

# FACTOR INVESTING IS **NOT** AN ASSET CLASS, IT'S A SOLUTION-ORIENTED PHILOSOPHY

For some years now, 'factor investing and smart beta' has been the hot topic in the financial media. Almost every sub-theme to do with this subject has been covered, from the academic grinding down of factor performance to the implications for the asset management industry, but most of all to the strategies, in all their possible forms, proposed by each provider. The biggest plus point from this intense exposure is the growth in investor acceptance, with even traditional managers now starting to refer to factor investing or commenting on it. It has also led to some standardisation of the related vocabulary: the names of the main factors (value, momentum, low volatility and quality) are now quite common within financial parlance.

There are however drawbacks to high media exposure, as cognitive sciences have taught us. For instance, the fact that everyone is using the same names for factors gives the impression that we are speaking of the same thing, which in turn implicitly suggests that factor investing is an asset class, of which single factors are sub-asset classes, just as European equity is a subset of the equity asset class.

This is not the case. The details of methodologies can dramatically change the risks and results of factor-based strategies, and should be looked at closely to avoid the pitfalls of unwanted risks.

## Single factors: neutralisation is key

The naïve approach to single factor investing is to simply select the stocks that have the desired characteristic, and to find a weighting scheme that doesn't raise too many problems in terms of liquidity and diversification, i.e. usually linked to some extent to the original market capitalisation. This leads to smart beta strategies that do have some desired factor exposure, but that also involve unwanted risk biases related to the nature of the factor or the measure chosen for the factor.

For instance, naïve price momentum will naturally have a highly variable beta: when markets rise, banks outperform, not specifically because they have an intrinsically strong momentum, but because banking is a high beta sector. On the other hand, defensive sectors outperform in bearish markets, leading to a global beta variability of naïve momentum. Using alpha momentum rather than price momentum would be better. A naïve low volatility factor will also have large sector deviations which translate into interest-rate sensitivity, since the least volatile stocks are the most 'bond-like'. A naïve value factor, which fundamental indexing would create, can be highly carbon-intensive, because buying cheaper also implies buying 'real' economy assets that pollute more. A consumer good manufacturer is usually more value in style than a fintech, for instance, and anyone can see it has probably more carbon emissions too.

Much of the discussion about factor timing is relat-

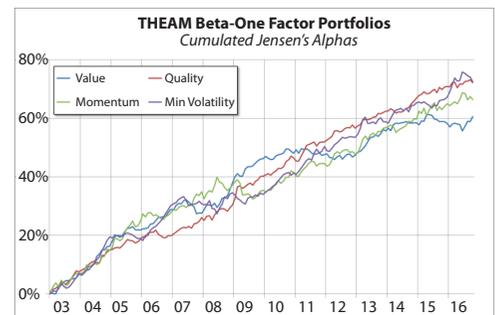
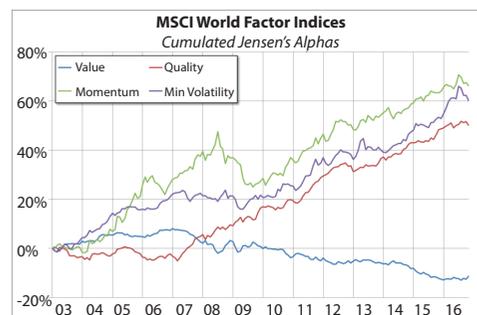


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ed to this conundrum: does factor timing mean the timing of any residual unwanted risks of naïve factor strategies (beta, sector or country deviations) or the timing of the actual true alpha from the factor? We do not need factor strategies to take bets on these other subjects.

Our research suggests that it is possible to remove these biases, and that doing so actually improves the intensity of factor exposures (see "*Diversify and Purify Factor Premiums in Equity Markets*"<sup>1</sup>). In our view, factors are the most effective when they are: diversified across indicators, at a constant risk over time, beta neutral, macro-sector neutral, region neutral and even unbiased on the basis of size, because we see size as a liquidity premium, not a factor. All these criteria can improve and stabilise the alpha from factors, although unfortunately, they don't directly yield an investable strategy, nor a common vocabulary...

## Purified alpha compared to raw alpha



Source: THEAM, Dec 2016, World universe, USD monthly simulations

To turn these pure factors into actual investable products, we have chosen to build 'high octane', single-factor regional strategies, by maximising the exposure to the factor for a given level of alpha volatility. It might be further from the benchmark than a naïve approach, but it is more in line with what factor investing is really about: choosing the right risks.

## Multi-factor: constraints are key

Multi-factor strategies are even more prone to the 'asset class' confusion, since they are usually benchmarked on traditional equity asset classes, and therefore look comparable. However, the aim of the strategy and the constraints imposed on the portfolio are the main drivers of the end efficiency of a factor-based strategy.

For instance, if improving the Sharpe ratio is the priority of a multi-factor strategy, reducing the beta is a legitimate bias, which can be attained either by overweighting the low vol factor or by shorting futures. If the information ratio is the priority, however, focusing the relative risk budget on a balanced allocation of complementary pure factors is more efficient, rather than expending some tracking error on a beta bias.

In turn, the attainable information ratio for a

multi-factor strategy largely depends on the tracking error level: factor investing is about capturing premiums in the market, but you can't capture more than there is and relying too much on tracking error ends up destroying value. On the contrary, who cares about information ratio for only 10 basis points of tracking error?

Splitting the universe is another costly constraint, which highlights the 'non-asset class' behaviour of factor strategies. Market cap benchmarks can add up, but factor investing is more efficient when the opportunity set is larger and more subject to the Law of Large Numbers.

Transaction costs, including brokerages, market impacts and fiscalities, can also largely affect the efficiency of a factor-based strategy. If environment, social responsibility and governance (ESG) criteria or carbon emissions are further added constraints, is there still any factor exposure left?

Our research, published in 2014 in the *Journal of Asset Management* (see "*An integrated risk-budgeting*

*approach for multi-strategy equity portfolios*"<sup>2</sup>), suggests that there is a way out of this conundrum of constraints, and that there is still alpha left, as long as the constraints are reasonable. It relies on separating the 'alpha search' from the 'constraint management'. Such a separation is a great tool to help institutional investors navigate between their numerous and often contradictory aims.

As a whole, factor investing is NOT an asset class either in single or multi-factor approaches; rather, it is a tool for discussion, which allows investors to turn academic findings into genuine investment solutions. Such solutions are always a form of compromise, and the whole point is to understand which choices have been made in reaching a given solution.

## FOOTNOTES

<sup>1</sup> By Raul Leote de Carvalho, Lu Xiao, François Soupé and Patrick Dugnonle, published on January 2, 2017

<sup>2</sup> By Pierre Moulin, Xiao Lu, Raul Leote de Carvalho



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