



Exploring Ortec Finance: A Pioneer in Investment Decision Technology

An Interview with Hens Steehouwer, Chief Innovation Officer, Ortec Finance



CIO VIEWS

Hens Steehouwer

Chief Innovation Officer
Ortec Finance

Ortec Finance traces its origins back to the Econometric Institute of Erasmus University Rotterdam in The Netherlands. In today's parlance, Ortec Finance can be considered a spin-off from Erasmus University, a transformation that began in 1981, over four decades ago. This robust academic foundation is reflected in the company's name, where "OR" signifies Operations Research and "TEC" stands for Technology.

Currently, Ortec Finance stands as a global leader in investment decision technology, catering to both institutional and private wealth investors. Their clientele spans a broad spectrum, including pension funds, insurers, sovereign wealth funds, endowments, and asset managers. The company's technology aids these investors in making strategic investment decisions, monitoring risk, ensuring the suitability of strategies over time, and measuring and attributing the performance of these strategies to specific risk sources and decisions.

Headquartered in The Netherlands, Ortec Finance supports its clients from offices in London, Zurich, Toronto, Melbourne, New York, and Singapore.

Introducing Hens Steehouwer: A Journey Through Innovation

I am an econometrician by training, with a PhD from the Free University of Amsterdam. My career at Ortec Finance began over 25 years ago as my first job, and I have stayed ever since. At that time, I was the 15th employee of what has now grown into a 350-strong global team. My focus has always been on innovation and R&D, particularly in the field of economic scenario modeling, which is crucial for our forward-looking investment decision and risk management solutions. As of this year, I have taken on the role of Chief Innovation Officer to ensure we continue providing clients with the most accurate and relevant investment risk-return analytics available. This includes integrating climate risk more broadly into our solutions and leveraging advancements in AI to help clients navigate increasingly complex investment environments.



Climate Scenario Modeling: A Critical Tool for Investors

In recent years, climate scenario modeling has become a focal point of our innovation efforts. Climate change poses a unique and complex risk that impacts every step of the investment decision process. Unlike traditional economic and investment risks, climate change is characterized by what is known as 'fundamental uncertainty', that cannot be resolved through standard probability distributions.

Following the Intergovernmental Panel on Climate Change (IPCC), we advocate for classical scenario analysis using deterministic, narrative-based climate scenarios to navigate such uncertainty. This approach helps explore potential future events and impacts in a structured manner, supporting decision-making and future preparedness.

The Ortec Finance Climate Scenarios, developed together with our partner Cambridge Econometrics, translate assumptions about transition risk, physical risk, and financial market responses into potential impacts by asset class, region, and sector. They can be used alone or in combination with our stochastic scenarios and portfolio simulation models to help guide investment decisions. European insurers also use these scenarios for their ORSA (Own Risk and Solvency Assessment) reporting under Solvency II. The 2024 release includes a Delayed Net-Zero scenario and introduces climate tipping points in its High Warming scenario.

Strategic Asset Allocation in the Face of Climate Change

In an increasingly complex and uncertain world, a stochastic scenario approach helps investors navigate risk-return trade-offs at the strategic asset allocation level. This method offers the flexibility to simulate the dynamics of an investor's portfolio or balance sheet realistically and accurately. For example, for insurers whose balance sheets are often complex, such models can integrate various elements, including different types of insurance liabilities, regulatory frameworks, and a wide array of asset classes and investment strategies.

While insurers are becoming more "asset aware" due to industry trends and shifting pension schemes, the challenge lies in incorporating climate change into these analyses. Traditionally at institutional investors, climate risk analyses were siloed within sustainability teams, but this is changing as insights from climate risk are integrated with traditional investment risk analyses.

One challenge this brings, resulting from the fundamental uncertainty of climate change, is the difficulty of assigning probabilities to climate scenarios. Another is ensuring consistency between traditional risk-return assumptions and climate scenarios. Our solution integrates climate change into stochastic economic scenarios, creating the industry's first integrated economic and climate risk management tool. By mapping data from reference climate scenarios onto our stochastic scenarios, we can provide a more comprehensive view of potential impacts.

The Role of Innovation in Navigating Emerging Challenges

Innovation is crucial for any company to remain relevant and successful in a world that continually evolves. At Ortec Finance, innovation is part of our DNA, stemming from our academic roots. We follow a structured innovation framework, moving from initial ideas through experimentation to implementation. This approach ensures that our innovations are desirable to clients, feasible to build, and viable as business solutions.

We also engage with academic research, collaborating with various institutions and integrating cutting-edge ideas into practical solutions for our clients. This ongoing commitment to innovation enables us to stay at the forefront of investment technology.



AI in Strategic Asset Allocation: Unleashing New Potential

AI holds significant promises for enhancing efficiency and quality of decision-making in the investment technology space. One promising application is in strategic asset allocation (SAA) and portfolio optimization. Traditional optimization methods often fall short in handling the complexity of real-world investment strategies, but AI, particularly reinforcement learning (RL), offers a solution.

RL, a machine learning technique that mimics human trial-and-error learning, can optimize complex investment strategies by training on synthetic data generated through stochastic scenario approaches. This combination allows for the evaluation of alternative portfolios against relevant detailed risk-return metrics, helping investors identify the most efficient and effective strategies.

At Ortec Finance, we have been researching this integration of stochastic scenarios and RL algorithms for several years now. Recent successful pilots with clients confirm the potential of this approach to transform the way investors determine their strategic asset allocation, by identifying better strategies in a more efficient way. We are therefore currently preparing to make this novel approach available to our broader client base.

Conclusion

Innovation at Ortec Finance is not just about keeping up with the times but about leading the charge in addressing the complex challenges that investors face today. From climate scenario modeling to leveraging AI in strategic asset allocation, we are committed to providing our clients with the tools they need to navigate an increasingly complex and uncertain world.

More information?

If you have any questions regarding this article contact Hens Steehouwer via the contact details below.



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