

# 50 Years of factor models: How investment landscape has evolved and what's next

#### **Transcript**

#### Interviewer (00:06):

In the early days of risk decomposition to today's need for dynamic multi-dimensional portfolio solutions, MSCI has been at the forefront of quantitative investing for over 50 years. Joining us today to reflect on how MSCI models have evolved alongside a rapidly changing market and environment is Mark Carver, Global Head of Equity Solutions. We'll [00:00:30] also explore how investors are using MSCI models today to navigate macroeconomic shifts, market volatility, and increasingly complex investment decisions. Well, Mark, first, congratulations on the 50th anniversary of MSCI models, but let's take a step back and ask, why should investors care?

## Mark Carver (00:49):

Well, it's funny you asked, because internally, we were having a conversation about this and somebody asked me the exact same question like, "Mark, why would anybody care?" And the answer is, probably [00:01:00] nobody or very few people care necessarily that it's the 50th year anniversary, but what I think they would care an awful lot about is what it means for the industry, because it's a little bit more than, "Hey, it's a nice thing for an organization that's part of the ecosystem." The fact of the matter is there's been this incredible explosion of innovation and quantitative investing that came, I don't want to be so bold to say on the back of the 50th anniversary, [00:01:30] but certainly, the fact that we launched the very first risk model helped accelerate the innovation in quantitative investing. Let's just decompose that a little bit, and I'm going to use that term again, so forgive me.

## (01:42):

The introduction of the very first risk models meant that investors had a level of transparency into the return in the risk of their portfolio that was never available before. You could decompose the returns and the risk into style, industry. Today, [00:02:00] we look at style, industry and idiosyncratic dimensions. It happened at a period that also coincided with this incredible level of innovation and academic thought or academia, where all of the listeners would think about obvious examples, the capital asset pricing model, the arbitrage pricing theory. Some of those ideas were not really industry applications. People didn't know what to do with it. The introduction to the first risk model [00:02:30] really helped people to understand what this innovation happening in academia meant to people in the real world who were competing in the industry.



## (02:41):

Innovation in quantitative investing or the innovation in quantitative investing has only exploded since then, as I mentioned. An obvious example to all of your listeners is the growth of index investing. Index investing might be the most obvious or the most, with all due respect, basic [00:03:00] example of systematic investing. Twenty or 25 years ago, index investing was really only practiced by institutional investors. Today, probably everybody listening to this will have an index-linked ETF in their portfolio or in their client portfolio, so it touches all of us. The explosion of innovation that came over the last 50 years is super excited. Today, we have an entire well-known group of quantitative investors [00:03:30] who use risk models in certain ways, and they build their own, what they'll refer to as alpha models, and other ways to create really interesting, resilient portfolios that probably a lot of people here have somewhere inside of their portfolio. Maybe you don't care about the anniversary, but you care an awful lot about what it's meant to investors even in today's market.

#### Interviewer (03:53):

Reflecting a bit more on client needs, they've changed tremendously over time. How has that influenced how MSCI [00:04:00] builds and delivers its models?

## Mark Carver (04:04):

It has a tremendous influence, because before we build or deliver any product, we go out and we talk to clients. We want to make sure that we're recognizing the real-world application that people will have with the products that we put in their hands. I might also, in the spirit of your question, separate the needs of investors from their expectations and demands. At least, in my career, [00:04:30] investors have always wanted to understand what's driving my investment risk, what's driving the returns of my portfolio by decomposing using a model, for instance, decompose that risk in return, it allows investors to do a few things.

#### (04:44):

First, whether those drivers of return, those sources of risk are consistent with the portfolio that you bought, is the manager doing what you thought they were doing? Second, you're going to better understand whether the [00:05:00] returns came from style dimensions or stock specific. Third, you can use this information and put two managers side-by-side to assess those managers in ways far beyond what you could do in a standard performance report, for example. And obviously, with all of that information at your fingertips, you can assess whether or not you're paying a fair fee for the service being delivered to you. Risk models, and many of the other tools we have at MSCI, allow [00:05:30] you to do that, to decompose performance, to decompose risk, to compare managers, and to ensure that your portfolio is geared toward the things that you want and that you're hedged against the things that



you don't want. That's a very, very significant thing that clients not only need, but they demand it from us, and obviously, the model has become a big part.

#### Interviewer (05:55):

You would know this, because you've closely involved in the evolution of MSCI's modeling [00:06:00] capabilities. What were some pivotal moments, Mark, that shaped how MSCI models are used today?

## Mark Carver (06:06):

Well, it's very nice of you to say that. I think probably the people who deserve the most credit are our research team, and most people, they don't know those folks, they're not as well-known. But I think there are a few pivotal moments through history that really changed the way people experience our models. Once upon a time, the models were for the US market only. [00:06:30] But the truth is, most asset managers and hedge funds, they're not set up with that type of a narrow view. You have people who manage global portfolios, regional-specific portfolios, country-specific portfolios. In the late 80s, 1989 specifically, we introduced a global model. From there, we introduced country-specific models, regional-specific models, and that allowed us to meet investors where they are to help them with their specific mandates, because the model correspond to [00:07:00] the investment portfolio that they were trying to build.

## (07:03):

That's, I think, a big deal. About 10 years ago, we introduced some new factors, for example, investment quality and earnings quality. For a long time, fundamental managers would say, "I want to invest in companies that are good allocators of capital." Well, our investment quality factor allows you to see that systematically. Earnings quality is about where the earnings come from. Are they from cash earnings or are they [00:07:30] driven in part by financial engineering? You're looking at things like accruals. That earnings quality factor became a really interesting way for people to think systematically about things that, beforehand, they did more fundamentally, if you will.

#### (07:48):

About 10 years ago, not even, we introduced what we now call trading models. We didn't call them that at the time, but this is important, because it allowed us to recognize that investors invest under [00:08:00] different horizons. Today, we have long-term models, which are geared for those investors with longer horizons, asset managers, asset owners. Then, we have trading models which are geared for those investors who trade more frequently. You might think of a hedge fund or a market maker, for instance. The ability to navigate a model based on your horizon is also a pretty significant milestone. And as you know, we've talked about it before, are most recent models, we did quite a few things. First,



[00:08:30] we made some changes to the familiar factors to try to make them more robust. That's always an important thing. But excitingly, we introduced new factors in the factor structure. That could include things like crowding, how bubbly is an asset, machine learning that introduced non-linearities. We introduced sustainability, so more and more investors have a consideration of sustainability in their investment selection. We have sustainability in our new response.

#### (08:57):

The last thing we did, which we're [00:09:00] really excited about, was we introduced new risk methodologies. The reason people care about that is that we know, in earlier generations of models, when the market's going through a shift in volatility, maybe from a low vol regime to a high vol regime or vice versa, the standard models maybe didn't fully capture that regime shift. Our newer models will do a better job of capturing those regime shifts. Why do you care about that? Well, if you're over underestimating risk, [00:09:30] it means you're not deploying your assets in the most capital-efficient way. Maybe you're not taking enough risk or maybe you're taking too much. Having the ability to refine that risk methodology allows, hopefully, our investors to more efficiently allocate capital and build a more resilient portfolio. All of these things, while individually may seem small, collectively, we hope that they've made a huge impact on the investors who are using these models to manage portfolios.

## Interviewer (09:59):

There [00:10:00] are a lot of different investors out there using them. We hear a lot about models being used beyond the so-called middle office or risk teams. Can you talk about how these different types of investors are using these tools today, Mark?

#### Mark Carver (10:14):

Yeah. I think, first of all, that's a really good question, because a model doesn't mean the same thing to everybody. It doesn't have the same level of utility. The middle or risk office, those teams play a critical role, because they can serve as [00:10:30] governance or a check on the front office investment teams by ensuring that they're staying within the boundaries of their prospectus and their investment mandates. That's a critical use of our models to do that check to ensure you are staying within the guidelines of how you're supposed to invest that portfolio. On the front office side, what we're seeing is much more use of the models for portfolio construction. You're going to look [00:11:00] at your portfolio and say, "Gee, you have exposures there that you did not intend." You can more deliberately, more effectively hedge those out. But then, you can also be more deliberate by being opportunistic, by getting more of the exposures that you do want.

(11:15):



We see an incredible amount of use, the models for the portfolio construction. Now, interestingly, there's often a bridge between those two, the front office use case I just described around portfolio construction [00:11:30] and that middle office use case around portfolio governance. Today, we see more and more organizations, asset managers, asset owners, hedge funds, who have, what I would call, risk managers. The distinction is these risk managers are sitting with the front office teams helping to understand these exposures and how to be opportunistic or hedge or defensive by making deliberate investment choices. I [00:12:00] like to refer to this as risks to the front office, meaning it becomes an investment consideration.

## (12:05):

Our models are used widely across the industry for all of these types of uses, middle office use case, front office. Interestingly, we see some wealth organizations who use our models to do what I hinted at at the beginning, to do product selection. They look at managers through the lens of models for portfolio performance and [00:12:30] risk allocation, so they can compare managers, they can compare products, and then as they're putting and approving products for their shelf, for their model portfolios, they're using that. You could think of it almost as a portfolio evaluation tool for those wealth firms and a sales enablement tool for those asset managers shelling into those wealth firms.

## Interviewer (12:51):

Let's talk a little bit more about these applications, Mark, for clients navigating today's complex markets. What are some of the practical ways MSCI's [00:13:00] models can help them?

## Mark Carver (13:02):

Well, I think, beyond what I mentioned, there are some other practical ways, and not only MSCI's models, but MSCI's full toolkit can help them. For example, I hinted at this notion of how bubbly as an asset. We introduced a toolkit a couple of years ago around crowding. What you're able to do is look at the way that asset or that portfolio is priced. Is it trading in [00:13:30] a way that is much higher than where that asset is typically traded at? Is it crowded? This can be really important, particularly as I'm talking to clients, who are very US-centric. They're worried about the valuation of the US market. Having a lens of crowding going beyond the standard value calculations can be a really interesting toolkit, and it's a very practical use, not only in stock selection, but in potentially trading that asset. You might love a name, but might think [00:14:00] maybe this isn't the right time to enter that name.

## (14:03):

Or, you might be maybe souring on a name, and you could see that this could be an attractive exit point. Having that type of data at your fingertips, a lot of people, as the markets have become maybe more



complex as there's so much going on in the world today, volatility shifts, a lot of our clients are turning to us for deep history. We [00:14:30] have deep history data on our models. We have deep history data on our indexes. That could be our market cap indexes, factor indexes, sustainability indexes. We might say, "Well, why would I care about that?"

#### (14:42):

Well, you can use that deep history data to look at periods that might feel a bit more like today's environment, and you can assess the behavior of assets, investment styles, regions, or countries in those periods. It's not going to give you a perfect answer to the way things might trade today, but it's [00:15:00] certainly going to give you a bit of an indication. Clients are looking at us for the models and all of things the models can do. They're looking at us for deep history. They're looking at us to understand the bubbliness of stocks, and I think, the full breadth of the toolkit that we have is super exciting.

## Interviewer (15:15):

As we look ahead, Mark, what new frontiers are you most excited about?

#### Mark Carver (15:21):

I think, if I didn't start with Generative AI, people would say, "Why didn't he say something about AI? But certainly, the [00:15:30] obvious answer to the question is what we can do with Generative AI in terms of looking at data that before wasn't really something that I could use to make investment decisions. That is textual data, news data, any type of unstructured data. Now, with the use of generative AI, we can put some structure around that data by structuring it, then we can start to think about the financial relevance of the companies [00:16:00] within that structure, and then you can use it to make much more profound investment decisions. I'm really excited about the potential that AI unlocks.

## (16:11):

For example, during the spring of this year, there was all kinds of talks about the potential impact of tariffs on portfolios. We had a lot of people calling us and saying, "Oh, Mark, why didn't you build a tariff factor?" Well, the truth of the matter is [00:16:30] that there's always some moment in the year that feels like the tariffs in the spring. Five years ago, it was COVID. People were calling and saying, why don't you have a COVID factor? A couple of years ago, we had some volatility within the regional banking industry, so there's always this moment. Clients are looking at us to help them go beyond the standard factor structure to look at the impact of real-time news and market events on their portfolios.



## (17:00):

[00:17:00] They know that most of that risk will be in the idiosyncratic component of stocks. It'll affect some stocks more than others. They just can't measure it. We're super excited about the ability to put some structure around market events, market news, and ways that can be much more investment-specific. Another area that I think is really exciting is this intersection of public and private, where we know that [00:17:30] more and more investors are allocating a bigger part of their portfolio to private assets.

#### (17:36):

The thing that's gotten much of the talk over the last couple of years is private credit. Our team recently introduced a new private credit risk model. We're doing a lot of work around private equity, but this intersection of public private is going to only accelerate. And so, our ability to be able to bring modeling insights, where those two intersect, I think will be super [00:18:00] critical. We're spending a lot of time on that intersection as well. I think these are some of the new frontiers that we're just starting to touch, but it's going to be really exciting and very significant for the way investors can use that data for building portfolios, making capital allocation decisions, and ultimately, hopefully building results.

## Interviewer (18:23):

I've had a lot of conversations with advisors recently about those new frontiers that you just mentioned, and [00:18:30] before we wrap up, Mark, if had to leave the audience with a few key takeaways, what would they be?

## Mark Carver (18:38):

The most important thing is that markets are not likely to get less complex, but only more complex. That MSCI, well, we're super proud of our past, and I thank you again for recognizing the 50th anniversary. The truth is, I think I'm a little, I'm a lot more excited about what's ahead. We're constantly looking at ways to solve real-world [00:19:00] investment challenges to help our clients to be able to, not only understand and have transparency on what's driving the behavior of their portfolio, but new ways we can build greater transparency. How do we use AI, not only to uncover new sources, but how do we use AI for you to be able to better understand that, to be able to better communicate with you, and then, ultimately, help you communicate with your clients. I think those are some of the key takeaways. [00:19:30] We're not resting on the past, we're moving forward.

Interviewer (19:32):



Well, Mark. Congratulations again on 50 years of models, and thank you to everyone out there watching. Once again, that was Mark Carver, Global Head of Equity Solutions at MSCI. I'm your host, Jenna Dagenhart with Asset TV.

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United States + 1 888 588 4567 \*
Canada + 1 416 687 6270
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South Africa + 27 21 673 0103 Germany + 49 69 133 859 00 Switzerland + 41 22 817 9777 United Kingdom + 44 20 7618 2222 Italy + 39 02 5849 0415 France + 33 17 6769 810

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