RESEARCH REPORT

March 23, 2020

M&M 2020-2021 Inaugural Report

Mining for a Cure

Entering 2020, financial market pundits pondered over when the decade-long bull market would finally run its course. Amidst all the noise and fear surrounding COVID-19, the world's ongoing pandemic, the global economy has fallen victim. Since February 20, 2020, the S&P 500 has fallen by over 30%, erasing market gains since December 2018.

Given the dependence that the Metals & Mining sector has on global supply and demand factors, as well as monetary policy, the M&M team used its inaugural 2020-2021 report to investigate what the impacts of the new Coronavirus have been on the sector, and how the team believes the virus will impact its portfolio strategy.

The research report begins with an overview of the price drivers of different commodities, discusses the effects of Coronavirus on key M&M industries, addresses the nuanced relationship between gold and the financial markets, and ends off with the team's outlook.

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Price Drivers of Precious Metals

Price Drivers of Gold

There are three types of precious metals: gold, silver, and platinum group metals. Of these, gold is unique in that it is essentially a reserve currency. Typically, it is held by central banks as a form of capital preservation in order to hedge against inflation and also acts as a diversifier within a portfolio. Like most commodities, in the long run, its price is often a function of supply and demand.

One of the primary drivers of gold prices is market volatility. Oftentimes, during times of high economic risk and uncertainty, markets will turn to gold as a safe-haven asset. This is because gold is liquid, and its prices will typically strengthen when other portions of a portfolio will deteriorate. The price will increase because it is a physical commodity and has historically maintained its value, therefore acting as insurance for investors against adverse economic events.

Another primary driver of gold prices is expected inflation and interest rates. There is an inverse relationship between real interest rates and gold, with increases in real interest rates causing the price of gold to decrease. This is because higher real interest rates mean higher opportunity costs for holding precious metals, which makes them relatively more expensive to hold. Due to the higher carrying costs, the price of gold will be driven downwards.

The US dollar has historically had a negative correlation with gold prices. This is because a weaker US dollar means that gold is less expensive for foreign nations to purchase which increases the demand for gold. This foreign demand acts as the driving force for the increased price of gold.

In addition to its value as a luxury item, gold has numerous industrial applications as well. One of the primary uses of gold is in jewellery due to its color, malleability, and ability to resist tarnish. It is also used in microprocessors and medical devices as well.

Price Drivers of Silver

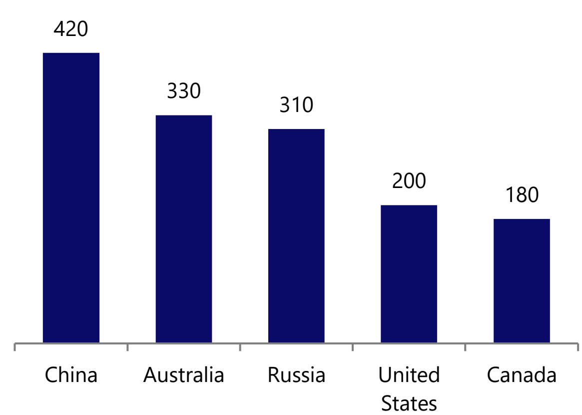
Unlike gold, demand for silver is driven by a conglomeration of both industrial and monetary demand. It is also more volatile, typically outperforming gold in times of economic certainty and underperforming in times of economic uncertainty. The two metals are correlated with one another as silver is also heavily influenced by investment demand.

Price Drivers of Platinum Group Metals

Platinum Group Metals are also correlated with gold, however industrial demand is one of the dominant drivers of price. As the majority of this demand is from automotive catalytic converters, the combination of the automotive industry and environmental legislation plays a crucial role in determining the price. Luxury goods markets such as jewellery also act as drivers in this industry, as demand has increased for metals such as platinum.

EXHIBIT I

Major Countries for Gold Production for 2019
(in metric tons)



Source(s): US Geological Survey

Price Drivers of Base Metals

Primary Price Drivers of Base Metals

For most base metals such as copper, tin, and zinc, there is an inverse correlation with the US dollar. Because these metals are priced in US dollars, if the value of the US dollar decreases, foreign nations will have greater purchasing power, thus driving the prices upwards.

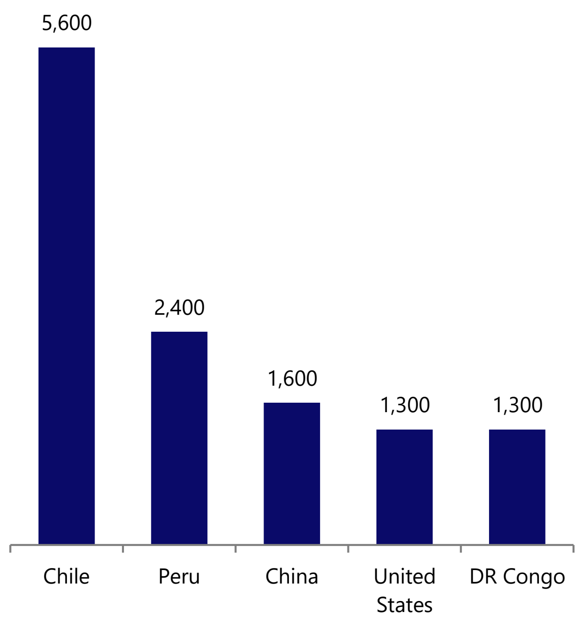
Copper is one of the most versatile metals and is used in a variety of sectors, which means that its price is driven by expectations of future demand. It is used heavily in construction, with economic growth leading to growth in construction, resulting in increased copper prices.

As Asian economies account for more than 50% of all copper consumption, economies in these areas will have a large influence on the price of copper. Thus, the price is largely driven by GDP growth in these countries.

As 61% of copper production originates from China and the Americas, these markets are vital in determining copper supply. If there is a decrease in copper production, copper becomes a more precious commodity, which will drive up the price. On the other hand, this is mitigated in part by the mining of more copper or finding substitutes. Overall, as with most commodities, copper price is driven by a combination of demand and supply.

EXHIBIT II

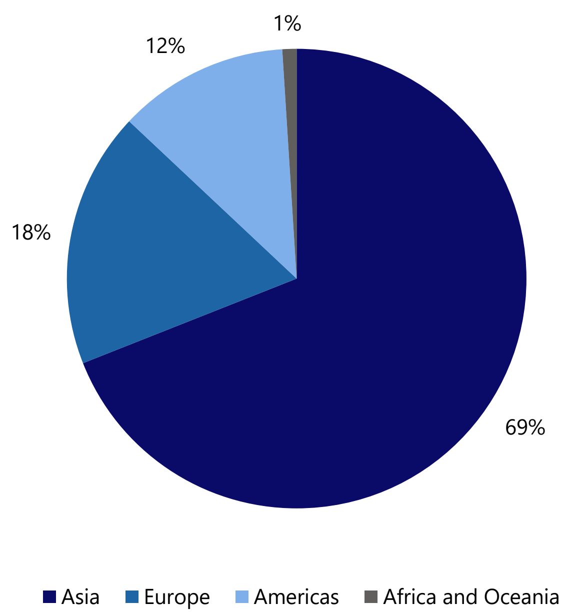
Copper Production in Leading Countries in 2019
(in 1,000 metric tons)



Source(s): US Geological Survey

EXHIBIT III

Distribution of Copper Consumption in 2018



Source(s): Statista

Impact of Coronavirus on Precious Metals Supply and Demand

In mid-March, Moody's reported that the metals and mining sector would be moderately exposed to the impacts of the worldwide COVID-19 outbreak. With respect to precious metals, these impacts have evidently spanned from supply and production, to operations, to demand and pricing.

Precious Metals Exploration and Production

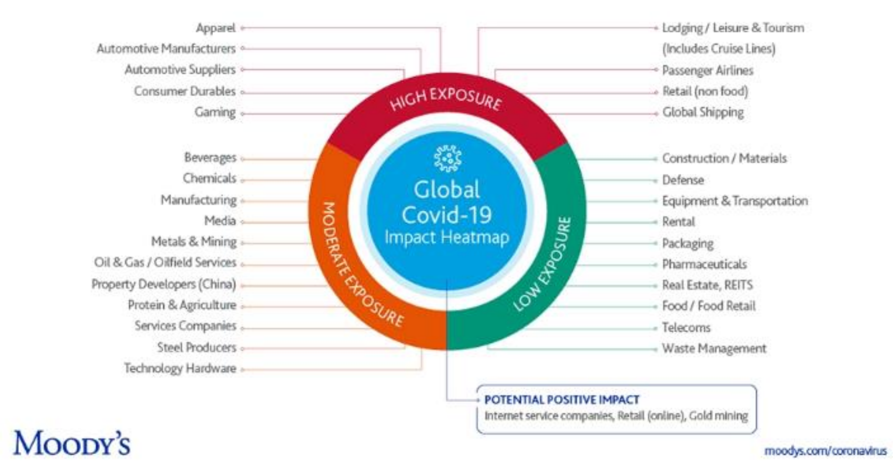
Several global precious metals mining companies have slowed or shuttered production and exploratory projects in the face of social distancing measures either implemented by local governments or the companies, themselves, to slow the spread of COVID-19. These measures have negatively impacted the availability of human capital at precious metals mines and in turn, the production capabilities of mining companies. For example, following the Peruvian government's announcement of a 15-day quarantine, Newmont Mining announced mid-March, that operations at its Peruvian Yanacocha mine would be ramped down.

Confirmed COVID-19 Cases at Precious Metals Mines

In response to several confirmed cases at precious metals mines, some companies have halted production. Endeavour Mining, an African gold producer with a portfolio of low-cost and long-life gold mines, recently reported that a worker at the company's Hounde mine in Burkina Faso tested positive for COVID-19. The discovery prompted the company to implement a 14-day quarantine period for any employees or contractors arriving on its sites in Burkina Faso or Ivory Coast, a measure which inevitably delayed production. Outside of the mine site, several precious metals companies such as Kinross and IAMGOLD have shuttered corporate offices due to employees testing positive for COVID-19.

EXHIBIT IV

Level of Exposure for the Major Sectors Around the World



Source(s): Moody's

Impact of Coronavirus on Precious Metals Supply and Demand Cont.

Other precious metals companies have continued operations, albeit with modifications to reduce the potential for outbreak. Torex Gold, reporting no known or suspected cases at its El Limon Guajes operation in Mexico has confirmed that production will continue; it will, however, invest significantly in "aggressive " cleaning regiments of communal areas as well as a health education campaign on infection prevention.

Across the Americas, the exploratory activities of junior mines are also being scaled-back or delayed. Mining junior, Aurania Resources has pulled its staff from the field in Ecuador, while Auryn Resources has demobilized its field staff in Peru.

Volatility in Precious Metals Markets

In February, at the outset of the COVID-19 global outbreak, precious metals prices surged, with gold in particular, peaking at US$1,687 per oz. Both the prices of gold and silver have since softened.

According to the World Gold Council (WGC), the recent volatility in gold's performance can be explained by "its unique nature as a consumer good and investment asset, while being linked to key drivers – economic expansion, risk and uncertainty, opportunity cost and momentum." Gold, perceived as a safe-haven asset, initially benefitted from uncertainty surrounding the virus, unprecedented global economic and financial market conditions, and investor concerns that the outbreak would leave a long-lasting impact on global growth. By contrast, the softening of gold prices can be explained by massive liquidations across all asset classes—as gold, a highly-liquid asset, is used to raise cash to cover losses in other asset classes. Silver prices, too, surged in February amid economic uncertainty. As a more affordable safe-haven asset, relative to gold, silver holds an appeal for individual investors looking to hedge against uncertainty. Since early February, silver prices have faced similarly sharp declines as "institutions have dumped silver for cash to pay for margin calls and other obligation, as well as hoarding cash," according to Edmund Moy, previous director of the U.S. Mint.

The fall and general volatility in commodity prices is predicted to adversely impact firms within the industry. Nonetheless, industry analysts recognize that producers have become more resilient since the 2015 to 2016 commodity slump, which caused significant hardship for smaller, less-diversified companies and drove a steep rise in the number of defaults. Today's global, higher-rated companies may be generally better equipped to withstand market downturn.

Precious Metals Demand

The recent fall in underlying gold and silver prices, coupled with the potential of recession and sharp economic downturn catalyzed by the global COVID-19 outbreak has prompted the public to buy physical precious metals at the fastest pace in 10 years. Supplies of physical silver, and gold, remain well below extremely strong demand.

On the other hand, consumer demand for precious metals, according to the WGC, may weaken significantly. Early figures by the National Bureau of Statistics in China suggested a 40% contraction in purchases of gold, silver and gem jewellery during the first two months of this year. The newest global travel and movement restrictions being implemented across the world will additionally impact consumer spending on precious metals. Finally, fear of outbreak and social distancing practices have severely impacted demand for jewellery; sentiment has turned negative and celebrations such as weddings have been delayed.

While consumer demand may soften in the first half of this year, the WGC has also predicted that once the pandemic subsides, weddings and other celebratory preparations will resume; at this point, gold will be among the first of the asset classes to witness consumer appetite. Furthermore, historically, investment flows in periods of uncertainty have tended to offset weakness in consumer markets.

Impact of Coronavirus on Base Metals Supply and Demand

Impact on Demand

Base metal demand has been significantly impacted by economic slowdown caused by COVID-19. With metals such as copper acting as a proxy for growth in global industrial activity, its struggles amidst COVID-19 is understandable.

Copper demand suffered notably due to early shutdowns in China, which is the world's largest consumer of metals and makes up roughly 50% of the world's copper demand. The metal has historically faced an annual lull in demand during Chinese New Year celebrations and the demand has not recovered due to the outbreak.

As coronavirus has spread around the world and leading economies effectively shutdown, copper demand has continued to drastically decrease with no clear end in sight. With that said, containment in China gives investors hope that some of that demand may rebound in the coming month.

While outbreaks such as SARS are often looked at to provide understanding in these uncertain times, it is a poor comparable for the metals industry; China has more than doubled its share in global metal consumption since 2003 and COVID-19 is seemingly going to detriment the global economy at a much greater scale than SARS. As such, purely comparing the situation to SARS will likely result in investors underestimating the long-term impact on copper.

Impact on Supply

While COVID-19 has led to a variety of supply disruptions, base metals production has remained relatively strong leading to the build up of significant inventories.

In China, both demand and supply were hit early on but supply-growth since has significantly outpaced demand recovery in the country. Beijing has taken many steps to encourage businesses to return to normal which has led supply to increase in spite of consumption struggling to keep pace. Furthermore, Chile and Peru, the world's two largest copper producers, have only recently faced the impact of COVID-19. While both countries are now seeing the closure of mines, metal producers have largely been able to churn out a steady supply throughout the past months, contributing to a build up of metal inventories weighing on prices.

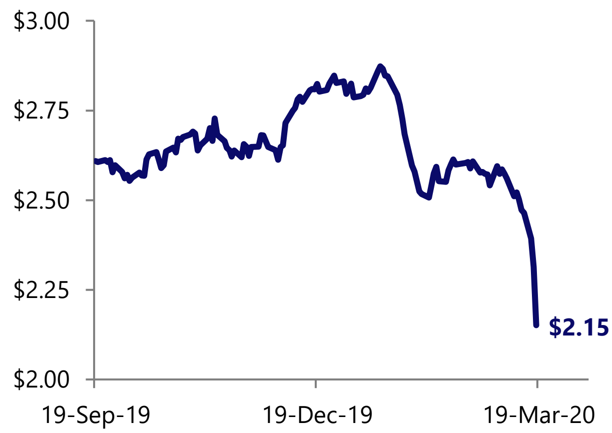
Overall Impact

A combination of these factors has led to a drastic fall in copper prices, alongside other base metals. This fall was particularly accentuated, given copper's strong 3-month run prior to the outbreak of the virus (see Exhibit V).

While copper and most other base metals have fallen roughly 25%, it is interesting to note that base metal equities have largely suffered even sharper losses, falling far more than 25%. This is partially due to metals producers having major leverage to copper prices, as well as individual producers facing supply disruptions, panicking investors.

EXHIBIT V

6-Month Copper Price in USD/lb



Source(s): MacroTrends

Impacts of Financial Market Conditions on Gold Pricing

The Relationship Between Financial Markets and Gold

The unpredictable and despondent market conditions around the global economy and within the United States will have long-lasting effects on the price of gold.

Typically, the value of the USD moves inversely with that of gold prices, for two key reasons. First, since commodities are sold in USD, a weakened dollar will increase the demand, and therefore price, of gold. Secondly, gold is considered by investors as an attractive asset to store value when the USD depreciates.

In addition, gold prices typically move inversely with interest rates for indirect reasons. Rising interest rates make investments in USD denominated bonds more attractive, which appreciates the dollar. In turn, this decreases the price of gold. As well, in prosperous times, signified by rising interest rates, the attraction of a safe haven investment diminishes, thereby reducing the price of gold.

While these fundamentals hold true, more often than not, the many levers in the financial markets, including human psychology, can cause unpredictable outcomes, particularly in times of economic crisis in which we once again find ourselves.

The Fed's Response to COVID-19

On March 9, 2020, the Treasury Department's announcement of new economic stimulus initiatives catapulted an appreciation in the USD and an associated decline in gold prices, which have held consistent as of the release of this report. The following week, on March 15, 2020, the Fed cut interest rates to a range of between 0-0.25% in its most substantial move since the 2008 financial crisis.

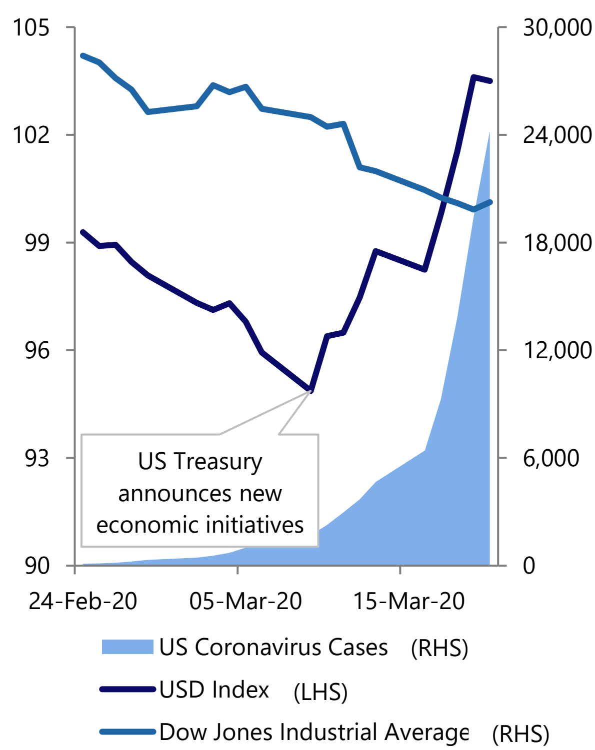
The current predicament of the American economy is complex and perhaps unintuitive – while the week of March 16 saw the Dow suffer its worst week since 2008, dropping 17%, the DXY appreciated 4%, as the rest of the world's struggles outshined the United States'.

With interest rates now at near-zero, the Fed has given itself little room to boost the economy if a likely prolonged recession takes place. Resultantly, the Fed only has quantitative easing and the potential of negative interest rates to rely on – which both should lead to higher gold prices.

So, with such low interest rates, why has Coronavirus led gold prices to slip? The first reason is the aforementioned resilient USD, and the second lies in the need for liquidity.

EXHIBIT VI

USDX, DJI and Coronavirus Cases



Source(s): CNN, Worldometers, Yahoo Finance

Impacts of Financial Market Conditions on Gold Pricing Cont.

The Luxury of Liquidity

The trading adage "when you can't sell what you want, you sell what you can" aptly describes one of the other reasons that a gold sell-off is taking place. Fearful of the downward spiral taking place in the stock market, investors are facing a liquidity shortage in the market causing them to sell their positions in gold.

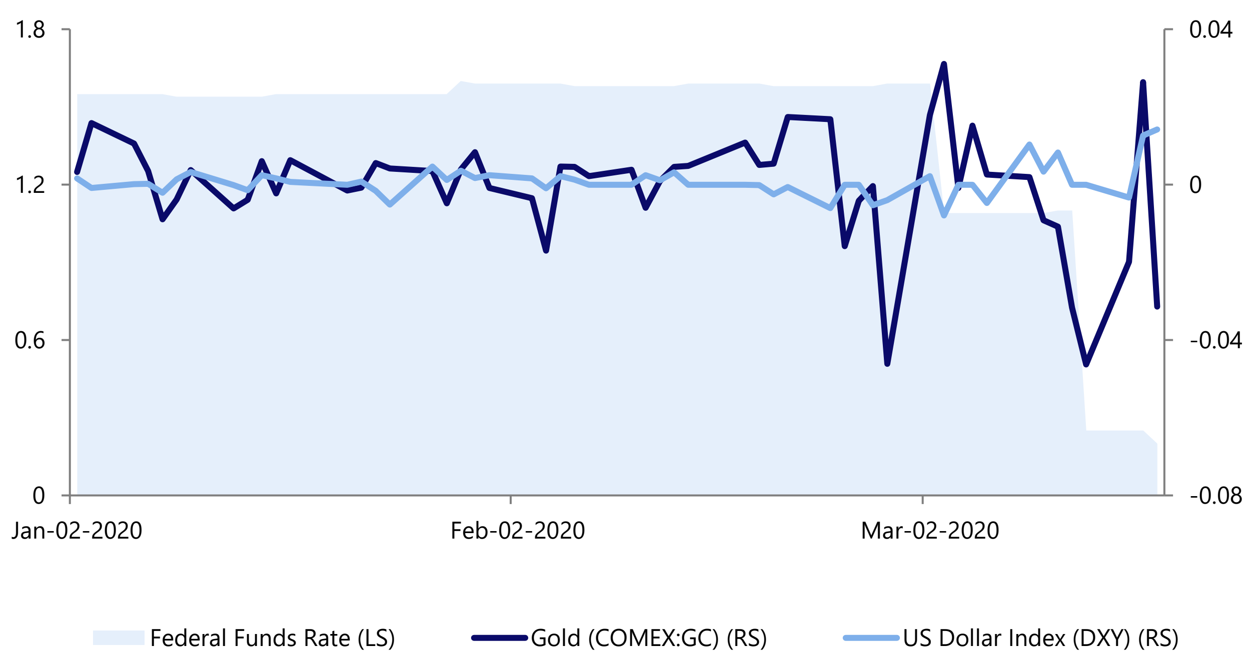
The Fed's $700 billion bond-buying program could provide requisite liquidity that coupled with low interest rates could see gold prices surge once again. However, the M&M team considers the market sell-off and limited room for rate cuts as indicators that the gold market may have little upside for the foreseeable future.

Looking Ahead

The direction of gold pricing is unclear at the moment. An incoming bear market, coupled with low interest rates suggests the possibility of a strong run for the commodity. However, If the USD continues to outperform the rest of the world and the Fed's quantitative easing strategy does not provide sufficient liquidity in the markets, gold may continue to falter. The M&M team will continuously monitor the situation as it undoubtably takes its several turns.

EXHIBIT VII

Daily % Changes in US Dollar Index and Gold Prices Against Interest Rate (%)



Source(s): CapitalIQ, MacroTrends

Conclusion and Key Takeaways

Conclusion

Widespread global economic uncertainty has left the metals and mining sector in a volatile state. Copper demand has plummeted while supply has remained relatively steady in spite of mine closures. This has left copper prices down more than 25% over the past three months and base metals equities down far more.

Precious metals have also not performed as well as one may think, with investors desire for liquidity and a strong USD weighing on the price of gold. While the outlook for gold is potentially bullish in light of an upcoming bear market, it seems as if much of its upside may have already been captured. With little room for additional interest rate cuts, the market is light on major catalysts for the price of gold.

Both these trends can be captured in the copper-to-gold ratio which is the number of ounces of gold it takes to acquire an ounce of copper. It is calculated by dividing the market price of an ounce copper by the market price of an ounce of gold. While the two metals have no inherent relationship, they are extremely correlated in their movements and the ratio tends to nearly perfectly track interest rates. When interest rates are low, gold price is high and copper is suffering, which, in turn, results in a low copper-to-gold ratio.

The ratio has historically tended to revert to a mean and it is currently at its lowest level in over 30 years. This suggests that either copper has significant upside or that gold may be overpriced in the current environment. Either way, this ratio, alongside the analysis conducted in this report, suggests to the M&M team that there lies significantly more upside in base metals than in precious metals.

Key Takeaways

With just over 85% of M&M's portfolio being weighted to precious metals, the team sees the value in base metals equities as a good opportunity to reweight the portfolio to market weights. This likely takes the form of trimming positions in the portfolio's two streaming names – Franco-Nevada and Wheaton Precious Metals – and reallocating it to one or two attractive base metals names.

While the M&M team will take a deeper look at a variety of investment opportunities, an attractive investment idea is Teck Resources, which is down 55% since the beginning of the outbreak and has long been the team's favourite name in the diversified metals space. Investors have arguably overreacted to the company's exposure to copper, given that 50% of its revenue comes from steelmaking coal, the price of which has largely survived the pandemic due to severe supply disruptions in China.

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