NORTH STAR
Investment Management

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Meddling in Metals

Small-Cap Materials Stocks Offer Compelling Investment Opportunities

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Introduction to Small-Cap Materials

There are more than 65 companies in the small cap Russell 2000 Basic Materials Index (RGUSMS Index). Approximately 47 of these companies are in the $2.5B and under market cap universe which North Star focuses on as candidates for our small-cap and micro-cap strategies. This index is heavily concentrated in metals and mining stocks, which include non-metallic sand, gravel, and limestone miners that represent more than half of the total Materials sector.

Despite growing demand, increased technology improvements and efficiencies will likely result in a growth rate for the Materials sector slightly below the overall increase in global gross domestic product.

Russell 2000 Basic Materials Index (RGUSMS) 03/31/2002-03/31/2022		
	Total Return	**Annualized Total Return**
Price Change	666.65%	10.71%
Dividends Reinvested in the Index	776.97%	11.46%

Given less-than-GDP growth projections and sub-industry dynamics, the materials sector requires a well-defined barbell approach for fundamental investors: (1) a long-term, discounted cash flow (DCF) discipline for non-metallic minerals businesses (approximately 50% of the industry) that provide the basic materials for roads and buildings; and (2) a cyclical, growth-at-a-reasonable-price (GARP) approach to investing in companies that provide metallic materials (approximately 10% of the industry) used in technology industries that include clean energy, surface coatings, electronics, water treatment and similar industrial endeavors.

Non-metallic minerals will likely shrink as a percentage of global economic output during the next several decades, and therefore the management teams that run the most efficient and highest margin businesses should generate the greatest shareholder value as sub-industries consolidate and economies of scale boost free cash flow. In contrast, investor returns from Metallic sub-industries will more likely be driven by innovation, given that these minerals are becoming more crucial to technological advances in sustainable power generation and storage.

Regionally Dominant Small-Caps Should Win the Non-Metallic Game

There are two U.S. large-cap industry giants in the non-metallic minerals space, **Martin Marietta Materials Inc (MLM)** and **Vulcan Materials Co (VMC).** Across this segment, historic operating margins average around 20% as operating expenses are variable unlike much higher-margin industries (e.g. software and pharmaceuticals). Therefore, small cap non-metallic materials companies will likely be more successful where their businesses are dominant in a specific niche, such as in specialty minerals like silica or limestone. Alternatively, a regionally dominant market position in a less-specialized niche such as concrete can drive industry-leading margins due to lower transportation costs. For example, in June of 2021, **U.S. Concrete Inc (USCR)** was acquired in a $1.2B all-cash deal by industry heavyweight Vulcan Materials Co (VMC) at a 31.57% premium. U.S. Concrete was a small-cap company dominant in its operational region. In contrast, small-cap companies lacking either regional dominance or a specialization that enables niche-leading margins are less likely to create value for shareholders given that secular growth among non-metallic minerals companies is slowing relative to secular GDP growth.

Small-Cap Non-Metal Stocks of Interest

The North Star Funds owns two domestic, small-cap specialized non-metal stocks: **United States Lime & Minerals Inc (USLM)** and **Oil-Dri Corp of America (ODC)**.

United States Lime & Minerals Inc (USLM), a manufacturer of lime and limestone products, dominates the Southern region of the U.S. with facilities in Texas, Arkansas, Colorado, Louisiana, Missouri, and Oklahoma. The company focuses on delivering high-calcium quicklime and limestone mainly to highway, road, and building contractors in addition to other diverse end-markets throughout the steel, paper, agriculture, and environmental sanitation industries. As of March 31, 2022, USLM's pristine balance sheet boasted over $17 per share in cash. Additionally, the company has a successful track record of advancing its prominent geographic reach through acquisitions such as the Mill Creek dolomite mining and production company and the Carthage Crushed Limestone company. A major tailwind for United States Lime and Minerals Inc is the Infrastructure Investment and Jobs Act passed by Congress in November 2021. USLM's products will be necessary to rebuilding America's transportation network and the company sees itself benefiting from the next 10 years of increased investment.

North Star is fond of niche companies that provide a specialized product. Such is the case with Oil-Dri Corp of America (ODC). ODC operates and controls hundreds of millions of tons of hydrated aluminosilicate mineral reserves – enough absorbent clay to supply the company and its customers for over 40 years. There are extensive use cases for this mineral: agricultural customers use ODC's products for fertilization and lawn maintenance as well as animal health and nutrition; industrial and automotive customers need the absorbent clay to clean up spills of hazardous and non-hazardous substances, like acid, paint, ink, and water; oil and gas-related companies use Oil-Dri clay for purifying jet fuel and edible oils; and consumers can find ODC products in the pet aisle as the company not only has their own branded lightweight cat litter (Cat's Pride and Jonny Cat), but also a valuable long-term co-packaging agreement with Clorox's Fresh Step. Oil-Dri has been able to pass on inflationary costs through a variety of price mechanisms and controls. In addition to being a family-controlled organization with aligned shareholder interest, the company has an impressive dividend history with 19 consecutive years of dividend increases.

Specialty Metalloids Offer More Secular Growth – But with Cyclical Volatility

Silica is a metalloid (neither a metallic or non-metallic mineral) used in iron and steelmaking, especially in making stainless steel. Silica is also increasingly used in paint, as well as in fossil fuels mining and in various technology applications. Given these industrial uses, demand for silica is cyclical and tightly correlated with economic growth trends. While margins can reach levels substantially higher than margins for the average non-metallic materials businesses, margins are also likely less stable throughout an entire business cycle.

Russell 2000 Basic Materials Index (RGUSMS) Margin History						
	Q122	**FY21**	**3Y**	**5Y**	**10Y**	**20Y**
Median Gross Margin (%)	27.30	19.63	19.99	19.56	18.74	18.82
Median Operating Margin (%)	11.47	6.99	6.40	6.52	5.97	6.18

Metal Materials

Within this segment of the Materials sector, battery-related metals, such as lithium, copper, nick, silver, and gold stand out as possible areas of investor opportunity.

Lithium

The metal that is possibly the most written about in economic media is lithium, a "lightweight substance [that] is a critical component in rechargeable lithium-ion batteries, which are used in most personal electronics and electric vehicles."[i] As a result of increasing demand and recent global supply chain disruptions, TIME.com journalists found that lithium carbonate prices recently exceeded more than $60,000 per ton, up almost 6x from a six-year average of $11,000. The demand for lithium will likely continue to expand, as the International Energy Agency (IEA) asserts that "EVs and battery storage have already displaced consumer electronics to become the largest consumer of lithium and are set to take over from stainless steel as the largest end user of nickel by 2040."[ii] While this demand increase forecast seems very positive for lithium producers, the upward price pressure on lithium and nickel prices may also drive innovators to find substitutes, and therefore investing in such specialty metals requires ongoing vigilance for substitution risk. In addition, the IEA explains that there is no global shortage of lithium, so if supply chain challenges dissipate, lithium prices would likely fall significantly and quickly.

Nickel

The IEA explains that like lithium, nickel is crucial to battery performance and longevity.[ii] Interestingly, nickel is also used to make traditional coal-fired power plants more efficient. Essentially, nickel is a material that is a critical input as energy systems become less fuel-driven and more transmission-driven, such as with wind turbines, tidal systems, and solar systems. Given these factors, North Star maintains a watchlist for potential investments that may realize the benefits of nickel as a critical input to a growing number of clean energy technologies, while also remaining an efficiency-enhancement input to traditional fossil fuel energy production.

Copper

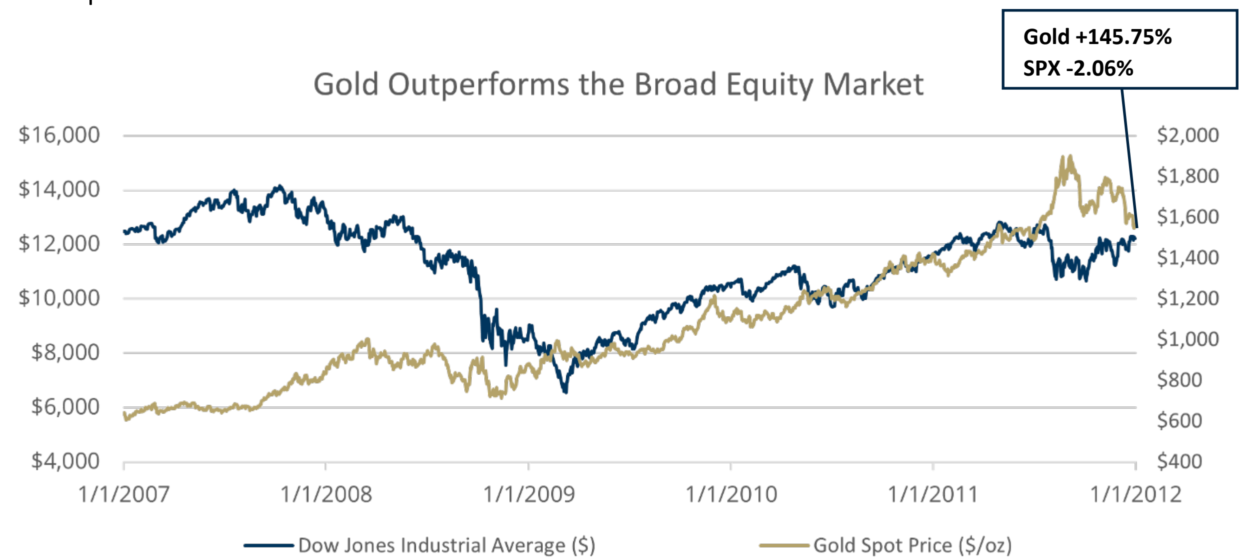
Since the beginning of 2020, the spot price-per-pound of copper has almost doubled to more than $4.00 after wallowing around $2.00 to $2.50 for most of the prior five years. Some of this increase is likely due to global supply chain issues affecting almost all commodities, as well as due to rising energy prices given that energy is a key input to copper production; however, the emerging clean energy industry is also a likely secular catalyst. Copper is currently an affordable conductor of electricity that is flexible and efficient with the additional benefit of being 100% recyclable. As such, clean energy generation from wind and solar uses approximately 5x as much copper as fossil fuel energy generation uses. Therefore, like nickel, this is an area of the materials sector that North Star is likely to investigate further.

Silver

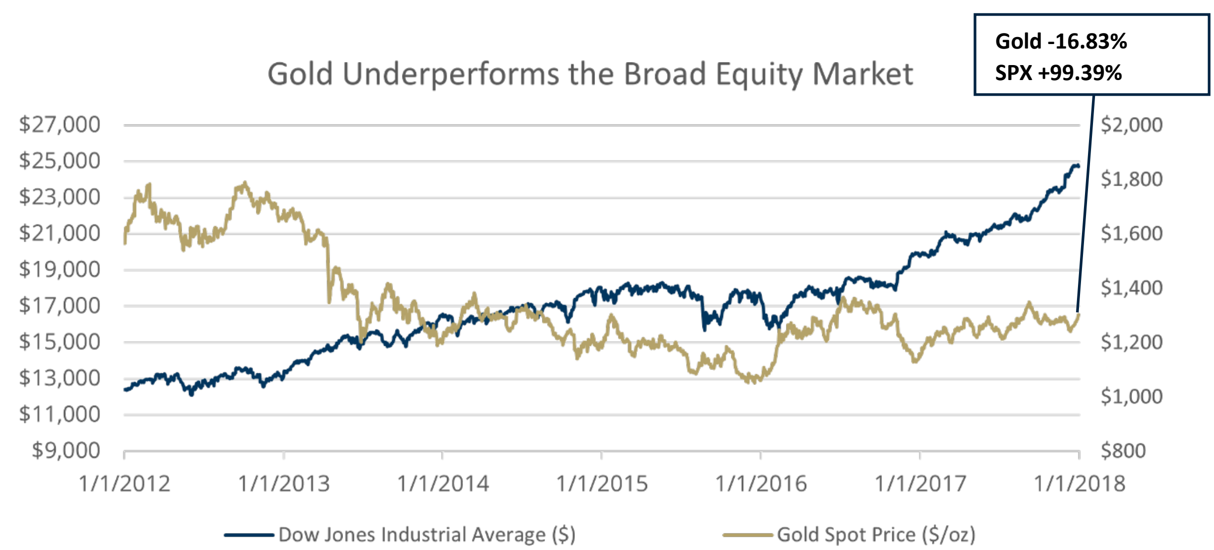
Annual silver production from mining and recycling has been approximately 1 billion ounces for the last decade.[iii] Demand will likely accelerate on a secular basis due to the proliferation of electric vehicles, which use more silver for electrical transmission that traditional vehicles use. This incremental demand could be offset by the increased efficiency of solar panels such that less silver is needed in that vertical. This possible silver demand negative could be mitigated by demand increases for the more efficient – and lower cost – solar panels, but price elasticity of demand for solar panels is uncertain given the recency of mainstream solar panel use. Nevertheless, the expansion of electrical vehicle production suggests that demand growth for silver is likely to outpace supply growth at least modestly. Thus, the electrification pursuit will need to be supported by gradually higher silver prices to encourage mining production increases. From our research, North Star has become quite constructive on silver commodity prices for at least the next decade. Major publicly traded companies that may offer investors exposure to favorable silver prices include **Pan-Am Silver Corp (PAAS)**.

Gold

North Star's most concentrated area of focus in the Materials and Metals has been in Gold. In many ways, gold is unlike most other assets. It produces no income itself, although gold mining companies can pay dividends. In our view, its value to an investment portfolio is purely related to its diversification benefits; gold has had low price-level correlation with other asset classes over the long-term, although gold prices do tend to be correlated with broader financial market movements over shorter periods such as days, weeks, and months. Notably, gold prices have underperformed broad equity market performance during sharp short-term rallies or long-term bull markets. In contrast, gold prices have outperformed broad equity markets in the months and quarters following broad equity market sell-offs. The chart below shows the period from January 2007 through January of 2012 when the price of gold increased more than 145% while the Dow Jones Industrial Average (DJIA) was essentially flat with several periods of downside.



In contrast, from January of 2012 through January of 2018, the DJIA increased by almost 100% while the gold spot price declined by 16%. These statistics suggest gold is a valid portfolio diversification tool. We believe this diversification benefit should persist as long as gold remains among the scarcest resources.



While there is no obvious catalyst to gold scarcity changing, as proponents of including gold in long-term portfolios, we remain vigilant for any possible supply dynamics changes.

One likely negative for actual real-economy demand for gold is its price. While gold is an excellent electricity conductor, its superiority for such industrial purposes is not great enough to justify using gold rather than less expensive metals, especially copper and silver. Therefore, we do not believe that potential industrial consumption of gold offers any possible floor price for gold. As such, the only floor price for an ounce of gold is likely the all-in cost of mining an ounce of gold, which recently has been between $1,200-$1,300 depending on the efficiency of the mining company.

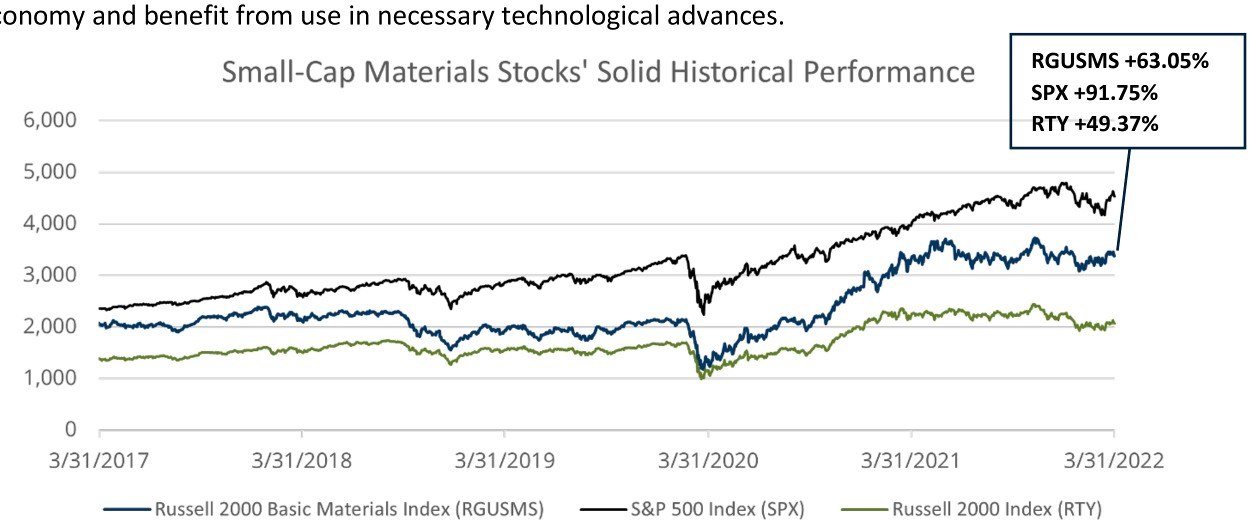
In our view, the best gold-based diversification vehicles for portfolios are those most closely aligned with physical gold bullion. The Sprott Physical Gold Trust (PHYS) is one such security, such that the trust administration company, **Sprott Inc. (SII)**, owns physical gold bullion that underlies all PHYS shares issued and outstanding. North Star views PHYS as the next best alternative to owning physical gold bullion, which is difficult to transact in and difficult to store.

Multi-Decade Sector Outlook is Bifurcated

The OECD forecasts that between 2011 and 2060, global GDP will likely double. However, it also forecasts that "…the materials intensity of the global economy is projected to decline more rapidly than in recent decades – at a rate of 1.3% per year on average – reflecting a relative decoupling: global materials use increases, but not as fast as GDP."[iv] If accurate, this forecast suggests that the almost 50% of the Materials sector will decline as a percent of the global economy, offset somewhat by growth in other Materials sector components.

Conclusion

The small-cap basic materials sector, although few in number of publicly traded companies, has exhibited solid historical performance and is well-positioned to participate in both the growing global economy and benefit from use in necessary technological advances.



Bottom-up analysis will be necessary given the cyclicality of many materials companies, as well as due to the tendency of high-demand materials industries to quickly be overcapitalized which can rapidly reduce margins and returns to investors. However, compelling investment opportunities in niche companies with seasoned management teams, stable margin profiles, and appropriate capital structures can be identified amongst small-cap metallic and non-metallic materials companies.

Contact Information

Please contact us at info@nsinvest.com if you would like to discuss the North Star funds, strategies, and investment research.

Investors should carefully consider the investment objectives, risks, charges, and expenses of the North Star Funds. This and other important information about each of the Funds are contained in the prospectus, which can be obtained at www.nsinvestfunds.com or by calling (855) 580-0900. The prospectus should be read carefully before investing. The North Star Funds are distributed by Northern Lights Distributors, LLC member FINRA/SIPC. Northern Lights Distributors, LLC and North Star Investment Management are not affiliated. 1697-NLD-06222022

North Star Funds do not utilize Environmental, Social and Governance (ESG) practices in their fund activities nor do they consider this their area of expertise.

Important Risk Information

Mutual funds have investment risks including loss of principal. There is no guarantee either fund will meet its objective. No-load mutual funds are sold without sales charge; however, they have ongoing expenses, such as management fees. There is no guarantee that any investment strategy will achieve its objectives, generate profits or avoid losses.

About North Star Investment Management

North Star is an employee-owned boutique asset management firm. The North Star Funds, managed by North Star Investment Management Corporation, are part of the North Star Family of Financial Services. North Star is a Chicago-based investment management firm serving individual investors since 2003.

The North Star Funds actively invest in undervalued and often overlooked small and micro capitalization companies where our macroeconomic and primary research and analysis indicate a catalyst for growth. We believe in the businesses we own—we have "high conviction" in the securities we select, and typically only hold 40 to 50 names in each portfolio.

Portfolio Selection – High Conviction, Low Turnover, Risk Management

- Each fund has a concentrated portfolio of 40 to 50 high conviction names with low turnover averaging 11%
- For risk management, each position is limited to approximately 3.0% of a portfolio
- We overweight the best stocks, but no more than 5% in any one position
- For both SMAs and funds we will nibble and bunt our way into positions by buying a little at a time
- We talk to company management in addition to doing our own primary research
- We have a bullpen of potential stocks to add to our portfolios
- Sell discipline results from a dramatic change in firm strategy, or failure to perform according to business goals.

Appendix

Russell 2000 Index: The Russell 2000® Index measures the performance of the small-cap segment of the US equity universe. The Russell 2000® Index is a subset of the Russell 3000® Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership.

S&P 500 Index: The S&P 500® is widely regarded as the best single gauge of large-cap U.S. equities and serves as the foundation for a wide range of investment products. The index includes 500 leading companies and captures approximately 80% coverage of available market capitalization.

Dividend: A dividend is a distribution of some of a company's earnings to a class of its shareholders, as determined by the company's board of directors. Common shareholders of dividend-paying companies are typically eligible as long as they own the stock before the ex-dividend date. Dividends may be paid out as cash or in the form of additional stock.

Gross Margin: Gross margin represents the percent of total sales revenue that the company retains after incurring the direct costs associated with producing the goods and services sold by a company.

Operating (Cash Flow) Margin: Operating margin is a cash flow ratio which measures cash from operating activities as a percentage of sales revenue in a period.

Definitions provided by Bloomberg LP

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[i] https://time.com/6182044/electric-vehicle-battery-lithium-shortage/
[ii] https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions/executive-summary
[iii] https://www.silverinstitute.org/silver-supply-demand/
[iv] https://issuu.com/oecd.publishing/docs/highlights-global-material-resource_a567d9d2dcb0af