

## “Smart Beta is not Monkey Business”: ERI Scientific Beta warns against simplistic explanations of smart beta performance in a new research paper

In new research published in the latest issue of the *Journal of Index Investing*, entitled “[Smart Beta is not Monkey Business](#),” which can be accessed [here](#), ERI Scientific Beta has rejected the claims of “monkey portfolio” proponents, who argue not only that all smart beta strategies generate positive value and small-cap exposure, which fully explains their outperformance, but also that similar results are obtained by any random portfolio strategy, including the inverse of such strategies. The “monkey” label comes from the idea that a monkey would be able to generate similar performance through a random selection of stocks.

The ERI Scientific Beta paper analyses these claims using test portfolios which follow commonly-employed methodologies for explicit factor-tilted indices. The results directly invalidate all of the above claims. In particular, the results show that **many smart beta strategies display exposure to factors other than value or small cap, as well as pronounced differences in factor exposures across different strategies.**

In addition, and perhaps reassuringly, the inverse of these strategies generates inferior performance. That the findings directly contradict the monkey portfolio claims can be explained by the set of test portfolios. While the monkey portfolio arguments may hold for the particular smart beta specifications tested by its proponents, they do not hold in general. Specifically, the research conducted shows that only the indices termed “fundamental” behave like monkey portfolios, on the one hand because their method of construction is based on accounting criteria that are not associated with any statistically significant risk premium over the long term<sup>1</sup>, and on the other because their high level of concentration results in a large proportion of specific risk that leads to performance that lacks robustness and is therefore random.

**An important implication of the results is that one should take care to avoid over-generalising from testing particular specifications of smart beta.** For the explicit factor-tilted strategies tested in this new research, the results imply that **a careful assessment of investment philosophy and index design is indeed relevant** as such strategies do not behave like “monkey” portfolios.



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<sup>1</sup> See Amenc, N., F. Goltz, S. Sivasubramanian and A. Lodh, 2015, “[Robustness of Smart Beta Strategies](#)”, *Journal of Index Investing*, Vol. 6, No. 1: pp. 17-38 (see Exhibit 1 in particular).

## About ERI Scientific Beta

ERI Scientific Beta aims to be the first provider of a smart beta indices platform to help investors understand and invest in advanced beta equity strategies. It has three principles:

- **Choice:** A multitude of strategies are available allowing users to build their own benchmark, choosing the risks to which they wish, or do not wish, to be exposed. This approach, which makes investors responsible for their own risk choices, referred to as Smart Beta 2.0, is the core component of the index offerings proposed by ERI Scientific Beta.
- **Transparency:** The rules for all of the Scientific Beta series are replicable and transparent. The track records of the Scientific Beta indices can be checked and justified through unrestricted access to historical compositions.
- **Clarity:** Exhaustive explanations of construction methodologies are provided, as well as detailed performance and risk analytics.

Established by EDHEC-Risk Institute, one of the very top academic institutions in the field of fundamental and applied research for the investment industry, ERI Scientific Beta shares the same concern for scientific rigour and veracity, which it applies to all the services that it offers investors and asset managers.

Part of EDHEC Business School, a not-for-profit organisation, EDHEC-Risk Institute has sought to provide the ERI Scientific Beta services in the best possible economic conditions.

The ERI Scientific Beta offering covers three major services:

- **Scientific Beta Indices**  
Scientific Beta Indices are smart beta indices that aim to be the reference for the investment and analysis of alternative beta strategies. Scientific Beta Indices reflect the state-of-the-art in the construction of different alternative beta strategies and allow for a flexible choice among a wide range of options at each stage of their construction process. This choice enables users of the platform to construct their own benchmark, thus controlling the risks of investing in this new type of beta (Smart Beta 2.0). The Scientific Beta platform is currently offering 2,597 smart beta indices.  
  
Within the framework of Smart Beta 2.0 offerings, ERI Scientific Beta provides access to smart factor indices, which give exposure to risk factors that are well rewarded over the long term while at the same time diversifying away unrewarded specific risks. By combining these smart factor indices, one can design very high performance passive investment solutions.
- **Scientific Beta Analytics**  
Scientific Beta Analytics are detailed analytics and exhaustive information on its smart beta indices to allow investors to evaluate the advanced beta strategies in terms of risk and performance. The analytics capabilities include risk and performance assessments, factor and sector attribution, and relative risk assessment. Scientific Beta Analytics also allow the liquidity, turnover and diversification quality of the indices offered to be analysed. In the same way, analytics provide an evaluation of the probability of out-of-sample outperformance of the various strategies present on the platform.

We believe that it is important for investors to be able to conduct their own analyses, select their preferred time period and choose among a wide range of analytics in order to produce their own picture of strategy performance and risk.

- **Scientific Beta Fully-Customised Benchmarks and EDHEC-Risk Smart Beta Solutions**

**Scientific Beta Fully Customised Benchmarks** is a service proposed by ERI Scientific Beta, and its partners, in the context of an advisory relationship for the construction and implementation of benchmarks specially designed to meet the specific objectives and constraints of investors and asset managers. This service notably offers the possibility of determining specific combinations of factors, considering optimal combinations of smart beta strategies, defining a stock universe specific to the investor, and taking account of specific risk constraints during the benchmark construction process.

In 2015, ERI Scientific Beta established an offering based on EDHEC-Risk Institute's applied research expertise in the field of risk management. This offering, referred to as "**EDHEC-Risk Smart Beta Solutions**," enables tailored solutions for multi smart beta allocation to be defined for institutional investors and asset managers, allowing specific objectives with regard to relative or absolute risks in an asset management only or an asset-liability management dimension to be taken into account.

With a concern to provide worldwide client servicing, ERI Scientific Beta is present in Boston, London, Nice, Singapore and Tokyo.

ERI Scientific Beta has a dedicated team of 45 people who cover not only client support from Nice, Singapore and Boston, but also the development, production and promotion of its index offering.