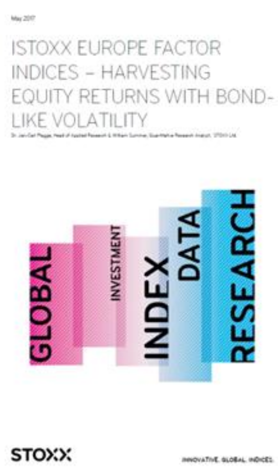
03.07.2017

iSTOXX Europe Factor Indices Quarterly - Harvesting Equity Returns with Bond-Like Volatility….

…is the title of the **latest piece of research** from Dr. Jan-Carl Plagge, Head of Applied Research at STOXX and his team with respect to the indices.

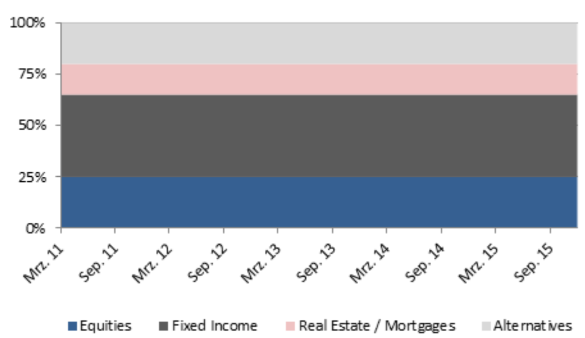


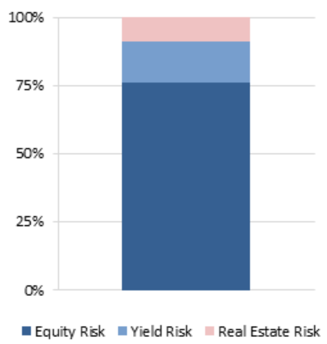
The paper offers insight into the unique concept of the indices, leading to **low correlations to traditional asset classes as well as among factor returns** and for end investors even more critical, how the indices can help to **mitigate two of the main problems** of this "Low Return World"

- sources of return as an alternative to fixed income
- sources of diversification as bonds lost their role

The first point is quite obvious as yields are low. The second one is **one of the most underestimated problems** by investors in our view. During our work on a Swiss pension fund portfolio last year, we were able to show, that the **risk profile of pension- and multi asset portfolios changed considerably over the last ten years** and is **mainly driven by equity risk** today. The reason for that is quite simple:

Additional credit risk beyond government bonds (a proxy for credit-risk free) in form of covered or corporate bonds is highly correlated to equity risk - spreads typically widen during times of stress. As the underlying "risk free" in covered and corporate bonds evaporated, investors are left with the **asymmetric risk profile of "pure" credit exposure** (replicating short puts). This leads to **capital or asset allocation drifting away massively from risk allocation.** The **diversification provided by government bonds** over the last 20 years, due to high returns, **will not work anymore in the future** - even if correlations will stay negative. That´s why figures based on normal distribution (i.e. Volatility & VAR) are a quite poor description of overall portfolio risk today.





The picture shows an Asset Allocation of 25% Equities, 40% Fixed Income, 15% Real Estate / Mortgages, 20% Alternatives vs. 75% Equity risk as the main driver of portfolio risk.

The impact: investors either have to

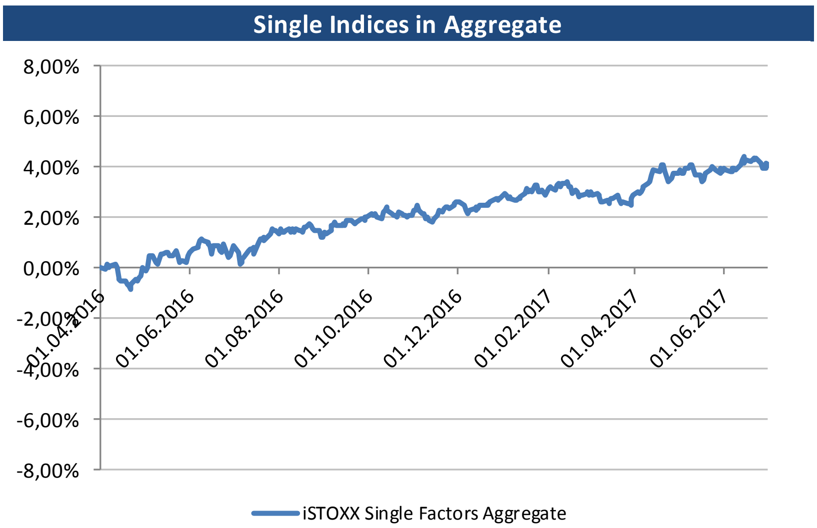
- **double their risk budgets**, if they stick with their current asset allocation or investments in multi asset portfolios
- **sell parts of their risky assets** to get in line with their risk budgets again or
- look for **alternative sources of** uncorrelated **returns**

From our point of view, **not all alternative investments qualify as a "diversification asset"** to equity risk. Hedge funds and private equity (with a lag) are typically highly correlated to equities in times of economic downturns. All other forms of **Absolute Return portfolios should be checked for their systematic risk exposures** as most of them contain larger systematic risk than one would expect, **even if the underlying investments or funds exhibit more specific sources of risk**.

Can factor investments or liquid alternative risk premia in a broader context save the world in this sense?

The answer is certainly "No" with respect to overall capacity, even if we´re far away from any capacity constraints currently. From a **design point of view** on factor- and risk premia, a typical economist answer might be: "It depends…!" Different philosophies and approaches will lead to **notable differences in outcomes for end investors**. A comparison of the iSTOXX Europe indices excess returns on a single index level or in aggregate family format shows, that this is definitely true, even for the last 15 month since the indices are live. The time frame is way too short for statistical valid conclusions, but it seems to us, that **visible differences in return, risk and correlations** to other concepts before "Going Live" **are pronounced since then**.

An index of indices, an equal weighted composite of the six single factors, delivered a performance of + 4,15 % with a volatility of 2 % since "Going Live" last year. **Correlations** to German Government bonds and European equities **are moving in small bands around "0"**. Adjusting the numbers for transaction costs will not change the picture considerably.



Boring as the performance chart looks, investors should always be reminded, that "Past performance cannot be regarded as an indicator of future performance". This is especially true in risk premia space, where in our line of thinking, **premia are paid for bearing tail risk and not for volatility**.

iSTOXX Index Futures on EUREX

EUREX introduced futures on six single indices on 3rd of May. All single futures received trading interest with 17.279 contracts and approx. 108 Mln. Euros in combined open interest currently. Investors interested in replicating the excess performance of the "single index aggregate" mentioned above, the futures represent an easy way of implementation.

Contract specifications – Overview

iSTOXX® Europe Factor Index Futures (in comparison to benchmark STOXX® Europe 600)

	iSTOXX® Europe Factor Index Futures	STOXX® Europe 600 Index Futures (FXXP)
Underlying index	iSTOXX® Europe Low Risk, Momentum, Quality, Size, Value, Carry	STOXX® Europe 600 Index
Index type	Net Return index	Price index
Contract value	EUR 50 per index point	
Tick value	EUR 5	
Price quotation	In points with one decimal place	
Minimum price change	0.1 index points	
Contract months	Up to 9 months; 3 quarterly months	
Settlement	Cash settlement, payable on the first exchange day following the final settlement day.	
Final settlement price	Based on the average of the respective iSTOXX®/STOXX® index calculations from 11:50-12:00 CET.	
Last trading day and final settlement day	Third Friday of each maturity month if this is an exchange day; otherwise the exchange day immediately preceding that day. Close of trading in the maturing futures on the last trading day is at 12:00 CET.	
Continuous / TES	08:00 – 22:00 CET	
Flexible contracts	Available	
Min block trade size	1 contract	100 contracts
Fees	0.30 EUR (order book) - 0.45 EUR (off-book)	

Contract / Vendor Codes (iSTOXX Europe)	Low Risk	Momentum	Quality	Size	Value	Carry
	Eurex: FXFR BBG: XLRA Index Reuters:0#FXFR:	Eurex: FXFM BBG: FXWA Index Reuters: 0#FXFM:	Eurex: FXFQ BBG: FXOA Index Reuters:0#FXFQ:	Eurex: FXFS BBG: FXEA Index Reuters: 0#FXFS:	Eurex: FXFV BBG: FXRA Index Reuters: 0#FXFV:	Eurex: FXFC BBG: FKSA Index Reuters: 0#FXFC:

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Factor performance Q2/2017

As shown above, the **indices continued to outperform** during the 2nd quarter by 1,1 % in aggregate. **Value and Size** captured the "maillot jaune" to use Tour de France terms and **outperformed** STOXX 600 **by 2,7%** during the last three month. **Momentum (+1,1%)** completed the winner´s podium, while Multi-factor outperformed by 0,3%. Low Risk (-0,1%) and **Carry (-0,45%)** came in with the "sag wagon" during this stage.

The performance of **iSTOXX Carry** in comparison to other concepts of "yield" in Europe might come as a surprise, as the excess return since "Going Live" topped 7,0% in April before consolidating to 5,61% at the end of this quarter, while most of the **dividend yield indices (and funds)** in Europe **underperformed their benchmarks** over recent history.

Alpha Centauri Indexing - Data as of 30.06.2017

Description:

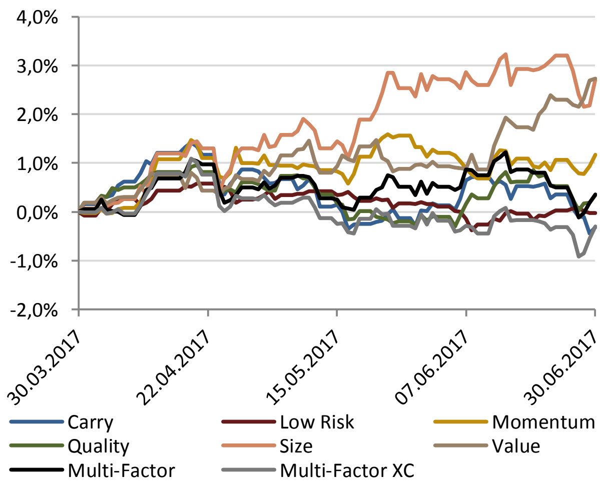
The iSTOXX Europe Single Factor index family developed by STOXX in collaboration with Alpha Centauri offers investors a unique and very innovative way to target and capture premia.
It consists of six single factors that aim to capture well-known risk premia and one multi-factor that aims at simultaneously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

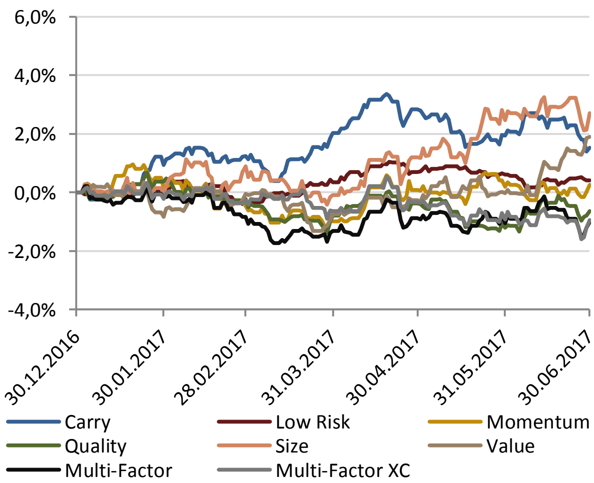
Performance and Volatility Breakdown

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

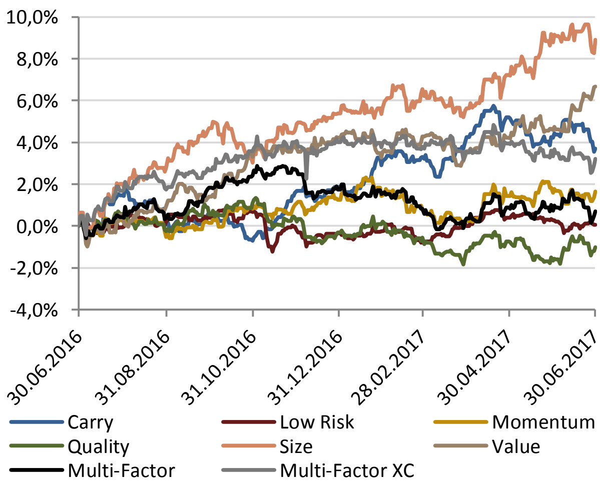
Excess Return 3 Months



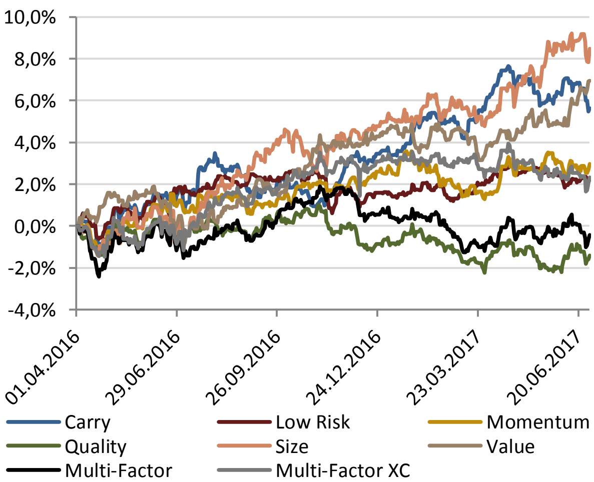
Excess Return 6 Months



Excess Return 12 Months



Excess Return since going Live (1.4.)



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