Q&A with Ortec Finance

The Importance of Looking Ahead for Defined Benefit Plan Sponsors

Ortec Finance B.V.

Headquarters	Rotterdam, The Netherlands
Year Founded	1981
Assets Under Advice	$15 Trillion USD
Number of Clients	600+
Website	www.ortecfinance.com

** As of March 31, 2023*

Ton van Welie

Chief Executive Officer

Ton van Welie has been with Ortec Finance for almost thirty years. As CEO since 2006, Ton oversees the daily operation of the leading provider of solutions for risk and return management for pension plans, insurers, sovereign wealth funds, asset and private wealth managers. Ton's accomplishments include guiding Ortec Finance through a successful global expansion strategy, overseeing Ortec Finance's growth from 50 to 350 employees, and seeing the client base grow to over 600 companies.

BCG: *Who is Ortec Finance?*

van Welie: At Ortec Finance our core belief is that our econometric and financial models improve financial decision-making. Whether you are an institutional asset owner responsible for asset-liability management, risk management, portfolio construction or performance measurement and attribution, we provide creative and innovative solutions to your challenges. At Ortec Finance we have a comprehensive suite of tools designed to help asset owners manage the complex landscape of financial decision-making.

We're a 35-year-old fintech whose clients have over $15 trillion in assets under management (AUM). Serving over 600 clients in 20 countries, we have built a strong reputation for empowering decision-makers and maintaining stable and enduring relationships with our clients. In fact, we have a retention rate that is almost 100% over the past three years.

BCG: *Can you tell us more about what it is that Ortec Finance does?*

van Welie: Put simply, we model and map the relevant uncertainties in order to help asset owners monitor their goals and decisions. We play a vital role in helping our clients improve investment decision-making and manage uncertainty. We do that by designing, building and delivering high quality software and models that help to reduce the complexity associated with financial decision-making. Our clients in North America include both public and private-sector pensions, sovereign wealth funds, endowments, and foundations, including many of the largest asset owners and pension plans in the world.

BCG: *A big part of your software and services involves creating economic scenarios to support investment decisions and risk management. Why work with scenarios?*

van Welie: Asset owners have to make decisions now that will affect their ability to meet their long-term future goals -- all while staying within the levels of risk and cash contributions that are tolerable for them. Scenarios can serve as a vital bridge, lessening the uncertainty between present choices and long-term goals. At Ortec Finance we have been creating our own scenarios over the past decades using our unique Economic Scenario Generator.

BCG: *What is an Economic Scenario Generator?*

van Welie: Ortec Finance's Economic Scenario Generator is a proprietary frequency domain methodology[1]. It is combined with dynamic factor models in order to capture the complex realities of financial and economic markets for all horizons and asset classes at any point in time. The Ortec Finance Economic Scenario Generator provides realistic stochastic risk and return scenarios for a client's relevant time horizons and balance-sheet level applications. Consolidated within a single environment, it promotes consistency and efficiency to enterprise-wide investment decision-making and risk management.

BCG: *If this is a stochastic model, can you predict outcomes?*

van Welie: The answer is nuanced: Ortec Finance doesn't predict outcomes - we do, however, model probabilities. Our proprietary solution, *GLASS*, powered by our Economic Scenario Generator, is a tool used by pension plans to

1 A frequency domain methodology refers to the analysis of mathematical functions or signals with respect to frequency rather than time.

conduct asset liability management (ALM), strategic asset allocation (SAA) and strategic risk management studies. *GLASS* is able to simultaneously capture long-, medium-, and short-term cycles. The long-term component represents slow-moving trends that take more than 15 years to materialize. The medium-term component corresponds to the business cycle, and the short-term component captures the fickle short-term market movements over a horizon of, at most, one year. This translates to a range of outcomes distributed along probabilistic lines. For instance, the impact of next year's U.S. elections can be captured by *GLASS* as a short-term market movement and incorporated in this way. It's also possible to create a scenario with a few specific variables and let *GLASS* determine the hundreds of accompanying variables. Furthermore, our experience suggests that the impact of such events falls well within the range of normal economic uncertainty.

BCG: *What do your stochastic models tell you about U.S. pension plans in the current market?*

van Welie: Over the last few years, we observed a number of trends: as interest rates and spreads increased, we observed mixed equity performance. In general, there has been an increase in funded status for pension plans, but on a forward-looking basis, our current modeling suggests that plan sponsors and fiduciaries should plan ahead for risks and market shocks. It hasn't been since 2000 and 2001 that U.S. stock markets lost money in two consecutive years, but it's something that could potentially happen again this year. Ortec Finance's modelling is pointing to negative equity returns over the next 12 months as the most likely market scenario. Pension plans with tactical or dynamic allocations at their disposal may want to temper their risk and consider fixed income instead. For those considering pension risk transfer (PRT), liability driven investment (LDI) fixed income is of particular importance in the current environment if your plan is close to or fully funded. Preserving plan funded status for well-funded plans has become the priority.

Based on our modeling, it is expected that equity returns will disappoint again in the short term, even after the MSCI World Index's 18% correction in 2022. *Why?* In a word, uncertainty. We've seen the combination of a pandemic stimulus hangover, negative supply shocks and the Russia-Ukraine war result in the highest inflation in 40 years. That, in turn, prompted the quickest monetary tightening by the world's leading central banks since the 1980s. Higher inflation and interest rates effectively devalue stocks' future earnings and lower their net present value. If you discount stocks' future cash flows by the substantial amount implied by current rates, you arrive at a valuation in most cases below current market prices. That doesn't mean markets will fall to those levels. Inflation could subside, and eventually rates, too -- and faster than we expect. But in terms of probability, it's looking as though markets will trend downward before global growth recovers.

Managers primarily concerned about their plans' solvency over 10, 20 or 30 years need not to be overly anxious. This is a short-term projection, run through our Economic Scenario Generator, that creates a range of possible outcomes. Whether an issue or not, largely depends on various plan-specific factors including risk appetite, risk budget, current asset and liability valuations, funded ratio, contribution rates and benefit payments.

BCG: *In closing, what types of questions do you answer for BCG clients? Any other noteworthy trends for pension plans in de-risking mode?*

van Welie: Thanks, great question! We recently helped a BCG client answer the following question: *Is my plan's current investment strategy still suitable given our objectives have now shifted towards a potential plan termination?* This plan was closed to new members, had recently frozen all benefit accruals, was overfunded (108%) on a plan termination basis, and had a current asset allocation of 67% Equity, 27% Fixed income and 6% Alternatives. We analyzed the current status of the plan using scenario analysis. Our findings showed a significant downside risk in terms of Funding Ratio and additional contributions. A potential change to an LDI portfolio was also analyzed, which resulted in lower Funding Ratio risks and a strongly reduced probability of paying any additional contributions. The LDI strategy fits better with the characteristics of the frozen plan and the plan sponsor's "go-forward" objectives. This plan shifted most of their plan assets to an LDI fixed income strategy. As noted above, preserving plan funded status for well-funded plans has become the priority for many plan sponsors.

Regarding any other noteworthy trends for pension de-risking, we've noticed an increasing demand for incorporating the behavior of illiquid assets more effectively in ALM studies. Particularly in times of market stress, or if plans still hold illiquid assets nearing a PRT, it becomes very relevant to account for these risks. Beyond this specific trend in pension de-risking, we've also noted a growing emphasis among our global client base on the integration of sustainability goals into decision-making processes. Acknowledging this emphasis, we're committed to supporting our clients as they align their financial strategies with their long-term sustainability objectives.

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About BCG Pension Risk Consultants | BCG Penbridge ("BCG")

BCG specializes in assisting defined benefit plan sponsors with managing the costs and risks associated with their pension plans. Since 1983, BCG has successfully helped over 2,500 organizations achieve their pension de-risking goals. Please visit our website bcgpension.com to learn more.

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