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Multifactor investing

Meeting the challenge of cyclical factor premia

UBS Asset Management

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Both academic as well as practitioners' research have identified factor premia—or styles—that are widely believed to add value in the long term. The most commonly accepted are value, momentum, quality, low risk and size (small minus large). That said, style performance and correlation can vary over time and through investment cycles (Exhibit 1).

For example, growth and momentum factors dominated global equity markets in 2017, while value and low risk investing underperformed. This continued into the beginning of 2018 and even well into February, as inflation scares triggered a short market correction. Only in March, when geopolitical risks started to dominate investors' agenda, styles started to behave differently. Momentum for instance then recovered in April and May, but retreated in June again as trade war rhetoric dominated headlines (Exhibit 2). These examples serve as powerful reminders that a static bet on one style can lead to suboptimal results.

We believe this is particularly relevant now as risks of a regime shift in markets have increased. The rate of acceleration in global growth has moderated in recent months, and global demand growth rates are less synchronized. If geopolitical risks prevail, central banks' loose monetary policies gradually unwind, and the economic cycle matures, it is reasonable to assume that equity markets' will remain volatile.

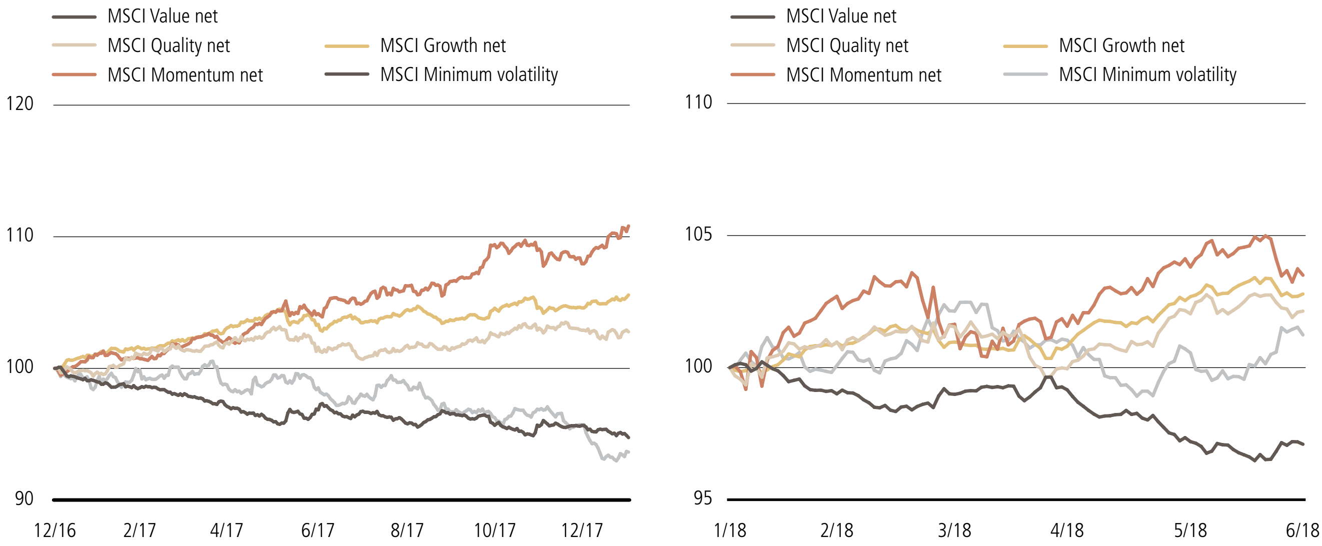
Exhibit 1: Style ranking per calendar year – measured by MSCI World factor indices (net) (%)

1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
45.61	1.53	-4.46	-9.57	56.73	28.56	28.35	31.02	19.91	-29.23	42.05	18.19	8.04	16.69	32.66	12.06	5.82	10.27	32.59
40.13	1.24	-8.03	-9.80	50.37	24.09	17.17	28.90	16.76	-33.47	41.87	16.54	4.84	16.54	30.28	9.01	4.54	9.38	26.64
25.34	0.31	-10.03	-13.58	33.76	21.30	15.16	22.10	10.31	-39.92	33.75	12.76	4.79	15.01	27.74	7.03	4.25	8.86	23.92
20.48	-2.13	-11.51	-14.38	30.51	20.76	10.02	21.20	9.57	-40.33	33.49	12.34	4.43	14.79	27.37	5.50	-0.32	8.18	23.07
18.43	-10.21	-12.09	-15.14	26.03	20.02	8.50	20.65	7.34	-41.92	30.79	11.36	-5.02	13.66	26.53	4.56	-1.05	8.15	22.88
8.62	-12.92	-16.52	-16.48	25.91	15.25	8.34	19.07	6.42	-42.39	17.18	9.15	-9.34	13.30	22.89	3.42	-2.38	5.12	19.17
8.42	-18.90	-20.46	-19.54	21.99	12.68	6.00	16.78	6.13	-42.63	14.76	7.22	-11.05	8.87	19.41	3.28	-2.73	4.75	18.04

World · Size · Momentum · Yield
Volatility · Quality · Value

Source: MSCI Inc., year-end 2017.

Exhibit 2: Cumulative relative returns of MSCI factor indices versus MSCI World net—comparison Jan. 1, 2017 to Jan. 31, 2018 vs Feb. 1, 2018 to June 29 2018.



Source: UBS Asset Management, Bloomberg.

The solution: Isolate the specific components
In essence, investors have three ways of dealing with the challenges of the cyclicality of factor premia and changing correlations: a) active timing of factor premia, b) blending factor premia efficiently, or c) isolating the specific value-adding components of the factor premia and combination thereof. In this paper, we will discuss the isolation of the specific components.

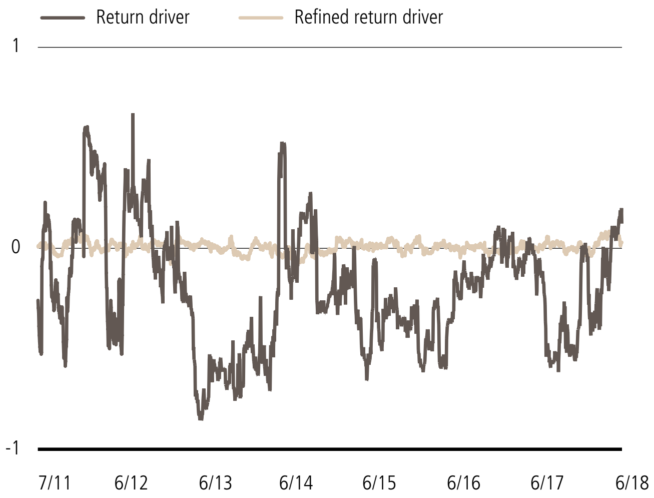
The basic idea of isolating the specific components is to build model portfolios that have true exposure to the respective factor premium they aim to harvest. For instance, two stocks can both appear to be driven by momentum. However, while one stock may be a true momentum stock, the other may just be a high beta stock having done well in upward markets. When constructing a momentum factor premium portfolio, we would want to only consider the true momentum stocks, not the ones that happen to have been correlated with momentum.

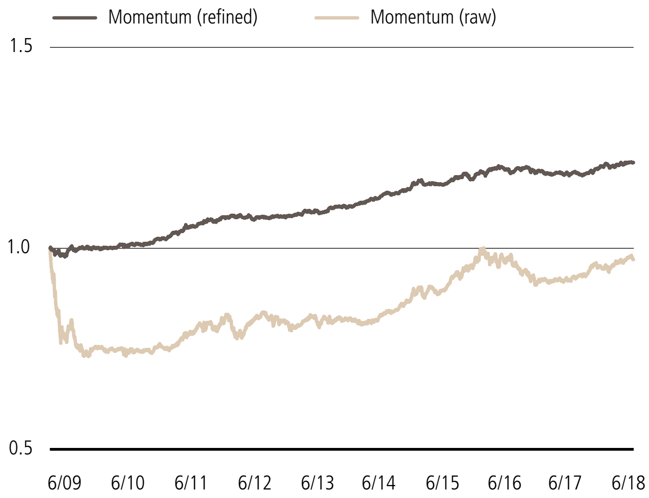
The Systematic and Index Investments team's proprietary investment approach aims to achieve exactly that. Our multifactor models are industry-specific and consist of a series of factor premia-based investment themes—called return drivers: Valuation, Capital Usage, Profitability, Growth and Market Behavior. Through our refinement process, we aim to isolate the specific components of our industry-specific multifactor models. The resulting refined return drivers represent pure insights into a factor premium and have expected cross-correlations and correlations to systematic risks that are close to zero. This should allow for a more efficient use of the risk-budget, lower drawdowns and therefore more consistent alpha contributions.

Exhibit 3, based purely on out-of-sample data—demonstrates that our refined return drivers exhibit the aforementioned desired characteristics such as ex ante correlations to each other that are more stable and much closer to zero compared to the ones of raw return drivers. Moreover, refined return drivers on average achieve higher risk-adjusted returns and lower drawdowns than raw return drivers. Therefore, refined return drivers offer a more efficient alpha source.

Exhibit 4, plotting the refined return drivers of our live global multifactor model, demonstrates that none of the return drivers exhibited significant drawdowns and their combination produced a stable and value-adding alpha signal. Besides the ability to create more stable and lowly correlated alpha signals, a proprietary approach to constructing factor premia indices is flexible in terms of further enhancements. In particular, non-conventional factors for instance based on ESG-related data, and improved ways to identify value-adding factors and methodologies, such as machine learning, can be applied.

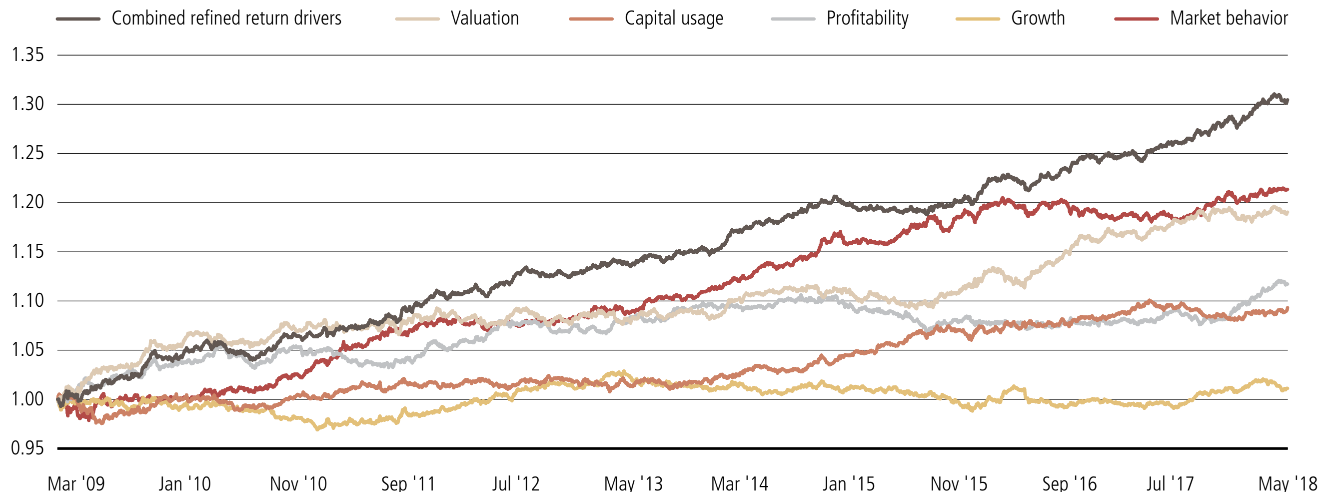
Exhibit 3: Refinement creates return drivers with lower drawdown and lower and more stable correlations amongst each other





Source: UBS Asset Management, MSCI Barra, FactSet; based on our live global multifactor model. Data as of June 29, 2018.

Exhibit 4: Refinement creates return drivers better risk-adjusted returns

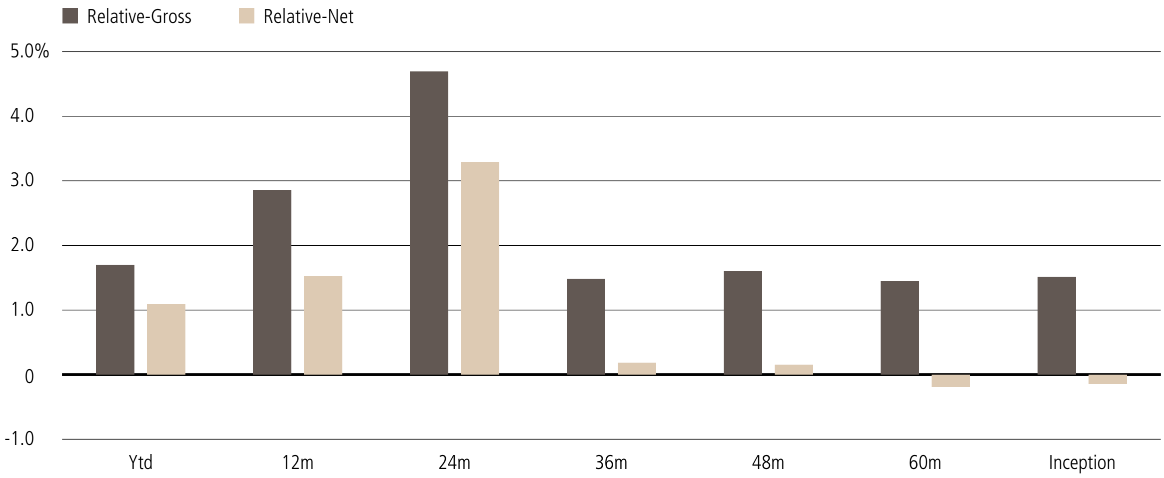


Source: UBS Asset Management, MSCI Barra, FactSet; based on our live global multifactor model. Data as of June 29, 2018.

UBS Asset Management's Systematic strategies aim to harvest factor risk premia by applying the afore-described approach. We focus on isolating the specific components of the return drivers by stripping out cross-correlations and systematic risk exposure. The aim of this is to increase consistency of the alpha signal.

The Global Systematic strategy was launched in December 2008 and has since then outperformed the MSCI World (net) by 1.5% p.a. gross-of-fees but after transaction costs as of end June 2018 (Exhibit 5). This was achieved with an ex post tracking error of 2.2%, leading to an information ratio of 0.7. The more recent past looks equally or even more positive as the below chart demonstrates.

Exhibit 5: Global Systematic composite, relative return (in USD)



	Ytd	12m	24m	36m	48m	60m	Inception
Composite–Gross of fees	2.13%	13.95%	19.28%	9.96%	8.27%	11.38%	12.82%
Composite–Net of fees*	1.52%	12.61%	17.88%	8.66%	6.82%	9.75%	11.18%
Benchmark	0.43%	11.09%	14.59%	8.48%	6.67%	9.94%	11.31%

Periods longer than 12 months are annualized.

Source: UBS Asset Management, MSCI Barra, FactSet; based on our live global multifactor model. Data as of June 29, 2018.
*Net-of-fee composite figures are given for comparison purposes only and refer to fees on retail accounts.

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