[THEME MUSIC]

LAUREN FOSTER: Hello, and welcome to the *Take 15 Podcast* from CFA Institute. I am Lauren Foster. And this is the show where we bring you an unbiased lens on investing in capital markets, through short conversations with some of the world's most interesting and accomplished people. On today's show, quantitative investing and more with my guest, John Chisholm.

John is a CFA charter holder and Co-CEO of Acadian Asset Management, a global investment management firm that specializes in systematic investment strategies. Acadian manages more than $100 billion on behalf of institutional investors around the world. John and I talk about Acadian's approach, and where he sees the most promising innovations taking place in today's Quant investing world.

I also ask John about building a firm culture that is suited to attracting and retaining data scientists and machine learning experts, and what investors who want to work in this field need to know. Some of the other topics we cover include ESG investing and the outlook for value. Now this week, for the first time, I've added a third closing question.

I got the idea after listening to an episode of *This American Life* that first aired back in 2001, that was all about superpowers. In Act One, John Hodgman conducts an informal survey in which he asks the age old question, which is better, the power of flight or the power of invisibility? Which would you choose?

Stick around to the end to hear John's answer. And now, please enjoy today's conversation with John Chisholm. John Chisholm, welcome.

JOHN CHISHOLM: Well, thank you very much for having me on the show.

LAUREN FOSTER: Well, I'm delighted to have you here today. You know, we're having this conversation at a momentous time in the US. Today is the first full day of the new Biden administration. And yesterday, Inauguration Day which was January 20, was actually the first anniversary of the first coronavirus case in the US. So how optimistic are you, as you look out at the new year?

JOHN CHISHOLM: Well, I would say it's been a very dramatic year. The past 12 months have been very dramatic, both in the US and around the world, with the coronavirus situation. And I would say, I'm very optimistic in terms some of the fundamental things that are happening-- so the fact that we have vaccines, production is ongoing and is increasing, that we can see a light at the end of the tunnel in terms of coronavirus.

If you're asking specifically about equity markets, I would say it's been-- actually, equity markets have performed very strongly, relative to the underlying fundamentals. The outlook going forward, I think, is for, at best, fairly modest returns and some volatility. So I'd say the equity market outlook, in contrast to what's happening in most people's lives, those challenges are going to be perhaps a little bit greater focus, when you're focused on markets.

LAUREN FOSTER: So John, you're a Quant. And you've been a Quant from long before the term became such a catchall word. So for the listeners who might not be familiar with Acadian, tell us a bit about your approach at Acadian. And I'm also interested to learn which directions do you see the most promising innovations taking place in today's Quant investing community?

JOHN CHISHOLM: Absolutely. So just for folks who don't have a lot of orientation in terms of quantitative firms, what we do is we have a very disciplined investment process that we apply in a very consistent way. We're often described as being model driven, in the sense that we build models that help us predict returns. So for investing in individual securities and stocks, we would build models that predict security returns based on fundamental and other attributes of companies.

And we would implement those models through a very structured approach, in Acadian's case, using an optimizer to help us make buy and sell decisions at the individual company level. And that kind of approach, I think, takes away some of the behavioral errors that investors are often prone to make. So it gives you some structure.

Historically, one of the challenges with quantitative approaches was that you were primarily basing your investment decisions on fundamental data like earnings data, balance sheet information, typical financial data. That's changed a lot in the last several decades. So today, we have a much greater breadth of data sources available that can help inform us about which companies are attractive and which are less attractive.

And so, the quantitative processes, in some ways, have gotten to be much more fundamental in terms of how they work, while maintaining that empirical component of you've got to be able to prove that the tools that you're using to predict returns actually work in predicting returns.

LAUREN FOSTER: So in terms of the second part of my question-- where you're seeing sort of most promising innovation taking place today, in terms of quantum investing?

JOHN CHISHOLM: Yeah, I'm sorry. So that really relates to in two things. One is the data that we use. So when I talked about the breadth of the data that we have access to today really exploding, and it's not just financial data. It's data that relates to, very much, qualitative information about companies, you know, management quality.

How do you assess that? Today, some of the data that we have access to allows us to do a much better job of that than was possible 10 or 20 years ago. And then, the second part of that is how to interpret that data. One of the interesting things that's changed in the last 15 years is the application of machine learning and other AI types of tools, to understanding the relationships between that data and between company returns.

So today, we can not only-- we not only have access to this really interesting data, this really rich set of data on companies, but we can also do a much better job of interpreting that and understanding to what extent does it influence returns, and how best to use it, using these machine learning techniques. And that represents, again, a significant change in both what Acadian does and what the industry is doing over the last 10 years or so.

LAUREN FOSTER: So I heard a terrific podcast that you did-- it must have been a couple of years ago-- when you talked about how when you started out at the firm, Quant was not as sophisticated as it is nowadays. You said, there wasn't any machine learning.

There wasn't any big data. I think your term was, there was little data and statistics. And of course, you know, a lot has changed since then. There have been these huge leaps in terms of machine learning and data science.

And I'd love to spend it just a couple of minutes thinking about sort of culture. And my question really is, how do you build a culture that is suited to attracting and developing data scientists and machine learning experts? So particularly, the PhD level people who like to publish and collaborate on their work-- and that's not really an approach that's that practical for a Quant fund. So how do you go about it?

JOHN CHISHOLM: Absolutely. I think one of the key things is, how do you attract and retain talent in a quantitative firm? How do you maintain a culture that supports innovation? Because let's face it, investing in general is a competitive game.

You've got lots of different firms. There's lots of smart people around the world. And a lot of them are looking at similar, or the same, underlying information in terms of trying to make decisions, make investment decisions.

So I think one of the key things is, how do you set up your firm? How do you allocate decision rights? What's the degree of transparency-- internally-- in the firm?

And I think both because of personal preference and a conviction that it works, one of our approaches has always been to have a high degree of internal transparency. And what I mean by that is, that we don't want silos. We don't want silos within the investment team. And we don't want a silo off the investment team from the rest of the firm.

So there's a big emphasis on a degree of collaboration between our investment team and other parts of the firm within the investment team, and also with our clients. Because even though if you're a quantitative firm, you may have returns that are great in some periods that are more challenging in others. You need to be able to explain those returns to your clients.

So while you don't want to give away your intellectual property to your competitors, you do need to be able to explain to your clients what's driving the returns in the portfolios that you're managing on their behalf. And to do that, it's really important to have a degree of transparency that's adequate to make sure clients feel like yes, we get what they're doing, why they're doing what they're doing.

And we have confidence in both our understanding of their process and in the fact that that process is going to work, longer term. So I'd argue that transparency is actually a really important cultural value for firms. I know there are firms that have taken different approaches to it.

But I think, in our case, in Acadian's case, that's something that's worked. And then, what goes along with that, of course, is emphasizing collaboration. And we don't want someone to say, that's my model. We want someone to say, that's our model, that we're all working together.

Our entire investment team-- entire firm, really-- is working together in terms of trying to serve our clients and provide the best possible returns, the best possible risk management to those clients. So you've really got to, I think, emphasize collaboration. It helps that I think we're doing some really interesting things.

So I think if you've got smart, talented people who are thinking about careers, there are some really interesting things we can do on the investment management side, on the alpha generation and research side. And yes, you don't publish externally. You're not going to publish your newest model in a journal.

But internally, you're still very much-- there's still a very strong process of peer review. So you're really trying to do high quality research and share that with the team, take the team's feedback. And then, work to put that into the production model and have it work and have it add value.

That's really, I think, both the intellectual challenge, but also the satisfaction of knowing that that intellectual effort that really a researcher put in, a portfolio manager put in, is resulting in an outcome that's helping people, that's helping our clients do a better job of meeting their financial obligations.

LAUREN FOSTER: So many of our listeners, our CFA charter holders-- and lots of CFA's don't have a background in data science or software, but are still interested in getting involved in quantitative investing. What advice would you have for them?

JOHN CHISHOLM: Yeah, I think it's not a road that can't be walked. But it requires some effort. So if you have a lot of knowledge of the investing landscape, you really understand company balance sheets, you can build earnings models but you're not a Python programmer, you're not that great with SQL, how do you get involved?

Well, there's table stakes to being capable of doing machine learning work, or managing data and utilizing new sources of data. And those table stakes are going to require some degree of skill. Now that all being said, the tools have gotten a lot better.

So today, if you get a sort of some facility with Python, there's a lot of libraries that you can rely on that could apply a lot of these techniques, and make it so you're not building everything from scratch. There's a lot of third party open source code that's available, that really makes it a lot easier to do things than maybe they were-- you could do them years ago.

But I think it's still important that, if you're going to be active as a Quant-- as a practitioner, Quant practitioner-- you need to have some facility with software, with writing software, editing software, maintaining it. And if you don't, it's hard to even manage that effort unless you have some basic skill set and some basic knowledge in those areas.

And again, that being said, picking up that knowledge today is a lot easier. You don't have to go back to school. There's plenty of online resources that can help you, that can bring you up to speed. It doesn't even-- it doesn't require a lot of money. It really just requires an interest and a commitment to coming up to speed with these skills.

LAUREN FOSTER: So I've been spending a little bit of time looking at 2021 markets, at forecasts and outlooks. And one of the themes, I guess, that seems to be a major theme is that value stocks will come back. But before we dive too deeply into that, I just want to give listeners some context.

And this is a quote that I read from a recent Bloomberg article. And it says, "For the three years that ended in September 2020, growth beat value by a record 24 percentage points a year based on price to book, the worst three years for value in 100 years and by a wide margin."

So needless to say, the last few years have not really been very kind to value managers. What, in your view, has been the drivers of value's recent under-performance? And what conditions would make for a comeback?

JOHN CHISHOLM: I mean, first of all, I just acknowledge it's been a crushing period for value. And any manager that had a extremely heavy value orientation has just had very difficult performance. Quantitative managers, typically, have a component of value, and how big a component does vary.

But there's no question for most quantitative managers that value had headwind, has had a significant negative impact on the returns they would have otherwise generated. What's driven that? Why have we seen value do so poorly?

Well, I think there's a couple of reasons. And one is, just acknowledge fundamentally, a lot of the companies that have done really well in growing profitability, in benefiting from platform effects from the environment that we've seen, are not value companies. And in past periods-- like the TMT bubble back in the late '90s, for example-- you had companies that achieved enormous valuations.

But their fundamentals never really caught up. They were always looking very, very expensive and in many cases, had no earnings, never grew their earnings significantly. That's not the case in this latest period.

Certainly, if you look at companies like Alphabet, like Google, like Amazon, if you look at consumer tech companies, for example, they have done a very good job of actually growing their underlying fundamentals, growing their earnings, growing their cash flows, growing their revenues. And so, part of what's happened is just, it's been a different environment where there hasn't been as much mean reversion in the fundamentals, as you've seen in prior periods.

And therefore, value sort of stayed behind, has continued trailing. But the other part that's happened is, that the premium for these companies that have been able to generate growth has grown. So the spread in valuation between value and growth stocks has grown.

That's the part that, I think, is likely to be mean reverting. So when you hear people talk about values likely to come back, it's hard to talk about the timing of this. But clearly, as these spreads grow further and further, it would be like expecting the growth rate to continue increasing.

It's one thing to maintain a very high growth rate. It's another thing to increase that growth rate, even further. And it becomes more and more difficult, the larger companies get.

So our expectation is also that value will make a comeback. I think we're maybe more skeptical on knowing exactly what the timing of that comeback is. It may have started, already. Value's off to a good start in January.

But you could have said that in a couple of the previous years, as well. And they haven't turned out that way. So I think it's important to manage risk by-- essentially, as a Quant-- by having a diversified set of positions in your portfolio, some of which are value-driven, but also to consider other characteristics-- growth-related characteristics, quality characteristics, things like technical characteristics, momentum, top down effects.

There's lots of different components that can go into building a portfolio. Value should be one of those. But if anything, the last decade has shown us that it should not be the only one, that you've got to consider other types of factors, as well.

LAUREN FOSTER: All right. Can you tell us a bit about Acadian's approach to value investing? And I guess related to that, how your Quant skills help you compete with other value managers?

JOHN CHISHOLM: Yeah, absolutely. I think if you go back again several decades, and this is sort of all we had then-- price book, price earnings, price sales-- you had certain fundamental ratios. And there wasn't the data availability at the time, to really dive more deeply.

I think today what you can do is, you have access to a lot more information, not just more detailed financial information, but other kinds of information. So for example, when you're talking about value, and you look at value relative to what? How do you measure value?

I mean, the rise of intangibles, in terms of how companies are priced, is important. So if you're talking about technology companies, what are they spending on R&D? What kind of value is that R&D creating?

And how do you measure that when in financial accounting, in the US typically, R&D is written off, is expensed as it's incurred. But in reality, that R&D is creating value in the future. So you've got to measure that in some way.

And the same thing goes for other kinds of things that may be expensed based on GAP-- on Generally Accepted Accounting Principles-- but that actually contribute to a company's ability to earn and generate cash flows in the future. So long-winded way of saying it's become more complicated to measure valuation. And it's very important, we found, to measure it in some other ways, beyond the simplistic ratios that investors were using 20 and 30 years ago.

What helps, in terms of doing that, is not just access to that data, but also to have an infrastructure that allows you to quickly and effectively evaluate once you've constructed a particular measure of value, how effective that measure is across different industries, different markets, across different accounting conventions.

It really allows you to tell how heavily should you weight a particular type of valuation measure in your process. And that's sort of another part-- beyond actually having the signals and the ideas, that's another part of running a quantitative investing process that's very important.

LAUREN FOSTER: So when we were chatting before, I think you'd mentioned that Acadian started out primarily as an equities shop. And now, you take a multi-asset approach. So some economic and behavioral trends tend to be expressed across many asset classes.

So for example, risk on, risk off sentiment might move the oil price, interest rates, equity indices, Japanese yen, sort of all in concert. Does your approach look to leverage a particular common theme across asset classes? Or are you looking to diversify by exploiting different causal factors?

JOHN CHISHOLM: Yeah, in our approach-- so just in BOY reference, we have had an equity strategy we've run for a long time. These multi-asset strategies, we started developing these about five years ago. And so, the track record there is a little bit shorter than it is in our equity side.

But what we found is that while a lot of the common themes apply-- so when you take things at work at the equity market level and you apply them say, in commodities or in fixed income-- the concept is similar. But the application of it, the implementation of it, can be very different. And so, it's very important to say you need a rationale.

Why is there an inefficiency here? What's driving this? Is this an informational inefficiency, a behavioral bias? What's likely to result in the persistence of this inefficiency? And there's good stories around value, as an example.

There's a piece in-- despite value not working over the last-- certainly over the last three years. I'd argue over the last 10 years, it really hasn't worked effectively in equity selection. When you take measures of valuation, you look at them in other areas.

You can find that in some areas, they've actually worked pretty well over this period. But they're different. They're not measures of value that are the same measures you would use as applied to equities.

If you're looking at commodities, you're looking at supply and demand measures are useful. And you can argue semantics about what category should those fall in. But we would argue, there's a fairly broad quality category that applies to both equities and in commodity markets, as well.

That's very useful. So the point is, the concepts may be similar. But the underlying signals that you're using differ quite a bit, depending on which asset class you're looking at.

LAUREN FOSTER: So in the last year or so-- certainly more recent years-- we've seen quite a big rise in ESG investing. And I'd love to hear a bit more about Acadian's ESG philosophy. But I'd also like to know how you differentiate, I guess, your Quant ESG approach from other ESG sort of Quant themed offerings.

JOHN CHISHOLM: I think ESG is very important for two reasons. One is, it's important to our clients. Many of our clients-- and this started in Europe and in Australia, but it's really a global phenomenon-- many clients put a lot of weight on ESG issues when they're determining how they want to invest, and which managers they want to work with.

And then, the second thing is our employees. I mean, I think there's some degree of generational change in the investment industry. And I think a lot of people coming into the industry, yes, they want challenging intellectual problems.

They'd like to see some financial rewards. But they also want to feel like they're doing something positive in the world. And it's important to them to invest in a way that is consistent with their personal beliefs and views.

So we've treated ESG as something that's important. And we've often had a view-- for a long time had a view-- that these kinds of themes can be beneficial in terms of generating investment outcomes. What we found, when we're applying ESG, is that a lot of the information that you'd want to rely on doesn't really come from traditional sources.

It can come from news and media sources, from third parties like NGOs. And collecting it and processing it in a useful form is really an important part of utilizing ESG. So just to give you an example of the types of things that we would want to look at, one thing is, can you measure things related to employee well-being?

So the idea is that a more engaged, more committed employees result in better business outcomes. That's not captured well. Investors don't discount that very well because they don't really have good reads, especially at sort of small or midsize companies, how engaged, how committed employees are in those businesses.

And to get measures-- those kinds of measures-- to get reads on that, you really need to go to more non-traditional sources of information in order to access that kind of data. And it takes quite a bit of digging. You can't just utilize-- there's large providers of ESG data. But we found that their measures don't have a lot of predictive value. You really need to dig in more.

Another example would be measures of carbon exposure, environmental related issues, and those can be very useful. But you really need to make sure you can adjust those for the current environment that the companies are operating in. So different markets have different ways to regulate carbon emissions-- taxes, regulatory penalties or not, or lack thereof.

And again, you really just need to be careful that you understand what's the environment that companies are operating in. And therefore, how is that carbon exposure priced in different environments. That would be another example. So it's really ESG issues matter quite a bit.

Certainly, governance, social, and environmental issues all have an impact on returns. It's complicated to measure them. It's data intensive. And it's very hard to just subscribe to a data source and say, OK, here's all our ESG data, because we found anyway that that's not particularly productive in terms of adding investment value.

And when we incorporate ESG in Acadian's process, we want to make sure that we're doing it both because it's the right thing to do, but also because it's adding investment value to our process in some way.

LAUREN FOSTER: So John, you joined Acadian as one of the founders, back in 1987. So you've had more than three decades of experience as a professional investor. And I'm wondering, what are some of the lessons you have learned over that time that could be uniquely helpful to understanding the current environment?

JOHN CHISHOLM: I guess I'd say some of these lessons are a little bit cliche, but they're still valid. One is that markets can stay irrational longer than investors can stay solvent. So this is sort of like looking at say, the last 10 years of value returns.

Value's got a very good long term track record. When you say long term, it's 30 or 40 years. But it hasn't over the last 10 years. And somebody who's really committed to purely a value approach and lacked effective risk management, there's companies that have gone out of business in the last couple of years just because their returns have been so challenging in an environment that really, value's struggled in as much as it did.

So it's important to have-- the bottom line is, it's important to have effective risk management in your approach, whether that's a fundamental approach or a quantitative approach, even when you're convinced that over time, markets are going to come around and reward what your view is. So another example of that type of value would be emerging markets.

Equities, right now, have become incredibly concentrated. If you look at the benchmarks-- the top five companies-- make up something like 25% plus of the emerging markets benchmarks. And so, if you have a portfolio that doesn't have effective risk management in it, if you've got a huge bias against those companies because they've typically looked expensive on different measures-- so there's a valuation component there, as well.

Or if you like very highly diversified portfolios, emerging markets has been a little bit more of a struggle, typically, for those kinds of managers. So again, it just points to the importance not just of having a good source of alpha-- a good ability to pick securities, whether that's again, that's fundamentally driven or quantitative-- but also an effective risk management approach that allows you to get through periods where your alpha signals aren't working as well as they have, historically.

And I guess the other one is just staying the course is hard. This is related. Staying the course is hard when the short term results are poor. And I'll give you one more example of that.

There's a set of strategies that have been sort of interest to investors for the last 10, 15 years, these low volatility strategies, so low volatility equity strategies, for example. And in 2020, low vol strategies generally did very poorly. So there was a huge gap between the returns of low vol strategies and between cap-weighted benchmark returns.

Historically, low vol strategies, over the long-term, have generated about-- depending on which types of strategy-- 70, 80% of benchmark risk, and match the benchmark return. So 2020 really stands out as a not very good year for low vol. But the results are sort of within historic bounds.

In a year that ended up pretty strongly, it's not something that's sort of outside the pale. And so, it's predictable that every now and then, you're going to have a year like 2020 for low-ball strategies. Some investors, I think, given the results in that year, have lost some confidence in the approach, even though it was predictable that you would have a year like this.

So it's just important, I think-- both as an investor to think-- when is something a bad outcome, but it's within sort of the bounds of expectations. And the underlying thesis is still applicable. So you want to stay the course.

And when do you really need to reconsider the approach? And I think in this example, the low-ball example, I would say this is probably a good time to stay the course. But clearly, not all investors are on the same page in that respect.

LAUREN FOSTER: So in our last few minutes, we get to play the closing question game. And last year, I started out-- it was the beginning of COVID-- I decided to add one question that I asked every guest on the show, where I called the ray of sunshine question, just trying to end the conversation on something positive.

I've now gone into two questions. And today, I'm going to add a third. So we'll start with the first one, the ray of sunshine question. What is one positive long-term change that you hope to see as a result of the pandemic?

JOHN CHISHOLM: I think one of the things that I hear from-- I try to talk to-- we've got close to 400 employees at Acadian. I try to talk to many of them, even the ones I don't work with day to day, just to have an ability to stay in touch and hear what they're thinking. And one of the things I've heard consistently is that employees really value the flexibility of working remotely.

And while it's true that some people worked remotely prior to COVID, I think the broad exposure to the fact that in the investment industry anyway, most or maybe all employees had an opportunity to work remotely for a period of time. And that firms proved that they can operate effectively, they can work productively in a remote environment, means that it's very likely going forward that people who work in investment firms are going to have more flexibility in their working arrangements.

Going forward, it may not be that they're going to work remotely full-time, like many have during the COVID period. But that extra flexibility, you know, has enormous set of value when I talk to parents who have younger children at home, when I talk to folks who are in caregiver situations, trying to support other family members in different ways. You can get your work done, but have some more flexibility in terms of how you go about and exactly when you go about doing it, and where you go about doing it.

And saving on the commute is huge for folks who live in our part of the country. Boston commutes, just like the commutes in, say, New York City some of the other large metro areas, can be fairly extensive. And that's just a net savings for individuals. So I think that would be one thing I'd characterize as a positive outcome from the pandemic.

LAUREN FOSTER: So the second question is, I call it the NASA question. And it's actually a NASA education question. And you are uniquely suited to answer this question, because I should just let listeners know that you were an aspiring rocket scientist, that when you went to college at MIT your passion was building or designing spaceships.

So the question I've been asking all my guests in the last few months is, you're about to go on a long duration space flight. You can take just one item with you. What item do you take?

JOHN CHISHOLM: I'd want to think about that more. But the first thing that pops into mind is Kindle or something like that, just something-- it's fantastic. I used to carry books with me when I went-- when I traveled to see clients or went to meetings. And you have two or three or four books with you to run through a couple of days of travel on airplanes, and so on.

And today, you just download whatever you want on your device. And you can just read it anywhere you want. It's lightweight. It's backlit. So for me, that would be something that would be very important to have, is just the ability to access anything anybody's written anywhere, and just be able to read it on the Kindle. I find there's so much-- it's usually there's more interesting content than there is time to go through it. And this just gives me an ability to access it in a very convenient way.

LAUREN FOSTER: So the final question-- and this is the first time I'm asking this question. And you're our first studio guest for 2021. So you get to be the first one to answer this. And here it is.

So flight or invisibility? And whichever you pick, you'll be the only person in the world to have the superpower. Which do you pick? And what do you do with it?

JOHN CHISHOLM: I was not expecting that question. I would say either one would be quite interesting. But I would probably go with the flight. The invisibility seems a little bit too-- it's like seeing things that you're not supposed to see.

That doesn't really sound that appealing. So the flight is like, wow, I could just go up and go anywhere, not be stuck in traffic. So I would guess I would go with flight on that.

LAUREN FOSTER: Great, well thanks for being a good sport on that one. That was a surprise. Well, John, it's been a great pleasure to have you on the show today. Thank you so much for joining us.

JOHN CHISHOLM: I appreciate the invitation. Thank you, very much.

LAUREN FOSTER: Take care out there. Be safe.

JOHN CHISHOLM: Bye bye, now.

LAUREN FOSTER: Thanks, bye bye.

[THEME MUSIC]

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