PORTFOLIO

At Wellington, Portfolio Managers Also Code

One of the industry's marquee names is investing heavily in data and other scientists. But it's working hard to preserve the "artistry" of portfolio management.

Julie Segal

It's been a long time since there was a hard line between a fundamental active manager and a quantitative investor using advanced computing techniques to uncover ideas. Even as the line has blurred recently, Michael Masdea, head of Wellington Management's Investment Science Group, said his number one job is to preserve the art in investing while bringing in sophisticated computing capabilities to support the firm's active managers.

"We think that the balance of art and science is critical. Machines can't pick securities, but they can help a lot with the process around picking securities," said Masdea, who is a former semi-conductor analyst at Wellington as well as an equity portfolio manager.

The Investment Science Group is focused on applying scientific techniques, such as data analytics, to everything from how portfolio managers come up with new ideas and implementing them to maximize returns, to developing professional investors, which includes uncovering and mitigating the downside of their behavioral biases. The group has doubled in size over the last few years to 68 people who have expertise in data science, trading, and quantitative investing, among other specialties.

Wellington's model is to have scientists work alongside portfolio management teams temporarily as well as permanently. The goal is to have the scientists deeply understand how managers invest and having investors doing the science, at least in some cases.

As an example, Wellington currently has 100 portfolio managers coding in Python, a relatively easy-to-learn and popular programming language to analyze data, implement machine learning algorithms and do other tasks. Masdea said that the ability to use Python helps managers sift through the increasing amount of data available. Managers, for instance, can access credit card data to analyze consumer stocks, or data to see the details of companies' hiring efforts globally. In the age of almost unlimited data, he contrasts Python to Excel. "With Excel you stare at data, and hide the logic. With Python you stare at the logic and hide the data because there is way too much data. That is a mindset shift," he said. But he added it's not for everybody. "First of all not all PMs should code in Python, I don't think they need to, but they need to understand how it enables much deeper research."

Peter Carpi, an equity portfolio manager on the firm's micro- and small-cap team, said he views the tools created by the group as a natural outgrowth of similar applications he developed to sift through the growing availability of earnings call transcripts and other information over the years. "There are some of us who program ourselves. More often we're partnering with people who are great programmers, great data scientists," he said. Carpi said investment science tools are particularly valuable outside idea generation. Traditional due diligence likely won't change at all. "But when to buy and the portfolio construction and the risk mitigation and analysis — that aspect is being turbo charged and so is the behavioral analytics," he said. Behavioral analytics look at portfolio managers' activities, including buy and sell decisions, to evaluate patterns.

"I don't want to do anything out of passion. If I see some market moving information in the morning, I don't want my response to be determined by whether I had coffee yet," Carpi said.

As another example of helping professionals develop by analyzing behavior, Masdea said the group analyzed the behavior biases of a portfolio manager and found she had good ideas that generated a lot of alpha and had great timing when trimming positions. But it turned out that she should have been selling the entire position, not just trimming. They subsequently worked with her to change the behavior.

Adding scientists to the mix has had a few bumps. Carpi said he would put most investment professionals into three general groups: long tenured portfolio managers, "who are reluctant," a few evangelists like himself, and then new hires. "On the margin, we're taking more people who are data savvy, who understand how to code. Generally, new hires are all looking for a way to have impact. And how you have impact when you have a lot of senior managers who already know what they are doing is to do what they are not doing."

The reluctant are coming along, though.

"Two years ago, the majority of people said 'why are we investing in this?' The number of squeals of 'why are we doing this' is gone. Now it's how can I adopt this," said Carpi.