

# The Precision Convergence Science and Innovation – FINANCE Webinar Series

A Capacity Building Collaborative for Inventing ‘One-World’ Investment and Policy Solutions for Lifelong Wellness and Sustainable Economic Growth

## Net-Zero Carbon Investment Portfolio Alignment

*Harnessing the Power of Finance for Tackling Climate Change Before the Window Closes*



**Frederic Samama** is Head of Strategic Development at Sustainable1, S&P Global. He has a PhD in Economics (Paris Dauphine University-PSL), MA in Philosophy (Pantheon-Sorbonne University), Stanford Executive Program. Mr. Samama started his career at JP Morgan in Paris. He then oversaw Corporate Equity Derivatives at Cr dit Agricole Corporate Investment Banking in Paris and in New York. There, he developed and implemented the first international leveraged employee share purchase program, a system now widely used by French companies. He then joined leading European asset manager, Amundi. There, he reorganized and developed the institutional clients coverage. He built Amundi’s green finance franchise by pioneering the first mainstream equity low-carbon indexes. He also launched the largest green bond fund of its time to finance green infrastructures in Emerging Markets. Mr. Samama also co-launched the first coalition of institutional investors committed to decarbonizing their portfolios, which was selected to represent the entire finance industry during the COP21 Action Day. Mr. Samama founded the

Sovereign Wealth Fund Research Initiative in 2009, a pioneer academic center dedicated to SWFs and sustainability. He co-edited a book on long-term investing with Nobel Prize Laureate Joseph Stiglitz and Professor Patrick Bolton and has published numerous papers on green finance (e.g., “The Green Swan, central banking and financial stability in the age of climate change”, “Hedging Climate Risk”). He is currently a visiting professor at Sciences Po, Paris and Columbia University, New-York. Mr. Samama is regularly invited to comment publicly on ESG and climate change including before the US Senate. His philanthropic activities include support for organizations such as the NGO Positive Planet, which he presided in the US between 2009 and 2013. Mr. Samama is a member of the Scientific Committee of the French Prudential Supervision and Resolution Authority (ACPR). He has been appointed to the Independent High-Level Expert Group on Climate Finance managed by Lord Stern. He is a member of the One Planet Lab and has advised the Bank for International Settlements (BIS).

May 16, 2024

11AM – 1PM EST

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(2 hrs in length)

*Chair: Laurette Dub  (Scientific Director of MCCHE)*

*Co-Chair: David Schumacher (Scientific Director of Desmarais Global Finance Research Centre)*

**ABSTRACT:** Although carbon neutrality is a buzzword in many industries and sectors of the world economy, there is still a debate on the meaning for the financial industry. In line with a science-based carbon budget framework defined by the Intergovernmental Panel on Climate Change (IPCC), this keynote presentation outlines a simple and robust methodology to align investment portfolios with maintaining a temperature rise below 1.5 C with 83% probability. We show how to keep the tracking error at a negligible level. This approach works for both passive and active investment managers. It also establishes an exit roadmap for carbon-intensive corporates, thereby generating a form of competition to decarbonize within the many social and economic industries and sectors. Four sources of risks are discussed: uncertainty around a rapidly shrinking carbon budget, time impacts on decarbonization rates, implementation risk due to market-wide selling pressure, and uncertainty about taxes on polluting companies. Being carbon neutral is then a budget that the planet can spend. If it is true for the planet, it could be true for the proxies of the planet (i.e., the economies) and the proxies of the proxies (i.e., the diversified portfolios). Then, being carbon neutral means to reduce by 12%/year the volumes of CO2 in 2022. For investors who would wait, it becomes -20%/year in 2025 and -47%/year in 2028. Although IPCC had always said “we can tackle climate change, but the window is closing”, for the first time a financial methodology integrates this cost of delay.

**HIGH-LEVEL PANEL DISCUSSION:** A panel comprising scientists, finance and business leaders, as well as policy experts will discuss how this approach can accelerate what investment portfolio and other financial and economic tools and policy can contribute to real world solution at scale and on a time horizon that align with the planet’s. The discussion will fully acknowledge that the developed and developing worlds share the same planet with its resource constraints and possibilities.

**ABOUT THE SERIES:** The Precision Convergence Science and Innovation FINANCE webinar series is a collaborative capacity-building activity that utilizes the finance sector as an entry point to accelerate the design as well as short- and long-term performance of project portfolios that target achievable and time-bound real-world solutions, with the ultimate goal of resetting the world from a 1st-industrial-revolution mode of economic convergence - where the Rest converged with the West - to a 4th-industrial-revolution convergence economy. In this new economy, the digital transformation of science and society, combined with human empathy, creativity, and entrepreneurship, will serve as a catalyst for the convergence of human and planetary health with sustained inclusive growth. The keynote speakers and panelists of this webinar series aim to advance behavioral, social, data, and complexity sciences, recognizing their centrality in the implementation of “hard science”-based solutions. By utilizing a computational approach, they facilitate the convergence of different fields around concrete real-world solutions instead of competing against each other. The approach is modular, as re- search and action at different scales employ various methods to build interoperable integrative application tools and data platforms that can communicate and connect based on standards and protocols.

## CO-CHAIRS:



**Laurette Dubé**, initially trained as a nutritionist, also holds degrees in finances (MBA), marketing (MPS), and behavioral decision-making/consumer psychology (PhD). Dr. Dubé is Full Professor at the Desautels Faculty of Management, McGill University. Her research focuses on the study of affects, behavioral economics, and neurobehavioral processes underlying consumption, lifestyle, and health behavior. Her translational research examines how such knowledge can inspire effective interventions. She is also the founder and scientific director of the McGill Centre for the Convergence of Health and Economics, a unique initiative to push the boundaries of science to tackle societal and economic challenges and foster individual and collective health and wealth.



**David Schumacher** is an Associate Professor and Desautels Faculty Scholar in the Finance Area at the Desautels Faculty of Management and the Director of the Desmarais Global Finance Research Center. His research is primarily concerned with themes in global investment management, including, for example, the portfolio choice and performance of international institutional investors or the financial market implications of the rise of large asset management firms or the rise of passive investing. His research has been published in leading academic journals including the *Journal of Finance*, *The Review of Financial Studies*, and the *Journal of Financial and Quantitative Analysis* and covered by leading media outlets including *The Economist*. David's teaching is focused on classes in Mergers & Corporate Reorganizations and prior to joining Desautels, he obtained a PhD in Finance from INSEAD.

## PANELISTS:



**Olaf Weber** is a Professor at the Schulich School of Business where he holds the CIBC Chair in Sustainable Finance. He is a Senior Fellow of CIGI and an adjunct professor at the School of Environment, Enterprise and Development (SEED) at the University of Waterloo. His research and teaching interests address the connection between financial sector players, such as banks and sustainable development and the link between sustainability and financial performance of enterprises. His research focus is on the impacts of the financial industry on sustainable development, the role of voluntary and regulatory mechanisms for the financial sector to become more sustainable, social banking and impact investing, the materiality of sustainability risks and opportunities for investors and artificial intelligence as a tool to analyze environmental, social, and governance (ESG) performance.



**Adrian Vetta** received the Ph.D. degree in applied mathematics at the Massachusetts Institute of Technology (MIT), Cambridge, in 2002, under the supervision of S. Vempala. He is currently an Assistant Professor in the Department of Mathematics and Statistics and in the School of Computer Science, McGill University, Montreal, QC, Canada. His research interests include network and combinatorial optimization, graph theory, and algorithmic game theory.



**Iwan Meier** is Full Professor of Finance at HEC Montréal, Canada, and holds the iA Financial Group Chair in Sustainable Finance. He is member of the Directory committee and researcher of the Institute Michael D. Penner on ESG, member of the Retirement and Savings Institute (RSI), the Canadian Derivatives Institute (CDI), and the Pôle Ideos (Social Impact Center) at HEC Montréal. Prior to joining HEC Montréal, Iwan Meier was professor at the Kellogg School of Management in Chicago. His fields of research are sustainable finance, corporate investments decisions and mutual fund and hedge fund performance. His work has been published in leading journals including the *Journal of Financial Economics*, the *Annual Review of Financial Economics*, and the *Journal of Corporate Finance*. He also holds the GARP Sustainability and Climate Risk (SCR) Certificate and the CFA Institute Certificate in ESG Investing



**Zeeshan Rashid** comes with over 23 years of industry experience in Banking and Consulting. Zee has been with Tata Consultancy Services (TCS) for over 18 years now. In his current role heads the Advisory for Risk Compliance, and Climate Change. His responsibilities include domain leadership in sales and pre-sales, strategic advisory, mentoring, thought leadership, and consulting. He has authored number of white papers on Climate Change, LIBOR Transition, Liquidity Risk, Stress Testing, Value at Risk, and Finance and Risk Integration, which have been well accepted in the industry. His chapter on Technology Enabled Collaborative was chosen to be published in the world first crowdsourced book – ‘The RegTech Book’, Wiley Publications. Zee started his career with ING Bank and was one of their first derivatives traders in India. He was responsible for setting up and successfully running the derivatives trading desk. Zee is a certified FRM (GARP), SCR (GARP) and holds a Masters Degree in Business Administration. He has been a speaker at various seminars and B-schools



**Jan Mahrt-Smith** is an Associate Professor of Finance at the Rotman School of Management of the University of Toronto, and he is cross-appointed to the School of the Environment. He teaches across several graduate and undergraduate programs as well as executive education, and he is the academic director of the Rotman-Bocconi Global Executive MBA Program. His primary teaching is in Sustainable Finance, but he also continues to teach courses in Corporate Finance. Jan has published in top peer reviewed academic journals and won the highest teaching awards from the students and from the Dean’s Office. His consulting clients have included Citibank, Scotia, and Corus Entertainment. Jan holds a PhD in Financial Economics from M.I.T. and was previously on the faculty of the London Business School. At the University of Toronto Jan was a member of the Governing Council from 2015 until 2023, and he remains on the President’s Advisory Committee on Climate Change and Sustainability. He commonly participates as a speaker in academic and practitioner events on Sustainable Finance.



**Gustavo Bernal Torres** joined BMO Global Asset Management as VP, ESG Integration in March 2023 and is focused on the integration of material ESG risks and opportunities in the investment analysis process across asset classes. Prior to BMO GAM, Gustavo was the Head of ESG Integration at Invaris Consulting, where he helped asset owners to incorporate ESG factors in investment analysis, decision-making, and operational processes. He founded TerraBlanca Impact Capital, an impact investment fund in Latam and has also worked as an investment management consultant in Singapore and as a fixed income portfolio manager. Gustavo is a CFA charterholder, holds an MBA from the National University of Singapore (NUS) and a BBA from the National University of Colombia.