ALPHA CENTAURI
Riskpremia – Made in Germany

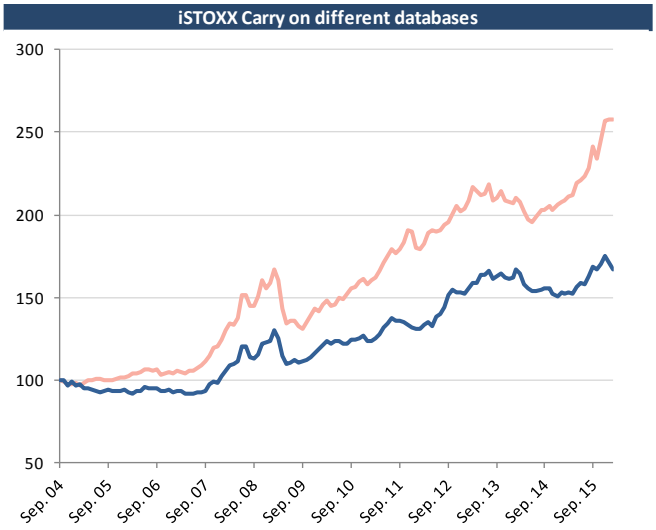
iSTOXX Europe Factor Indices Quarterly – Has factor investing really failed to live up to its many promises?

… as Arnott, Harvey et all claimed in their recently published paper *"Alice´s Adventures in Factorland: Three Blunders that plague Factor Investing"* (SSRN). The authors highlight three major problems in factor investing:

- **exaggerated expectations**
  as a result of data mining, crowding and unrealistic trading cost expectations
- **naive risk management tools**
  as factor (excess) return drawdowns can be larger than expected
- **unrealistic diversification benefit expectations**
  because factor correlations can change dramatically.

Exaggerated expectations

From our point of view, the problem of "data mining" contains several aspects – ranging from **selecting an appropriate database**, **design choices** with respect to metrics and portfolio construction as well as the **statistical and economic evaluation methods** to name a few. We highlighted the database problem in numerous articles and presentations over the last several years, using iSTOXX Carry as an example. Both results graphically displayed below show **identical design choices**, tested on well-known commercial databases.



By the way – most of all academic papers are near the upper pink line with respect to results, because the often cited scientific "Gold Standard" databases are no solution to this problem.

"Design matters" in equity factor- and alternative risk premia investing across asset classes. A quite often discussed aspect in meetings is a lack of standardisation in factor investing compared to standard equity market indices (free-float market cap and turnover). In a presentation during a recent Deutsche Bank Risk Premia conference, Dr. Bernd Scherer highlighted the problem by showing that calibrating a **"value factor" offers more than 3.000 different ways to design this factor** (single or basket of metrics, Long Only unconstrained or vs. benchmark, Long/Short etc.). The paper underlying the presentation will be available on SSRN (Abstract) shortly.

Statistical and economic evaluation and validation has a major impact on many outcomes. Harvey et all proposed a more restrictive statistical framework in the light of **"p-hacking"** (Link) and a lot of papers and publications are criticized because of **"HARKing"** (Hypothesizing After the Results are Known), a phenomenon discussed by Kerr in his 1998 paper (Link).

Factor crowding is another topic mentioned in the paper. Known from financial assets as well as other areas in an economy **"too much money chasing too few goods"** will always end in **elevated prices, leading to lower expected returns (or losses) in the future**. In short: **factors can be overvalued.**

Nevertheless, an investor in factor premia should always bear in mind, **that the market (market cap index) is a factor itself –** or a factor combination of large cap and momentum. As in other areas of the market (e.g. sectors) it is possible, that only one or two factors are outperforming the market factor. Continued factor rotation can lead to situations, where most of the factors underperform the market factor. But if the economic drivers of different risk- and factor premia are economically independent, these phases should be short-lived.

Naive risk management tools

Arnott, Harvey et all highlight the fact, that ***"factors are generally prone to big drawdowns"*** and "***investors often have a naïve view of the tail behaviour of factor strategies***".

A simple economic fact is: **all risk premia are a compensation for bearing tail risk – not volatility,** as textbook portfolio theory implies. Moreover, there´s no difference between alternative or traditional risk premia like interest rate-, credit- or equity risk. A well-known example in traditional assets are Japanese equities (30-year drawdown since 1989), but we haven´t heard any strategist or investor declaring the equity risk premium in Japan as non - existent anymore.

That´s why **standard measures of risk** as well as linear mathematical concepts like correlation or beta **should be treated with caution** when evaluating factor investments, as they are **unable to capture and explain the true risks** of asymmetric payoff profiles.

Unrealistic diversification benefit expectation

Even a diversified portfolio of factors or a multifactor can exhibit large and extended periods of drawdowns or low returns. The reason is straightforward, as there are only 6 major factors in general. In aggregate, these factors don´t sum up to the market portfolio´s return like sectors or like countries in regional equity aggregates. Even a broader diversified portfolio of risk premia with more than 20 different strategies across asset classes can exhibit a certain dose of tail risk. Apart from that, investor´s shouldn´t expect diversification to work best in times of general equity market drawdowns. **Factors are a diversifying element on average and over time, but not a hedge**. So, we finally agree with the author´s statement, that

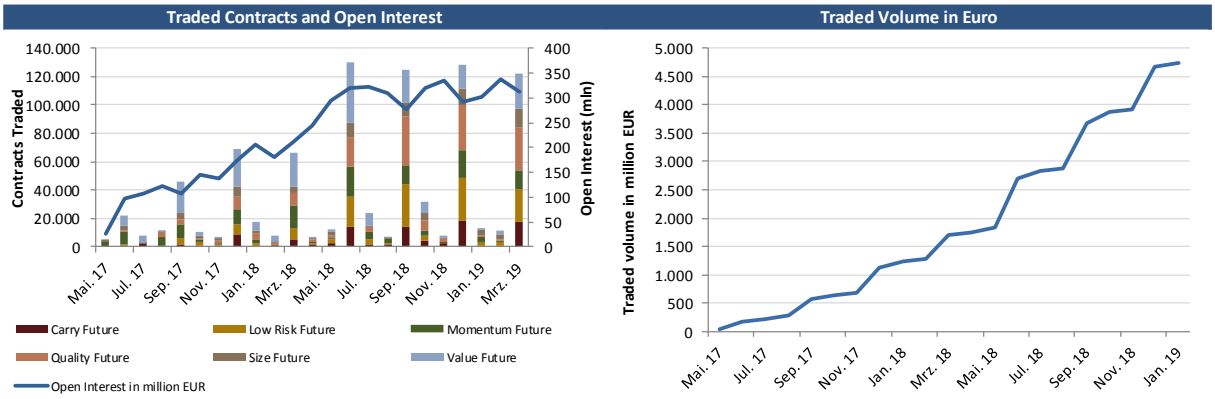
- individuals factor performance is non-normal
- cross-factor correlations are time – varying and
- serial correlation of returns exacerbates underperformance

But even if all these points have been addressed, mitigated or even solved, the final problem seems to be still, how investors evaluate equity factor- and risk premia investments in general before deciding to invest. A focus on outperformance or track record over the last three years is unlikely to yield significant results as factor premia are systematic risk factors and not alpha.

Conclusion: The question, if factor investing has failed to live up to its many promises is mainly a question of expectations from our point of view. Sharpe ratios for standard asset classes like bonds and equities are around 0,3 to 0,4 in the long run - before transaction costs. Performance or risk adjusted returns of factor investments should be higher, but not materially higher than traditional investments. Expectations of Sharpe Ratios above 1 over medium to long term time horizons seem to be exaggerated and will ultimately lead to disappointment.

EUREX Futures

Open interest is oscillating between 300 and 350 mln Euros since May 2018 and we expect more volume to develop over the course of 2019 as we received several enquiries over the last several months. The tables show developments in traded contracts, open interest and overall traded volumes since introduction in May 2017.



Factor performance

Continued factor rotation was the main driver behind first quarter results. Value and Size, underperformer during three quarters in 2018 recovered at the beginning of 2019 – Size outperformed strongly before falling back again towards the end of the quarter. Quality led the tables, outperforming by 2,4% during the first three month. Low Risk exhibited a tough stance in an overall bullish market environment, underperforming by 2,88% in Q1/2019.

After three years since "Going Live", **Carry outperformed strongly**, delivering 13,1% in excess return, followed by Low Risk (+5,9%) and Size (3,4%). Momentum and Quality performed in line with STOXX 600 – Momentum gave up 8% in relative performance terms as well since mid-2018 while Quality oscillated between +2/-2% vs. benchmark. Only Value underperformed STOXX 600 (-2,6%), losing more than 8% in relative performance since April 2018.

Alpha Centauri Indexing - Data as of 31.03.2019

Description:

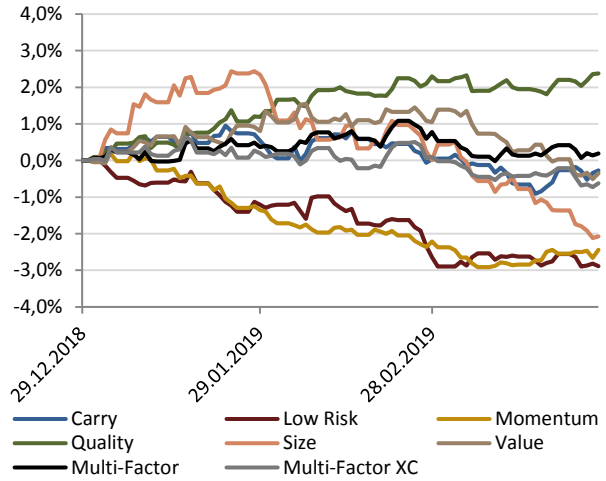
The iSTOXX Europe Single Factor index family developed by STOXX in collaboration with Alpha Centauri offers investors a unique and very innovative way to target and capture premia.
It consists of six single factors that aim to capture well-known risk premia and one multi-factor that aims at simultaneously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

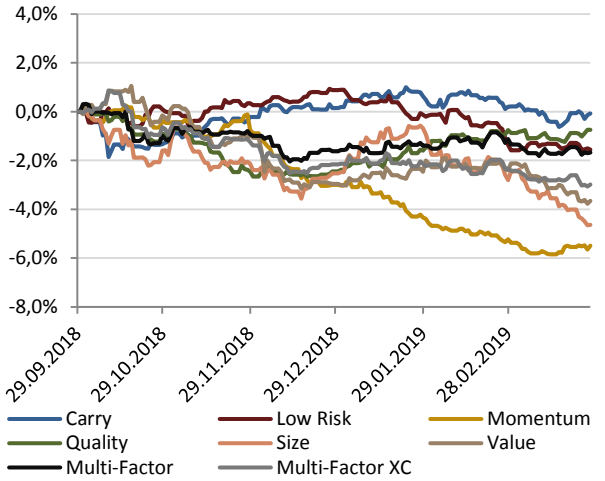
Performance and Volatility Breakdown

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	13,2%	-0,1%	6,9%	36,9%	14,4%	13,0%
Low Risk	ISERRER Index	10,6%	-1,6%	4,3%	29,7%	13,2%	12,1%
Momentum	ISEMFER Index	11,1%	-5,5%	-1,4%	23,8%	14,0%	12,7%
Quality	ISEQFER Index	15,9%	-0,8%	4,5%	23,9%	14,2%	13,0%
Size	ISEZFER Index	11,4%	-4,7%	-1,4%	27,2%	14,4%	13,3%
Value	ISEVFER Index	13,1%	-3,7%	-2,6%	21,2%	14,9%	13,5%
Multi-Factor	ISEXFER Index	13,7%	-1,7%	-0,2%	19,6%	13,7%	12,5%
Multi-Factor XC	ISEXFCR Index	12,9%	-3,0%	-0,5%	23,3%	13,9%	12,5%
Benchmark	SXXR Index	13,5%	-0,1%	5,2%	23,8%	14,2%	12,9%

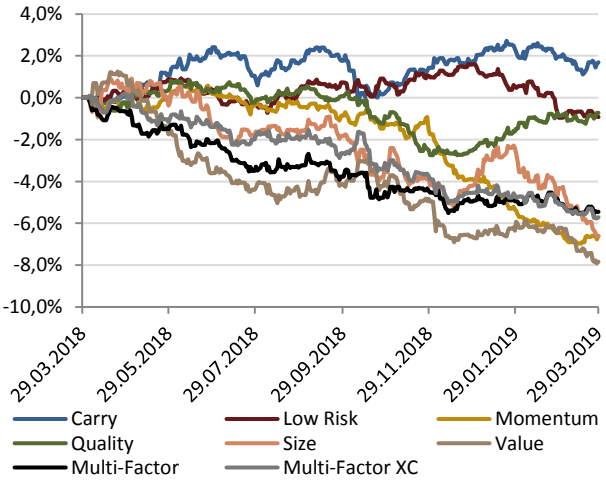
Excess Return 3 Months



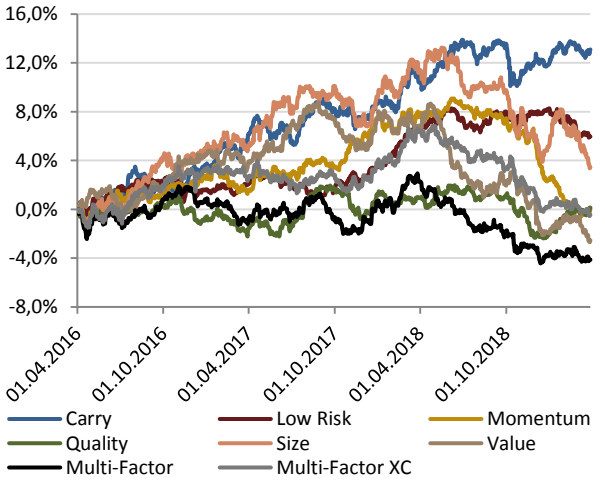
Excess Return 6 Months



Excess Return 12 Months



Excess Return since going Live (1.4.2016)



This document is confidential. Any use or disclosure to third parties without the consent of the authors is prohibited.

This document is provided for your information only and does not represent an offer nor a solicitation to make an offer for purchase or sale of certain products. The validity of information and recommendations is limited to the time of creation of these documents and can be subject to changes depending on the market situation and your objectives. We recommend consulting your tax consultant or legal advisor before investing.

This document contains information obtained from public sources, which we deem to be reliable. However, we cannot guarantee the accuracy of such information.

Past performance cannot be regarded as an indicator of future performance. It should also be considered that the products presented under certain circumstances are not adequate in regard to the individual investment objectives, portfolio and risk structure for the respective investor.

Legal and tax subjects that may be resulting from these documents have to be regarded as nonbinding advice without exception which cannot replace a detailed counseling by your lawyer, tax consultant and/or auditor.

Please note that these documents are not directed to citizens of the United States of America and are not to be distributed in the United States of America.