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**Press Release London, Nice, Paris – 10 July 2024**

**Aggressive Climate Policies Needed to Preserve Global Equity Values, Warns New Study**

***New EDHEC-Risk Climate Impact Institution research:***

* ***Extends valuation techniques to estimate the effect on global equity values of climate and economic uncertainties, financial contingencies, transition costs and physical risks.***
* ***Evaluates the impact on global equity values of different greenhouse gas emissions trajectories under multiple climate and economic scenarios.***
* ***Identifies aggressiveness of emissions abatement, location of climate tipping points, and ability and willingness*** ***of central banks to lower rates during economic distress as key impact factors of equity valuation.***
* ***Indicates that prompt and robust abatement action is needed to keep losses below 10%. Conversely, over 40% of global equity value is at risk if decarbonisation efforts do not accelerate, with losses exceeding 50% when climate tipping points are factored in.***

In a new study, [*How Does Climate Risk Affect Global Equity Valuations? A Novel Approach*](https://climateimpact.edhec.edu/sites/ercii/files/pdf/ercii_publication_how_does_climate_risk_affect_equity_valuations.pdf), EDHEC-Risk Climate Impact Institute addresses key limitations of current climate-aware valuation approaches to produce novel insights. The paper, conducted within the research chair established by EDHEC Business School and Scientific Beta, reveals that the impact of climate risk on global equity valuation can be significant, especially in scenarios with limited climate action.

Key Findings:

* **The uncertainty of climate and economic outcomes and the state dependence of discounting** are two key and much neglected contributors to changes in equity valuation.
* The magnitude of losses depends on the **aggressiveness of emission abatement policy**; the **presence or otherwise of tipping points**; on the extent of Central Banks’ willingness and ability to **lower rates in states of economic distress**.
* Severe impact on equity valuation can be obtained with very plausible combinations of policies and physical outcomes; and there is considerably more downside than upside risk – **over 40% of global equity value is at risk unless decarbonisation efforts accelerate and losses could exceed 50% with near climate tipping points**.
* **Prompt and robust abatement action is needed** to keep losses below 10%.

Methodological Innovations:

* **Fully Probabilistic Approach**: incorporating climate and economic uncertainties into a probabilistic framework for a more realistic and comprehensive evaluation of potential outcomes.
* **State-Dependent Discounting:** recognising that physical damages from climate change impair cashflows in a state-dependent manner and allowing discount factors to be determined by economic conditions and damages, which highlights the neglected role of state-dependent discounting.
* **Joint Analysis of Transition Costs and Physical Risks:** upgrading a popular integrated climate economics assessment model to estimate the effect of transition costs (associated with regulatory measures to curb greenhouse gas emissions) and physical damages on the value of global equity stock, providing a unified view of climate-related financial risks.

**Frédéric Ducoulombier, Director of EDHEC-Risk Climate Impact Institute** states:

“The research team led by Professor Rebonato has upgraded mainstream integrated assessment models to incorporate the progress of climate science and make them fit for financial applications. By modelling the considerable uncertainty in the physical and economical dimensions of climate change and linking it to top-down equity valuation, this study debunks the notion that the value of financial assets may be immune to climate changes and provides additional support for bold climate action.”

**Professor Ricardo Rebonato, Scientific Director of EDHEC-Risk Climate Impact Institute**, adds:

“These results–obtained with mild assumptions–underline the importance of uncertainty and state-dependent discounting for climate-aware equity valuation. Our approach shows that it is possible and fruitful to integrate climate risks into financial analysis and we will be working further to develop theoretically solid and practically implementable tools for climate-aware investment management.”

Download the full paper here:

[How Does Climate Risk Affect Global Equity Valuations? A Novel Approach](https://climateimpact.edhec.edu/sites/ercii/files/pdf/ercii_publication_how_does_climate_risk_affect_equity_valuations.pdf)



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**About the research chair**

Jointly endowed by EDHEC Business School and Scientific Beta, the “Upgrading Climate Scenarios for Investment Management” research chair at the EDHEC-Risk Climate Impact Institute aims to address the pressing need for specialised tools to integrate climate risks into investment management.

Climate change is becoming increasingly tangible, manifesting in more frequent and severe extreme weather events, but the majority of the resulting damage to nature, people, and economies is yet to come. This renders historical data and traditional statistical estimation methods largely irrelevant for assessing and managing climate risks. Consequently, climate scenario analysis and stress testing have become central components of the investor toolbox.

In their current state, these tools are primarily crude what-if instruments designed to aid long-term strategic thinking about uncertainty and identify vulnerabilities to potential shocks. Substantial work is needed to enhance and adapt climate scenarios for risk and investment management purposes. The critical challenge lies in embedding scenario analysis within a coherent probabilistic framework, enabling finance professionals to compute relevant risk and return metrics.

[Professor Riccardo Rebonato](https://www.edhec.edu/en/research-and-faculty/faculty/professors-and-researchers/riccardo-rebonato), Scientific Director at the EDHEC-Risk Climate Impact Institute, leads this research effort. A nuclear physicist by training, he has made significant contributions to quantitative portfolio theory, risk modelling, and management, and has held senior research positions in the financial industry.

**About EDHEC-Risk Climate Impact Institute**

**Delivering Research Insights on Climate Risk to the Financial Community**

EDHEC-Risk Climate’s mission is to help private and public decision makers manage climate-related financial risks and effectively use financial tools to support the transition to low-emission and climate-resilient economies.

Building upon the expertise and industry reputation developed by EDHEC-Risk Institute, EDHEC-Risk Climate aims to become the leading academic reference point, helping long-term investors manage the risk and investment implications of climate change and climate action.

We also strive to help policymakers and financial supervisors assess climate-related risks within the financial system. Our goal is to provide tools to mitigate those risks and optimise the financial sector's contribution to climate change mitigation and adaptation.

Our ambitions are centred around two long-term research programmes and a policy advocacy function.

The research programmes look at the **Implications of Climate Change on Asset Pricing and Investment Management** and the **Impact of Finance on Climate Change Mitigation and Adaptation**. The policy advocacy function is directed towards regulators and standardisation authorities.

Currently, the Institute brings together a dozen faculty members, researchers, and staff, supported by EUR20 million from the EDHEC Endowment Fund.

Our philosophy emphasises validating research through publication in scientific journals and making this research accessible to professionals. We actively contribute to industry debates via position papers and published studies, online courses and webinars, and contributions to global conferences.

We disseminate our research and insights to the finance industry via our website <https://climateimpact.edhec.edu>, a quarterly newsletter distributed to more than 100,000 readers, and regular contribution to trade magazines.

Additionally, the Institute supports the integration of climate issues by the School’s other research centres and its business ventures. Notably, we collaborate with the [EDHEC Infra & Private Assets Research Institute](https://edhec.infrastructure.institute/) to develop knowledge on decarbonisation and adaptation across infrastructure sectors. The Institute also hosts the EDHEC Climate Finance School, an initiative aimed at accelerating the consideration of climate issues in finance by informing and training professionals and future professionals based on advanced research and best industry practices.

**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 31 January 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 SGD20 million. In addition, EDHEC and Scientific Beta have set up a EUR1 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. 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 27 September 2016. Scientific Beta became an associate member of the Institutional Investor Group on Climate Change (IIGCC) on 9 April 2021, and a member of the Investor Group on Climate Change (IGCC) on 28 November 2022.

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.

Scientific Beta was named “Best Specialist ESG Index Provider” at the ESG Investing Awards 2022, which celebrate excellence in ESG research, ratings, funds, and products.