StarQube

INVESTMENT DECISION IN A BOX

Research and portfolio construction: an open platform for applying data science to investment decisions

An equity portfolio manager at a Swiss-based asset management company with €60 billion in assets under management explains how his team conducts all the steps of the investment decision cycle from A to Z on the StarQube platform.

Could you explain your responsibilities within your organization?

I am part of a team of five quantitative managers. We follow three types of strategies to manage our portfolios:

- Factorial: we analyze five major families of factors to select companies in the investment universe: valuation, quality, momentum, low volatility, small caps. We follow benchmarks and rarely include stocks that are not included in them.

- ESG+ Tracker: a strategy based on the ESG criteria of our investment universe. These are low-tracking-error portfolios that seek to improve the ESG and carbon characteristics of their benchmarks.

- Target Net Zero: a strategy that seeks to improve the climate impact of our portfolios relative to their benchmarks. We decided to launch this strategy because there is a climate transition taking place that will have major impacts from an economic and social point of view. This will create financial opportunities and risks that can be taken into account in a diversified strategy.

To implement these strategies, we rely on the financial and extra-financial data of our providers, which are collected, stored and organized on the StarQube platform. It is then easy for us to build our own ESG methodology and calculate the scores of our stock universe. Then, since it is difficult to establish a link between ESG factors and the performance of our portfolios over the long term, we rely on the various modules offered by StarQube to conduct our research and build our portfolios. To do so, it is necessary to take into account the risks associated with this type of strategy.

Indeed, our added value comes from the fact that we apply our know-how in responsible investment without taking uncontrolled biases in relation to our indices (style, region, country, sector, etc.). We have found that controlling these biases significantly reduces the risk of relative drawdown compared to the benchmark.

Can you tell us a bit more about how you use the platform on a daily basis?

We use the system across the entire investment decision-making cycle, from data acquisition to order generation. We use the data in the StarQube database to research and identify investment signals to incorporate into our strategies.

In addition to financial and extra-financial data, we use the Data Loader module to do "web scraping" in order to collect alternative data from, for example, Wikipedia articles. Then, thanks to the platform's APIs, such as Java or Python, we can apply natural language processing (NLP) methods to extract new investment signals. These are integrated into the optimization module in the form of objectives or constraints. The nature of these signals can be very varied: style bias – for our factorial strategies – country, region, sector, but also extra-financial characteristics, such as the ESG score, the carbon footprint or the portfolio temperature. The latter is very interesting, and we apply it particularly to our "Target Net Zero" portfolios. Our ESG research teams have been able to determine the carbon trajectory to 2050 for each company in our investment universe. This

trajectory can be converted into a simple and understandable metric that is the temperature of a company. This metric is included in our optimization to build our portfolio and assess temperature characteristics through time.

With the rise of responsible investing, we have to take into account new datasets, new objectives and new constraints in our portfolio construction and investment decision-making process, which would not be possible without a powerful optimization engine like the one offered by StarQube.

It also adds a layer of complexity as we need to be able to evaluate the impacts and interactions of these new signals with those already implemented. Therefore, we integrate all our constraints and objectives in the optimization in order to test them historically, thanks to the Backtest module. This allows us to study the performance and all the biases mentioned above that we want to control.

If the result is satisfactory, we can directly implement the result of our research in our portfolios and visualize and monitor their risk with the analysis module.

How does the StarQube platform give you a competitive advantage?

We have obtained two major advantages with the StarQube solution.

First, it allows us to have a very large computing capacity and to do a lot of research. The centralized database we have established is more scalable and allows us to cover a wider range of companies.

In addition, StarQube has allowed us to strengthen our business model with respect to our clients and institutional investors. The fact that research and management are integrated on the same platform limits the operational risk of implementing a strategy that is not the exact one that was researched. The permission system protects the formulas and portfolios that are managed on the platform. The audit trail is also very important because it allows us to trace the history of all the formulas and the actors who modified them. Since orders are sent electronically directly to traders, there is no risk of deviation.

About StarQube

Established in 2013, StarQube develops a suite of data organization and front-office solutions designed to streamline investment processes, starting from data acquisition, through fast backtesting of client-defined strategies and risk management, all the way to portfolio rebalancing, dispatching of orders and reporting. StarQube provides asset managers with a nimble way to automate each of their clients' bespoke portfolio management processes while saving on structural and data costs. StarQube is particularly well-liked by systematic strategies and socially responsible investments.

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