ALPHA CENTAURI

Riskpremia – Made in Germany

Climate Smart Long/Short – an Update

Climate Smart L/S hit new highs in June 2023 after recovering from a short setback and went into a subsequent drawdown, which developed into the deepest since going live in June 2017.

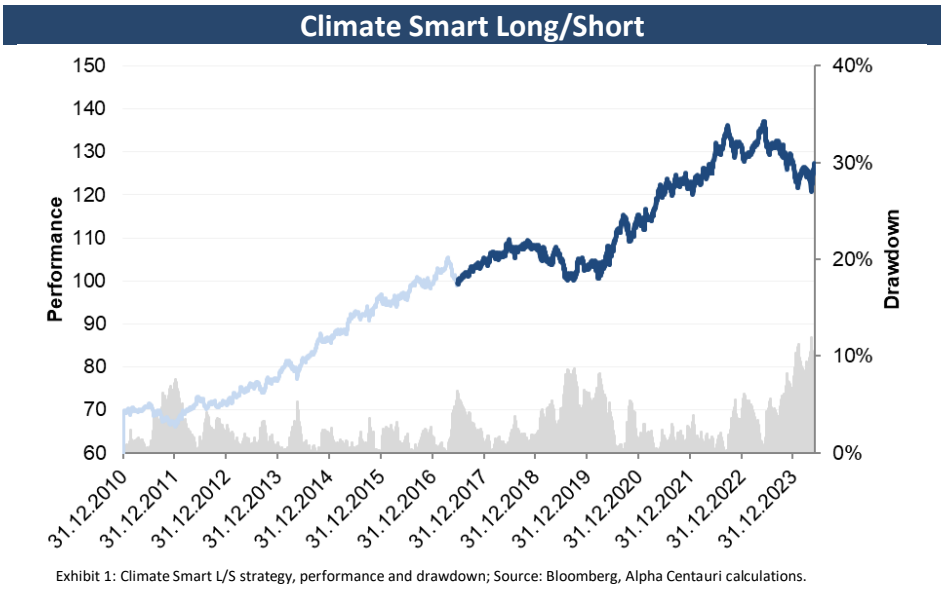

Exhibit 1: Climate Smart L/S strategy, performance and drawdown; Source: Bloomberg, Alpha Centauri calculations.

As always in times of losses, two major questions arise:

- Why things went wrong?
- How will the future look like?

1. Introduction

As a short recap, **the strategy tries to capture the opportunities of climate change in European equities as it capitalizes on the pace of adaptiveness among companies**, which are priced in by capital markets over time. Due to the fact, that the economic consequences are long term in nature, carry a lot of risk and are priced by capital markets in a non-linear fashion, it´s quite normal that Climate Smart Long/short will exhibit drawdowns from time to time. The **compensation for bearing those risks is a premium in the medium to long term** and an additional **benefit in terms of diversification** compared to traditional investments like bonds and equities.

The strategy is a **multi-factor-combination of a Low Carbon factor**, which we developed during a research project with the Climate Solutions team of ISS ESG[1], **and four additional well-known factor premia** (Carry, Value, Size and Momentum). The **Low Carbon factor is driven by a Low Carbon score**, which is a (relative) measure of carbon intensity. The raw emission data are compiled only once a year, and it is always subject to discussions if these (backward-

looking-) data carry any information for investment purposes. But on the one hand this leads to the question, if researching annual reports from companies carries any investment information as they are backward-looking as well and on the other hand, **these data mainly serve as an economic bridge to carbon prices**, **which develop their impact directly or indirectly on companies** via products and processes, sales, cash-flows, earnings, dividends, buybacks and discount factors (or cost of capital) and as a consequence – on equity prices. The final multi-factor score is a measure of (relative) expected return and the portfolio construction relies on FIS Risk Manager, a PCA-based **risk model**, **to "purify" the exposure and avoid "unintended" bets** in terms of market risk of all sorts (equity, sector, rates, credit, commodity, currencies etc.). Exhibit 2 shows factor scores of Climate Smart Long/Short over times.

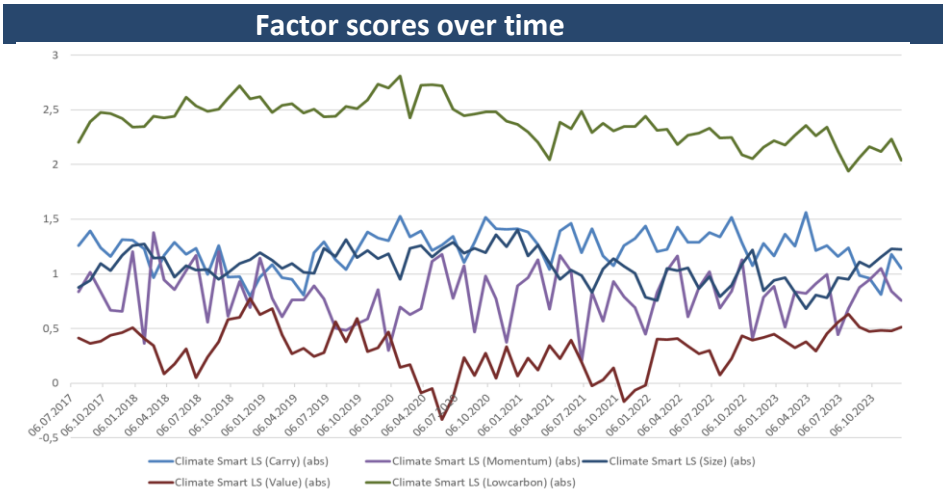

Exhibit 2: Climate Smart L/S strategy, Factor scores over time; Source: Alpha Centauri.

2. Transmissions channels of Climate Change

Beliefs regarding the transmission channels of climate change on companies differ among academic- and capital market researchers. One the one hand, researchers advocate **an impact on the "cash-flow channel"** of companies like A. Edmans from London Business School[2]. On the other hand, there are proponents of an **influence on "cost of capital"** like former Blackrock ESG CIO Tariq Fancy[3] or former BOE governor M. Carney[4]. **Our own view on transmissions**, developed during our research project with ISS ESG in 2016/2017 as well as during the follow up on "Cost of Capital" in 2022[5;6], **is quite simple as we found both channels to be meaningful** – at least in Europe.

One of the main drivers – and overlooked in many discussions from our point of view – is the development of carbon prices. Exhibit 3 shows the development of the ICE EUA Futures contract 2011-2024. According to a MAN-Institute article from 2023[7], **carbon prices are the highest in Europe** compared to other regions globally and **this must have – and already has – implications on listed companies** and all other economic agents. Moreover, carbon prices are quite volatile as Exhibit 4 shows. The average volatility since 2012 was ~48%.

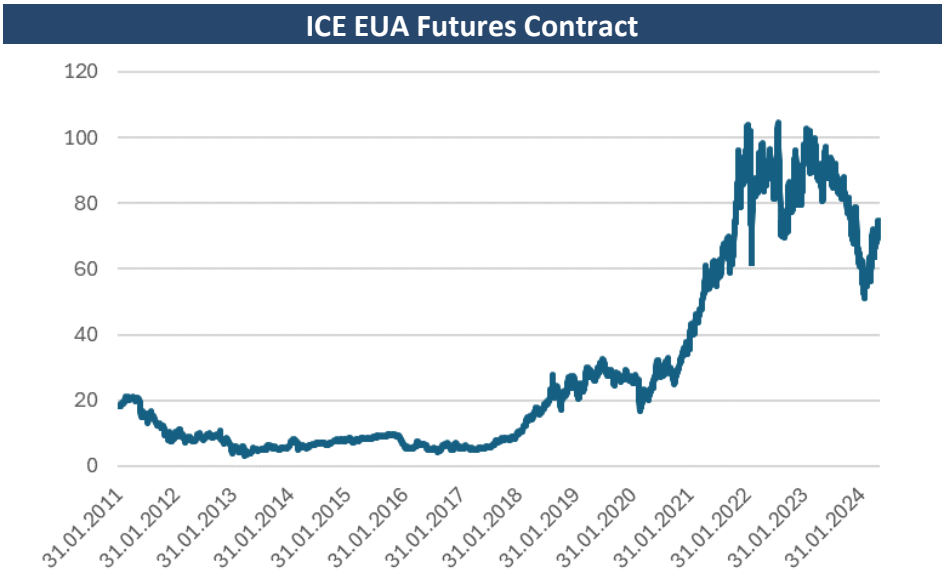

Exhibit 3: ICE EUA Futures contract 2011-2024 Source: Bloomberg.

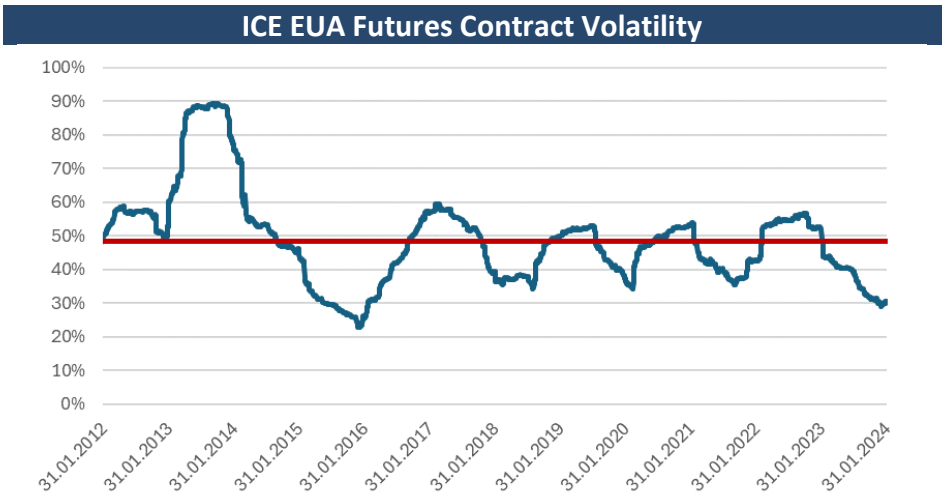

Exhibit 4: ICE EUA Futures contract volatility 2012-2024 Source: Bloomberg; Alpha Centauri calculations

3. Performance review

Climate Smart L/S was developed during the project with ISS ESG in Q4/2016 and Q1/2017 and finally went live at the end of June 2017. After a successful first year, the strategy entered its first live-time drawdown, which finally lasted for two years. Major reasons during that time have been the poor performance of Value- and Size-factors as well as the fact, that carbon prices entered a longer consolidation phase after increasing seven-fold from 4,5 € to 32 € / metric ton from 2016 to 2019. The consolidation of carbon prices ended in 2020 after the first Covid-wave and an intermediate drawdown of 40%. Climate Smart L/S exhibited a drawdown of 8,5% during that time and advanced to new highs in July 2020.

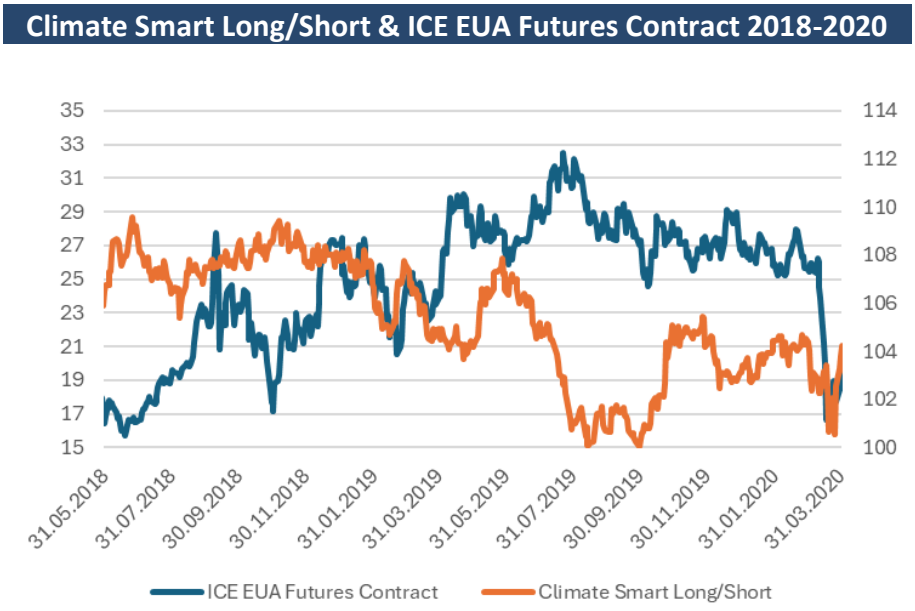

Exhibit 5: Climate Smart Long/Short / ICE EUA Futures contract 2018-2020 Source: Bloomberg; Alpha Centauri calculations.

Carbon prices skyrocketed once again from March 2020 to February 2022 by increasing 6-fold while Climate Smart L/S posted a performance of ~ 40%.

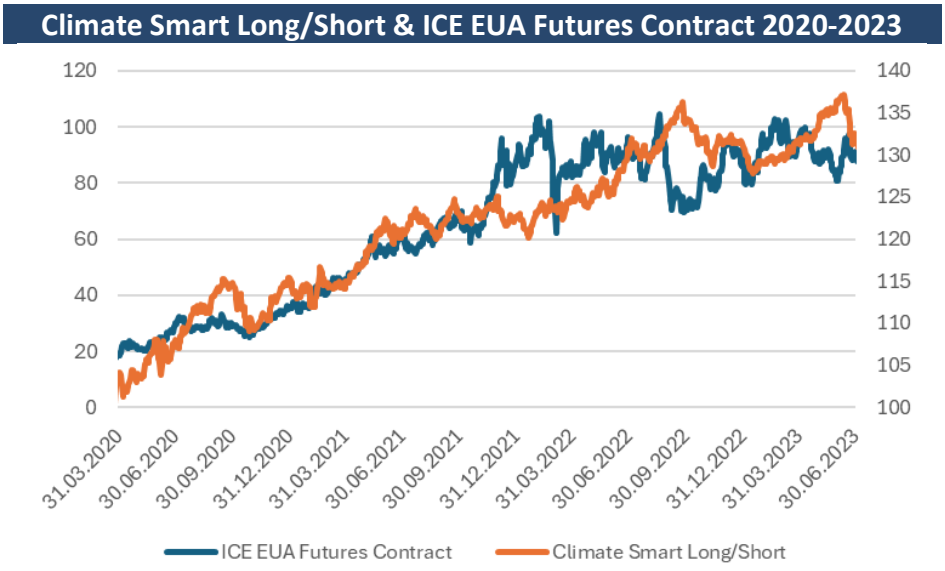

Exhibit 6: Climate Smart Long/Short / ICE EUA Futures contract 2020-2023 Source: Bloomberg; Alpha Centauri calculations.

Since printing prices beyond 100 €/metric ton three times in 2022/2023, carbon prices declined again and exhibited a drawdown of 51%. Climate Smart L/S declined by 12% during that timeframe. **The reasons for carbon price decline this time can be retraced to a combination of macroeconomic developments** – lower growth is associated with lower production and energy consumption, which translates into lower emissions – **and the (political governed) supply of certificates**, which taken together led to a supply overhang over the last two years.

Climate Smart Long/Short losses have been a result of the passthrough of Carbon prices into the Low Carbon factor – **the single Low Carbon factor lost 15% from June 2023 to April 2024** – in combination with ongoing weak Value- and Size- as well as only slightly positive Carry- and flat Momentum-performance. Most of all performance contributions can be explained by these developments. The remaining basis points are a result of idiosyncratic effects – primarily long positions, which lost money during their holding period. Since February 2024, **Carbon prices recovered by 45% from their 2024 lows while Climate Smart recovered by 6,5% recently.**

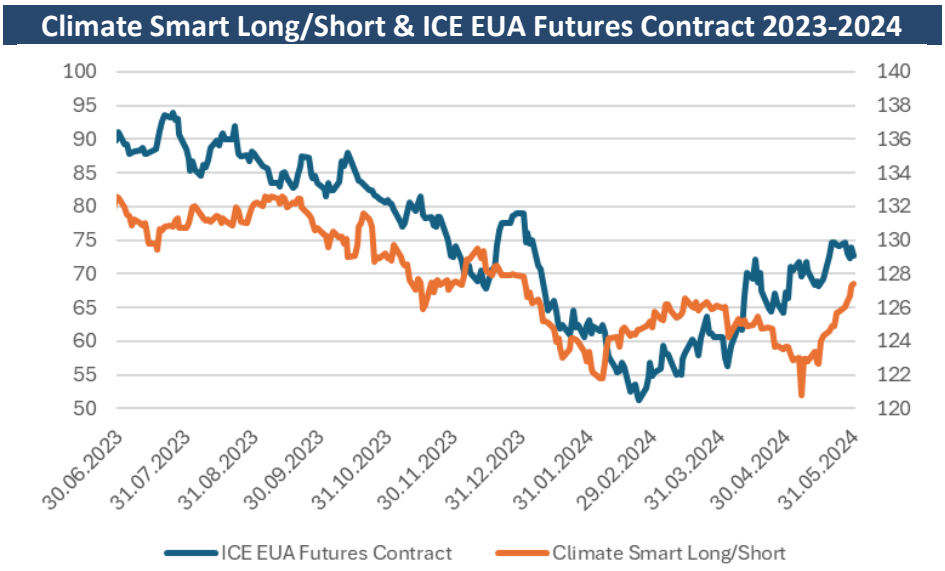

Exhibit 7: Climate Smart Long/Short / ICE EUA Futures contract 2023-2024 Source: Bloomberg; Alpha Centauri calculations.

From a pure mathematical point of view, the **correlation between Carbon Prices and Climate Smart L/S is quite low** as Exhibit 8 shows. The average correlation has been -0,02 with a min/max of -0,25/+0,20 based on rolling 250 days of observation.

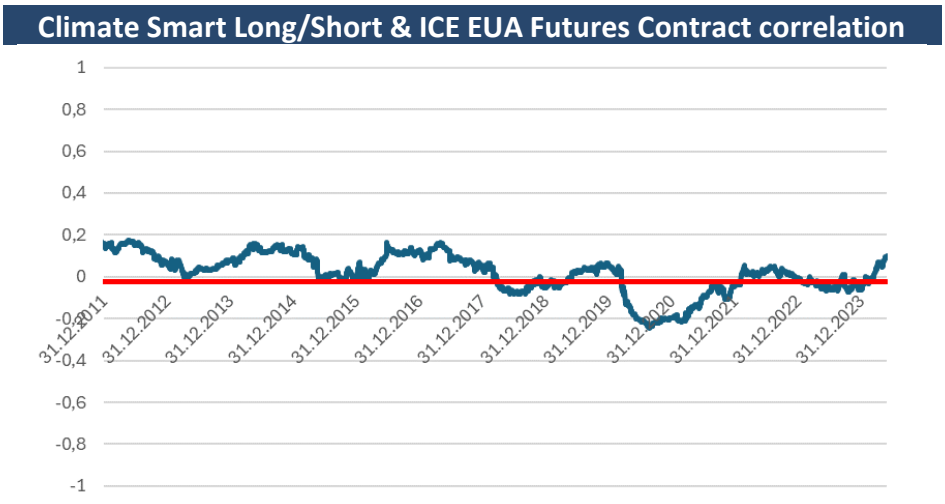

Exhibit 8: Climate Smart Long/Short / ICE EUA Futures contract correlation 2011-2024 Source: Bloomberg; Alpha Centauri calculations.

But the main trends of gains and drawdowns since 2014 occurred during the same timeframes with some lead/lag – something **which should be expected from an economic point of view**. Carbon Prices exhibited four drawdowns with an average of -46,50 % between 2014 and 2023 while Climate Smart L/S lost ~8% on average during these timeframes. **The reaction function is between 5-7 with an average of 5,6** – which means, that a 5,6% move in carbon prices translated into a Climate Smart L/S-move of 1% historically.

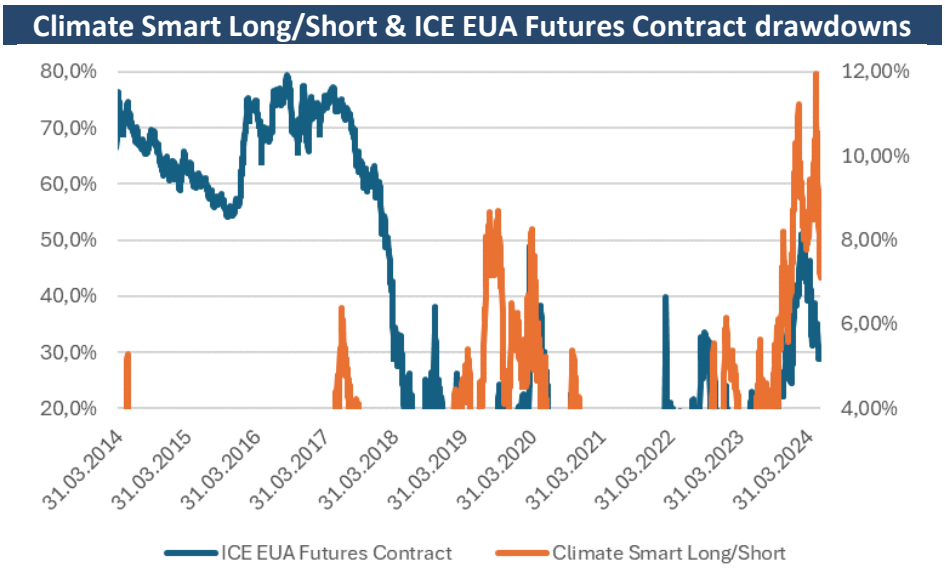

Exhibit 9: Climate Smart Long/Short / ICE EUA Futures contract drawdowns 2017-2024 Source: Bloomberg; Alpha Centauri calculations.

4. Outlook

Performance perspectives of Climate Smart L/S will be dominated indirectly by carbon prices and directly from the Low Carbon factor, the other four factors and the interaction between these driving forces.

Regarding the development of carbon prices, the implementation of the EU "Fit for 55" program and the introduction of the "Carbon Border Adjustment Mechanism" – starting at the beginning of 2026 – might be games changers. The allocation of certificates will shrink by ~ 50% towards 2030 as data from Germany´s Federal Environment Agency (Umweltbundesamt) in Exhibit 10 show. During a recent webinar, Sparkchange, the company behind HAN ETF´s Carbon ETN presented a couple of scenarios and finally gave a forecast of a potential "squeeze" in carbon prices as the supply/demand-situation might develop into an "unprecedent" situation.

Moreover, a lot of **companies**, which were beneficiaries of the free allocation process **will either have to hedge their exposures, try to pass the additional costs through into their prices or become more carbon efficient**.

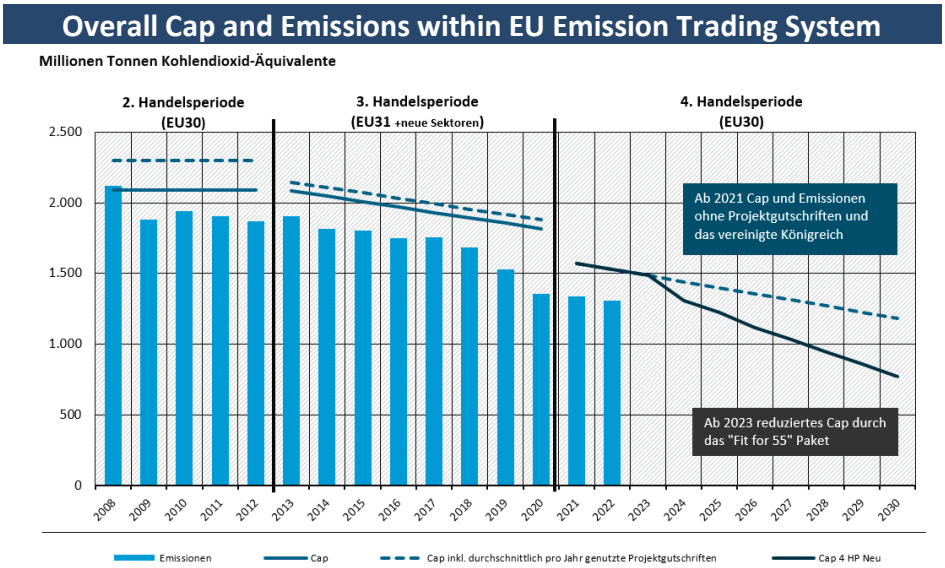

Exhibit 9: Overall Cap and Emissions in mln tons carbon equivalents within EU Emission Trading System Source: German Environment Agency (Umweltbundesamt);2024

With respect to the other four equity factors, it´s quite difficult to forecast or time factor returns. But **from a structural point of view, the poor performance of value and size over recent years might be in one of the last two innings.** The concentration in major indices is higher now than during the TMT bubble years and close to the top of the 60´s of last century according to a recent research paper from M. Mauboussin and D. Callahan from Counterpoint Global[8]. A byproduct of better Size performance might be a better Momentum performance as well, because the huge concentration process led to lower "market breath" – an ultimate precondition of Momentum performance as we have shown in "Momentum disentangled" - one of our iSTOXX Quarterly - publications in 2023[9]. **Value already started to turn the corner** within US, Japan and Asia Pacific and it should be expected, that this will happen in Europe as well.

5. Conclusion

Regarding carbon prices, the supply overhang in carbon certificates will vanish and probably turn the market into a deficit. **Rising carbon prices will increase the pressure on companies, which paves the way for a better Climate Smart L/S-performance from this angle.**

Despite the fact, that the performance of equity factors is difficult to forecast in the medium term, a stabilization of Value and Size is becoming more and more likely, given several years of underperformance.

Taken together, a high probability of higher carbon prices and better factor performance bodes well for an end of the current drawdown in Climate Smart L/S and new highs over the medium term.

1 Alpha Centauri, ISS ESG, Bassen, A.; The search for Climate Smart Investments; Update Januar 2020; https://www.alpha-centauri.com/pages/in-search-for-climate-smart-investments

2 Edmans, A. (2023). Applying Economics – Not Gut Feel – To ESG. Financial Analysts Journal (79 / 4), 16-29, 2024; https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4346646

3 Fancy, Tariq; The ESG investing industry is dangerous; August 2021; https://www.ft.com/content/ec02fd5d-e8bd-45bd-b015-a5799ae820cf

4 Goldman Sachs; Top of Mind: Investing in Climate Change 2.0, Dezember 2021 https://www.goldmansachs.com/insights/pages/gs-research/investing-in-climate-change-2.0/report.pdf

5 Badel, Benjamin; Füllgraf, Ulf (Alpha Centauri); ESG-Investments, Shorting und die Kapitalkostenfrage; Absolut Impact #03|2022

6 Alpha Centauri, iSTOXX Quarterly 2022-04: "Shorting and the Cost of Capital" https://www.alpha-centauri.com/uploads/image_asset_contentr_download_paragraph_download/file/293/20220331_iSTOXX_Europe_Update.pdf

7 Zhao, B., & Goldklang, M. (2023). Effective Carbon Price: The Missing Link for Carbon as An Alpha; MAN Institute. https://www.man.com/maninstitute/effective-carbon-price

8 Mauboussin, M.; Callaghan, D.; Stock Market Concentration: How Much Is Too Much? Counterpoint Global, June 2024; https://www.morganstanley.com/im/en-us/individual-investor/insights/articles/stock-market-concentration.html

9 Alpha Centauri, iSTOXX Quarterly 2023-04: "Momentum disentangled" https://www.alpha-centauri.com/uploads/image_asset_contentr_download_paragraph_download/file/318/20230331_iSTOXX_Europe_Update.pdf

Disclaimer