Offsetting carbon emissions with short positions: Do it for the money, not for the impact.

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Hardly a day goes by without a government, a city, a corporate or a bank pledging toward a net-zero-2050 objective, thereby aligning to the Paris Agreement. The adoption of such commitments, when legally binding, is a significant achievement, although there is much debate on whether such pledges are realistic and sufficiently ambitious. Net-zero strategies are complex to devise and not easy to implement, especially for large and diverse structures, but, at least in theory, the path toward net-zero can be broken down into three parts:

- Avoid all emissions given the current state of the technology;
- Update internal processes to reduce emissions where they are unavoidable;
- Offset the remaining emissions.

Regarding the offset, there is a large and significant literature, including from international agencies, on best practices and guidelines. An important feature of carbon offsets is that the removal of GHG emissions must be scientifically proven and valid over the long term. To put this into perspective, it takes between 300 and 1000 years for CO_2 to naturally disappear from the atmosphere. It is worth noticing that the most influential guidelines and protocols for carbon accounting at corporate level – the UNFCCC, the Science Based Target Initiative or the GHG Protocol – explicitly forbid companies to subtract carbon offsets from their emissions when reporting their carbon footprint.

It is important to correctly frame the net-zero strategies, as this is a key element when it comes to building net-zero investment solutions. One way is to invest in companies that have set a net-zero corporate strategy. This approach is fairly simple, and progress toward the target is easy to monitor if data is correctly disclosed. It also has the advantage to signal to companies that commit toward net-zero targets that long-term investors are willing to hold their equity or bonds, thereby lowering their cost of capital. An alternative method using short positions aims to achieve net-zero and carbon neutrality by building long-short portfolios and counting the carbon footprint of the shorted companies as offsets. This is the approach that some quantitative asset managers have put forward to reach net-zero in their portfolios[1]. It is reasonable to assume that shorting high carbon emission companies may have some benefits from a risk or financial point of view. If one's own scenario considers business and transition risks for such entities, ranging from stricter regulation to higher taxes, it will reveal a negative financial impact on their prospects. The short position would therefore make sense from a strict financial point of view, acting as a hedge against carbon and transition risk. However, shorting has no impact on the net-zero challenge that our societies must tackle to stay within the limits set in the Paris Agreement.

Sending a signal. One of the features put forward by the proponents of this approach is the signal that shorting a company sends to its management, especially if such shorting is done on the basis of its carbon emissions. However, this argument is not supported by the physical and technological constraints that must be considered within the economy. While there is undoubtedly substantial room for improvement, one must also recognize that there are economic activities, such as steel, cement, air travel, shipping, etc., which cannot be fully decarbonized given the state of the technology. Shorting these sectors and associated companies, even if one can reasonably have a negative view on their prospects, does not help solve the main challenge: how to build homes with decarbonized cement, or how to build bridges with green steel. As a matter of fact, advances and improvements in this field will only come from companies that are active in these fields.

[1] https://www.aqr.com/Insights/Perspectives/Shorting-Your-Way-to-a-Greener-Tomorrow

Looking for change. Another argument posits that the pressure short positions exert on companies will force them to change. It is hard to prove that senior management responds to increased short interest on its company's stock by acting on its carbon footprint. On the contrary, high short interest could force it to deploy short-term strategies to "defend" the stock rather than focus on long-term net-zero policies. Such policies take time to implement and they must be sustained over decades, potentially by different senior management teams.

Ability to engage. A third argument is made for investors who would like to engage with high-stakes companies, usually with large carbon footprints, but are not able to do so because of their ex-ante carbon targets. Shorting selected high carbon emission companies, on the one hand, would give them a carbon budget that could be used, on the other hand, to invest in and then engage with other companies. The argument is not unreasonable, yet it is not clear why an investor who is willing to engage with a company needs to short other companies to do so. Investors wanting to engage and have a material impact may refrain from doing so given the potential cost that the short positions could represent. Why would a long-term engagement program need to be "financed" by short positions?

Cannot do net-zero! Yes, it is difficult to achieve a net-zero profile with long-only portfolios! But this only mirrors the difficulties that the world faces in reaching such a target. Shorting high carbon companies to reach net-zero is therefore an accounting trick that is unrelated to the fundamental changes that our economies and societies must undertake.

It does not add up. A final argument is related to the arithmetic of carbon foot-printing. If shorts are not considered, then carbon emissions won't add up at the market portfolio level. While it would be easy to accept this logic, the consequences are less obvious. First of all, the market portfolio is a poor representation of our economies: most emissions fall outside the scope of listed companies. Let us nevertheless assume that the market portfolio represents a closed economy, where companies trade products and services between them and emit GHG. If we want to build a system where carbon emissions add up to the level produced by the economy, then only Scope 1 emissions[2] should be considered. We should not consider Scope 2 and Scope 3 emissions[3,4] as they are the Scope 1 emissions of other companies in the market portfolio (e.g., energy and utilities companies). However, using only Scope 1 emissions is a very poor and inappropriate way to address the net-zero problem, and indeed most investors already use Scope 1+2+3 emissions in their climate assessment (both from a risk and a sustainability point of view). Shorting high Scope 1 emissions companies introduces a systematic bias in the portfolio, which is of course manageable, portraying the view that only the companies that actually emit bear the responsibility for their carbon emissions. This is equivalent to saying that running a coal-fired plant to produce electricity is harmful for the climate, which it is indeed, while running a large datacenter, whose power is provided by the aforementioned plant, is not!

Improving investors' portfolio climate performance requires ambitious yet well calibrated reductions of Scope 1+2+3 carbon emissions without short-sell offsets, while engaging with companies to improve their governance on climate issues and promoting the widespread introduction of science-based targets. This is the only reasonable approach for long-only investors wishing to have a meaningful impact.

[2] Emissions related to companies' primary activities only.
[3] Emissions related to the energy consumed by companies to manufacture products and deliver services.
[4] Upstream emissions related to companies' supply chains and downstream emissions related to the use of their products and services.

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