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ESG investment strategies – fictions, facts and factors

The opportunity to generate outperformance with ESG-strategies is still one of the hottest topics in academic research and investment management. But despite many academic papers and "real world" market-based studies, which typically use already existing mutual funds, the jury is still out. The problem: academic studies take the well-known pathway of ranking alongside certain metrics, decile portfolio building, Fama/French/Carhardt adjustments and statistical significance testing – but the strategies aren´t investable in capital markets. Or to use Yogi Berra´s quote: "In theory there is no difference between theory and practice. In practice there is". Moreover, data quality, -consistency and -history are a major hurdle.
On the other hand, market- based studies suffer from the fact, that active funds deploy a lot more instruments from active managers toolkit than ESG – like asset-, regional- sector- or factor allocation to name a few. So even here it seems to be quite difficult to relate realized out- or underperformance to an ESG-based investment strategy solely.
Nevertheless – fictions, facts and the role of factors seem to become clearer as time progresses.

Fictions

One of the political intentions of policymakers with respect to a more sustainable future is to direct private capital towards sustainable investments. Art. 2.1. of the 2015 Paris agreement is one example as it states: *"make financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development"*. The underlying hypothesis is, that these investments will pay off at one point in time.

The general expectation of most supporters of sustainable or ESG-investment strategies is, that the pay-off can be harvested in form of – at least risk-adjusted – outperformance compared to traditional assets or strategies. Physical- and transition risk, stranded assets or rising cost of capital are some of the main arguments of the proponents – as Mark Carney, the former BOE governor stated in a 2022 Goldman Sachs interview: *"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…."*.

Pundits and sceptics of outperformance in sustainable investments claim standard capital market theory to be on their side. Higher risk will show up in valuation discounts leading to higher risk premia, higher cost of capital and as a result higher performance - in equilibrium.

A third category can be located between both camps as they argue, the transition into a more sustainable future will create a cost of capital spread as well as winners and losers from this transition and thus - opportunities for outperformance. Once the process is merely over, the market will be on a new equilibrium level.

Facts

It is always difficult to talk about "facts in finance", but two recently published studies by ESMA, the European Securities and Markets Authority and Scientific Beta, the research collaboration between Singapore Exchange and EDHEC Risk show, "where the indicators stand" in bonds and equities - currently.

In **"The European sustainable debt market – do issuers benefit from an ESG pricing effect?"** (Link here), ESMA researchers found "*our analytical results cannot confirm the existence of a systematic and consistent pricing advantage for any ESG bond category*" or simply put: the "greenium" – or pricing discount of sustainable bonds – disappeared. As most of all sustainable bonds have been issued with a discount to conventional bonds over the last couple of years, the result must have been underperformance compared to traditional bonds. Moreover, there is no "cost of capital" advantage in fixed income anymore – at least for now.

During a presentation given to risk managers of banks, insurance companies and fund platforms in 2021 (Link here), **we compared the yield spread between a traditional German Bund and it´s equivalent green bond issue** and pointed out, that the results of this analytical efforts are highly dependent on timeframes chosen and the question if buy and hold - yield, performance or risk adjusted performance are in scope. Nevertheless, since then, the spread narrowed in favour of the traditional bond.

In **"Sustainability Alpha in the Real World: Evidence from Exchange-Traded Funds"** (Link here), Scientific Beta´s researchers used AUM weighted US ESG ETF´s to build a portfolio and compared the performance to standard market indices. Their results show that the performance has been broadly similar (underperformance of 0,2%), lower by 0,7% once adjusted for sector tilts and markedly lower of more than 4%, as the exceptional performance of 2020 can be regarded as a statistical outlier.

In preparation of a Brighttalk webinar in 2021 (Link here), **we analysed the risk exposures of many ESG ETF´s / indices on global as well as on a regional level**. From our point of view, there are two main lines of risk exposures – either large sector bets or high idiosyncratic risk exposures. As the former belong to "unpaid risk factors" and the sum of all alpha´s is zero within the market, Scientific Beta´s results shouldn´t come as a surprize.

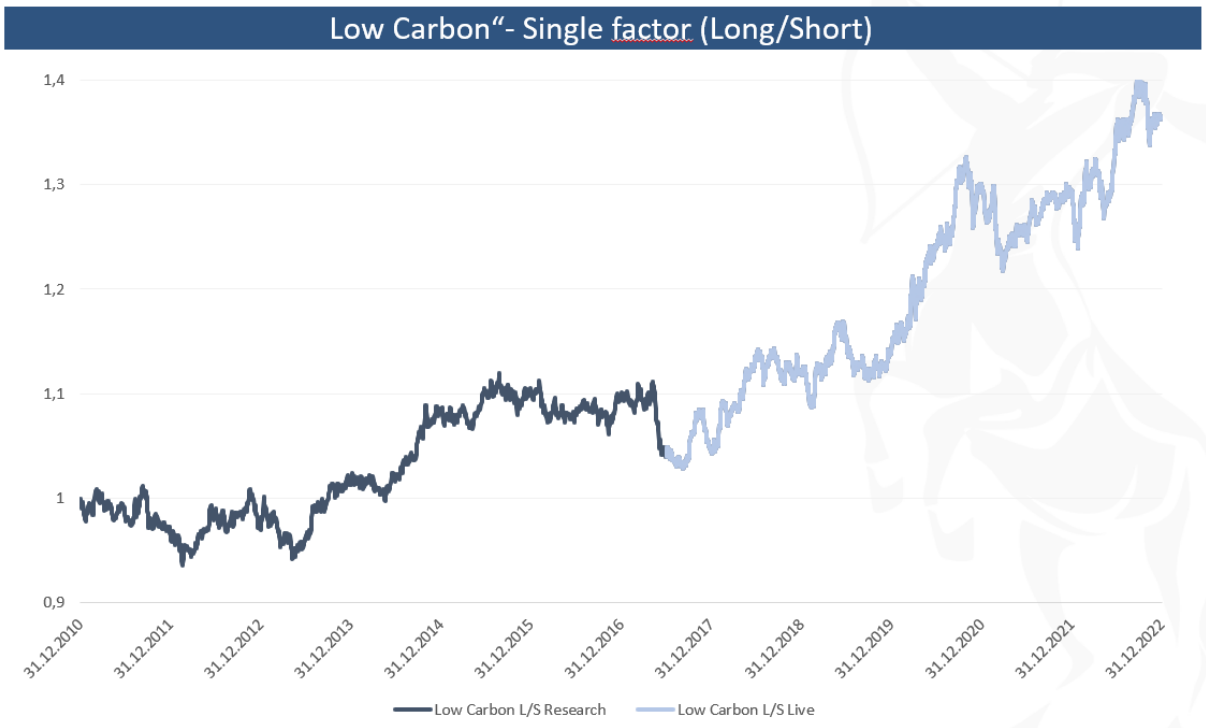
Factors

David Blitz and his team from Robeco recently published a research paper entitled **"Factor Zoo (.zip)"** (Link here) in which they showed, that **"…15 factors are enough to span the entire factor zoo"** Moreover they stated: **"evidence suggests, that many factors are redundant"** …
The results are a confirmation to our findings 12 years ago as we use 16 metrics across single and within our multifactor strategies and – indices.

Interestingly, none of the 153 factors, which they used in their evaluation- and testing framework, has been an ESG- or related factor. There might be a lot of reasons why they didn´t incorporate ESG related metrics in their study, but some to consider might be, that

- ESG-metrics (or factors) are belonging to the category of "unpriced factors" in the long run – like sectors
- ESG-related factors are part of idiosyncratic risk in equity prices
- these ESG-factors are captured by already existing factors – like quality or low risk.

The third point has been the conclusion in a research paper by P. Orgen **entitled "Carbon emissions, stock returns and portfolio performance"** (Link here). Interestingly, the author took more or less the same line of reasoning and testing procedure as we did in our 2017 publication "In search for Climate Smart Investments" (Link here) by scaling carbon emissions before building decile portfolios. The only difference is that we build investable factors before checking the results and drawing the conclusion. Nevertheless, the results are in line with our findings during our research project and since then in the live track of our European Long/Short low carbon factor.



Moreover, the author built a bridge to the quality factor with: *"firms that are ahead of the curve in terms of reducing carbon emissions likely have lower regulatory and reputational risk, ceteris paribus, are likely to be ahead of the curve in other areas of their business and industry and hence have the chance to grow their businesses further with direct implications for revenues…* ***In other words, carbon performance, proxied by aggregate firm carbon intensity is only one factor in identifying quality".***

This statement confirms our findings from our research article "ESG-Investments, Shorting und die Kapitalkostenfrage" which has been published in ABSOLUT IMPACT in autumn 2022 (engl. summary here). Despite mathematical independence, the underlying economic causal chain of low carbon can be attributed to:

- lower cost of capital lead to a better corporate activity opportunity set
- which in turn leads to higher earnings growth, better profitability and thus
- outperforming stock prices.

Conclusion:

Considering that the transition into a more sustainable future – especially with respect to climate related issues – is a process of several decades, from which we have seen barely a fifth, if the Paris agreement can be regarded as a general starting point, the intermediate result today seems to be:

- Lower cost of capital (standalone) is associated with lower buy and hold returns but can be a starting point for higher earnings growth and better profitability within equities.
- Low Carbon seems to be an independent factor from a mathematical point of view, but is economically transmitted via already existing factors – predominantly quality
- It doesn´t need ESG-metrics as an explanatory variable to span the cross section of expected returns in asset pricing models.
- If Low Carbon strategies and -factors have been able to deliver outperformance over the recent past, all other metrics must have been detrimental to performance in ESG-strategies and indices.

Factor performance

iSTOXX Europe factors outperformed across the board during Q3/2023 with Value (+2,6%) Quality (+2,45%) leading the table. But even Low Risk at the lower end of the spectre outperformed. Nevertheless, YTD only Multifactor (+1,66%) and Carry (+1,04%) were able to outperform the overall market. Market performance is still dominated by large caps as Size underperformed by 4,39% YTD.

iSTOXX USA factors have been more mixed during Q3/2023 as Quality (+0,83%) and Size (+0,66%) outperformed. Low Risk underperformed the most (-1,37%). YTD all factors posted lower returns compared to the overall market with Value (-8,14%) and Low Risk (-5,15%) at the end of the table.

Alpha Centauri Indexing - Data as of 30.09.2023

Description:

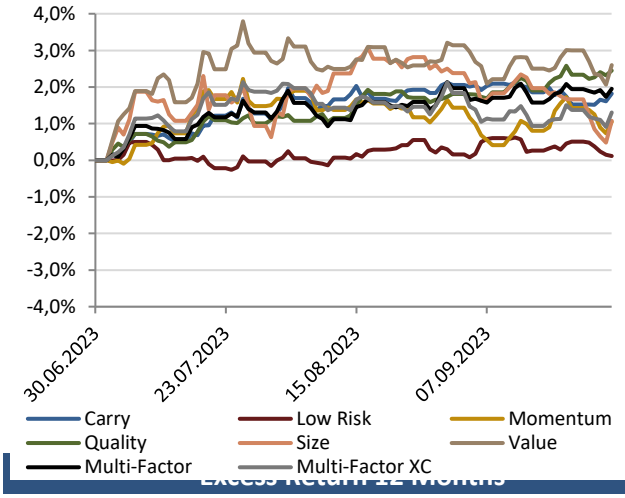
The iSTOXX Europe Single Factor index family developed by STOXX in collaboration with Alpha Centauri offers investors a unique and very innovative way to target and capture premia.
It consists of six single factors that aim to capture well-known risk premia and one multi-factor that aims at simultaneously 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**

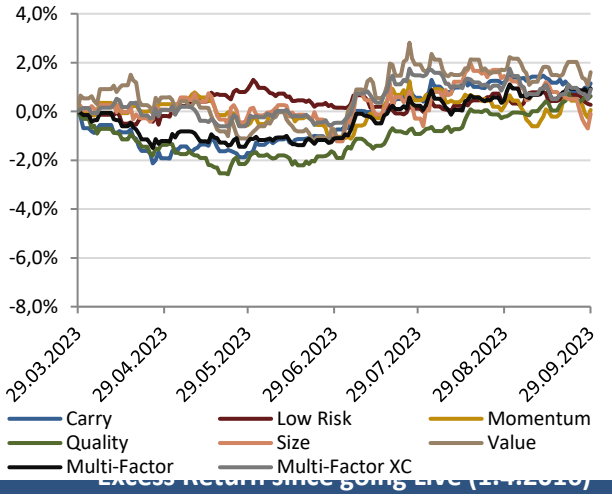
Performance and Volatility Breakdown

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	-0,3%	3,0%	19,5%	74,2%	13,9%	13,6%
Low Risk	ISERRER Index	-2,0%	2,1%	18,9%	73,3%	13,0%	12,7%
Momentum	ISEMFER Index	-1,1%	1,9%	20,2%	55,5%	13,8%	13,5%
Quality	ISEQFER Index	0,3%	2,5%	18,1%	60,2%	13,7%	13,4%
Size	ISEZFER Index	-1,0%	1,8%	14,0%	46,8%	13,6%	13,3%
Value	ISEVFER Index	0,5%	3,5%	17,9%	8,4%	14,9%	14,6%
Multi-Factor	ISEXFER Index	-0,2%	2,8%	22,1%	52,0%	13,1%	12,9%
Multi-Factor XC	ISEXFCR Index	-0,8%	2,8%	22,1%	54,5%	13,2%	12,9%
Benchmark	SXXR Index	-2,1%	1,9%	20,7%	64,8%	14,1%	13,8%

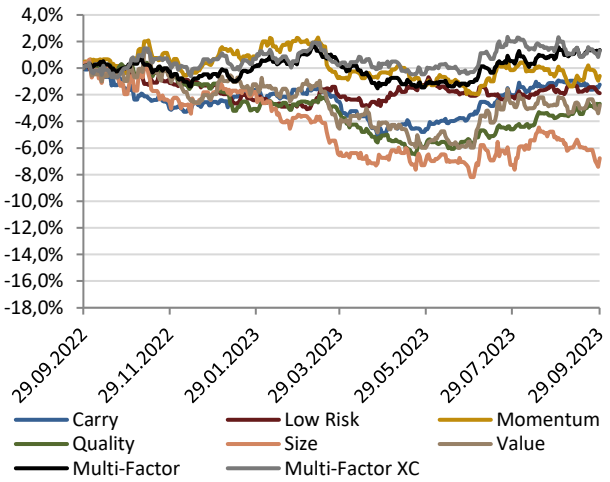
Excess Return 3 Months



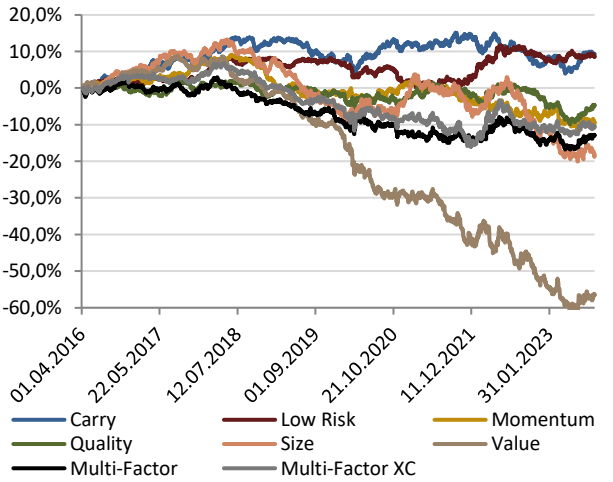
Excess Return 6 Months



Excess Return 12 Months



Excess Return since going Live (1.4.2016)



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