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Riskpremia – Made in Germany

Shorting and the Cost of Capital – some reflections

There has been an intense debate over the last couple of months on the effectiveness of “Shorting” to achieve certain outcomes in Sustainable Investing - especially in Climate related strategies. The discussion recently culminated in a series of “Letters” in the Financial Times as well as a couple of papers and even tweets on Twitter between MAN Group ([Short selling does not count as a carbon offset](#)), AQR ([Shorting Counts](#)) and CFM ([Short selling has as much carbon impact as divesting](#))

The main argument of the proponents: **Shorting raises the “cost of capital”**.

We already worked on this topic by developing a purified, uncorrelated “Low Carbon factor” in 2016/2017 and wrote in our Alpha Centauri / ISS ESG research whitepaper “The search for Climate Smart Investments” ([page 19](#)):

Is a negative GHG footprint possible?

... it is possible to build a market neutral equity position (long: Low Carbon factor, short benchmark) which has a net-negative carbon footprint.

- *A Long Only equity investment of EUR 1 Mln. in STOXX Europe 600 exhibits a CO2 footprint of 191 tons per year currently*
- *The Low Carbon factor exhibits a CO2 footprint of 28 tons per EUR 1 Mln. a year currently*
- *The net difference in a market neutral setting is equivalent of - 163 tons of CO2 per year and.....*

This structure is liquid, market risk- as well as country- sector- and currency neutral with respect to the benchmark. So it can be used to lower the CO2 footprint independently of already existing investment structures – a “portable CO2 beta” ...

and concluded the paper with

*...companies with an inherent high CO2 business model should think about investing for example pension or treasury assets in low carbon footprint- investments or well-designed overlay strategies **as a natural hedge against rising cost of capital** on the liability side of their balance sheet.*

Our view on this debate:

1. Most of all **investments or assets in financial markets are the liabilities of others** (except Gold and some other commodities, which are no one’s liabilities per se). In this sense long term buy and hold investment results on assets must equal the “cost of capital” on the liabilities of debt and equity issuers. Intertemporal results – or performance – can be different to buy and hold; but if it is indeed better than buy and hold it can be only at the expense of other investors. This is the equivalent of Sharpe’s quote: *“before costs, the return on the average actively managed dollar will equal the return on the average passively managed dollar”*... viewed through a different lens.
2. Even in a new ESG-world, assets will be priced along cash flows and discount factors. And all **forecasting exercises** in investment management **draw around changes in cash flows and discount factors** – or **cost of capital** (rates, spreads, earnings-/dividend yields, risk premia etc.). Thus, the quite often **used term “non-financial” in ESG seems to be misleading**, because even ESG-criteria must develop an effect on cash flows or discount factors, otherwise they have no impact on the value of a firm (or the prices of debt and equity).

3. For us, there is a difference between **financing new liabilities** (investments in new equity and debt) for new projects/products etc. and exchanging/trading **already existing liabilities** (i.e., on exchanges or OTC). **“Real world emission reduction”** can be achieved
 - either for **new financing of liabilities**, where new sources of funds must (completely) replace former carbon emitting activities (i.e., solar or wind replaces coal-based energy production), so there is a **direct** impact
 - or for **existing liabilities**,
 - **directly** via the **“cash flow channel”**, which mainly means engagement with companies; this creates an immediate impact on products and processes and as a result on sales, cash flows, earnings, dividends, and buybacks, or
 - **indirectly** via the **“cost of capital channel”**, where investors put pressure on the cost of capital of companies by demanding (i.e., via shorting) a higher yield (or risk premium), which creates an **indirect impact**, as the hurdle rates for new projects rise.

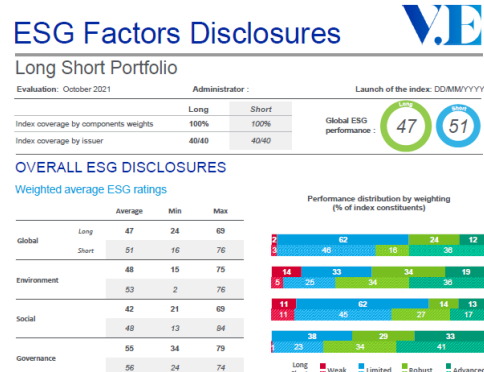
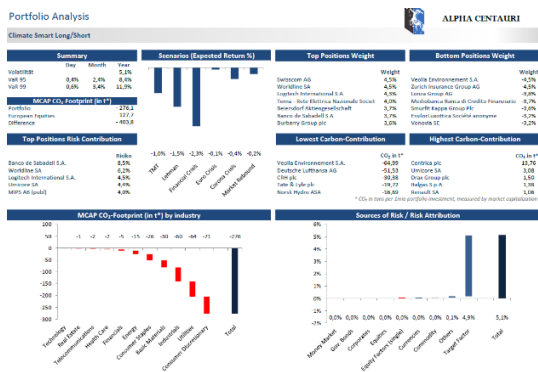
4. In this sense, shorting is not a **direct “Carbon Offset”** as there is **no carbon removed from the atmosphere directly**. Nevertheless there’s an indirect impact - or as former Blackrock ESG CIO T. Fancy put it [in the FT](#):

“The only coherent case for ESG investing changing the world is that it raises the cost of capital for “bad” companies” ..., which means they have incrementally less financing to do bad stuff...”.

From our point of view, the cost of capital for “brown stocks” don’t need to rise in absolute terms; it seems to be enough, that they are materially higher than those of more “green stocks” over time and that the spread doesn’t compress in favor of “brown stocks” - even if they fall for both groups. We admit that the immediate effect of an indirect impact is difficult to measure on a portfolio level - but that doesn’t mean, that they don’t exist. “ Correlation doesn’t equal causation” should be true vice versa.

5. Nevertheless, lower cost of capital is not the end in itself. All else equal (i.e., unchanged cash flow channel), continuously low or falling cost of capital are equivalent to **higher valuations**, which is economically unsustainable and in the context of No. 1. **will result in lower “expected” returns in the long run** - despite **higher “realized” returns in the short run**.
6. **Climate or carbon risk is an investment risk** and should be treated as such. For us, that means that all techniques, which are applied to other sources of risk (like market risk) should be deployed here as well:
 - measurement (identify and quantify)
 - management (avoid/create; buy/sell; diversify/concentrate; hedge/leverage; insure etc.)

In this sense we think, there’s no economic difference between shorting carbon risk and shorting market risk, but it all starts with proper identification and analysis of exposures. For our strategies, we provide transparent reports to our clients in form of internally developed Risk Reports or independent external reports, which are fully compliant to current EU ESG benchmark regulation (i.e., COMMISSION DELEGATED REGULATION (EU) 2020/1816 of 17 July 2020). And even under these conditions, the **net Carbon intensity and GHG emissions are negative** according to a Vigeo Eiris report.



Carbon intensity and estimated GHG emissions

	Long	Short
Greenhouse gas (GHG) intensity of the benchmark (t eq CO2 / Market Capitalization)	29,5	697,6
Percentage of GHG emissions reported	95%	96%

Our approach is supported by publications of Norges Bank Investment Management, the manager of Norway's Sov. Wealth fund ([The asset pricing effects of ESG investing](#)), AQR ([Shorting-Your-Way-to-a-Greener-Tomorrow](#)) and Michael Mauboussin's recent article "[Everything Is a DCF Model](#)". Moreover, **Mark Carney, the former BOE governor**, recently stated in a Goldman Sachs/Top of Mind interview:

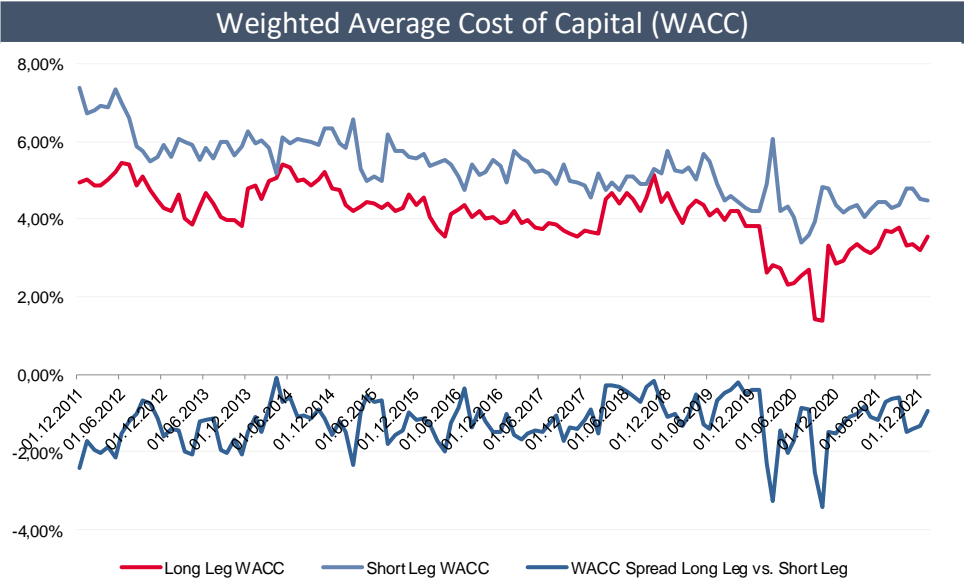
"Solving an existential risk creates significant value. Ultimately, motivating large-scale investment will require a correlation between the return on de-carbonization and actual financial returns. But we're starting to see signs of that. On a micro level, the cost of capital is increasingly diverging between high and low carbon investments. Right now, that's mostly happening at the extremes-in heavy fossil fuels and renewables-but in short order it's going to be a core feature of the market across all major sectors...."

Alpha Centauri's Low Carbon- and Climate Smart Long/Short- strategies are primarily **targeting the "cost of capital channel"** via long positions in low carbon emitters and shorting of more brown stocks. Climate Smart strategies use carbon metrics in combination with well-known factor premia to benefit from this transition into a lower carbon economy, because we think

- the transition creates winners and losers within all industries – like a "Darwinian Process", where not the biggest win, but those most adaptive to change
- it needs "economic materiality" as well to capture the opportunities of climate change and factor premia are one of the best proxies for economic materiality, because they are one way to explain risk and return of assets and thus – the "cost of capital".

Nevertheless, economic sustainable performance can only be achieved, if companies with lower cost of capital are able to capitalize on this advantage by converting it into higher earnings and better profitability. To shed more lights on the economic background, we conducted a lot of research regarding the European Long/Short Low Carbon factor, which we developed during the project with ISS ESG in 2016/2017 and which has a weight of 1/3 within our Climate Smart Long/Short strategy. Here are some of our results.

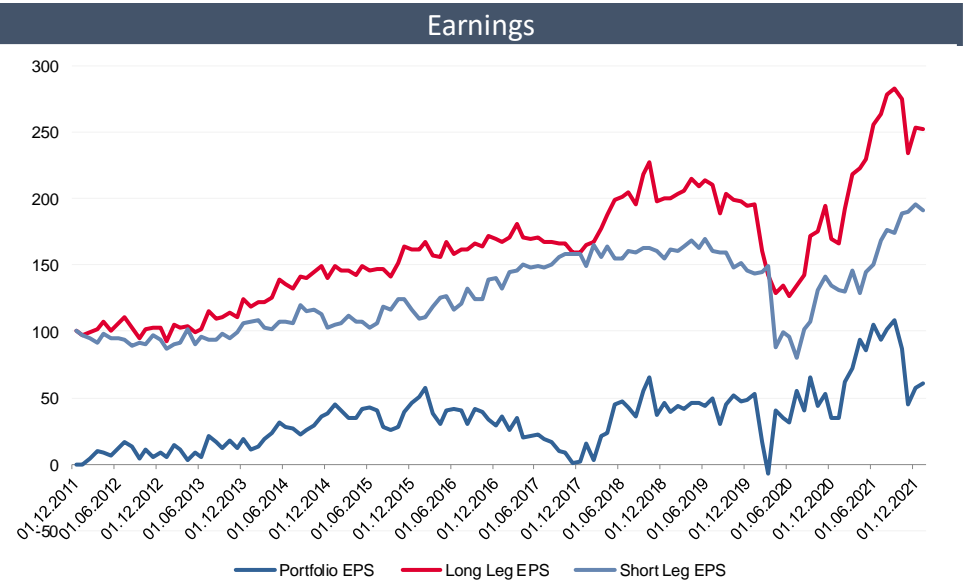
Weighted Average Cost of Capital



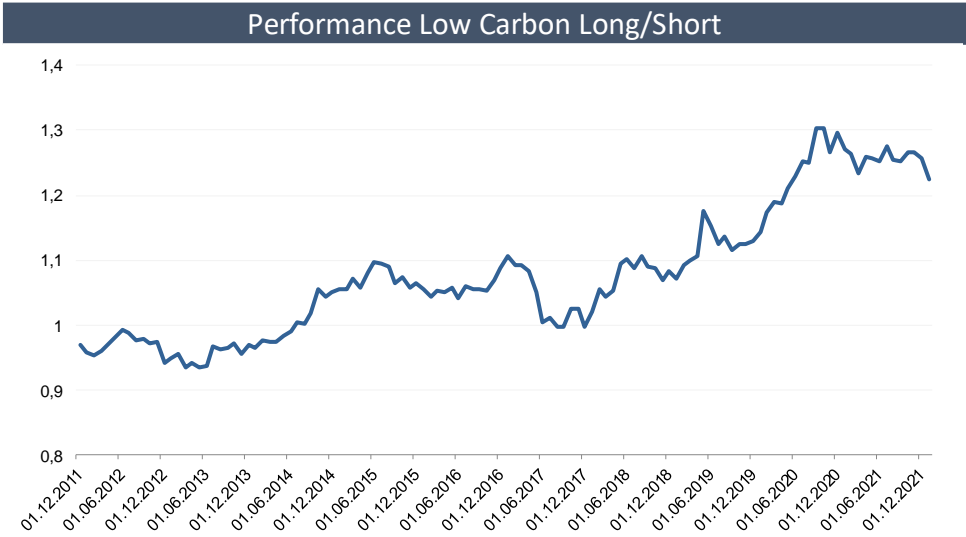
- **WACC fell by ~30%** for both legs over the last 10 years
- Low Carbon Long Leg displays **~1,2 % lower cost of capital** on average compared to Short Leg
- Deviations from average have been corrected over time
- **There hasn't been any structural spread widening**, which means that in our Low Carbon factor, valuation changes haven't been the driver of performance between Long and Short
- This contrasts with many ESG/Low Carbon strategies in the marketplace, which benefitted from larger active sector exposures (i.e., Long Tech/Short Oil and Gas) and led to material gains due to valuation expansion between high/low ESG/Low Carbon stocks

Earnings

Lower cost of capital led to higher profit opportunities for Low Carbon stocks within the Long Leg over time. Long Leg earnings increased by 9,5% p.a. over the last 10 years compared to 6,5% for the Short Leg - despite the facts, that we neither use growth factors nor sector bets between Long and Short.



The difference of ~ 25-30% in earnings in fact explain nearly 100% of the performance of the Low Carbon Long/Short factor since 2011.



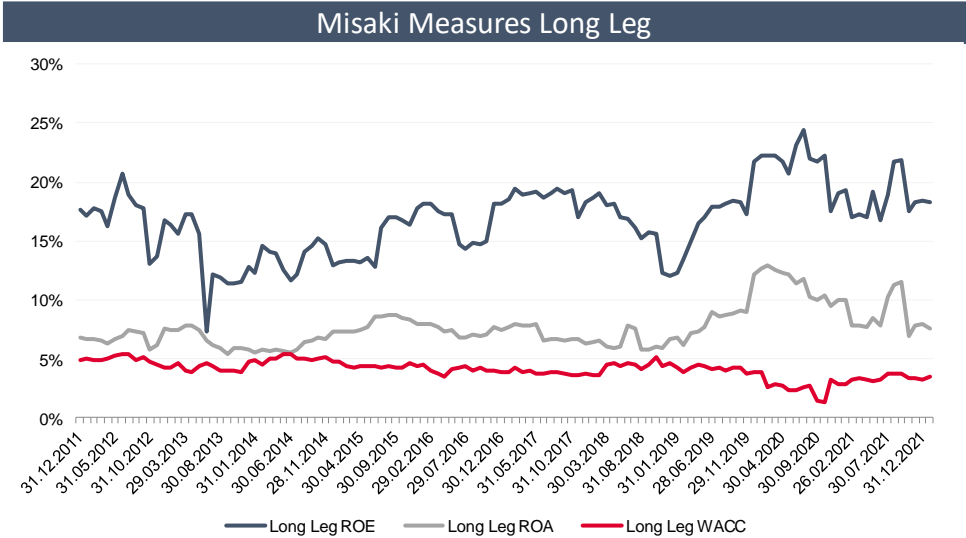
Profitability

Digging a little deeper into measures of profitability, where real corporate value is created, reveals even more interesting insights. To check for this, we use the Misaki Golden Ratio, which is a favorite measure of the Japan Association of Corporate Directors for its annual Corporate Governance Award and economically very intuitive:

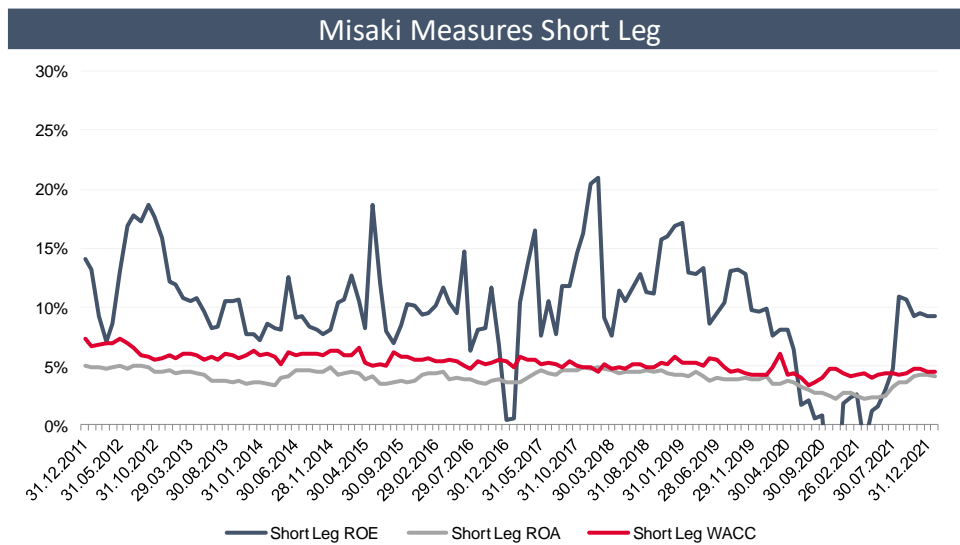
Return on Equity (ROE) >= Return on Invested Capital (ROIC) >= Return on Assets (ROA) > WACC (Weighted Average Cost of Capital), where

- ROE > ROIC = Optimal Leverage
- ROIC > ROA = No excess Cash
- ROA > WACC = Productivity higher than Cost of Capital

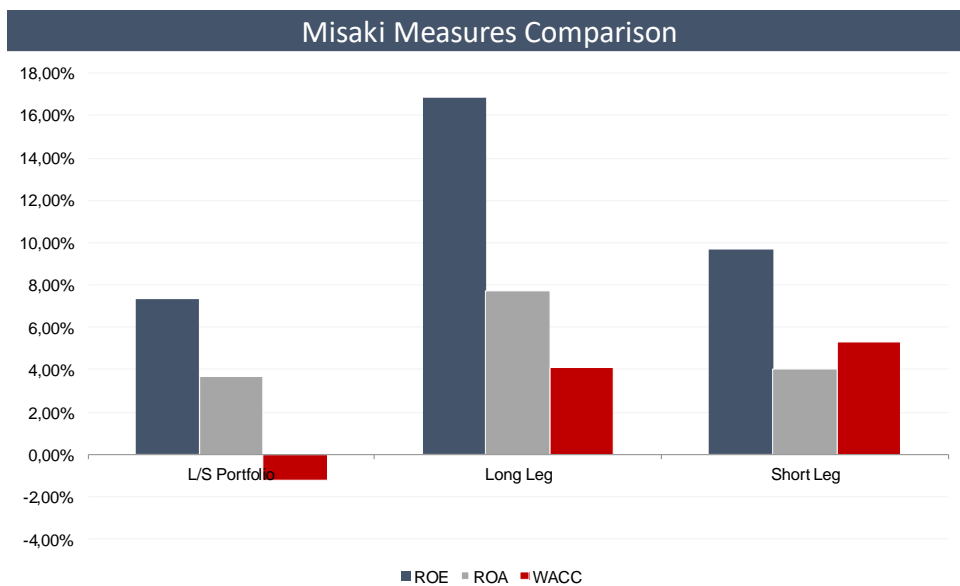
Looking at three of these measures reveals a perfect order for the Long Leg...



... while in the Short Leg, ROE is much more volatile and ROA is lower than WACC, which is equivalent to value destruction in the long run.



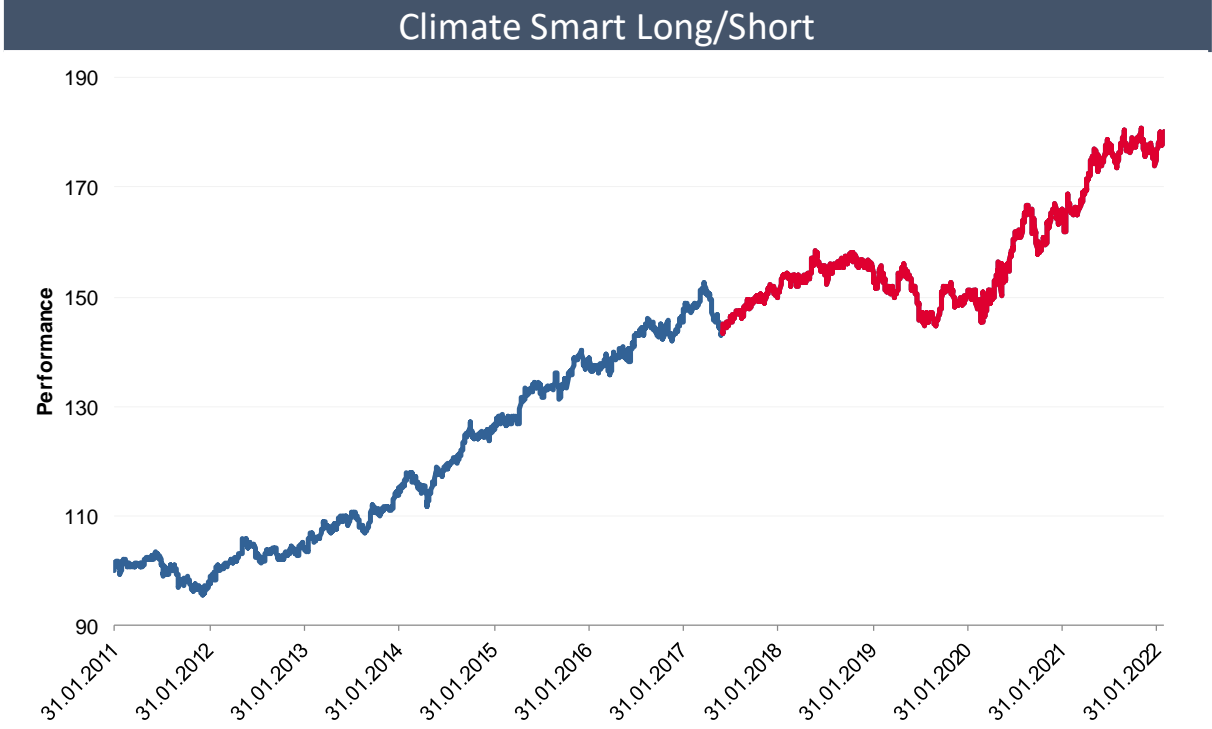
Aggregating the measures and comparing these with the individual legs gives the following picture on average for 2011-2021:



The results show, that the “purified” Long/Short Low Carbon factor holds companies with lower cost of capital, which can capitalize on this advantage by generating higher earnings and superior profitability within the Long Leg and the opposite within the Short Leg.

Nevertheless, it seems still quite difficult to distinguish between cause and effect or endogenous and exogenous factors. For example, are differences in business models the root cause for lower carbon footprints or do low carbon business models generate higher earnings and higher profitability in general - even within the same industry?

But beyond these questions -in the light of these results, we are optimistic about the prospects of our strategies, **because we think, we're still in the early stages of this transition process into a lower carbon economy** – even considering, that capital markets will be pricing in the outcome several years earlier. Especially Climate Smart Long/Short seems to be well positioned to benefit from this process.



Conclusion: “Shorting” via a purified Long/Short exposure (or -overlay) seems to be a better way to achieve desired outcomes with respect to carbon footprint reduction and thus climate risk management, expected returns and associated portfolio risk exposures compared to simple exclusions or many Paris Aligned Benchmarks. Adding well-known factor premia to a purified Low Carbon factor - as we do it in our Climate Smart strategies - even improves performance and risk adjusted results.

And with respect to M. Carney’s quote: “...the cost of capital is increasingly diverging between high and low carbon investments. but in short order it's going to be a core feature of the market across all major sectors....” our results are a confirmation, that we’re already in this process - since several years.

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