

Driehaus Emerging Markets Small Cap Equity Strategy Summary

MAY 2021

The theme of energy transition has been increasingly represented in the strategy over the past several years, taking on numerous expressions, including renewable energy companies, supply chain beneficiaries, and companies exhibiting growth in related areas such as carbon credits. This month, we discuss recent developments related to energy transition and examine the implications for our positioning within the theme.

2020 was marked by a wave of companies adopting environmental goals, including emissions reduction targets and carbon neutrality pledges. China attracted significant attention by targeting carbon neutrality by 2060 and a peak in carbon emissions by 2030. Lastly, the US presidential election brought about a change in leadership, with the new administration prioritizing climate change as one of the most important pillars of its policy, rejoining the Paris Climate Agreement and pledging a significant amount of spending on the environment as part of the nearly \$6 trillion in fiscal stimulus undertaken in the aftermath of COVID-19.

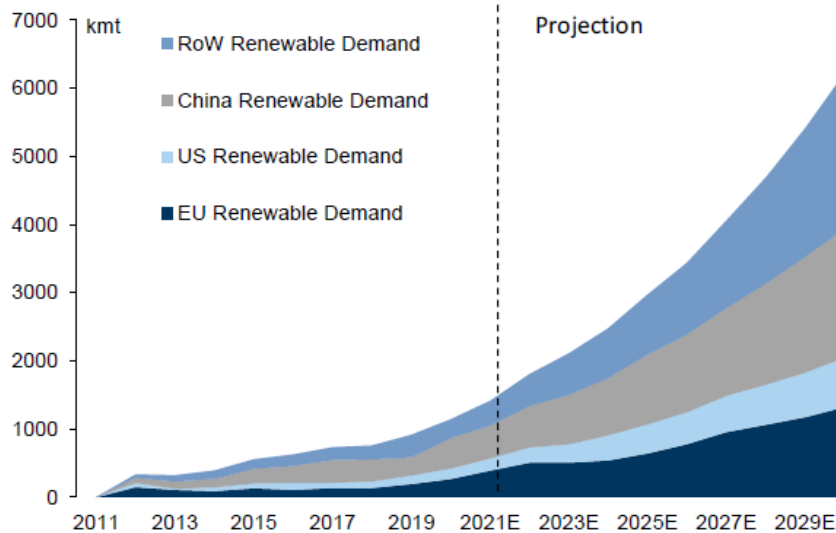
Amid this backdrop, it was striking that the International Energy Agency (IEA), an influential industry body, published a report in mid-May entitled "Net Zero By 2050," which concluded that new oil and gas projects could be scrapped altogether, leaving only existing fields under development to meet the shrinking need for fossil fuels.

The IEA's analysis started out by looking at the stated policies of governments around the world on climate change, finding a trajectory of a 2.7° Celsius temperature increase by the year 2100. Then they looked at these same countries' announced pledges, finding a 2.1° temperature increase. Both fall short of the 1.5° goal from the Paris Agreement.

From there, the IEA examined different pathways that 1.5° could be achieved. The key takeaway is that electricity needs to increase significantly, growing to 50% of energy consumption by 2050 in the IEA's model, which represents an increase of 2.5x in electricity generation from current levels. In their scenario, fossil fuels fall from 80% of energy supply today to 20% by 2050, and are basically only used for the production of plastics and for areas where low-emissions technology options are scarce. Massive deployment of renewable energy will be needed, as the IEA models almost 90% of electricity generation coming from renewables by 2050, with most of the rest from nuclear power.

We agree that electrification will be a critical piece of any credible solution to counteract climate change. The following chart suggests that the world has reached a tipping point and is on the cusp of substantially higher renewable energy demand throughout the next decade (Exhibit 1).

Exhibit 1. Significant Electrification Demand To Drive Renewables Growth



Source: Goldman Sachs

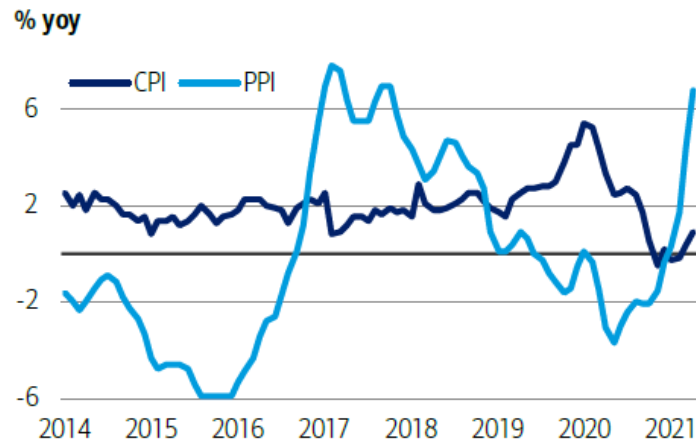
We expect numerous companies to benefit from the electrification trend throughout the supply chain, from upstream copper and aluminum companies, to solar and wind power component producers, to the downstream renewable power operators. While all of these areas should benefit from greater electrification over time, the upstream producers have felt a more pronounced earnings tailwind year-to-date amid the general reflationary backdrop of global equity markets. Further, two separate but related developments on environmental protection have reinforced this trend.

First, China's decarbonization agenda pivoted to supply side reform measures intended to reduce emissions associated with the production of steel and aluminum. In late 2020, China issued a target for its steel producers to maintain flat production in 2021. However, against the backdrop of rapidly improving demand for steel as the global economy recovers and the US ramps up its fiscal stimulus, China's year-to-date steel production has grown by nearly 16% year-over-year. This implies a sharp contraction is needed for the remainder of the year in order to meet the target of flat production for the full year. Similarly, aluminum production has risen to meet global demand. However, in response to weak hydro power conditions in the key producing province of Yunnan, regional producers have recently been given a directive to curtail production by up to 40%.

These developments have created a conundrum for China, as producer prices have already risen at their fastest pace in nearly four years, even before such mandated production curtailments have unfolded (Exhibit 2). While authorities have issued warnings against commodity price speculation on a regular basis throughout May, there is little they can do to combat the forces of supply and demand. This leaves the authorities with the difficult decision of moving forward with supply side reform measures, which risks further stoking inflation concerns, or pausing the decarbonization agenda as it pertains to the power-intensive production of materials.

Exhibit 2. China Consumer Price Inflation vs. Producer Price Inflation

Apr CPI inflation rose to 0.9% YoY from 0.4%, while PPI inflation surged to 6.8% from 4.4%



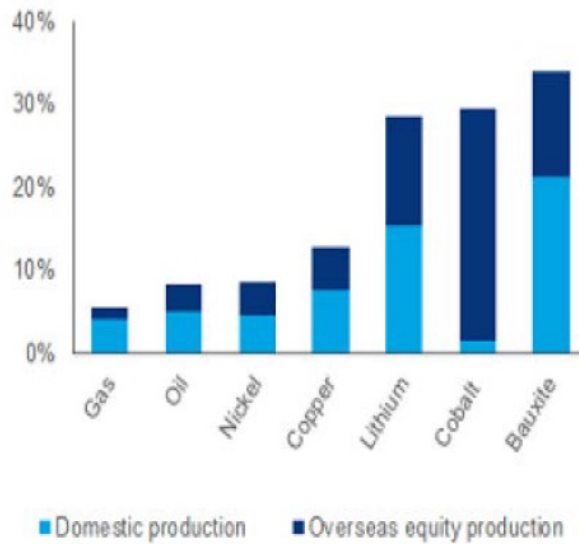
Source: BoFA Global Research, NBS, CEIC

Second, bottlenecks emerged in the solar supply chain, leading to a temporary reversal of the decade-long trend of falling cost per watt for solar developers. Polysilicon prices have risen by nearly 70% year-to-date, after solar glass faced similar constraints throughout the second half of 2020. While China may still be able to achieve its annual solar installation target, it will come at a cost, as some parts of the supply chain will have to absorb higher prices. Ultimately, supply will catch up to meet rising demand, but volume constraints and margin pressure have weighed on the share prices of renewable energy companies throughout 2021.

Strategically, China is expected to forge ahead aggressively with decarbonization efforts. Notwithstanding the fact that the country plays a critical role in countering climate change on a global basis, China also stands to benefit greatly from an economic perspective from energy transition. In contrast to the booming global growth felt during 2003-2007, which left China dependent on oil (75% of which it imports) and copper (85% imported), China is the global leader in wind turbines, solar panels, and electric vehicle batteries (Exhibits 3-4).

Exhibit 3. China's Share of Global Production – Raw Materials

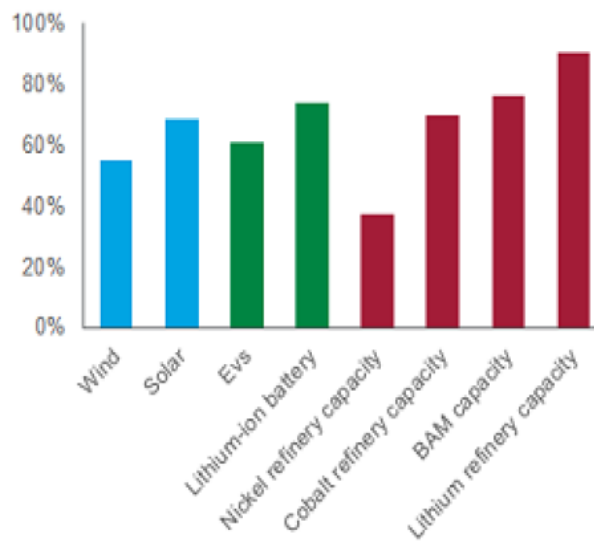
China established a global raw materials supply chain



Source: Wood Mackenzie

Exhibit 4. China's Share of Global Production – New Energy-Related

China has strong positions in some proven, commercial new energy technologies



Source: Wood Mackenzie; Note: BAM = battery anode materials

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Elsewhere, carbon credits have quietly been one of the year's best performing assets, with the price of the European Union's benchmark Emissions Trading System (ETS) contract up 60% year-to-date. Carbon credits play a role in environmental protection, as companies will be forced to more carefully consider the economics associated with carbon emissions, while a rising price of carbon may improve the relative cost-benefit of technologies such as green hydrogen and carbon capture and storage.

Counter to the discomfort felt by Chinese policymakers with rising commodity prices, European officials have encouraged the price increases of carbon. Climate commissioner Frans Timmermans said that carbon prices would need to rise significantly higher in order to achieve emissions goals. He also urged policymakers not to intervene in the carbon market, warning this would undermine the system. German officials similarly said there is no need to intervene in the market.

While companies with direct exposure to carbon credits are difficult to find, such exposure can be highly accretive to their earnings, as credits generated through the course of normal business are effectively sold with next to no associated cost, and the impact falls directly to the bottom line.

Earlier this year, the strategy participated in the IPO of a Brazilian waste management company that generates biogas in all five of the landfills it operates. This company recovers the biogas and channels it to renewable energy production, a process which also generates carbon credits. While this particular business is not the dominant share of the company's revenue, at 15% of the mix, the sale of carbon credits is highly profitable amid the dramatic price increases we have observed year-to-date. Companies such as this one offer unique exposure to the environmental protection theme, and the shares have outperformed both the local Brazilian equity index, as well as the MSCI Emerging Markets Small Cap Index since the February listing.

Performance Review

At the sector level, the most significant contributors to returns were health care and materials. Real estate and industrials detracted the most value. At the country level, China and India contributed most to performance for the month, while South Korea and the United Kingdom were notable detractors from performance.

Positioning and Outlook

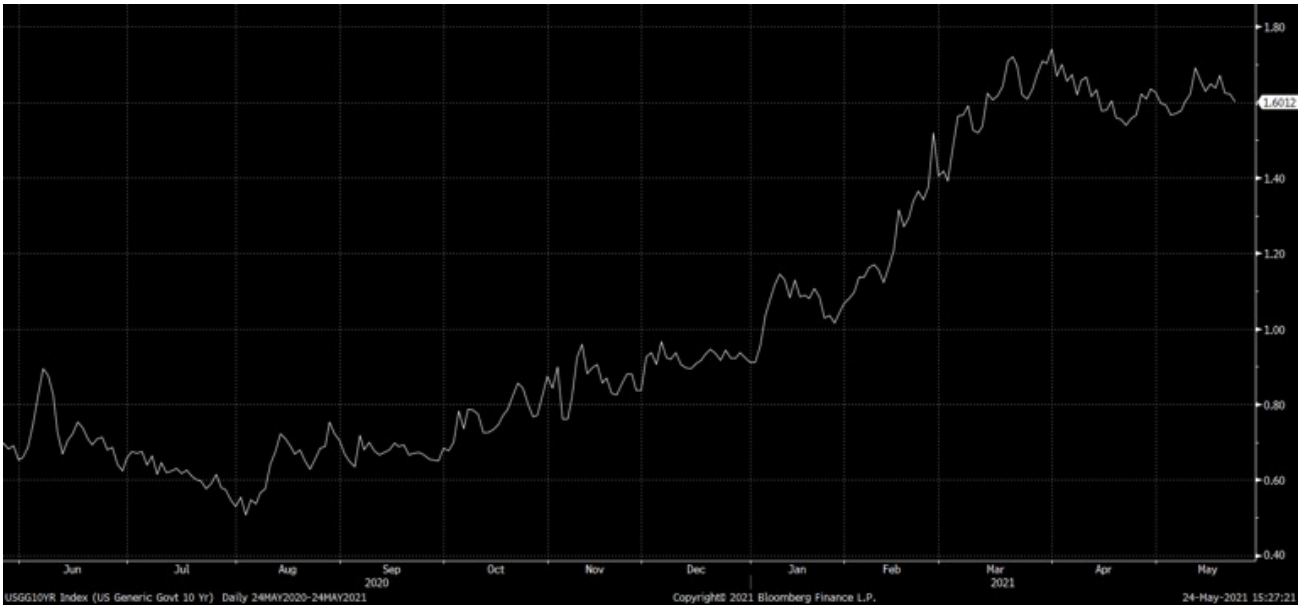
Over the last two months, the headwinds from US dollar strength and the rise in interest rates observed during the first quarter have begun to dissipate, with the broad US dollar index retracting back toward its year-to-date lows, while the US 10-year Treasury yield has stalled out around 1.7% (Exhibits 5-6).

Exhibit 5. US Dollar Index



Source: Bloomberg

Exhibit 6. US 10-Year Treasury Yield



Source: Bloomberg

Despite a robust US stimulus and better than expected pace of vaccinations, the cadence of economic surprises in the US has stalled in recent months, coinciding with the resumption of the US dollar weakness and sideways movement in US Treasury yields (Exhibit 7).

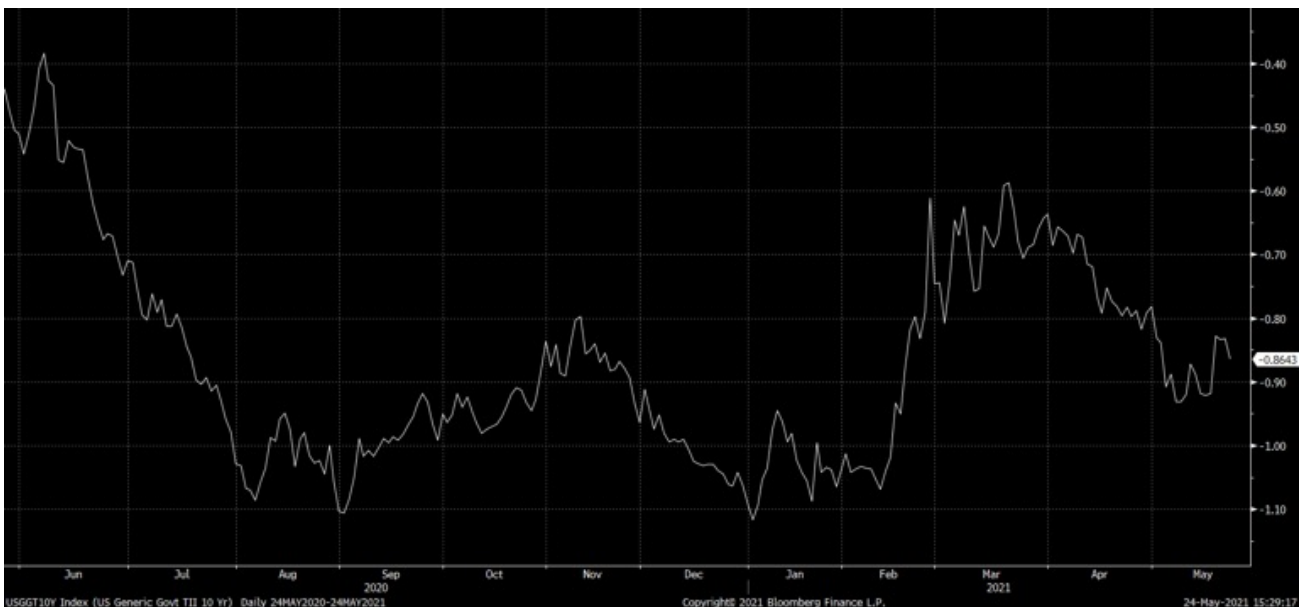
Exhibit 7. US Economic Surprise Index



Source: Citi

Importantly, real interest rates have remained negative throughout the year, and have moved deeper into negative territory quarter-to-date.

Exhibit 8. US 10-Year Real Interest Rate



Source: Bloomberg

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These macro developments have created an incrementally supportive backdrop for growth investors, following a challenging start to the year on a relative basis. While the strategy has not made significant changes to its approach or positioning during the last month, we observe a deep opportunity set in China, India, and Brazil and continue to embrace the broad themes of innovation and domestic demand, encapsulated in areas such as automation, renewable energy, digital transformation, financial technology, and innovative drug development.

We are encouraged by the depth of our pipeline of potential investment opportunities, along with the improving performance of small caps relative to large caps in emerging markets despite the shifting macroeconomic factors observed year-to-date.

Until next month,



Chad Cleaver, Lead Portfolio Manager
Driehaus Emerging Markets Small Cap Equity Strategy