A Scientific Beta Publication

Scientific Beta
An SGX and EDHEC Venture

"Honey, I Shrunk the ESG Alpha": Reactions of Investment Professionals

November 2021

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Executive Summary

Our recent white paper "'Honey, I Shrunk the ESG Alpha": Risk-Adjusting ESG Portfolio Returns' (Bruno, Esakia and Goltz, 2021) questions the popular belief that ESG strategies generate outperformance. The paper shows that the performance of popular ESG strategies may appear attractive when looking at simple returns or CAPM alphas. However, most of this performance is due to equity style factors that can be mechanically constructed from balance sheet information. Such ESG strategies also have significant sector biases. When adjusting for industry and factor exposures, the ESG alpha disappears. We also show that ESG strategies do not provide protection against downside risk. In addition, their performance may have been overestimated because many studies that claim to find positive ESG alpha concentrate on a recent period that has been characterised by increasing investor attention to ESG.

This article reports results of a survey that Scientific Beta conducted to collect market participants' views on this white paper.

The survey begins by evaluating the level of agreement on the main finding of the paper, namely the absence of ESG alpha. The results of the survey show that most of the respondents agree that there is no sound evidence that ESG strategies offer any incremental value in terms of performance, and that most of the performance is captured by style factors. Respondents were also asked what may have motivated the omission of factor and sector exposure in the studies that we criticise. While most of the respondents did not express a specific opinion on this, the second most popular answer is that this omission may have been driven by commercial interests. The survey also tries to address a possible reason why investors might disagree with the findings of the paper, namely the specificity of our sample. Indeed, the results of the paper are based on the ESG scores of a single rating provider over a short period, and this may call into question the general validity of the results. Despite that, only 22% of the respondents believe that the sample-specificity of the results undermines the overall validity of our results, and only 17% of them believes that our finding of absence of outperformance is surprising.

In the conclusions of our paper, we argue that the absence of alpha is not a reason to abandon ESG strategies, because they can offer non-pecuniary benefits and protection against ESG related risks, such as climate risks. Most of the respondents agree with this view and believe that ESG strategies should indeed help investors to achieve objectives other than alpha. This view of market participants strengthens the case for using ESG investing not as another hunting ground for alpha, but as a means to address investors' non-pecuniary and risk-hedging objectives.

About the Authors

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Introduction

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Scientific Beta recently published a white paper questioning the validity of popular results documenting outperformance of ESG strategies[1]. Following its release, we conducted a survey of readers to ask them for their views on these findings and the implications for ESG investing.

Investment managers offering ESG products frequently claim that accounting for ESG information generates excess performance that does not reflect compensation for taking on additional types of risk. Investors widely share this view[2] that there is positive ESG alpha. Given infinite possibilities of how ESG leaders may be defined, as well as how investment strategies to emphasise these leaders may be constructed, it is not possible to assess such claims in a comprehensive manner. However, there are several empirical publications, popular among practitioners, that do claim to find positive ESG alpha. These papers use information from ESG ratings to build different types of ESG strategies, such as ESG momentum strategies, strategies tilting to environmental leaders or to overall ESG leaders.

Our paper "Honey, I shrunk the ESG Alpha" builds such strategies using data from a mainstream provider of ESG ratings. Our analysis starts by constructing ESG strategies that have been shown to outperform in popular papers. We assess the performance benefits to investors when accounting for sector and factor exposures, downside risk, and attention shifts.

We find that simple returns on ESG strategies look attractive, with annualised returns of up to almost 3% per year. But when accounting for exposure to standard factors, none of the strategies we construct to tilt to ESG leaders adds significant outperformance. Outperformance is due to equity style factors that are mechanically constructed from balance sheet information.

Our paper also shows that ESG strategies do not offer any significant downside risk protection either. Accounting for exposure of the strategies to a downside risk factor does not alter the conclusion that there is no value-added beyond implicit exposure to standard factors such as quality.

We further document that the recent strong performance of ESG strategies can be linked to an increase in investor attention. Flows into sustainable mutual funds show that attention to ESG has risen remarkably over the later period of our sample, from about 2013. We find that alpha estimated during low attention periods is up to four times lower than alpha during high attention periods. Therefore, studies that focus on the recent period tend to overestimate ESG returns.

We conclude that claims of positive alpha in popular industry publications are not valid because the analysis underlying these claims is flawed. Omitting necessary risk adjustments and selecting a recent period with upward attention shifts enables the documenting of outperformance where in reality there is none.

In our survey of market participants, we ask several questions regarding these conclusions. We assess the overall level of agreement of respondents with the main conclusions of the Scientific Beta paper. In addition, we ask participants about the implications of these findings for ESG investing. The remainder of this document analyses responses from this readers' survey.

1 - See Bruno, Esakia and Goltz (2021).
2 - A survey of institutional investors found that more than two thirds of institutions that adopted ESG investing believe that it has led to significant improvements of risk-adjusted returns; see State Street (2018, p. 11).

Survey Method and Respondents

Survey Method and Respondents

Scientific Beta sent out a questionnaire to readers of its newsletter to which the white paper had been distributed earlier. Our goal was to collect the views of finance industry practitioners on the topics discussed in the paper. We received responses from a total of 58 investment professionals who worked at institutions such as pensions funds and endowments, or at asset management firms and insurance companies. Typical roles include portfolio manager, chief investment officer, director of investment strategy research, head of asset allocation, head of ESG research, ESG analyst or research analyst. The respondents to this survey come from institutional investors managing assets worth over USD3.3 trillion, asset managers representing USD645bn in assets under management, banks that are responsible for over USD4.1 trillion in assets, consultants representing USD179bn and wealth managers covering assets worth USD7.7bn.

The questionnaire contained seven questions. Most were closed questions where respondents were either asked to reply whether they agree, disagree or are unsure about a given claim, or were asked to choose the best answer among several choices. To gather more qualitative feedback, we also asked one open question where respondents were asked to comment freely on the question. When analysing the results, we report the frequency of answers given as the percentage of respondents who chose the respective answer.

Do Market Participants Consider that the Idea of Positive ESG Alpha Indeed Lacks Support?

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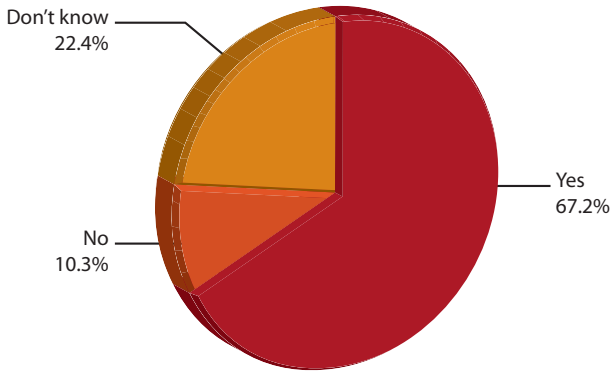
Exhibit 1 indicates overall agreement with the main conclusion of the paper, that there is no solid evidence of positive alpha for the type of strategies analysed. We find that two thirds of respondents agree with this conclusion while about one quarter are unsure. Only about one in 10 respondents disagree with the claim that there is no solid evidence supporting claims that ESG strategies generate positive alpha.

Exhibit 1: Agreement with conclusion on absence of alpha

After reading the "Honey, I Shrunk the ESG Alpha: Risk-Adjusting ESG Portfolio Returns" publication, do you agree with the authors that there is no solid evidence supporting claims that ESG strategies generate alpha or offer risk protection benefits?



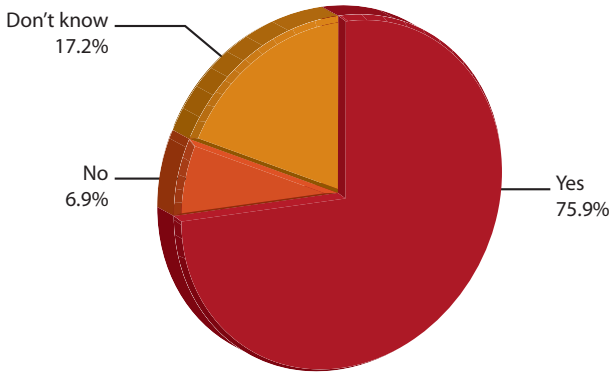
Of course, there might be very different reasons for readers to disagree with this conclusion, which is based on equity strategies constructed from commercial ESG ratings performance. Respondents may consider that these ESG scores do not reflect how investors should assess ESG criteria. Moreover, the study uses methods that are widespread in academic research and in investment practice to adjust performance for effects that can be explained by style factors and industries. Respondents may consider that such performance assessment methods, even though they constitute workhorses in empirical finance research and are widespread in industry practice, may not be relevant to them. There might also be other reasons for disagreeing. For example, respondents might have prior beliefs and the evidence presented in the paper may not be strong enough to lead to a substantial adjustment of these beliefs. Alternatively, respondents might consider other evidence that conflicts with findings in the paper. Overall, however, despite the limitations of the analysis in the paper, and despite the potential role of priors or other sources of evidence, two thirds of respondents voice agreement with the conclusion on the absence of alpha.

In addition to the headline conclusion, that there is no alpha, the Scientific Beta study showed that equity style factors and industries are the key drivers of ESG returns. In particular, most of the outperformance over the past decade of the ESG strategies we study can be linked to how these strategies tilt to equity styles (such as value, momentum and quality) or to industries (such as financials and technology). We asked investors whether they agreed with the finding that sectors and factors are the main drivers of ESG returns. Exhibit 2 shows results for this question.

Do Market Participants Consider that the Idea of Positive ESG Alpha Indeed Lacks Support?

Exhibit 2: Agreement with Identifying sectors and factors as main drivers of ESG strategy returns

The authors conclude that sector biases and exposures to equity style factors capture the returns of ESG strategies. Do you share this conclusion?



Only 6.9% disagree that factors and industries capture ESG returns. The high level of agreement with the attribution of ESG performance to factors and industries (see Exhibit 2) is very similar to the level of agreement on the headline conclusion on absence of alpha (see Exhibit 1).

Looking at the respondent-level data, however, it turns out that respondents are not necessarily leaning the same way on these two questions. Some respondents agree on the absence of alpha but not on sectors and factors as the main drivers; others disagree on the absence of alpha but agree that sectors and factors are the main performance drivers.

Overall, we see a large amount of agreement among respondents with the findings in the Scientific Beta study. A contribution of the study is to show that conducting risk adjustments may completely overturn results when analysing investment performance. Results may appear to imply outperformance that can be explained away with simple adjustments for industry and factor exposures. A relevant question, beyond the scope of our study, is to ask why such adjustments are sometimes omitted in industry publications that claim positive ESG alpha. We asked respondents about their opinion about the reasons behind omitting such adjustments. This was an open question and we managed to regroup answers into a few salient categories.

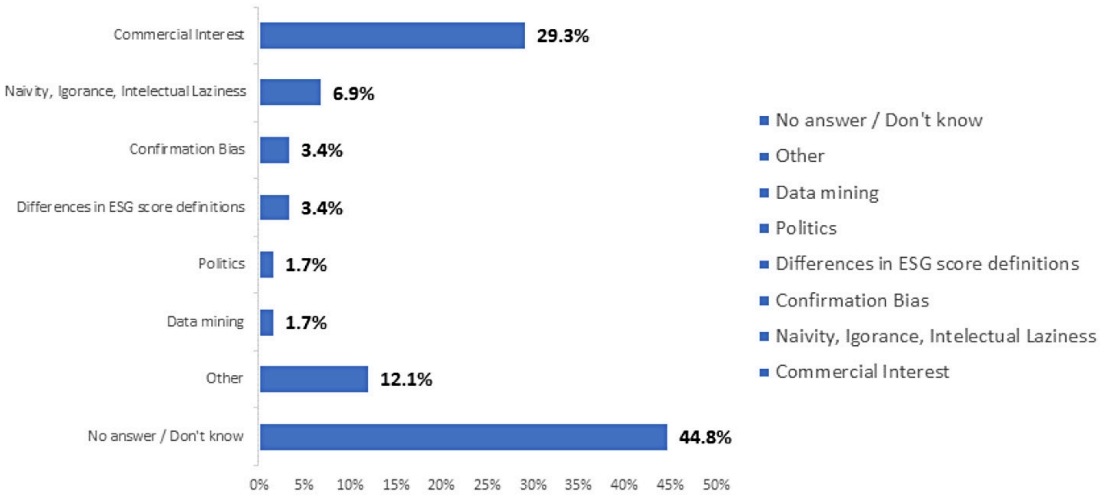
Exhibit 3 shows the percentage of respondents that mention one of the salient categories in their answer. It appears that a large number of respondents do not have a view on the reasons for omitted performance adjustments in popular papers: almost 45% of the respondents did not provide a specific reason. Among the reasons that were given, the most common answer (with 29% of respondents) is commercial interest. For example, some respondents stated their belief that "*marketing hype*" or a "*commercial push*" lie behind claims of ESG alpha. Another common answer (with about 7% of respondents) instead refers to some form of ignorance on the part of the researchers that may have hampered them in accounting for such adjustments. Another reason that

1. Definition of the Core ESG Filter

is given (about 3% of respondents) is "confirmation bias", which refers to the tendency that results that align with preconceived ideas may be published even if they have not undergone sufficient scrutiny. One respondent puts it thus: "*From a social/climate perspective, it is a good thing. It would be even better if we can also find risk-return evidence making the case for ESG, so even noisy evidence will be considered robust.*" Related to this answer, politics was also mentioned as a factor behind a lack of risk adjustments in studies of ESG performance. Respondents noted that "*it is difficult to navigate against the prevailing narrative*" or to question the "*common belief that ESG is beneficial no matter what*".

Exhibit 3. Reasons indicated by respondents for why industry papers do not conduct proper adjustments in performance measurement
(This data is based on answers to an open question. Answers were categorised manually. Sometimes respondents mentioned multiple reasons, so the percentages do not sum to 100%.)

In your view, why did the studies critised by the authors not take these factor or sector biases into account? Their author's naivety? Desire to obtain a positive result favourable to commercial interests at any costs?



Does the Absence of ESG Alpha Hold More Generally?

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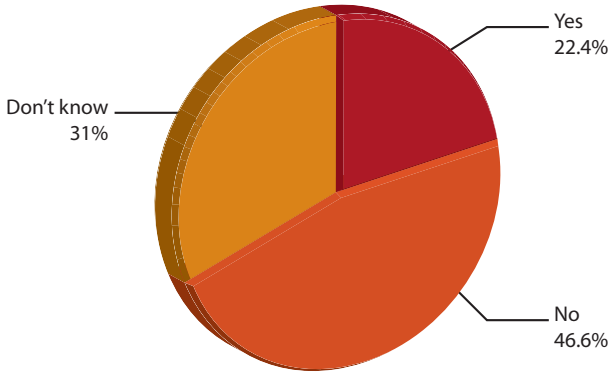
We mentioned above that some of respondents' disagreement with the conclusions of the study may be driven by its limitations, such as relying on a limited set of ESG scores from a single ratings provider and a particular set of performance assessment methods. A perhaps even more obvious limitation is that the study is also based on a particular sample. To be more specific, the paper analyses ESG strategies in large and mid-cap equities in the US and Developed markets outside the US, from 2008 to 2020. Of course, the conclusions derived from this sample do not necessarily apply to other samples, such as different time periods, different markets (e.g. emerging markets or small caps) or different asset classes.

The white paper emphasises this point stating: "*Readers need to bear in mind that our results are specific to our sample. We analyse data from a single ESG ratings provider, over a relatively short period.*" Exhibit 4 shows that, despite this explicit acknowledgment that results are sample-specific, only about 22% of respondents answer that this sample-specificity calls into question the validity of the conclusion that there is no positive alpha for ESG strategies.

Exhibit 4: Answers on sample-specificity as a limiting factor

Given that the results are specific to the authors' sample, does this call into question the validity of their conclusion that there is no positive alpha for ESG strategies?



Again, it should be stressed here that our empirical analysis only captures a common industry definition for ESG scores, relying on a particular ratings provider. It does not consider ratings across different providers. Of course, there are also other ways of creating ESG scores that are not reflected in currently available ESG ratings. Considering different ESG issues, measuring them in different ways and weighting them differently may well lead to different findings on alpha.

Our reason for using this particular set of ESG data is that it is widely used in investment practice and also underlies the analysis in many of the papers that conclude on positive alpha. For these widely used ESG ratings, when constructing investment strategies that tilt to ESG leaders and away from ESG laggards, we document an absence of significant positive alpha over the sample period. The vast majority of respondents to the readers' survey do not consider that the analysis of a specific sample calls into question the validity of this conclusion.

Does the Absence of ESG Alpha Hold More Generally?

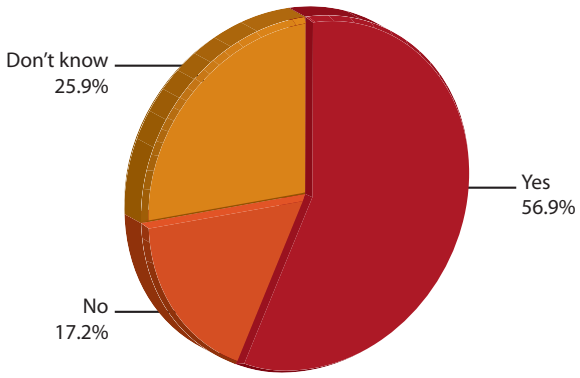
An important question one should ask when analysing a sample is whether conducting additional robustness checks would alter the results. As we argue in the paper, we understand that our alphas, if anything, are overstated. We test a total number of 24 different strategies, resulting from different ways of constructing the ESG strategies. Testing such a large number of strategies creates a substantial risk of falsely discovering alpha in-sample, even if there is no true effect. We do not account for this risk since we compute statistical significance using standard methods that assume that we conduct a single test. Even though we set the bar too low, there is not one among the 24 strategies that shows significantly positive alpha after adjusting for risk. Accounting for multiple testing would lead to even less support for positive alpha.

Perhaps more importantly, one should consider plausibility of the results: Given what we know about the preferences investors have for ESG and financial characteristics of their portfolios, and about how assets are priced, should ESG strategies lead to positive alpha? Whether or not the empirical findings on the absence of ESG alpha is a surprise clearly depends on what the analysis of these economic mechanisms tells us.

Exhibit 5 shows the answer of respondents to the question of whether or not the finding of absence of alpha is actually a surprise.

Exhibit 5: Answers on whether or not finding of positive alpha is a surprise

Do you agree that the authors' finding that there is no positive alpha is not a surprise?



We find that only about 17% of respondents consider that absence of positive alpha is a surprise.

In the paper, we argue indeed that the findings are not surprising. Instead, our finding that there isn't any positive alpha appears highly plausible when considering the economic mechanisms driving investment performance. In somewhat competitive financial markets, investors do not easily gain an information advantage. Even if ESG leaders show better corporate financial performance, this does not increase their expected returns if investors know about this relationship (Bebchuk, Cohen and Wang, 2013). In such markets, investors face trade-offs. Theory suggests that investors forego returns by tilting to ESG leaders because they receive other benefits. Investing in ESG leaders offers

Does the Absence of ESG Alpha Hold More Generally?

non-pecuniary benefits, such as aligning investments with norms (Pastor, Stambaugh and Taylor, 2020), and may allow hedging certain types of risks, such as litigation or climate risk. Such benefits offset lower expected returns.

What Benefits Should Investors Look Out for when Considering ESG Strategies?

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Given that claims about positive ESG alpha may be greatly exaggerated, investors may ask why they should consider ESG investment strategies. The Scientific Beta study emphasises that absence of alpha is not a thumbs down for ESG strategies. Instead, the study gives the thumbs down for a practice which consists of documenting outperformance where there is none by omitting necessary risk adjustments.

Concerning ESG strategies, the study's findings question the widespread practice of using ESG as an alpha signal. However, they do not question the value-added of such strategies on other dimensions. We argue that investors should ask how ESG strategies can help them to achieve objectives other than alpha, such as aligning investments with their values and norms, making a positive social impact, and reducing climate or litigation risk. We argue that investors would benefit from further research on these important questions.

Exhibit 6 shows that respondents agree to a large extent to this proposal that ESG strategies can generate value by addressing issues other than alpha. In addition, Exhibit 7 shows that a striking majority of respondents agrees that investors should ask how ESG strategies can help them to achieve such objectives. Only two out of 58 respondents disagree with this idea (3.4%).

Exhibit 6: Agreement that ESG investing offers benefits other than alpha

Would you agree that investing in ESG leaders offers non-pecuniary benefits, such as aligning investments with norms, and may allow certain types of risks, such as litigation or climate risk, to be hedged, and that such benefits offset lower expected returns?

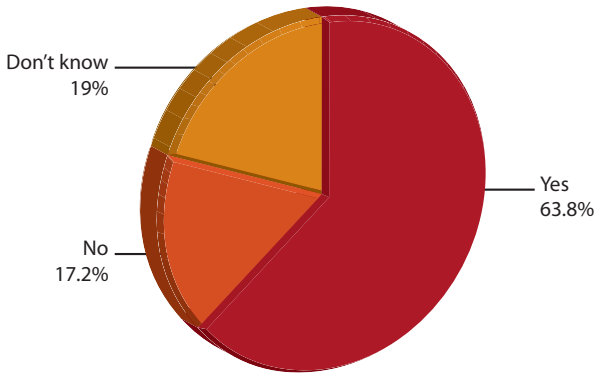
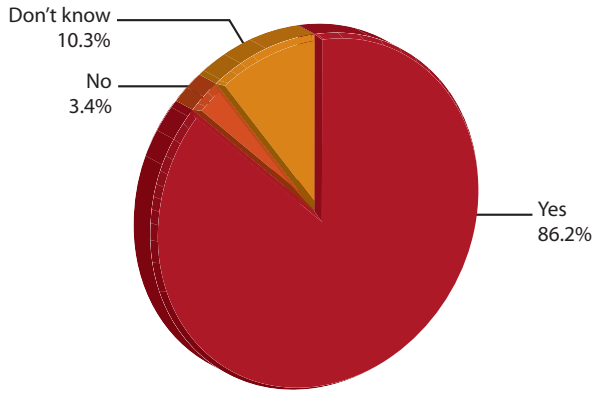


Exhibit 7: Agreement that investors should consider benefits other than alpha

Do you agree that investors should ask how ESG strategies can help them to achieve objectives other than alpha?



Conclusion

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Our study of ESG performance comes to a clear conclusion: When using standard risk adjustments in performance measurement, widely cited findings on positive ESG alpha disappear. Such a clear conclusion however will not, and is not meant to, close the case. There will always be debate over investment performance. Models that separate abnormal performance (or alpha) from normal performance (or beta) are imperfect. Economic models that establish the mechanisms of outperformance necessarily rely on assumptions. However, it does currently appear that the case for positive ESG alpha seems weak compared with other, better-established ways of generating outperformance.

Irrespective of performance, a key driver of the adoption of ESG investing is that non-pecuniary and risk characteristics of their portfolios matter to investors. Rather than turning ESG investing in another hunting ground for alpha, asset managers should perhaps take such non-pecuniary and risk objectives seriously. Judging from our survey respondents, focusing on objectives other than alpha is a credible value proposition for ESG investing.

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About Scientific Beta

About Scientific Beta

Scientific Beta aims to encourage the entire investment industry to adopt the latest advances in smart factor and ESG/Climate index design and implementation. Established in December 2012 by EDHEC-Risk Institute, one of the top academic institutions in the field of fundamental and applied research for the investment industry, as part of its mission to transfer academic know-how to the financial industry, Scientific Beta shares the same concern for scientific rigour and veracity, which it applies to all the services that it provides to investors and asset managers. We offer the smart factor and ESG/Climate solutions that are most proven scientifically, with full transparency of both methods and associated risks.

On January 31, 2020, Singapore Exchange (SGX) acquired a majority stake in Scientific Beta. SGX is maintaining the strong collaboration with EDHEC Business School, and principles of independent, empirical-based academic research, that have benefited Scientific Beta's development to date.

Scientific Beta has developed two types of expertise over the years corresponding to two major concerns for investors:
- Expertise in the area of Smart Beta, and more particularly factor investing
- Expertise in the area of ESG, and particularly Climate investing

To date, Scientific Beta is offering two major types of climates objectives:

Since 2015, offerings with financial objectives respecting ESG and Carbon constraints. These offerings correspond to the application of exclusion filters, the design of which allows the financial characteristics of the index to be conserved. This involves reconciling financial objectives and compliance with ESG norms and climate obligations. As such, the Core ESG, Extended ESG and Low Carbon filters can be integrated into smart beta or cap-weighted offerings in line with the financial objectives targeted by the investor.

Since 2021, Scientific Beta has been offering indices with pure climate objectives (Climate Impact Consistent Indices) that allow climate exclusions and weightings to be combined in order to translate companies' climate alignment engagement into portfolio decisions.

Since it was acquired by SGX in January 2020, Scientific Beta has accelerated its investments in the area of Climate Investing as part of the SGX Sustainable Exchange strategy, which is mobilising an investment of SGD 20 million. In addition, EDHEC and Scientific Beta have set up a EUR 1 million/year ESG Research Chair at EDHEC Business School.

With a concern to provide worldwide client servicing, Scientific Beta is present in Boston, London, Nice, Singapore and Tokyo. As of December 31, 2020, the Scientific Beta indices corresponded to USD 57.7bn in assets under replication. Scientific Beta has a dedicated team of 55 people who cover not only client support from Nice, Singapore and Boston, but also the development, production and promotion of its index offering. Scientific Beta signed the United Nations-supported Principles for Responsible Investment (PRI) on September 27, 2016. Scientific Beta became an associate member of the Institutional Investor Group on Climate Change (IIGCC) on April 9, 2021.

About Scientific Beta

Today, Scientific Beta is devoting more than 40% of its R&D investment to Climate Investing and more than 45% of its assets under replication refer to indices with an ESG or Climate flavour. As a complement to its own research, Scientific Beta supports an important research initiative developed by EDHEC on ESG and climate investing and cooperates with V.E and ISS ESG for the construction of its ESG and climate indices.

On November 27, 2018, Scientific Beta was presented with the Risk Award for Indexing Firm of the Year 2019 by the prestigious professional publication Risk Magazine. On October 31, 2019, Scientific Beta received the Professional Pensions Investment Award for "Equity Factor Index Provider of the Year 2019."

PRI Principles for Responsible Investment

IIGCC
The Institutional Investors Group on Climate Change

Risk Awards 2019 Winner
Scientific Beta
Indexing firm of the year

PROFESSIONAL PENSIONS
INVESTMENT AWARDS 2019
WINNER
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