## Time to Go on Offense; Upgrading ....

Including its 4Q drop of 8%, the WilderHill Clean Energy Index (ECO) posted a 2021 decline of 30%, but for all but the most short-term oriented investors, that statistic, in isolation, is meaningless. The reason we look at the profit-taking of 2021 as entirely reasonable and indeed healthy is because it came after outsized gains for two straight years: 58% in 2019 and a stunning, record-setting 203% in 2020. Aggregating the past three years, the ECO gained 232%, more than double the S&P 500's 92%.

The fact that 2021 was a year of share price consolidation reflects a combination of three factors.

- The most fundamental factor was a broad-based surge of commodity inflation (encompassing steel, glass, polysilicon, lithium, carbon fiber, and more); and, along the same lines, supply chain tightness (i.e., constrained ability to source the necessary inputs, particularly electrical components). This resulted in margin pressure and occasional revenue shortfalls for most of the verticals in clean tech.
- There was marketwide sector rotation out of story stocks (and growth more generally) into cyclicals (and value more generally), amid global economic reopening enabled by widespread vaccination. This is a mirror image of the crisis year 2020, when the investor mantra in the early stages of the COVID pandemic had been "growth at any price".
- In 2021, even more so than in 2020, there was a record pace of capital markets activity in clean tech: a veritable explosion of SPAC transactions (41 announced in 2021, up from 27 in 2020) as well as via traditional IPOs and secondary offerings (\$47 billion in 2021, up from \$34 billion in 2020). The investability of clean tech has never been better, but on the flip side, the unprecedentedly rapid increase in the number of public companies means that they are competing for a finite amount of mindshare and in some sense crowding each other out.

Our ECO forecast for 2022 is a gain of ..., but let's be aware of the question marks.

- Supply chain normalization will remain in focus, especially in the first half of the year. In the long run, the overarching trend across clean tech is commoditization put another way, too much supply rather than too little but the lingering uncertainty around COVID and its economic implications means that the next six months will be unusually full of supply chain headlines.
- On the policy front, we will be watching the evolution of climate legislation and regulations in the world's major emitters. While the COP26 climate conference in November 2021 had plenty of upbeat rhetoric, what matters is what governments **do** rather than what they **say**. In the European Union, 2022 will be an important year vis-a-vis implementation of the Fit for 55 regulations under the European Climate Law. The EU Taxonomy — a classification of energy sources and technologies based on their climate attributes — also needs to be finalized, and the debate over inclusion of natural gas and nuclear power is poised to be intense. Given the high levels of ambition and clarity in European climate policy, all else being equal we tend to favor companies with leverage to the European market. In the U.S., federal cash is set to begin to flow from the infrastructure package enacted in November 2021, though the pace of funding remains unclear. As 2021 was wrapping up, the fate of the Build Back Better bill in Congress looked bleak, but the revival of its low-carbon energy tax credit extensions, at least in some form, is a possibility. In China and India, there are mixed messages from both governments vis-a-vis their commitment to decarbonization; for example, China's carbon trading program launched in July 2021, but its shift away from coal in the electricity mix is quite slow. Brazil and Australia are examples of sizable economies where climate action has been almost nonexistent historically, but perhaps that will change. Australia's next election is on deck no later than May 2022, and Brazil will vote in October 2022.
- As it relates to the stocks themselves, we can make one, and only one, generalization: on a day-to-day basis, they tend to trade, for lack of a better word, emotionally: they are high-beta; driven by sentiment and momentum; and prone to relentless volatility, including sometimes for no apparent reason. Growth versus value and large-cap versus small-cap preferences are never easy to predict. That said, we think that "playing offense", on the whole, makes sense as a strategy for 2022 the mirror image of 2021. ....

