Conning Client Case Study:
Schroders Personal Wealth

September 2020

Applying Conning's Cloud-Enabled Investment Optimizer to Strategic Asset Allocation

Introduction

Schroders Personal Wealth ("SPW") is a new joint venture between Lloyds Banking Group and Schroders plc — two of the UK's largest names in banking and asset management. Its mission is to deliver top-tier financial advice using the latest technology, opening up long-term financial planning to more people across the UK.

Client Objectives

SPW's goal was to license a software solution that would work with their existing economic scenario generator ("ESG") output — stochastic asset return data across a full range of asset classes and thousands of potential future economic scenarios — to construct and analyze potential investment strategies for retail clients. The solution needed to be powerful and flexible but, given the timescales they work to, also quick and simple to use.

The solution also needed to be able to produce graphical output suitable for review by their internal investment committee.

Conning's new, cloud-enabled version of its established Investment Optimizer software ticked all the boxes, enabling SPW to analyze thousands of potential investment approaches and select those with the highest potential to optimize return while limiting volatility and potential downside losses.

Overview of the Project

Conning's cloud-enabled Investment Optimizer is software-as-a-service ("SaaS"), meaning that no installation is required by the user. Therefore, even amid the COVID-19 lockdown, setup was simple; the only requirements from SPW were IP addresses for whitelist security and downloading a mobile app for two-step security authorization. In less than an hour, SPW users gained
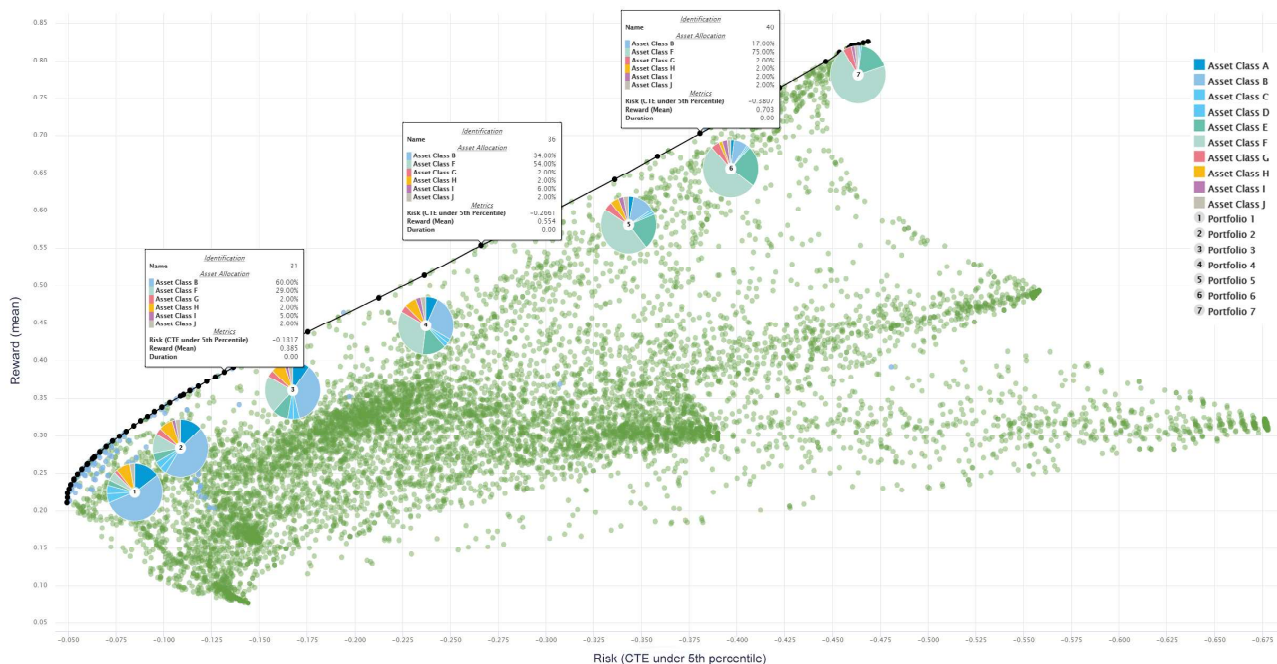
Efficient Frontier Chart — showing Risk/Return for a range of both efficient (on the Frontier) and inefficient allocations (below the Frontier) subject to the constraints defined by SPW. Pie charts allow drill-down into asset mix and risk characteristics of each allocation selected by the user.
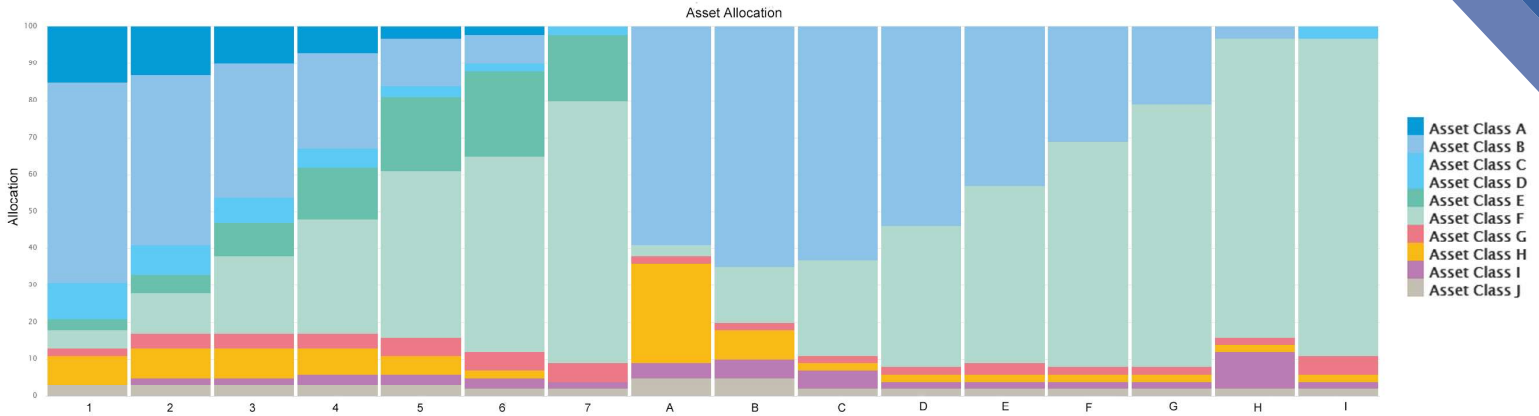
Dynamic Asset Allocation Chart — provides insight to the comparable asset mix of each strategy and offers the ability to interact with the chart to investigate individual asset classes across the strategies.

access to the software and the power of the cloud within their home workspaces and were ready to go.

The process for using the software is simple. Asset return data from SPW's existing ESG can be uploaded to the cloud in a few minutes. Risk and return targets for optimization are then selected by the user. These can be as simple as standard deviation and mean return, but SPW also made use of the underlying stochastic data of the economic scenarios, allowing value-at-risk and conditional value-at-risk percentiles to be used as the risk measure. Asset constraints can also be set at this point, both on an individual asset basis and across multiple asset classes. This means that complex constraints can be set — for example, setting a maximum allocation to UK equity relative to the global equity allocation.

Once the scenario data is uploaded, the risk and return targets chosen, and the constraints set, the Investment Optimizer produces an efficient frontier chart that shows the portfolios that

produce the maximum possible return for each level of risk (as well as all the thousands of inefficient points that were tested as part of the optimization process). Though thousands of asset allocations are evaluated across thousands of scenarios, the power of the cloud means this process only takes a few minutes.

The graphical output is flexible, allowing SPW to incorporate standard, presentation-quality charts directly into their investment review process. Dynamic charts showing asset allocations across the chosen portfolios and the full stochastic output distributions are also available.

Feedback on Completing Their First SAA
Using Conning's cloud-enabled Investment Optimizer allowed SPW to increase significantly its analytic power in selecting suitable investment portfolios for its retail customers. Multiple efficient frontiers were produced using a range of different risk and return optimization metrics. These were focused on key
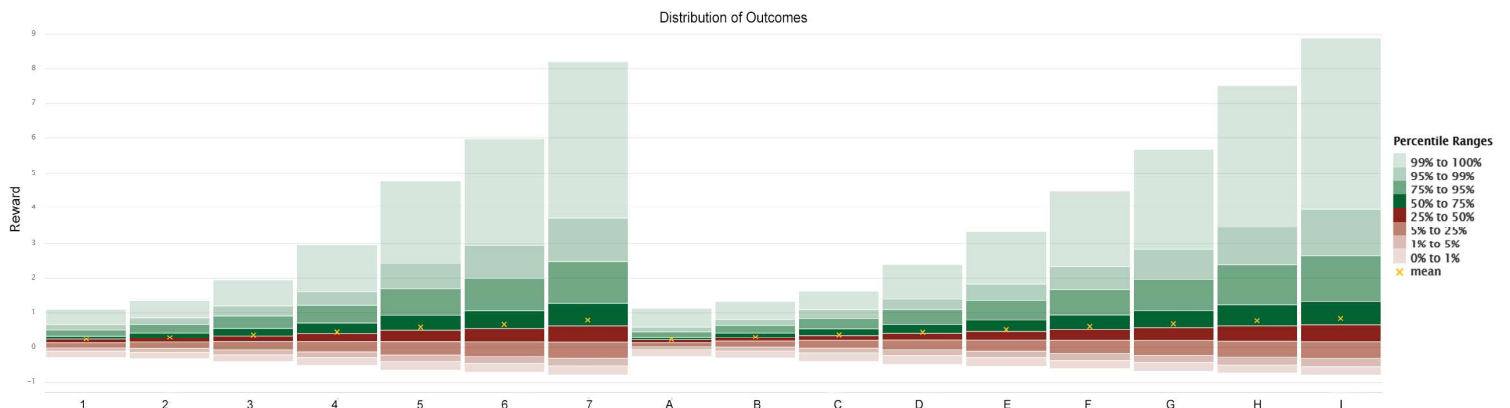
Risk Distribution Chart — full stochastic distributions underpin each allocation, allowing users to readily compare not just the mean performance but also the up- and downside potential of alternative strategies.

aims for consumers, such as the expected outcome and the risk of falling significantly short of this expectation. This meant that SPW could ensure that their clients were provided with the right advice for their risk appetite and investment aims.

In addition, the clear graphical output was directly usable in SPW reports, so that approval of the recommended portfolios by the Investment Committee was well supported. The powerful nature of the cloud meant that iterations could be run quickly. Taken together, this meant that SPW's tight timescales could be met.

Next Steps

The cloud-enabled Investment Optimizer is now an integral part of the quarterly refresh of SPW's investment process.

While asset distributions were already available, SPW plans to include those produced by Conning's GEMS® Economic Scenario Generator as the next step. This will enable them to have greater control over the asset classes they model and increased granularity of asset class breakdowns, as well as input into the calibration of the underlying models and the resulting return data, to better fit their in-house views. It will also allow them to trace any set of projected asset class returns to the underlying economic variables of the specific scenarios that generated them. This capability is particularly useful when analyzing the causes of potential tail risk outcomes.

Feedback from SPW is also already being incorporated into the development of the Investment Optimizer, with additional charting functionality being added to further improve the presentation-ready nature of the graphical output. Conning is also looking to add the ability to view multiple frontiers (based on different constraints) simultaneously and the ability to select different time horizons for the risk and return optimization targets.

More Information

If you would like to know more about Conning's cloud-enabled Investment Optimizer, please view the introductory video and product summary sheet available at
https://go.conning.com/Cloud-IO-Info.html

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About Conning

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