Plato
INVESTMENT MANAGEMENT

Evidence of climate transition policies on stock performance

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Executive Summary

As a leading example of a region which has adopted progressive climate change policies, the European experience with decarbonisation may provide some insight into what the performance implication may be for countries or regions that will follow similar decarbonisation policies in the future. In this paper we present an empirical study that observed a remarkable 40% underperformance of high carbon intensity names relative to low intensity names over the period 2009-2020.

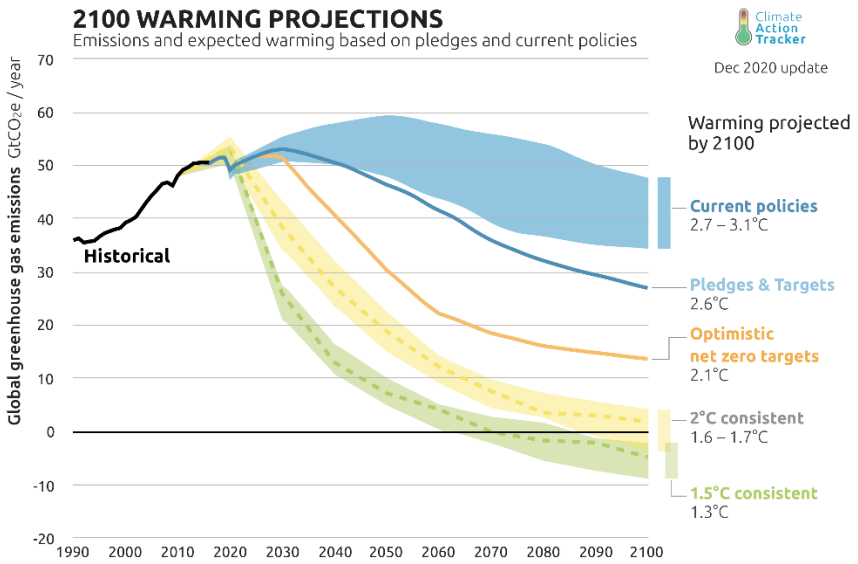
While this cannot necessarily be translated into an expectation for other markets to mimic such a large performance differential, it is such a stunning result that it seems prudent to consider the implications of this observation as climate policies continue to be enacted and enforced in other countries and regions.

European policy highlights over the study period

We note the following policies[1] over the study period.

- 2008: 20% emissions reduction target by 2020[2], renewable energy share to 20%, improvement in energy efficiency of 20%
- 2014: 2030 targets updated and increased to 40% emissions reduction by 2020
- 2019: Climate neutral EU by 2050 target adopted
- 2020: 2030 target increased to at least 55% CO2 reduction

And the pace is not slowing. The UK recently brought forward the deadline to stop selling new internal combustion engine (**ICE**) vehicles from 2040 to 2030, and proposed Euro 7 emissions rules for vehicles will push to ban new ICE powered cars by as early as 2025 across member countries, a target Norway has already adopted. The increasingly ambitious policies are a response to the evidence that we have already overshot a 2 degree warming target, and to limit global warming to no more than 2 degrees requires ratcheted up policies to comply, as can be seen below[3].



[1] European Commission, 2020 climate and energy package https://ec.europa.eu/clima/policies/
[2] Relative to 1990 emissions
[3] https://climateactiontracker.org/

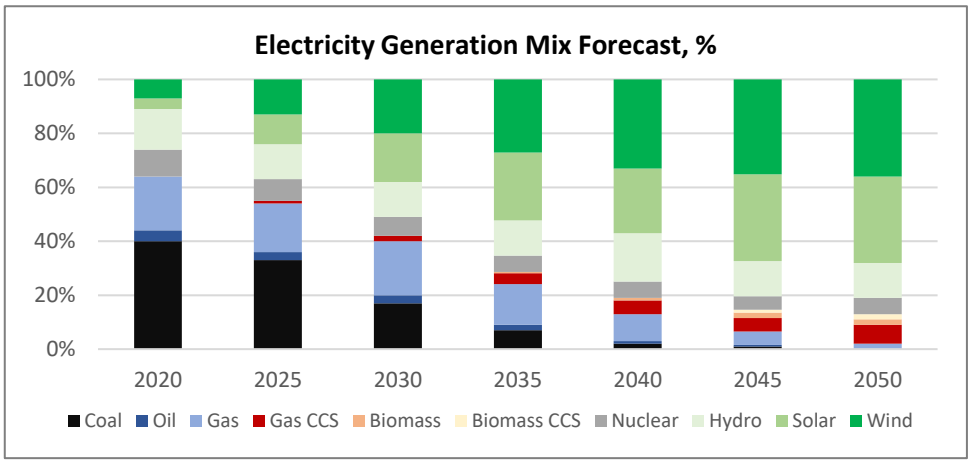
Future pressure on climate policy

Recently, climate change has presented itself as an increasingly prominent global issue. The frequency of natural disasters has tripled over the last thirty years. Surveys conducted in the U.S. reveal that more than half the population supports a carbon tax, with most respondents acknowledging climate change is real. In Australia, forty percent of respondents attributed increased bushfires, droughts and flooding to climate change, with the majority in favour of levies on fossil fuels to facilitate the transition to clean energy. Such attitudes drive businesses to reduce their carbon footprint, to uphold their reputation among key stakeholders.

With increasing pressure for governments to act, policy response is likely to emerge over the next 3 to 5 years[4], in conjunction with the Global Stocktake 2023 and the third round of climate pledges in 2025. The election of Joe Biden in the U.S and Democrat control of both houses is likely to be a catalyst for a rapid acceleration of climate related policies, as signalled by an immediate re-signing of the Paris accord on day one of the administration. Globally, current frameworks such as the Paris Agreement and Net Zero Emissions 2050 present challenges for non-complying companies. Additionally, pressure for energy policy action continues to be driven by decreasing costs of renewable energy and the impact of stranded assets on valuation of fossil fuel reserves held in investment portfolios. According to the International Energy Agency (IEA), 50% of current oil and gas reserves as well as 80% of coal reserves are likely to remain in the ground.

On a global scale, the utilities, materials and energy sectors comprise 14% of MSCI World but contribute 79% of aggregate carbon footprint. Over the past decade, renewable energy generation grew by 85%, accounting for 30% of the total installed power capacity as supportive policies and technological developments have accelerated an energy generation transition.

United Nations Principles for Responsible Investing (**UNPRI**) forecasts the demand for coal to peak[5] between 2020-2022, with renewables expected to virtually replace all fossil fuels by 2050.



Source: Plato, UNPRI The Inevitable Policy Response: Forecast Policy Scenario (FPS)

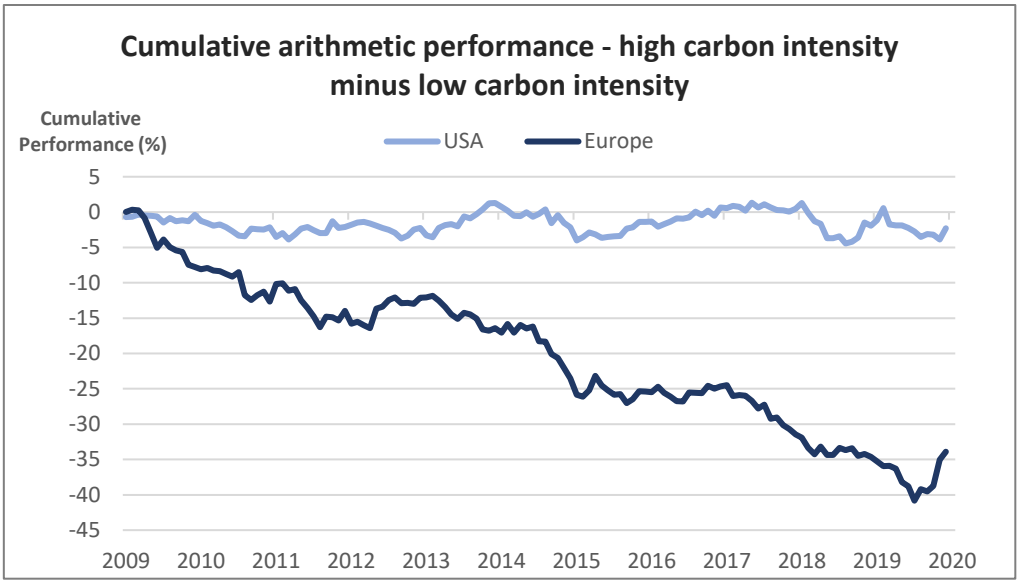
[4] UNPRI forecasts that the Paris Agreement's "ratchet mechanism" will result in government strengthening policy between 2023-2025

[5] Beyond its peak, demand for coal is expected to decrease by 23% per year from 2025 to 2040

In recent years, hydrogen created from renewable sources has emerged as a potential source of clean energy, providing an additional pathway to de-carbonise 20% of global emissions across all sectors.

High carbon intensity names underperform in Europe

Stock return data for the MSCI World IMI was obtained for the period December 2009 to November 2020. The data was GICS sub-industry neutralised, allowing sector specific movements to be minimised, and arranged into quintiles according to carbon intensities. The one-month forward returns were measured, and the process repeated each month until the end of the sample. The cumulative returns for Europe and USA are shown below. The interpretation of the results is that in the USA, where little significant decarbonisation policies have been enacted, there is no significant performance differential between high and low carbon emitters in a like-for-like company comparison. However, in Europe, where significant economy-wide decarbonisation has been in progress, the high carbon emitters have significantly underperformed low emitters over the last 11 years, a period consistent with the adoption of emission reductions targets.



Source: Plato Research, MSCI, Factset

This evidence alone should not be taken as absolute proof that there is alpha in holding a low carbon investment portfolio, as other causes can be potentially at work also. However, with such a strong empirical result combined with a valid causal link explanation as to the cause of the performance difference, it is certainly worth considering the implication on investments that are likely to be impacted by future decarbonisation transition policies. Plato is of the opinion that the evidence is strong enough to consider the transition to be an opportunity to benefit from being positioned on the right side of a global carbon economy transition.