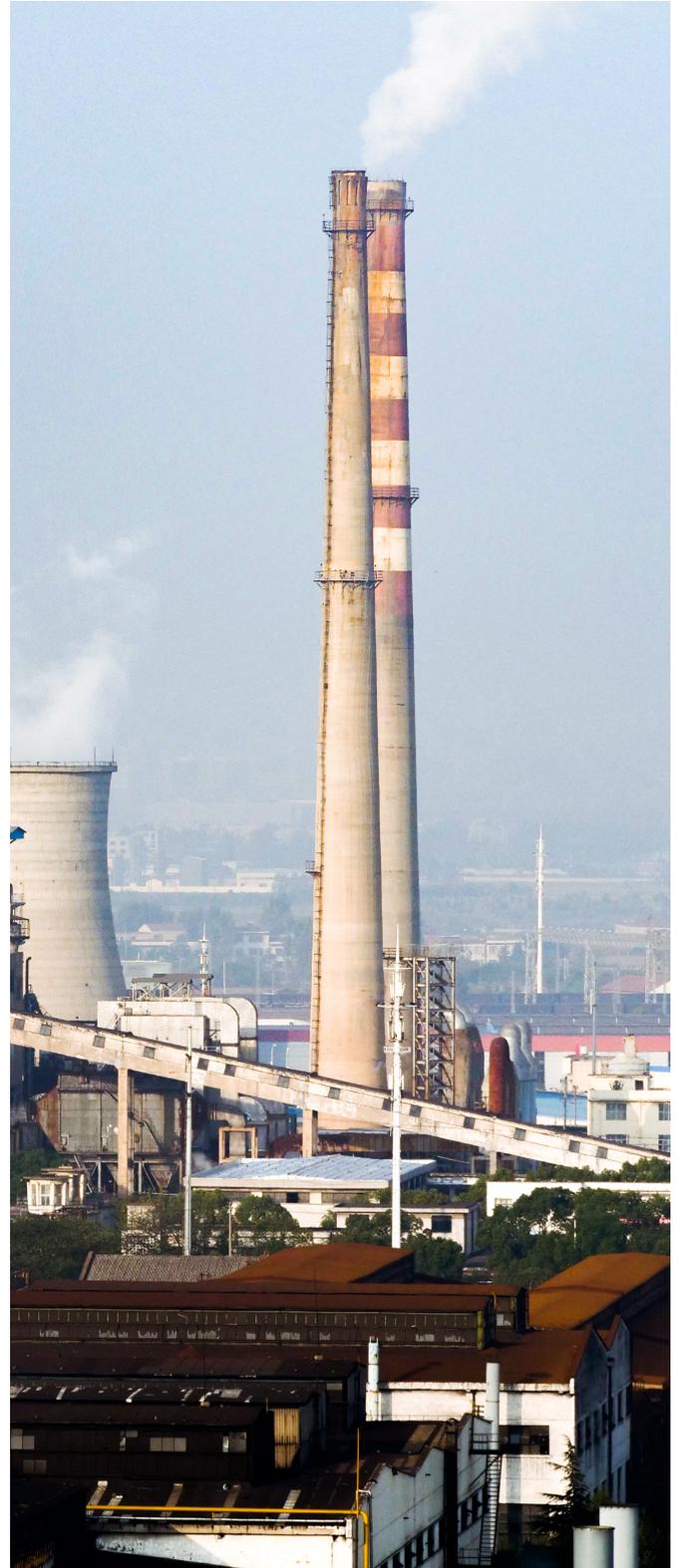
Coal

Coal has often been considered the least attractive commodity by advocates of sustainable investing given its inefficiencies as a source of electricity and the environmental damage caused by burning it. In commodity terms, we usually divide coal into two classes: thermal and coking (or metallurgical). The former is used for electricity generation, the latter for smelting metal. The bituminous coal used to make coking coal is also used in the cement-making process. Cement is responsible for around 8% of global carbon dioxide emissions.⁸

Responsible access: We don't usually find thermal coal mining companies in responsible investment portfolios. In sustainability terms, there is simply very little justification for investing in coal, apart from acknowledging that mining coal provides employment in economically insecure regions and there is merit in a Just Transition.⁹ Some natural resources firms have divested their coal assets entirely. Investors should look for companies that are pushing toward zero-emissions cement production. This is a challenging goal. Even if a producer uses renewables to generate heat, the chemical reaction to transform limestone to cement releases carbon dioxide that needs to be captured. That said, the world's first carbon-free cement plant is due to be operational in Norway in 2024. Researchers have also demonstrated proof of concept for solar-fueled cement production.¹⁰



Investors should look for companies that are pushing toward zero emissions cement production.



⁸ Chatham House. *Making Concrete Change: Innovation in Low-carbon Cement and Concrete*, 2018, available at <https://www.chathamhouse.org/sites/default/files/publications/research/2018-06-13-making-concrete-change-cement-lehne-preston.pdf>.

⁹ The Just Transition framework emphasizes the preservation of workers' rights and living standards in the shift to a sustainable economy; that is, if you fire a miner, there should be a job for them to go to.

¹⁰ Baeyens J, Zhang H, Kong W, et al. *Solar Thermal Treatment of Non-Metallic Minerals: The Potential Application of the SOLPART technology*, paper for the SolarPACES 2018 conference, available at <https://www.solarpaces.org/wp-content/uploads/Solar-Thermal-Treatment-of-Non-Metallic-Minerals-the-Potential-Application-of-the-SOLPART-Technology.pdf>.

Nonprecious metals

Industrial metals tend to have a large carbon footprint, as most smelting is done by burning coking coal. Metals that are found in higher concentrations within ores need less processing. Many iron ores, for example, can be fed directly into blast furnaces. Low-grade ores must first be concentrated, a process that often involves waste that has the potential to be environmentally damaging.

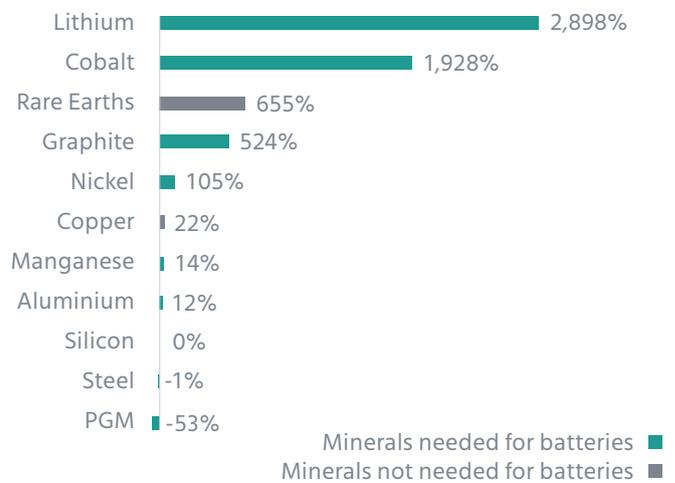
Another factor to consider is the risk of workforce exploitation. This is a greater concern in mining sectors within emerging markets, especially those with poor labor practices and rights. The artisanal small-scale mining (ASM) sector is a particular culprit. Although most of the world’s miners are artisanal in absolute terms, the proportion of global supply from artisanal mining is much smaller. (For example, the proportion of global tin supply from ASM is only around 25%.)¹¹ According to the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development, “ASM relies on a mostly unskilled workforce using rudimentary tools and techniques. Unsurprisingly, its environmental and health and safety practices tend to be very poor. For example, dust and fine particles resulting from blasting and drilling cause respiratory illnesses. It also degrades crops and farmlands, resulting in lost food production. Streams and rivers often become polluted near ASM sites, which makes water unsafe for drinking and can also affect fish stocks previously relied upon for food.”

Tailings ponds and dams are often associated with metal-ore processing and contain liquid waste from mining operations.

The collapse of one of these dams in Brazil in early 2019 killed around 250 people.¹²

Responsible access: Metals are an integral part of the economy and will remain so. They have a role in a low-carbon future: Copper and lithium are required for electrical wiring and batteries, for example. Rising demand for electric vehicles will require significant increases in the production of many metals, as shown in Figure 1.

Figure 1. Incremental Commodity Demand in a 100% Electric Vehicle World



Source: UBS and Visual Capitalist, analysis as of 2017.



¹¹ Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development. *Global Trends in Artisanal and Small-scale Mining (ASM): A Review of Key Numbers and Issues*, 2017, available at <https://www.iisd.org/sites/default/files/publications/igf-asm-global-trends.pdf>.

¹² “Brazil’s Vale Ordered to Pay Compensation for Dam Disaster,” *BBC News*, 2019, available at <https://www.bbc.co.uk/news/world-latin-america-48935651>.



There are some examples of sustainable mining of nonprecious metals. Just over 25% of aluminium production is powered by hydroelectricity. This level is much higher in Europe and the Americas, whereas the majority of smelting is fossil-fuel-powered in Asia and Oceania.¹³

When holding equity, owners should assess miners by their labor practices. Some firms offer miners better pay than others and engage in other initiatives that are beneficial to local communities, such as assistance with schools, hospitals and housing. As an activist investor, you can encourage firms to link executive compensation to their safety records and to use local suppliers of goods, labor and services. Investors can also participate in ventures such as the Investor Mining & Tailings Safety Initiative, which aims to increase disclosures from mining firms over the size and locations of their tailings dams.¹⁴

¹³ Asia and Oceania account for 26.1% of 2018 production. World Aluminium website. <http://www.world-aluminium.org/statistics/primary-aluminium-smelting-power-consumption/>.

¹⁴ The Church of England website: <https://www.churchofengland.org/investor-mining-tailings-safety-initiative>

Gold

Gold is a significant part of the commodities market when measured by price and liquidity.¹⁵ It deserves special consideration, particularly since it is often seen as exempt from responsible investing decisions. Ongoing demand growth has encouraged artisanal and small-scale gold miners. These miners often use mercury to capture small amounts of gold in the soil, as gold and mercury form an amalgam that can be separated from the soil and reduced to gold by evaporating the mercury. Such mining is often done illegally in protected areas.

This type of mining is responsible for the largest single source of mercury pollution in the world, while the gold-rich Amazon basin accounts for more than 70% of total mercury emissions.¹⁶ Mercury release is irreversible and carcinogenic and creates pools of stagnant water that provide breeding grounds for malaria-bearing mosquitoes.

Larger-scale operations carry their own risks. These operations tend to dissolve iron ore that contains gold in an alkaline cyanide solution. Though there are strict rules in place to govern its use in this context, cyanide is extremely dangerous, and some operations still leave behind cyanide-tainted tailings ponds.

There are other environmental hazards to gold production. Even in the simplest ores to process, refining one metric ton of gold requires 18,000 metric tons of greenhouse gas emissions, uses 260,000 metric tons of water and produces 1,270,000 metric tons of solid waste.¹⁷ Lastly, gold is present in relatively small concentrations, which means that mining operations can spread over a large area. This can lead to the destruction or relocation of villages.¹⁸

Responsible access: When holding equity in gold mines, owners should assess firms by their labor practices and their level of engagement with the local community and government. Ideally, investors in physical gold would restrict their investments to “ethical gold,” in which workers are paid a fair wage, and the metal is mined legally in a conflict-free area or is of antique origin. Sourcing ethical gold isn’t easy; supply chains are not well-documented, and the world’s largest cash-for-gold market in Dubai is relatively unregulated. Some efforts by regulators and authorities are helping: The Dodd-Frank Act in the US compels locally listed firms to determine that their gold comes from accredited sources. Fairtrade certification is also available for gold.



¹⁵ Gold accounts for 13.3% of the Bloomberg Commodity Index as of July 31, 2019. Source: Bloomberg.

¹⁶ World Wide Fund for Nature. *Healthy Rivers Healthy People: Addressing the Mercury Crisis in the Amazon*, 2018, available at <https://www.wwf.org.uk/sites/default/files/2018-11/WWF%20-%20Healthy%20Rivers%20Healthy%20People.pdf>.

¹⁷ Norgate T and Haque N. “Using Life Cycle Assessment to Evaluate Some Environmental Impacts of Gold Production,” *Journal of Cleaner Production*, Volumes 29–30 (2012), pp. 53–63.

¹⁸ Abdul-Wahab S and Marikar F. “The Environmental Impact of Gold Mines: Pollution by Heavy Metals,” *Central European Journal of Engineering*, Volume 2, Issue 2 (2012), pp. 304–313, available at https://www.researchgate.net/publication/257909458_The_environmental_impact_of_gold_mines_pollution_by_heavy_metals

Rare-earth metals

Rare-earth elements (REEs) are scarce elements that are critical to modern technology and are found in a diverse array of devices, including MRI scanners, smartphones, microwaves and fiber optics, among many others. REEs are found in very low concentrations in ores and clays alongside uranium and thorium, which are radioactive and therefore extremely hazardous to mine. The purification process is also hazardous, using acids to separate rare earths from their substrates. This tends to produce toxic effluents, known as Technologically Enhanced Naturally Occurring Radioactive Material (TENORM) waste. Seventy percent of the world's REE sourcing comes from mining sites at Bayan Obo, Inner Mongolia, China.¹⁹ The associated tailings dam, Weikuang Dam, covers a 10-square-kilometer area at the edge of the city of Baotou. Inky black in color and radioactive, it has become a symbol of environmental destruction and a source of cancer and crop devastation for inhabitants of the area.

Approximately 99% of processing of rare earth ores takes place in only two countries: Malaysia and China.²⁰ One of the reasons rare earth metals tend to be mined and processed in countries with low freedom (personally and economically) is

that, regrettably, such countries deprioritize the health and safety of individuals. This is part of a broader trend in which pollution ends up being essentially outsourced or exported by OECD members to non-OECD members.

Responsible access: There is currently little scope for investing in rare earths in an entirely responsible and sustainable manner, as they tend not to be mined responsibly, and the investible universe is narrow. However, some smartphone manufacturers are belatedly attempting to introduce responsible sourcing initiatives.

A vast number of companies use REEs (smartphone manufacturers are the most commonly cited example; however, producers of magnets are another of many). Recycling these devices will be essential in the future. Shareholders in companies that are significant users of REEs should exert their shareholder power to find less environmentally and socially costly substitutes. Firms should also be encouraged to sponsor recycling schemes.



¹⁹ Mindat.org: <https://www.mindat.org/loc-720.html>.

²⁰ Law Y. "Radioactive Waste Standoff Could Slash High Tech's Supply of Rare Earth Elements," ScienceMag.org, 2019, available at <https://www.sciencemag.org/news/2019/04/radioactive-waste-standoff-could-slash-high-tech-s-supply-rare-earth-elements>.

Agricultural — grains, foods and fibers

Agricultural commodities are often excluded from commodity products for investors because of ESG issues. Some academic research has drawn a link between future and spot prices, which means that strategic investors in agricultural futures could be causing food price spikes for some of the world's poorest people.²¹

The “thirstiness” of various crops is important to consider given growing water constraints. Water usage varies widely among different commodities, with sugar crops requiring around 200 cubic meters of water per metric ton of product, vegetables 300, cereals 1,600 and pulses 4,000. There also tends to be considerable variation within each class of crop. From this perspective, the products with the largest water footprints are coffee, tea, cocoa, tobacco, spices, nuts, rubber and fibers.²² Another environmental consideration is deforestation, such as the clearing of rainforest for soy and palm oil planting.

One way to improve yields and, in theory, to reduce environmental degradation is to use genetically modified organisms (GMOs). GMOs are most often adapted to make the crops more resistant to drought and pests. Faith-based investors tend to avoid this area. More than 90% of US corn is now GMO,²³ so corn futures represent a high exposure to this practice.

Responsible access: It is hard to overstate the importance of investment in the future of food. On the assumption that the world population continues to increase, food production will have to rise to keep up with demand. If we take the amount of land as fixed, growing more food will require making more land cultivatable or increasing yields on existing agricultural land. For example, swathes of Argentine agricultural land are used for grazing cattle, but this area could feed more people if crops were grown instead. Some innovations in food production and distribution techniques that seek to increase yields and reduce waste are options for investment. These could provide adjacent exposure to commodities for cautious investors.



²¹ Hernandez M and Torero M. “Examining the Dynamic Relationship Between Spot and Future Prices of Agricultural Commodities,” *IFPRI Discussion Paper Number 00988* (2010), available at <https://pdfs.semanticscholar.org/0ca4/54b913a8dd7f83a2ae5932659a54b0951c71.pdf>.

²² Mekonnen MM and Hoekstra AY. “The Green, Blue and Grey Water Footprint of Crops and Derived Crop Products,” *Hydrology and Earth System Sciences*, Volume 15 (2011), pp. 1577–1600.

²³ United States Department of Agriculture. *Acresage*, 2019, available at <https://downloads.usda.library.cornell.edu/usda-esmis/files/j098zb09z/0k225n39n/jw827p632/acrg0619.pdf>.

Agricultural — livestock and meat

Crops are much more efficient than livestock in terms of nutritional value for the same amount of land. According to research by the US National Academy of Science, replacing the cultivation of livestock with plant-based equivalents would create enough food for an additional 350 million people. The same research concludes that this would be greater than the benefit that would be gained from eliminating all inefficiencies in the existing food supply chains.²⁴ In some cases, increased meat demand has led to deforestation to create space for animal farming. In the Amazon, burning accounts for much of this deforestation, which both creates additional carbon dioxide emissions and reduces the planet's ability to remove carbon dioxide from the air. The replacement of forest with savannah in the Amazon also creates a lasting increase in fire risk, as the savannah is more susceptible to burning.

Responsible access: A responsible investor may choose to invest in enterprises with higher husbandry standards or in companies that are investing in plant-based alternatives to meat. We note that the latter still needs to be proved viable at scale.



Timberland

Timberland is a particularly good candidate for sustainable commodity investing, since trees capture carbon dioxide. Nevertheless, it is still important to avoid operations that conduct illegal logging. Certification by the Forest Stewardship Council (FSC) is a reliable indicator of sustainable practices. The main use for timber is fuel, which, when combusted, removes the benefit of carbon capture. Responsible investors should focus on timberland investments in which the end product will be used in a more sustainable way; for example, in the construction industry.



²⁴ Shepon A, Eshel G, Noor E and Milo R. "The Opportunity Cost of Animal Based Diets Exceeds All Food Losses," *Proceedings of the National Academy of Sciences of the United States of America*, Volume 115, Issue 15 (2018), pp. 3804–3809, available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5899434/>.

Conclusion

We believe accessing commodities through commodity-linked investments like equities is the safest way to conduct this practice sustainably. We note that on their own, commodity-linked investments do not give the “pure play” access to commodity prices that some investors may be seeking. However, the overall “factor” exposure depends on the assets sold to gain commodity exposure. Swapping some existing equity exposure for commodity-linked equities, for example, would result in a gain in commodity-factor exposure.

We provide more information on commodity access routes in our companion paper, *Commodities in an Inflation-Aware Portfolio*. When choosing an investment manager, we recommend prioritizing those with strong ESG credentials.

Investing responsibly in commodities isn't easy. Unengaged investment has a high risk of several unintended negative consequences. In this paper, we have tried to outline some of the most common problems. We support commodity investments that assist with the transition to a low-carbon and sustainable future. Commodities will play a vital role in the future economy through construction, transport and food; it's up to us as consumers and investors to minimize the environmental impact of their creation.

Below, we have summarized our thoughts on engaging responsibly with commodity sectors:

Commodity	Responsible investment issue	Responsible access
Oil and gas	<ul style="list-style-type: none"> • Finite unsustainable resource • Pollution • Role in accelerating climate change 	<ul style="list-style-type: none"> • Partner with firms engaged with transition to a low-emission future. • Engage for more sustainable practices. • Allocate to renewables.
Coal	<ul style="list-style-type: none"> • Finite unsustainable resource • Pollution • Role in accelerating climate change 	<ul style="list-style-type: none"> • Divest or exclude.
Nonprecious metals	<ul style="list-style-type: none"> • Often includes carbon cost of purification • Environmental damage from extraction 	<ul style="list-style-type: none"> • Invest in recyclers. • Engage with firms to ensure best practice.
Gold	<ul style="list-style-type: none"> • Pollution • Deforestation of the Amazon Basin 	<ul style="list-style-type: none"> • Encourage engagement with ethical sourcing initiatives. • Engage with firms to ensure best practice.
Rare earths	<ul style="list-style-type: none"> • Health and safety • Toxic byproducts 	<ul style="list-style-type: none"> • Engage with technology firms to minimize use. • Support research into recycling.
Agricultural — grains, foods and fibers	<ul style="list-style-type: none"> • Speculative futures impact on staple food prices • Inefficient crop production • Deforestation 	<ul style="list-style-type: none"> • Exclude commodity futures. • Invest in innovative producers.
Agricultural — livestock and meats	<ul style="list-style-type: none"> • Inefficient use of land • Deforestation 	<ul style="list-style-type: none"> • Invest in producers of plant-based protein alternatives.
Timberland	<ul style="list-style-type: none"> • Irresponsible logging practices 	<ul style="list-style-type: none"> • Invest in sustainably managed forests. Ensure end product is sustainable (not used for fuel).

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