



ALPHA CENTAURI

Riskpremia – Made in Germany

Develop theories, not trading rules vs. the evolution of risk premia

“Develop theories, not trading rules” is one of three main topics mentioned by M. Lopez de Prado et al. published in a recent paper titled **“Three quant lessons from Covid-19”** ([Link](#)). Especially this section *“In the scientific method, testing plays a critical role in attempting to refute a false hypothesis. In finance, however, researchers have used back testing for the opposite objective, i.e., for building a hypothesis. **The implication is that back testing is wrongly considered part of the research process, instead of being part of the validation process**”* should be considered by researchers and investors alike, when evaluating equity factor- and risk premia strategies.

Despite challenging times over the last three years for factor investing- and risk premia solutions - a development, which became even more intense during recent corona virus turbulences - **alternative risk premia are still in focus by academics and practitioners** alike. In a recent Alpha Architect blog ([Link](#)), the author discussed the question *“What to Do When Alpha Becomes Beta”* by evaluating a paper by D. Kuenzi titled *“Dynamic Strategy Migration and the Evolution of Risk Premia”* ([Link](#)).

In this paper, the author makes the case, **that risk premia (strategies) are newly discovered, developed and exploited as “pure alpha” and as more and more investors try to harvest this source of return, the risk premia (strategy) “shows signs of commoditization” and morphs into a “pure beta”**. As a proof to this hypothesis, the author analysed several risk premia strategies across asset classes with respect to return and risk before and after the financial crisis. The results seem to confirm the hypothesis from a mathematical point of view, because *“returns for 13 of 14 strategies are lower in the post-crisis period”*. Moreover, correlations to equity risk has increased for many of those strategies. **This is exactly, what Lopez de Prado addresses with his message.**

From our point of view, a *“math only”* based line of argumentation is contrary to the basics behind risk premia. Realized returns of alternative risk factors are time varying in the long run ([Link](#)) – as their counterparts in traditional space are. And as with traditional asset classes, these returns can vary quite lot. **The reason is simple: as the economic drivers change, performance and risk patterns will change.**

Apart from that, **risk premia on risk factors are paid for bearing systematic risk, are non-diversifiable per se and thus are a “beta” if they are a “true” or “pure” risk factor**. Equity-, credit- or interest rate risk are examples in traditional - value, momentum, carry, volatility etc. in alternative space. On the contrary, **“alpha” is the return on sources of idiosyncratic or**

specific risk; risk which can be diversified away. From this point of view, **it seems economically impossible, that a risk premium can be born as alpha only to morph into a beta over time.**

Decreasing returns of factor- and risk premia strategies after their discovery are subject to lively discussions. Two major arguments are always “backtest overfitting” ([Link](#)) and “commoditization”. From our point of view, **while “backtest overfitting” is a general problem in risk premia strategies**, especially in equity factors, **“commoditization” shouldn’t be a problem for “true risk premia” strategies in the long run.** Here’s why:

“Backtest overfitting” can be a result of several pitfalls in the design process of a risk premia strategy – **some of them unintended, some intended.** Unintended problems for example can be - among others - the result of

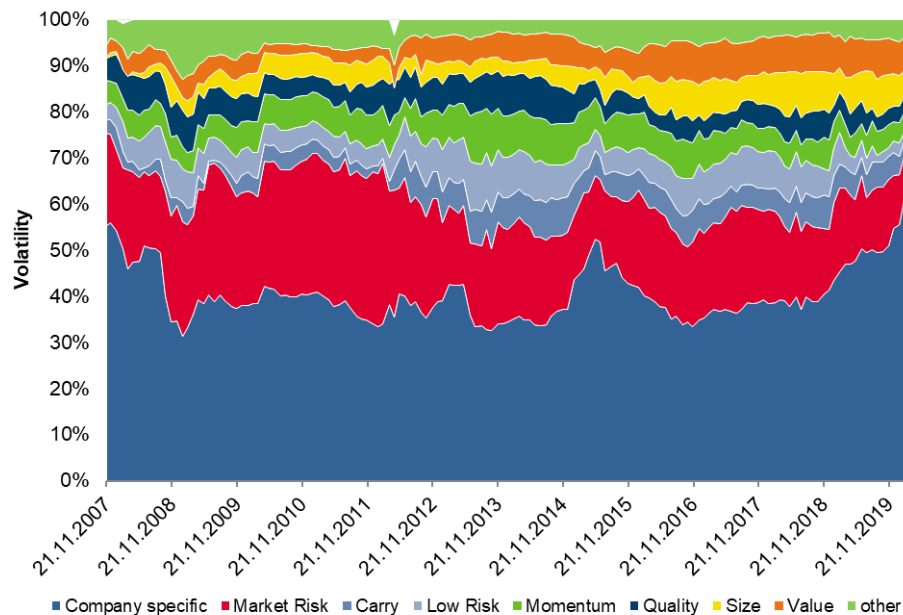
- using standard databases in designing fundamentals-based equity factors (value, quality, carry) instead of point in time databases (“What was known?”)
- try to solve the delayed publication effects by shifting the date of availability (“When were data known?”)
- using fundamental factor-based risk models, as this is a source of “factor alignment problems”
- calibrating risk figures based on time series in equity factors rather than deploying constituent-based comparisons
- relying on normal distribution and linear relationships to calibrate risk measures, hedge ratios etc. as **all risk premia - traditional as well as alternative - are paid for bearing tail risk, not volatility**
- missing to control for currency effects - directly and indirectly - and the impact on risk and return of hedging.

Intended problems are quite often a **result of limiting or mitigating the impact on drawdowns during “risk-off” phases** like the financial crisis or as we will probably see in a few month - the current coronavirus - phase. **A “pure” risk premia strategy should show and deliver drawdowns, if the risk associated with the premia becomes apparent.** This is like an insurance contract, where the insurance company will exhibit a payment obligation, once the damage event occurs. Smoothing returns by fitting the strategy is like **factoring in event based “reinsurance premiums”**, which will detract from returns in the long run and might not be adequate for the next drawdown phase.

Lower returns of a single risk premia (strategy) during different phases - even over longer ones - **aren’t necessarily a sign of “commoditisation”** from our point of view. The reason for that is quite simple. As in traditional space like equities, credit and bonds, **the subsequent or forward return might be low, if the backward-looking return of the past has been extraordinary high.** The premium associated with this risk factor is priced for perfection, in other words: **a risk factor can be overvalued as every other asset** (which is itself a proxy for a risk premium).

But this **“too much money chasing too few goods”** in the short run shouldn't deplete the risk premia forever. A risk premium will be depleted forever only in cases, where the underlying risk doesn't exist anymore. **No risk-no risk premium.**

Deploying a risk decomposition for a typical stock - Siemens in this case - might be able to shed more light on the topic. The chart shows the (continuously changing) drivers of risk over time: specific company risk (blue), market risk (red), factor risks and other sources of risk. And if these risk factors exist, risk premia will be paid in the long run.



Other well-known examples are the US government bond market, being in real drawdown for 40 years between 1945 and 1985 or the Japanese equity market since 1989. We never heard a strategist or investor talking about the **“death of the equity risk premium in Japan”** over the last 30 years. Moreover, **the notion that traditional asset classes are still able to deliver a positive risk premium in the long run, despite the fact, that they are well-known since centuries is a confirmation of our arguments.**

Conclusion: observing lower returns for a few risk premia strategies (from out of more than hundred available from in global markets and asset classes) over a couple of a few years doesn't tell anything about the ability to deliver a positive return for a risk factor in the long run.

Or as AQR's Israel et al put it with respect to systematic value investing in a recent paper ([Link](#)): **“while undoubtedly many systematic approaches to value investing have suffered recently, we find the suggestion that value investing is dead to be premature...”**



Alpha Centauri Indexing - Data as of 31.03.2020

Description:

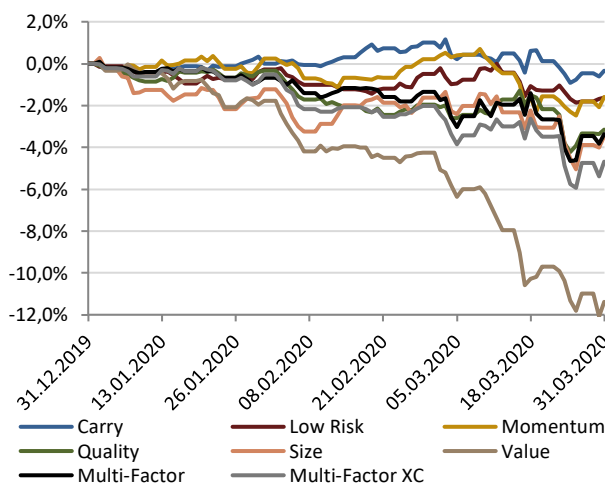
The IStoxx Europe Single Factor index family developed by STOXX in collaboration with Alpha Centauri offers investors a unique and very innovative way to target and capture premia. It consists of six single factors that aim to capture well-known risk premia and one multi-factor that aims at simultaneously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

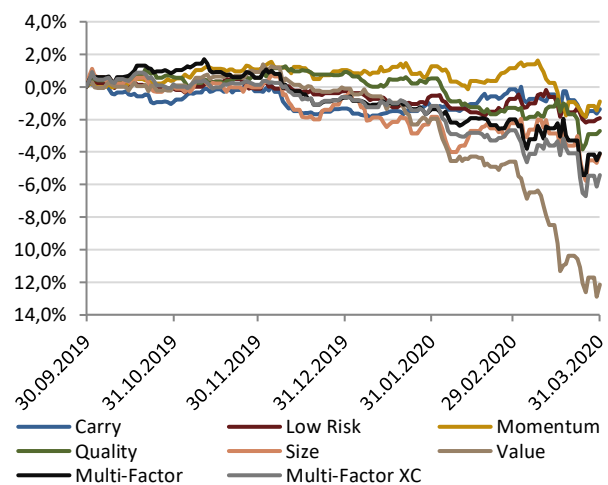
Performance and Volatility Breakdown

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	-22,9%	-19,2%	-17,6%	12,8%	16,9%	16,3%
Low Risk	ISERRER Index	-24,2%	-19,7%	-14,5%	10,9%	15,8%	15,3%
Momentum	ISEMFER Index	-24,2%	-18,7%	-15,7%	4,3%	16,7%	16,1%
Quality	ISEQFER Index	-25,7%	-20,5%	-17,4%	2,3%	16,5%	15,8%
Size	ISEZFER Index	-26,0%	-21,9%	-22,1%	-1,0%	16,5%	15,9%
Value	ISEVFER Index	-33,9%	-30,0%	-30,2%	-15,4%	18,1%	17,5%
Multi-Factor	ISEXFER Index	-25,9%	-21,9%	-19,2%	-3,4%	16,0%	15,3%
Multi-Factor XC	ISEXFCR Index	-27,3%	-23,3%	-20,9%	-2,4%	16,1%	15,4%
Benchmark	SXXR Index	-22,6%	-17,8%	-13,1%	7,5%	16,9%	16,2%

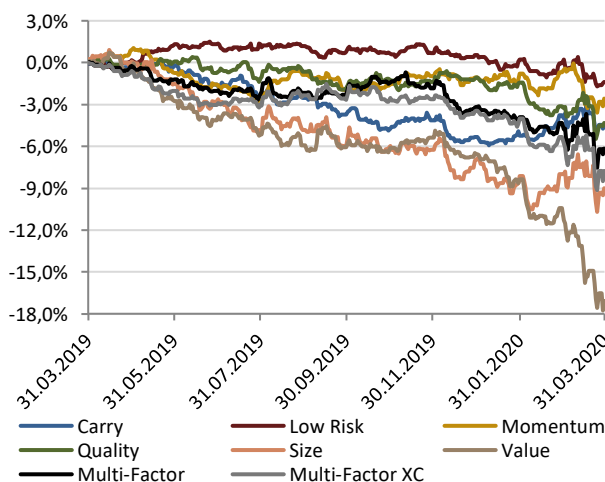
Excess Return 3 Months



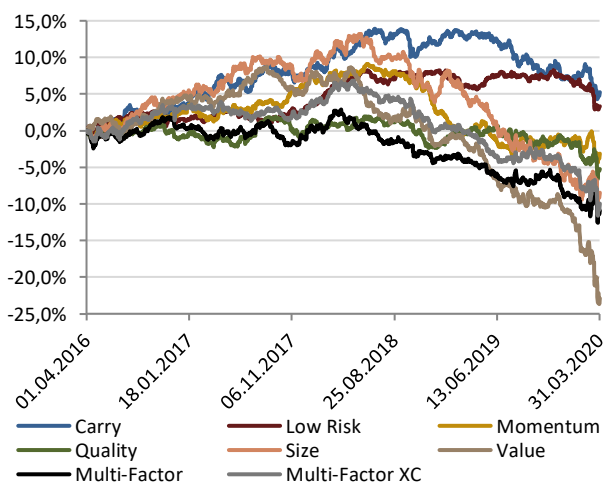
Excess Return 6 Months



Excess Return 12 Months



Excess Return since going Live (1.4.2016)



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