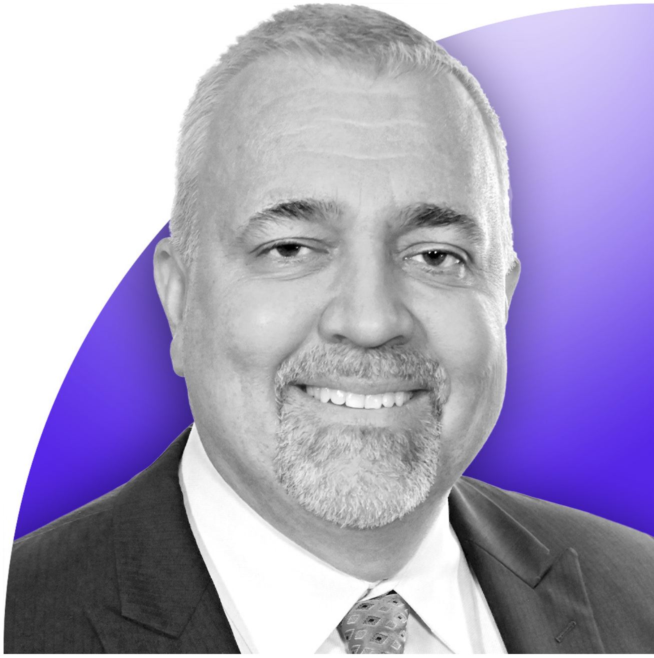
PM Spotlight: The intersection of investing, math, and technology



John Hockers, CFA, PRM, Co-Head of Investment Analytics

This issue of *PM Spotlight* profiles **John Hockers**, co-head of Allspring's Investment Analytics team. His academic and professional backgrounds blend a unique skillset that's tailor-made for this key function of investment management.

Q: HOW DID YOU BECOME INTERESTED IN INVESTMENT ANALYTICS?

A: I started out at the University of Wisconsin studying chemistry and math and ultimately fell in love with nuclear physics and quantum mechanics. I graduated with a degree in physics and nuclear engineering, but I knew that wasn't going to be my career path. After graduation, I started working at a global consulting firm, developing software and solving problems with coding. After four years of various database-centric projects, I made my second career pivot to become an IT project manager in investment management. I worked on some interesting projects, including upgrading equity and fixed income trading systems and building out new equity risk management tools.

Throughout that time, I was always interested in investing, and I would spend hours on the weekend digging into securities analysis, listening to conference calls, and poring over financial statements. That led me to the MBA program at Marquette University, where I focused on finance and investing, and eventually the third pivot in my career—investment risk management and investment analytics. Since 2002, I've held a number of roles, including equity risk analyst and director of equity risk management, and for the past 11 years, co-head of Allspring's Investment Analytics team. Investment analytics combines my math and technical background with my problem-solving approach and passion for investing.

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Q: WHAT DOES INVESTMENT ANALYTICS INVOLVE AND HOW DOES IT RELATE TO RISK MANAGEMENT?

A: Investment analytics is the intersection of investing, math, and technology. We take data and turn it into actionable information. But our Investment Analytics team at Allspring is a bit more than that. It encompasses 10 functions across Allspring. Five of those focus on investment risk management within our client portfolios, and they're the five functions that I work with the most—equity, multi-asset, fixed income, mutual fund, and counterparty risk analytics. The other five functions, which are managed by my co-head, Randy Mangelsen, include model validation, environmental, social, and governance (ESG) analytics, portfolio analytics, portfolio construction research, and scientific learning.

Investment analytics gives us the knowledge to understand risk levels within our investment portfolios. Combining that knowledge with the insights from our portfolio management teams and oversight from senior leadership is what we know as investment risk management.

To conduct risk management, you need really sound data and really sound analytics combined with oversight to mitigate risk. If you're making decisions that use bad data, you're probably going to make bad decisions. And if you can't mitigate a risk, then it's really not risk management—it's just risk observation. Allspring's Investment Analytics team is embedded within the Office of the CIO (Chief Investment Officer) to help mitigate risk. That allows us to build stronger relationships with the portfolio managers, empowering them with the risk analytics needed to do their job.

Q: DOES THE PROCESS DIFFER ACROSS ASSET CLASSES AND INVESTMENT APPROACHES?

A: We like to joke that everything is easier on the equity side of the business—the data is easier to clean, the math is easier to understand, and the number of securities is more limited. But it is still very hard to outperform the equity markets and even harder to generate enough outperformance to warrant investments from clients.

With fixed income, it's hard to get clean data and analytics and even harder to find risk models that explain the markets. But if you can do that, it makes beating the benchmarks and beating the competition a little bit easier than on the equity side of the house.

Then there's the difference between investment approaches like fundamental and quantitative investing. When we work with a fundamental team, we're part analytics provider, part educator, and part oversight provider. With the quantitative teams, we're more of a sounding board for ideas, as our Systematic Edge team has deep technical skills, including some team members who are renowned for their research into quantitative investing concepts.

Q: HOW HAS THE INVESTMENT ANALYTICS TEAM CHANGED WITH THE EMERGENCE OF BIG DATA AND ARTIFICIAL INTELLIGENCE?

A: The biggest change was around five years ago when we created our Scientific Learning and Portfolio Construction Research sub-teams. Scientific Learning builds tools to help our investment teams gain an edge by incorporating machine learning, artificial intelligence, and big data into practice.

Portfolio Construction Research takes tools primarily used by our quantitative teams and deploys them to help our fundamental teams solve real client problems. These teams have had some really exciting projects over the past few years that we believe have added quite a bit of value across the organization.

Q: CAN YOU SHARE A REAL EXAMPLE OF HOW INVESTMENT ANALYTICS ADDS VALUE?

A: One of the first problems that we tackled with our Portfolio Construction Research team involved a rather large strategy that was at capacity because of liquidity constraints. We used optimization tools to better understand what was driving those constraints, and ultimately we were able to create a second version of that same strategy for the client that had higher capacity, a better liquidity profile, and tight tracking error back to the original strategy.

An example from our Scientific Learning team started with a request from portfolio managers to distill ESG data into the most material and practical information. We partnered with our Global Credit Research team on the project and ultimately developed Allspring's proprietary ESG scoring system, ESGiQ, which takes large amounts of data from myriad sources and condenses it for use by our portfolio managers.

Q: HOW IS ALLSPRING ADOPTING NEW TECHNOLOGY TO ADVANCE INVESTMENT ANALYTICS AND RISK MANAGEMENT?

A: One of the ways we've enhanced our risk management approach is in how we deliver daily reporting to our investment teams. Instead of traditional spreadsheets, we're using more business intelligence tools to bring interactive sets of reports to portfolio management teams who want to trend their risk or look at unintended risk exposures within their portfolios.

We're always asking, how can we deliver data and the information in a format that's more digestible and more practical? Visualization tools can help customize data for the end user. That really reflects the general theme of what we do with investment analytics. It's taking good data and converting it into analytics that can be acted upon.

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For further information

We want to help clients build for successful outcomes, defend portfolios against uncertainty, and create long-term financial well-being. To learn more, investment professionals can contact us.

Contact details

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- For retail clients, contact your financial advisor.
- To reach our U.S.-based intermediary sales professionals, contact your dedicated regional director, or call us at **1-866-701-2575**.
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