

Fundamental Active Equities

Climate Debate and Carbon Pricing

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COP26, scheduled to be held from 1 to 12 November 2021, is expected to set the direction on whether ‘hard’ metrics, such as carbon pricing, will dominate environmental risk measures that are adopted in portfolios over the next decade.

As the 26th United Nations Climate Change Conference of the Parties (COP26) draws nearer, we expect financial markets to look for indications on how carbon might be priced as well as assess the impact of carbon pricing on corporates and other entities.

Important environmental-related events that may affect market sentiment:

- On 10 March, some of the requirements toward the EU Sustainability-Related Financial Disclosures Regulation (SFDR) came due and the scope of the SFDR in future is potentially vast.
- COP26 is expected to set the direction on tackling emissions control for the next decade. A US-hosted Climate Summit on 22 April followed by a G7 Summit on 11–13 June may give markets signals regarding what to expect at COP26 (Figure 1).
- Potential environmental-related risks coming from US President Joe Biden’s Executive Orders.

Figure 1
Timeline to COP26



Source: Various official sources compiled by State Street Global Advisors, as at 11 March 2021.

A Bridge to COP26 With ESG and Carbon Intensity Screening

As a rule, Environmental, Social and Corporate Governance (ESG) screening makes use of **qualitative** factors, which generally correspond to the Sustainability Accounting Standards Board's definitions of sustainability. At State Street Global Advisors, we combine these factors with our own Stewardship team's corporate governance scores. These are in turn converted into the R-Factor™ measure for ESG. Carbon intensities are then measured by specialized consultancies.

However, in our and other investors' experience, these qualitative measures are often not comparable even within industries and are not forward looking. They therefore do not give a true assessment of *future* environmental-related risks. Such measures are more of a **bridge** until such time as a formal direction is decided on by major international economic players such as the United States (US), the European Union (EU) and China. Moreover, while standards for disclosure are necessary for consistency and comparability, disclosures are **not** sufficient if there is to be a reduction in emissions by 2030 and where current pledges are thought to be consistent with a warming of three degrees Celsius.¹

Investors will have to rely on 'soft' measures until disclosures are made mandatory and standardized to the point where they can be included in financial statements and a price is put on carbon — i.e., until 'hard' measures are introduced.

Toward a Carbon Pricing Mechanism

At present, there is no internationally agreed standard for pricing carbon. The national or regional nature of existing carbon pricing schemes only serves to add complexity for global investors.

According to the International Monetary Fund (IMF), many governments now see **carbon pricing** — either through an **Emissions Trading System (ETS)** or **via a carbon tax** — as essential for transitioning to de-carbonized economies and achieving emissions reductions.

The case for a **supranational** ETS or a carbon market can be made more easily today than even three years ago and we show how an ETS can deliver superior results in terms of emissions reductions, **especially when compared to a carbon tax**. Carbon offset schemes are not discussed in this paper.

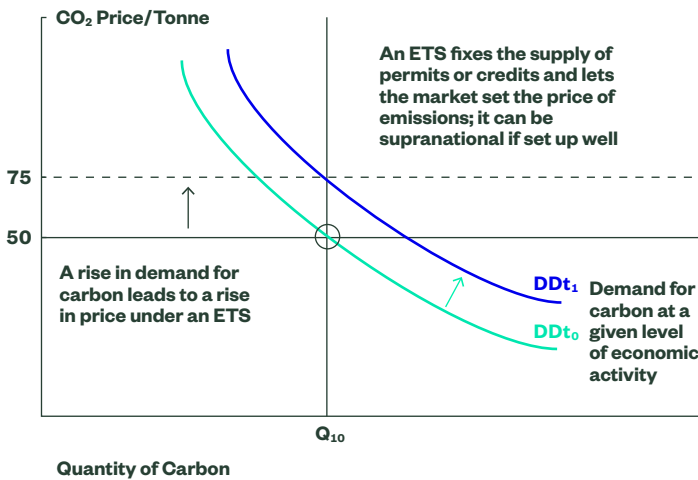
Using new technologies to track and determine the cost of emissions, a properly constructed supranational ETS or carbon market would lead to a continuous rise in the carbon price alongside **a rapid real economic response in terms of new innovation and energy efficiency, making for genuine emissions reductions**.

In contrast, a **carbon tax** as a way to price carbon would not be as efficient: carbon taxes would need to be imposed nationally, could meet with resistance from local populations and would not necessarily lead to a converged global carbon price. Investors and corporates would therefore still face difficulties in assessing the true cost of carbon.

In addition, and most importantly, we demonstrate that under a carbon tax, a rise in economic activity and wealth potentially implies *a rise in carbon emissions*, which are not stabilized *unless* carbon taxes are continually raised.

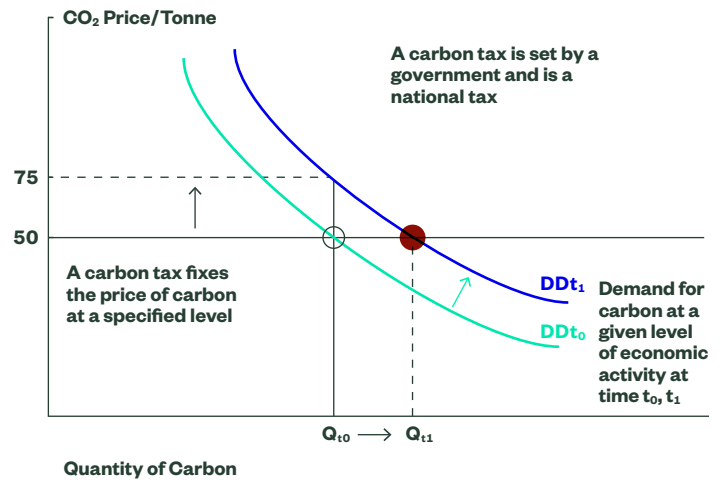
Figure 2
Carbon Pricing Mechanisms
 ETS Versus Carbon Tax

Impact of an ETS



Under an ETS, permits can be reduced over time in line with emissions targets, ensuring emission levels fall.

Impact of a Carbon Tax



Under a carbon tax, a rise in economic activity and wealth potentially implies carbon emissions are not stabilized unless carbon taxes are raised over time.

Note: For illustrative purposes only. Source: State Street Global Advisors.

Figure 3

Emissions Impact of Carbon Tax Versus ETS

	Pros	Cons
ETS Market mechanism to determine the price of carbon after a cap is set	<ul style="list-style-type: none"> • If supranational and comprehensive, likely to be highly effective in achieving targeted emissions reduction • Price signals on cost of carbon are sent out quickly, likely triggering vast investments in energy efficiency • More likely to find favor with the US Senate than a straight tax • Technology has ramped up to the point of being a genuine enabler 	<ul style="list-style-type: none"> • Base-level agreement on the carbon price and where to cap emissions is necessary • Requires sophisticated monitoring and supervision • Not as easy to understand as a straight carbon tax and therefore more difficult for politicians to sell
Carbon Tax Imposed by national governments on the supply of fossil fuels at a fixed price for carbon	<ul style="list-style-type: none"> • Source of revenue for governments • Simple to impose and administer as it uses existing infrastructure for tax collection on fossil fuels 	<ul style="list-style-type: none"> • National in nature — more complex for both companies and investors to estimate emissions • The tax has to keep rising to choke off emissions • Uneven redistribution means it may meet with public resistance, especially in high unemployment and tax jurisdictions — e.g., France and the Yellow Vests Movement

Source: State Street Global Advisors.

The Impact on Equities

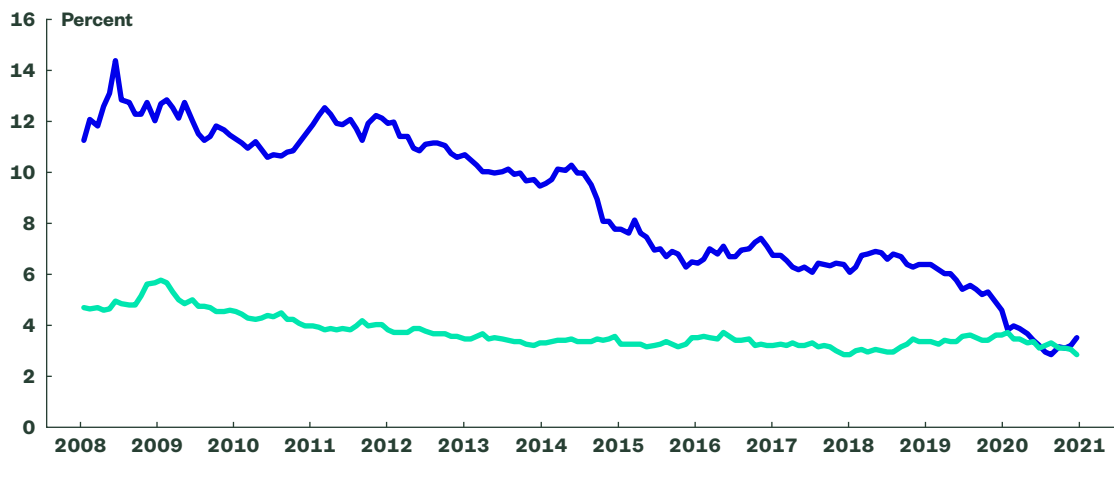
A carbon price will radically change the competitive landscape for sectors and industries and will dramatically change the environment for equities.

Equity markets have been pricing the impact of the cost of carbon in sectors such as energy and utilities and both sectors have demonstrably underperformed the overall index (Figure 4).

Figure 4

Energy and Utility Sector Share in the MSCI ACWI Index

■ Energy
 ■ Utilities

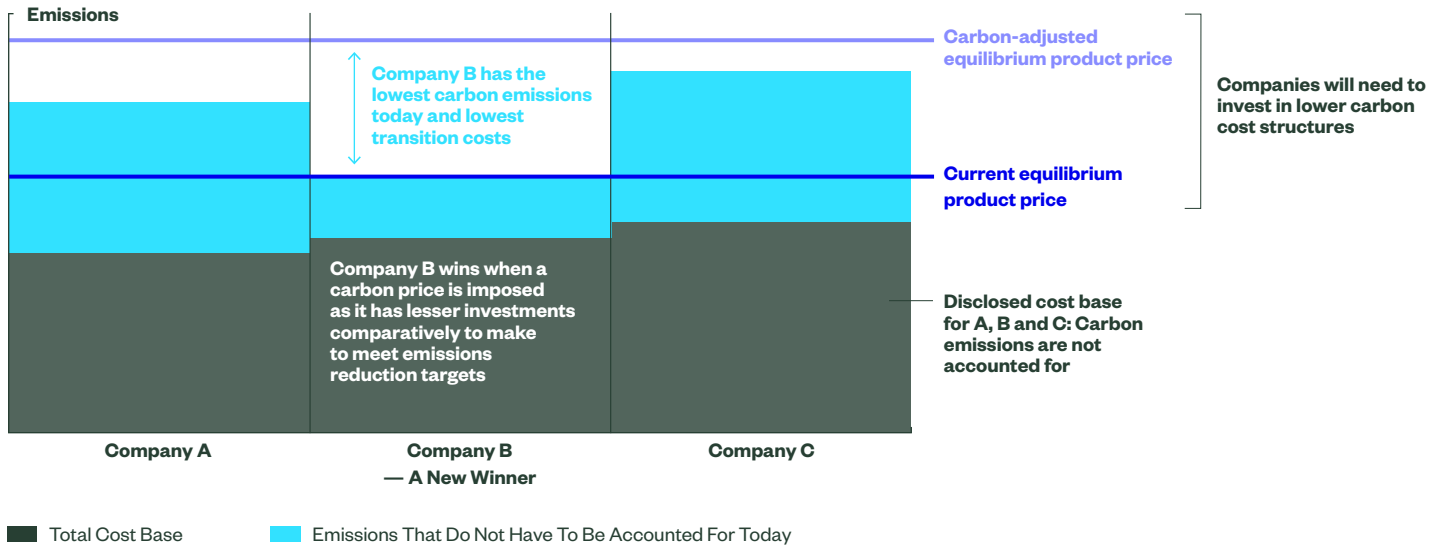


Source: MSCI, Bloomberg, as at 4 March 2021.

However, emissions in other sectors are more difficult to quantify and firms *within* industries can be ahead of their competitors in terms of their sophistication in measuring these. Emissions generated via supply chains will also have to be measured going forward.

Carbon pricing will crystallize the costs of emissions on competitiveness and pricing power, in turn affecting top line and margin. Physical risks to assets from climate change will also have to be considered alongside obsolescence and stranded costs in some industries.

Figure 5
**How New Winners
 Could Emerge With
 Carbon Pricing**



Note: For illustrative purposes only. Source: State Street Global Advisors.

Figure 5 shows how **hidden costs** will emerge when carbon is priced, generating new winners and losers. This should give an edge to those fundamental active equity investors who have worked to identify carbon exposure costs for the stocks they are holding.

Geopolitical Considerations

The political will to act on climate has never been so strong.

- The current US administration is serious on climate action. But a carbon tax is likely to be less palatable to the Senate than a properly constructed market-based ETS.
- The EU, United Kingdom (UK), Japan, Australia, Canada and New Zealand are all taking action on climate.
- China, as a large polluter due to its significant reliance on coal for energy generation, could face barriers to its exports from all the above countries in the form of carbon import tariffs if it does not open up to emissions measurements. Chinese President Xi Jinping has indicated that he understands the direction the debate is taking.

Adding to the sense of urgency are the major central banks, which see climate change as a real threat to future financial and economic stability.

Figure 6
Emissions and
Net-Zero Targets of
Selected Countries

	CO2 Emissions (Million Tonnes, 2019)	Net-Zero Target Year	Target Status
France	337.9	2050	In Law
New Zealand	34.8	2050	In Law
Sweden	41.0	2045	In Law
UK	379.0	2050	In Law
China	10,064.7	2060	In Policy Document
Germany	759.0	2050	In Policy Document
Switzerland	36.9	2050	In Policy Document
US	5,416.3	2050	In Policy Document
Canada	568.4	2050	Proposed Legislation
South Korea	659.0	2050	Proposed Legislation

Source: Energy & Climate Intelligence Unit, as at 4 March 2021.

Conclusion

We believe a supranational ETS or a carbon market is the most efficient way to price carbon. It will force emissions to be both quantified and standardized in order to be formally disclosed in financial statements. Over the next decade, these changes will have a material impact on all financial investments and in particular fundamental active equity investing.

As fundamental active portfolio managers, we have for some time been incorporating ESG factors and carbon intensity measures in our process. We are also readying ourselves for a hard carbon price through an in-depth investigation of our companies. This includes discussion with senior management coupled with our own internal rating of companies for either their readiness or potential contribution to the transition to net-zero.

COP26 should confirm whether hard metrics, such as carbon pricing determined on an ETS, will be introduced alongside a level for the carbon price, potential guarantees for an annual minimum carbon price as well as the timing of the introduction of a trading system.

Until a 'hard' carbon price is introduced, soft metrics will be used as a bridge to capture measures of sustainability. If no decision is taken at COP26, then soft measures will likely endure despite their cost in terms of complexity, incompleteness in terms of comparability and relative ineffectiveness in terms of emissions reduction.

Endnote

- 1 A one-third reduction in emissions from the current policy baseline is necessary for stabilizing the warming of average global temperature by not more than two degrees Celsius by the end of the century. (IMF, October 2019). A US\$75 per tonne carbon price in 2030 is consistent with the less than two degrees Celsius target for warming, compared with about US\$41.0 per tonne price for EU Emissions Allowances (price as of 11 March 2021, Bloomberg).

Appendix

Emissions Reductions — Details on Stated Targets

	Year to Achieve Net-Zero Emissions	Other Targets and Initiatives
UK	2050	The UK is aiming to cut greenhouse gas emissions by 68% in annual carbon emissions by 2030.
		Prime Minister Boris Johnson has announced plans for the UK government's green industrial revolution, which will cover clean energy, transport, nature and innovative technologies.
US	2050	The Biden Plan will ensure that the US achieves a 100% clean energy economy and reaches net-zero emissions no later than 2050.
		Treasury Secretary Janet Yellen will play a major financial regulatory policy role, while US Special Presidential Envoy for Climate John Kerry will coordinate private sector action abroad. Gina McCarthy serves as the climate advisor, tasked with coordinating the Biden administration's domestic climate agenda.
China	2060	President Xi Jinping announced that China will become carbon neutral before 2060 and the country will seek to peak its emissions before 2030.
		At the end of China's 14th Five Year Plan (2021–25), the proportion of non-fossil energy in primary energy consumption will reach about 20% and the carbon dioxide intensity of the corresponding GDP will be reduced by 19%–20%.
France	2050	France announced legislations to increase its 2030 target to reduce consumption of fossil fuels by 30%–40%.
		In terms of public finance, donor countries have to mobilize US\$100 bn per year to help poorer nations cut emissions and cope with climate changes by 2020 — a target they are yet to meet. The French Development Agency has been driving reform among public development banks and has promised to work toward phasing out coal finance and reducing fossil fuel investments.
Sweden	2045	Sweden was the first country to put into law a timeline to ensure it was ahead of the Paris Agreement's target. The country has spent several years de-carbonizing its energy sector by increasing its nuclear fleet and investing in hydroelectric power sources.
Denmark	2050	The government pledged to introduce binding de-carbonization goals and strengthened its 2030 ambition to reduce emissions from 40% below 1990 levels to 70%.
		Denmark's Dan Jørgensen has been named chair of a global commission, led by the International Energy Agency, to promote a "people centered" transition to clean energy. The commission is due to present recommendations ahead of COP26 on how to ensure communities dependent on the fossil fuel industry for their livelihoods are not left behind.

Note: The above estimates are based on certain assumptions and analysis made by third parties. There is no guarantee that the estimates will be achieved.
Source: State Street Global Advisors, as at 4 March 2021.

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- Build from breadth
- Invest as stewards
- Invent the future

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