

Press Release

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Popular factor analysis tools lead investors to dangerous allocation mistakes

In a new research publication, ERI Scientific Beta, the leading smart beta index provider, and Scientific Analytics, EDHEC Business School's new venture dedicated to factor analysis and allocation, have studied popular factor analysis tools available on the market.

The decision to write this white paper was stimulated by the appearance of new factor box tools promoted by investment market leaders as factor risk analysis standards. After serious analysis of these tools, the authors consider that they are not based on an academic state of the art and that their use can lead to serious misalignment between an investor's factor diversification objectives and the measured and realised allocation.

This research paper, entitled "Measuring Factor Exposure Better to Manage Factor Allocation Better: A Critical Approach to Popular Factor Box Initiatives," is accessible through the following link:

[Measuring Factor Exposure Better to Manage Factor Allocation Better: A Critical Approach to Popular Factor Box Initiatives, ERI Scientific Beta and Scientific Analytics White Paper](#)

It contains two main contributions, one entitled "Exposed to Nonsense? Spurious Factors in Popular Investment Tools" and the other entitled "Mismeasurement of Factor Exposures in Score-Based Analytics Tools." These two contributions lead to clear conclusions:

- Analytic tools do not employ academically-grounded factors and their factor-finding process maximises the risk of ending up with false factors;
- Non-standard factors lead to mismeasurement of exposures and may capture exposure to redundant factors;
- The use of factor scores instead of factor betas for the measurement of portfolio factor exposures is a cause for concern because factor investing literature uses beta-based models for factor premia tests and for portfolio style analysis;
- The major drawback factor scores suffer from is "double counting" of exposures, which is due to their lack of regard for the correlation structure of factors. This makes factor scores a very poor proxy for factor betas;

These limitations can lead to investors being unable to translate their risk allocation choices into a consistent allocation, with fairly severe financial consequences.



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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.

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.

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).

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.

- **Scientific Beta Fully-Customised Benchmarks and Smart Beta Solutions** 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.

With a concern to provide worldwide client servicing, ERI Scientific Beta is present in Boston, London, Nice, Singapore and Tokyo. As of June 30, 2018, the Scientific Beta indices corresponded to USD 34bn in assets under replication. 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. ERI Scientific Beta signed the United Nations-supported Principles for Responsible Investment (PRI) on September 27, 2016.

About Scientific Analytics

Set up in 2018 on the basis of EDHEC and Scientific Beta's expertise in the area of factor investing, Scientific Analytics aims to provide all institutional and private investors with tools that allow them to analyse the factor exposure of their portfolio and to construct completeness portfolios based on this analysis that correspond to a search for better factor diversification.

With this in mind, at the end of 2019, Scientific Analytics will offer Scientific Factor Analytics and Solutions, accessible for free on the web and providing factor allocation diagnoses and allocation proposals that correspond to the academic state of the art in the area of factor diversification.

This tool will be open to all active or passive funds and indices available on the market and will also allow the investor's existing portfolios to be analysed in a fully confidential manner.

Drawn from a not-for-profit academic institution, Scientific Analytics intends to be a reference database accessible to all in the area of research for factor investing.