Manulife Investment Management

Real world *decarbonization*: identifying future leaders in the low carbon transition

Green technology stocks are proving popular with investors, but central to the successful reduction of greenhouse gas emissions will be the actions taken by the existing economy. We call this real-world decarbonization, and every company has a role to play.

Key takeaways

- The transition to net-zero GHG emission goals is likely to produce many market leaders over the coming decade.
- We expect successful companies will include those offering the technological solutions to get us there, but also those companies driving decarbonization across the value chain through science-based goals.
- We believe there are several key methods for identifying potential future climate leaders in today's economy.

"We are at imminent risk of hitting 1.5 degrees in the near term. The only way to prevent exceeding this threshold is by urgently stepping up our efforts and pursuing the most ambitious path. We must act decisively now to keep 1.5 alive."

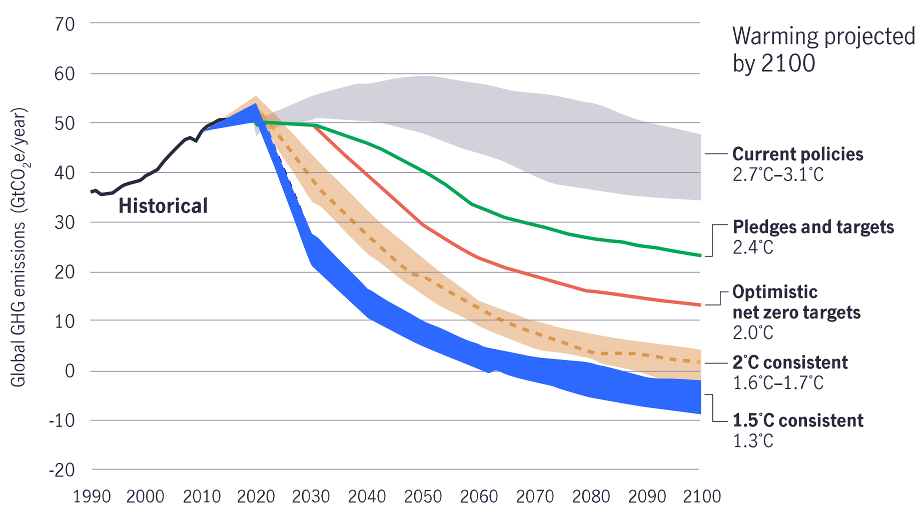
—UN Secretary General António Guterres' statement on the IPCC Working Group 1 Report on the Physical Science Basis of the Sixth Assessment[1]

After decades of warnings about the future risks of increasing greenhouse gas (GHG) emissions, we're now experiencing the repercussions of climate change firsthand. From forest fires and extreme heat to shrinking ice caps, the environmental impact grows in severity while calls to take action rise in urgency. The latest report from the Intergovernmental Panel on Climate Change (IPCC), released in August 2021, warned that only drastic cuts in GHG emissions this decade can prevent us from raising global temperatures to a disastrous extent.[2]

Earlier research by the IPCC calculated that the planet is on a trajectory for a temperature rise of between 2°C and 4°C by 2100.[3] Such a significant increase would have a devastating impact on ecosystems and human health and well-being. Based on current forecasts, areas such as Vietnam in Southeast Asia, critical for rice production, could be flooded by 2050.[4] It was with hopes of addressing the situation that, in 2016, the Paris Agreement was signed.[5] Central to the agreement's goals is an effort to limit the rise in global temperatures this century to 2˚C above preindustrial levels while attempting to limit the increase to 1.5˚.[6]

Climate change: where do we go from here?

The 1.5˚C pathway stands in stark contrast to expected outlooks



Source: "2100 warming projections: Emissions projected and expected warming based on pledges and current policies," Climate Action Tracker, May 2021, https://climateactiontracker.org/global/temperatures/.

Looking beyond the green meme

Climate change can often feel overwhelming, but out of adversity comes opportunity. We believe that by investing in companies willing to make the necessary changes to their businesses, we can not only accelerate the reduction of GHG emissions, but also reap the benefits of strong growth and earnings as these companies become market leaders.

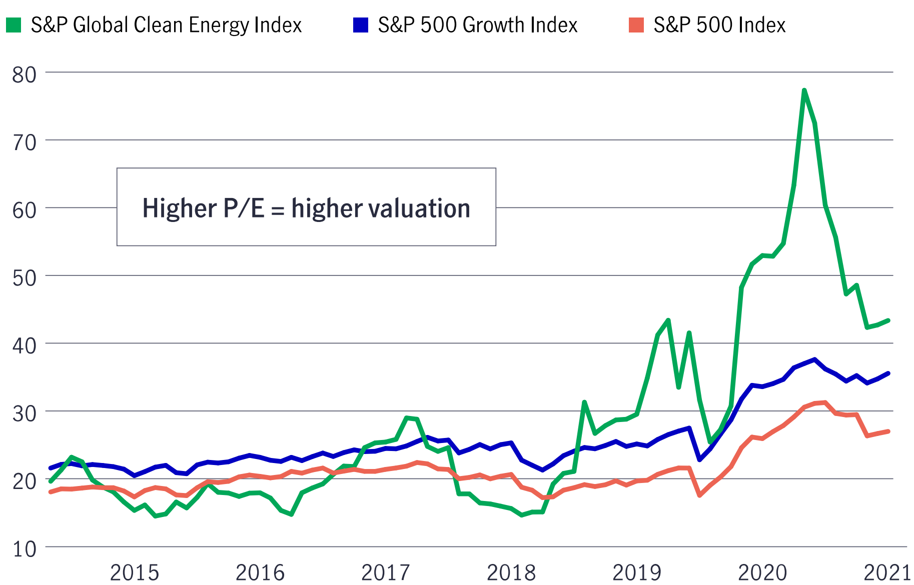
We believe that forward-looking climate risk analysis is an integral part of understanding the true scope of asset and investment risk/return scenarios. In just a few years, we've gone from less than a third of countries with net-zero commitments to three-quarters of countries globally implementing net-zero commitments, with increasing policy measures to back up these commitments.[7,8] The net-zero commitments at the country level will need to cascade down to companies, however. In an environment in which governments increasingly take regulatory action against climate change, companies with a strong plan to reduce GHG emissions—both their own and emissions generated by others—will likely be best positioned to outperform their market peers.

But climate investing requires more than simply building a portfolio of cleantech and renewable energy stocks. Although these companies are an easy win for those looking to green their portfolios, this must be balanced with the need for real-world decarbonization and the generation of returns for investors. With increasing interest in environmental investing, assets flowing into cleantech funds have skyrocketed, reaching almost US $43 billion in the first quarter of 2021 alone, after totaling about US$80 billion in 2020.[9] Globally, about 180 companies derive a significant portion of their revenues from clean technologies, including renewable power, electric vehicles, water management, and energy efficiency.[10] With that much money chasing such a small pool of securities, the results have been predictable: From January 1, 2020, to May 18, 2021, The Economist calculates that the stock prices of these 180 stocks more than doubled on average, while the S&P 500 Index has risen by about 30%. These stocks are much more expensive than the average market.[11]

We're of the view that, in many cases, these valuations are based on outsize growth expectations that may not be realistic, even amidst the ongoing focus on climate change. Furthermore, some of these companies have weaknesses with the social and governance aspects of their business and even broader environmental concerns that might not be reflected in their valuation.

Billions pouring into cleantech —are expectations too high?

Sustainable finance P/E ratios (monthly averages of daily values)



Source: Bloomberg, Datastream, EPFR, ICE BofA indices, Bank for International Settlements, September 2021. Price-to-earnings (P/E) ratio is a valuation measure comparing the ratio of a stock's price with its earnings per share.

Real world decarbonization: preparing today's companies for tomorrow

A successful climate investment strategy should focus on achieving net-zero alignment through two primary objectives: decarbonizing the investment portfolio consistent with achieving global net-zero GHG emissions by 2050 and increasing investment in climate solutions that are needed to meet this goal, such as renewable energy, low-carbon buildings, and energy-efficient technologies.

While we're upbeat about emerging technologies designed to help fight climate change in the future, a key part of any successful climate mitigation approach will be decarbonizing the existing economy—that is, action needs to be taken today to secure our future. We call this real-world decarbonization, and every company has a role to play, regardless of whether or not they offer green products or services.

In addition, if green investors were to focus only on cleantech companies, we believe it would be nearly impossible to build a well-balanced diversified portfolio from such a small universe, with the majority of securities concentrated in a few sectors of the economy and, therefore, highly correlated. We propose that a more effective way to position a portfolio for the transition to a world that can manage climate change—while balancing the need to deliver competitive returns for investors—is to create a well-diversified portfolio of companies that are actively improving their business models, and those of their supply chains, to help reach the goals of the Paris Agreement.

So how can we identify those companies that are doing more for the future today? There are several ways for investors to validate a company's GHG reduction targets, but we consider science-based targets (SBTs) to be the best-in-class standard. Targets are considered science based if they're in line with the latest climate science guidance on what's necessary to meet the Paris Agreement's goals. The Science Based Targets Initiative has emerged as an important reference for companies aiming to set emission reduction and net-zero targets in line with a 1.5°C future. Notably, they seek to achieve an orderly transition to a low-carbon economy, with an aim to avoid risks such as sudden divestment in fossil fuel economies, market crashes due to high volatility; geopolitical and liability issues across sectors, and ongoing policy uncertainty.[12]

We believe that through the use of SBTs and similar approaches, we can identify climate leaders who are not only helping the planet, but who are also positioning their businesses on a more sustainable path, making them more attractive to investors.

So how do we recognize tomorrow's climate leaders today? We believe companies leading the way to a low-carbon future typically fall into one or more of the following categories.

Leaders in GHG reduction

For a climate investor's portfolio to succeed from both a returns and environmental point of view, at the most basic level, we have to first accept that the world's infrastructure can't change overnight. Certain high-emitting businesses will continue to be necessary for the foreseeable future; for example, the world needs steel and cement (two high-emissions industries), and to suggest that we can simply stop producing these staples overnight (not to mention *transporting* them, another high-emissions activity) is simply unrealistic.

However, by working with these companies and encouraging today's high emitters to address their approach and adapt in a timely manner, they can both contribute to the solution and succeed in a low-carbon future. Companies that may have relatively high emissions (and, in general, products that are necessary and likely not going away anytime soon) but that are also consciously working to lower them would be what we consider leaders in GHG reduction.

Case study: why a high GHG emitter is one of our favourite climate leaders

This company, a rail network that transports goods across the Northeast United States, is a high emitter: In 2019, it emitted around 4.7 million tons of GHG (about the same as powering 3,142,551 homes for a year[13]). Yet we regard the company as a future climate leader, as it operates a sustainable business that belongs in a net-zero GHG world.

Like other modes of transportation, railways will be around for a long time to come, but the industry is already well positioned for a greener economy. Transport by rail can result in 75% less GHG emissions than trucking, creating an increasing opportunity to capture market share as customers look to reduce their own GHG footprints.

The company has put forward a credible plan to significantly reduce its GHG emissions going forward and was the first major rail company in the United States to adopt SBTs outlining their commitment to reduce GHG emissions' intensity by 37% by 2030. It has already introduced an automated, drive-through system that scans and inspects containers and reduces potential emissions at intermodal terminals by up to 90%. It also manages train speed and efficiency on a minute-by-minute basis and is committed to considering green technologies such as hydrogen fuels or electric batteries once viable.

Leaders with low GHG intensity

Some companies are already ahead of the curve when it comes to driving down their GHG emissions, perhaps due to early market pressure, forward-looking management, or a combination of factors. As regulatory action against climate change increases and investors reward businesses that are reducing their environmental footprint, companies with a strong plan to reduce their GHG emissions should be best positioned to outperform the market. Over the long term, we predict that early adopters will generate higher, reliable free cash flows and returns. Moreover, early adopters are likely to increase their focus on innovation while strengthening their credibility among investors, customers, and employees and benefiting from stronger brand management.

Case study: a beautiful world

Brand equity is a significant asset for companies today. By taking action on climate change, companies can enhance their brand, positioning them for a changing world with differentiated consumer preferences. As the largest beauty company in the world, this company is at the forefront of making significant changes in how companies approach ESG issues. It has embraced a science-based approach to ensure sustainability is met at every point in the product lifecycle. This includes the water that's used to grow plants for its ingredients as well as the impact the product rinse water has on ecosystems. From 2005 to 2019, the company reduced CO_2 emission from its production sites by 78% while increasing production by 37%. It has also set itself a target of making sure 100% of the plastics used in its packaging will be either from recycled or bio-based sources while aiming to achieve 50% by 2025.

Leaders in providing climate solutions

A growing number of companies now provide services or products that lead to a reduction in GHG emissions, whether directly, where their products actually reduce GHG emissions, such as carbon capture and sequestration, or indirectly, by providing environmentally friendly products that replace existing GHG-heavy products.

As stated earlier, we believe that many of these securities are currently priced based on outsize growth expectations, but through careful analysis, companies can be found that represent a revenue opportunity through the transition to a low-carbon economy.

Case study: driving change one car at a time

Whenever we think of an electric vehicle (EV), certain makes and models usually spring to mind. But what all EVs have in common is that some of their parts are produced by one particular company. Over 20% of the company's revenues are from EVs, and that figure is growing quickly. EV manufacturers need this firm because no other company's products offer the same range and power efficiency. As a result, it's growing much faster than the competition and, more important, growing profitability, as each EV generates an additional $100 to $300 in revenue for the firm versus a regular car.

All indications are that EVs have a long multi-year decade of growth ahead of them—some 9% of new cars sold globally this year will be EVs or plug-in hybrids, up from 3% two years ago.[14] Government policy will also have an impact: The United Kingdom has already announced plans to end the sale of petrol and diesel cars by 2035, and other countries are following suit.[15] With no other auto parts suppliers in a better position to take advantage of this trend, it could prove to be a huge tailwind for the business.

Working in partnership for a better future

It's probably wishful thinking to assume that tomorrow's green economy will be made up entirely of wind farms and solar panels. More realistically, the world's infrastructure won't change overnight, and we believe a successful climate mitigation approach involves working with a diverse range of established companies to reduce their GHG emissions and decarbonize the existing economy.

We remain optimistic for the future of cleantech, but if we're to hit the ambitious but necessary targets set by the Paris Agreement, we believe every company has a role to play, not least today's high emitters. Our team's strategy is real-world decarbonization, and we believe it offers a healthy balance between shareholder returns and future-friendly emissions.

[1]https://www.un.org/sg/en/content/secretary-generals-statement-the-ipcc-working-group-1-report-the-physical-science-basis-of-the-sixth-assessment. [2]"Climate Change 2021: The Physical Science Basis, Summary for Policymakers," Intergovernmental Panel on Climate Change, August 7, 2021. [3]Special report on global warming of 1.5°C, IPCC, 2018. [4]"Rising Seas Will Erase More Cities by 2050, New Research Shows," the New York Times, October 29, 2019. [5]Learn more about the Paris Agreement here. [6] "Using the Paris Agreement on climate change as a long-term investment framework," Manulife Investment Management, January 22, 2021. [7] "Net Zero pledges go global, now action needs to follow words—Oxford-ECIU report," University of Oxford, March 23, 2021. [8]"Race to Net Zero: Carbon Neutral Goals by Country," Visual Capitalist, June 8, 2021. [9]Morningstar Global Sustainable Fund Flows, July 27, 2021. [10]"A green bubble? We dissect the investment boom," The Economist, May 2021. [11]"Billions are pouring into the business of decarbonisation," The Economist, August 2021. [12]Science Based Targets initiative, https://sciencebasedtargets.org/faq, September 2021. [13]Greenhouse Gas Equivalencies Calculator, Natural Resources Canada, 2021. [14]"EV Impact: Electric Vehicle surge resonates across global economy," S&P Market Intelligence, September 20, 2021. [15]"Electric vehicles: the revolution is finally here," Financial Times, October 4, 2021.

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Manulife Investment Management

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