

Shorting and the Cost of Capital

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) among others.

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 pointed out 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 netnegative 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.

Some of our views in this debate:

- 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.
- 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.).
- 3. For us, there is a difference between financing new liabilities and exchanging/trading already existing liabilities. "Real world emission reduction" can be achieved either for new financing of liabilities, where new sources of funds must replace former carbon emitting activities or for existing liabilities: directly, which means "engagement" in most cases and creates an 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 by demanding a higher yield (or risk premium) thereby raising the hurdle rates for new projects.

"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...".

- 5. 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.)

For us, there's no economic difference between shorting carbon risk and shorting market risk, but it all starts with proper identification and analysis of exposures.

A couple of our views are supported by publications of Norges Bank Investment Management, the manager of Norway's Sov. Wealth fund (<u>The asset pricing effects of ESG investing</u>), AQR (<u>Shorting-Your-Way-to-a-Greener-Tomorrow</u>) and Michael Mauboussin's recent article "<u>Everything Is a DCF</u> <u>Model</u>". 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....

Our strategies are primarily **targeting the "cost of capital channel"** via long positions in low carbon emitters and shorting of more brown stocks as we believe

- 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

During the last few months, we conducted some more research regarding the European Long/Short Low Carbon factor, which we developed during the project with ISS ESG in 2016/2017.

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 other ESG/Low Carbon strategies, 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.



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

To check for profitability, we use the Misaki Golden Ratio, which is a favorite measure of the Japan Association of Corporate Directors for it's 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).*



Conclusion: The results show, that a "purified" Long/Short Low Carbon factor is Net Long companies with lower cost of capital, which can capitalize on this advantage by generating higher earnings and superior profitability.

As the carbon footprint is negative, "Shorting" via a purified Long/Short exposure (-overlay) seems to be a better way to achieve desired outcomes with respect to carbon footprint reduction, climate risk management, expected returns and associated portfolio risk exposures than many Paris Aligned Benchmarks.

Factor performance:

"A tale of two halves" best describes the factor performance on both sides of the Atlantic in Q1/2022. During the first six weeks, Value dominated the performance table, outperforming by 3,51% in Europe and 2,06% in the US, while more defensive factors like Carry and Quality underperformed. The war in the Ukraine proved to be a watershed and especially European Value lost -5,89% within six weeks – probably one of the most severe losses in such a short time frame.

The quarter ended with outperformance of Size (+3,29% and Low Risk (+2,44%) and underperformance of Value (-2,38% and Momentum (-0,80%) in Europe. Size might look unexpected but the war and most of all disruptions associated with it, seem to be more problematic for global diversified Multinationals than for more locally oriented companies.

Within the US, Carry was the only underperforming factor (-0,03%). Momentum led the table with an excess return of 1,43%.



Alpha Centauri Indexing - Data as of 31.03.2022

The iSTOXX Europe Single Factor index family developed by STOXX in collaboration with Alpha Centauri offers Description: investors a unique and very innovative way to target and capture premia.

> It consists of six single factors that aim to capture well-known risk premia and one multi-factor that aims at simultaneously capturing premia from the aggregate of all single factors rather than from just one source of risk alone.

All indices are constructed to maximize the exposure to their particular factor and minimize unwanted risks. While constructing the final indices the FIS APT risk model is used to measure and restrict risk.

For more information go to www.alpha-centauri.com or www.stoxx.com							
Performance and Volatility Breakdown							
Name	Ticker	Return 3 Months	Return 6 Months	Return 12 Months	Return Live (1.4.)	Vola pa	Vola pa Live (1.4.)
Carry	ISECFER Index	-5,9%	1,1%	9,6%	73,0%	14,2%	13,9%
Low Risk	ISERRER Index	-3,6%	4,5%	12,5%	66,9%	13,3%	13,1%
Momentum	ISEMFER Index	-6,8%	-1,5%	5,3%	54,6%	14,0%	13,7%
Quality	ISEQFER Index	-6,5%	-0,5%	8,2%	57,2%	14,0%	13,6%
Size	ISEZFER Index	-2,7%	0,5%	7,5%	59,0%	13,8%	13,5%
Value	ISEVFER Index	-8,4%	-5,3%	-1,3%	16,4%	15,2%	14,9%
Multi-Factor	ISEXFER Index	-5,0%	1,0%	10,5%	48,0%	13,4%	13,1%
Multi-Factor XC	ISEXFCR Index	-2,7%	1,6%	9,3%	50,9%	13,5%	13,1%
Benchmark	SXXR Index	-6,0%	1,1%	8,5%	59,8%	14,4%	14,1%

Excess Return 3 Months

Excess Return 6 Months









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