

**Dimensional's Founder and Chairman David Booth on
being an index pioneer and investing through
uncertainty**

Goldman Sachs Exchanges: Great Investors

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Raj Mahajan: Welcome back to another episode of Goldman Sachs Exchanges: Great Investors. I'm Raj Mahajan, head of the firm's systemic client business and your host for today's episode.

Today, I am thrilled to be speaking with my friend, David Booth, founder and chairman of Dimensional Fund Advisors. Founded in 1981, Dimensional manages approximately \$680 billion in assets and is the largest active ETF issuer after just three years of launching its first ETF. As we'll discuss, Dimensional is also quite different from traditional stock picking firms and instead manages money through science-based, systemic investing.

David has spent his entire career applying groundbreaking financial theory and research to the world of asset management, and in partnership with the most preeminent academics in modern finance.

In 2008, David also made one of the largest ever gifts to the University of Chicago's Business School, which now bears his name, Chicago Booth.

David, welcome and thank you again for joining me today.

David Booth: Thanks for having me.

Raj Mahajan: Dave, let's start with your upbringing. You grew up in Kansas. Can you tell us about your background and some experiences that helped shape your approach to business?

David Booth: I'll tell you the number one thing that probably shaped my attitude about business was starting my senior year in high school and the first three years of college I sold shoes, amazingly enough. And what it taught me, I was a commission salesman. And so, I had a big incentive to try to make a sale, obviously. And I quickly

realized that was all well and good. And still, at the end of the day, I wanted to go home and feel good about myself.

And that's been an attitude or a philosophy I've had in dealing with business. When I go home at night, I want to feel good about what we've done as a firm and what I've done.

Raj Mahajan: That's excellent. In Kansas, you went to the University of Kansas. And you graduated and then you went to the University of Chicago's PhD program in 1969 with the plans of becoming a professor. Going from selling shoes to becoming a professor, walk us through that bridge a bit and what drew you to Chicago and academia.

David Booth: Well, it was an incredibly exciting time to be in a business school. The field of finance was undergoing a revolution in the '60s and '70s. It had been going on for a while. And it created so much excitement.

If you think about it, before 1960, there was really no data to test people's claims. People could just have all kinds of wild claims about investing. And then in the '60s, all of the sudden, the data became available, and people could test

out certain claims. And a lot of them were found to be wanting.

Particularly important, I think because in a fairly narrow window of time from, let's say, '69 to '72, we had the three biggest events, I think, in finance in the 20th century. You have Gene Fama's efficient market hypothesis. You have Bob Merton with his multi-factor theory, the intertemporal capital asset pricing model, as it were. And you have the Black-Scholes-Merton option pricing model.

These three things came together in a very colorful and exciting way. And among other things, led to the certain of indexing, which was another big event, you know, for the 20th century.

Raj Mahajan: So, you studied with Eugene Fama, who went on to win the Nobel Prize. What ideas about his research captivated you most?

David Booth: Just the notion of markets and how they work. We don't think markets are predictable. That's basically the idea. And too much of the financial services industry is getting you to try to predict the unpredictable.

Which didn't seem to make any sense. And nobody was applying those ideas.

So, that was an incredibly exciting opportunity. I loved the ideas. Loved the research. There was Jensen's study on mutual funds or the Merton Miller with his capital structure and cost to capital. They had all these new ideas needed to get out there. And eventually I decided the world would be better if I worked on that out in the public rather than staying at a school somewhere.

Raj Mahajan: So, that was a consequential decision, taking the road less traveled for a PhD student and actually becoming a practitioner.

David Booth: Practitioner. As we all agree, it worked out well for everybody. It worked out well for me. The school. And our clients.

Raj Mahajan: Was it a hard decision?

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David Booth: No. It was probably naïve. I was probably a little quick. I ended on a term paper. Actually, it was for Milton Friedman. And he wasn't too keen on the paper.

And I'd worked really hard on it. Along with Roger Ibbotson, my coauthor. And I go, I don't think I'm cut out to be a professor. I enjoyed selling shoes. I'm not enjoying this. So, I need to get out there and deal with the public somehow.

Raj Mahajan: All right, so now you have an MBA. And you are setting out to work in the industry. And your first job was at Wells Fargo. What were you trying to build at Wells?

David Booth: I'd come along. They already started this process. When I decided I want to leave the PhD program and went into Fama's office - I was going to his office every afternoon because I was his research assistant. And--

Raj Mahajan: One of his finest, he would say.

David Booth: That's what he says now. If you succeed, then people all of the sudden remember you as being a little more clever than you were at the time. I said I wanted out. So, he said, "I'll call up Mac McQuown at Wells Fargo who was creating the first indexed portfolio.

So, I went out there and got the excitement that was

leaving school, which was fantastic. Walked into an incredibly exciting time at Wells with the notion of what to do, how to invest given recent developments in financial science. And there were two threads that still, really, are there today. First off, the idea of indexing at Wells sprang from Myron Scholes and Fisher Black. They convinced Mac McQuown to create this indexed portfolio. And that's how they started working together. And while working together, they developed the Black-Scholes option pricing model.

And what they decided to do, there were two paths that Wells went down. One was the ideas of Black and Scholes, which was to engineer portfolios to have higher expected returns than the market. It was an equal weighted indexed strategy. And the other path was a straight S&P 500 index fund. They were pursuing both of those in the S&P and the Trust Department. And that's what took off very successfully. And eventually, from Wells and went to PGI. And that was the-- it's at BlackRock.

Raj Mahajan: So, you were on the ground floor of--

David Booth: What became--

Raj Mahajan: The passive movement.

David Booth: Yeah, right.

Raj Mahajan: Did you ever at the time when you were working on this, did you expect trillions of dollars of assets to be managed that way at some point?

David Booth: No. We thought maybe we'd get up to \$10 billion in AUM or something like that. We just didn't know. First off, you have to understand, we were all young. When I went into the PhD program, I was 22. And Fama was 30. I thought he was an old man. These ideas were popping up like crazy.

And the other thing that Black, and I don't know if it was before their option pricing model or as a result of the option pricing model, but the whole idea of options pricing is that flexibility has value at its core. And so, on the path that was Black and Scholes, it only was it an engineered portfolio to beat the market, it was also using flexibility in trading to improve returns over what a mechanical index fund would be able to do.

Raj Mahajan: That was a big idea, I'm sure, at the time.

David Booth: Big idea. In fact, it was so big nobody bought it. We ran into every kind of legal problem. I mean, for example, when we started to create a fund, the FCC wrote back, "Look, you guys aren't trying to pick winners. Why would they pay you a management fee for doing what you're doing?" So, we had to answer inane questions like that along the way. And people would say, "What you're doing is un-American." What's un-American about improving lives of people through investing?" You know?

Raj Mahajan: Nothing at all. Now, one of the things I'm most fascinated by is that despite being on the ground floor of this massive move to passive investing, you decide in 1981 when you started Dimensional, if I might add in your spare bedroom, not too far away from here in Brooklyn Heights, that you were going to build an active management firm. Why active? And what was your vision at the time for the firm?

David Booth: These terms are funny to use. I would say maybe half of our clients view us as being passive. Even about half of them view as being active in the sense that

there's no forecasting. We engineer portfolios which we think are structured towards parts of the market that have higher expected returns. Not short-term movements, but just long-term, higher expected returns. That's one thing we do.

And then we take this idea of flexibility has value and say we think we can add value or indexing by trading better.

Raj Mahajan: Yeah, lower trading costs.

David Booth: Lower trading costs. This is the kind of stuff you guys do really well, which is deal in the quick trading of secure--

Raj Mahajan: Yeah, lowering transaction costs on the best technology. No, it's certainly a big area of investment for us.

So, in launching Dimensional, what was the first product you created? And how did it go?

David Booth: Well, it was great. The first fund we launched was our small-cap fund. And because of this

active/passive confusion, we just called it a dimensional fund, rather than an index fund.

Raj Mahajan: Is that where the name came from?

David Booth: Yeah.

Raj Mahajan: Oh, that's cool.

David Booth: So, we thought of this small-cap stock as being a different dimension. It wasn't ten years later until Fama and French with their paper on the cross section of expected returns documented that it really was a dimension.

Raj Mahajan: Talk about being ahead of time.

David Booth: Yeah. Ahead of the data. You see, at the time our first clients were just large institutional investors. And they weren't holding small-cap stocks in any meaning way. And so, that was our idea. An equity portfolio ought to have large and small stocks, rather than have all your money in large. And so, we didn't really have to have much data to support that idea.

Eventually, it turns out by sheer luck, Ralph Bonds at the University of Chicago had done his PhD dissertation on exactly what it was we wanted to do with the relation between company size--

Raj Mahajan: Yeah, big and small.

David Booth: And return, yeah. And eventually we did get data. But we got our first clients in before we even had a data because the argument was so strong. Those ideas don't come along very often that strong.

Raj Mahajan: How did you realize the opportunity in small-cap stocks just given the transaction costs at the time, especially pre-electronic trading? I can imagine that was a hard problem.

David Booth: Oh yeah, no, a lot of people were concerned. Myron Scholes, one of our lead independent directors in the mutual fund that we created, because you know--

Raj Mahajan: The first product was a mutual fund.

David Booth: Yeah. It was a mutual fund. And that mutual fund, as we learned, I didn't know anything about running a mutual fund, we found out that we had to have an independent board of directors.

Rex Sinquefield, my co-founder, and I walked over to the business school and in his office that was Merton Miller, who was a legend among professors. And we asked him to be an independent director and he said sure.

Raj Mahajan: You just ran into him at the water cooler kind of thing?

David Booth: No, we walked into his office. I mean, you know, managed to fight our way through all the piles of papers on his desk and stuff. There are very few professors that everybody loved. And Merton Miller was one of those. And anyway, he was a great person. Fantastic mind. He got his Nobel Prize in 1990. He was the first of our directors to get a Nobel.

Raj Mahajan: Note, you've used the plural there.

David Booth: Yeah. Well, just last year we ended up

getting-- well, in December a year ago, our fifth Nobel laureate as a director. Anyway, Merton says sure. Because I'd been in the PhD program, and I'd presented papers at a finance workshop to professors there and knew Merton pretty well. And he said, sure, he'd like to help.

And then we walked out of his office and Myron Scholes was on his way to lunch. We're like, "Well, hey, Myron. We need an independent director." So, Myron raised the question that you were just asking, which is, "Well, how do you know you guys won't get scalped in trading? Because you don't know anything. And you're going to be going into the market trading against people that think they have undiscounted information. How does that work?"

Raj Mahajan: Right.

David Booth: And we go, "Myron. That's an empirical question. Maybe we can protect ourselves. Maybe we can't. But the important thing is to get access to small companies somehow. And we think this is the best way to do it." He goes, "Okay, well how much are we going to get paid?" I said, "Myron. We don't have any money as it turns out. But even if we did, we can't pay as an independent director of

the fund." So, he said, "Okay." And so, with that we started this incredible connection.

And as well when we started the firm on the advisor side, our company itself, one of the first calls was to Gene Fama who it had been 10 years since I'd spent much time with him. But I said, "I'd like to have you be a founding partner and really head up our research activities." So, he said okay.

So, in a very short period of time--

Raj Mahajan: Did he think about it? Or he just said yes on the--

David Booth: Yeah. You know. So, all of the sudden we have some of the biggest names in finance agreeing to do it. And it really didn't cost us any money out of pocket, which was very important as well. And that's how we got started.

Raj Mahajan: And this is 10 years before the seminal paper, "The Cross Section of Expected Stock Market Returns" by Fama.

David Booth: Yeah. And the theory would be drawing on Bob Merton's multi-factor theory that you can engineer portfolios to have higher expected returns in the market. It's basically not all returns are related in the market. And that was the beta model at the time.

So, we had really good academic theory to support what we were doing in terms of multi-factor theory of Bob Merton with his efficient market hypothesis of Fama, said stock returns are not predictable. Then we have Black-Scholes-Merton option pricing models says you have flexibility, you can do better [UNINTEL]--

Raj Mahajan: Run [UNINTEL]. Yeah.

David Booth: Yeah. And that's how we got started.

Raj Mahajan: And when you were going out to investors, what was the early reception like?

David Booth: Most of the people thought it was a fantastic idea. I remember this one guy standing up and slapping his hip. He had a fake hip. And goes, "Damn, that's a great idea." So, everybody loved the idea. People were concerned

about, but can you execute? And here again, as Myron says, "Ideas are cheap. But it's the execution that counts." So, as a result, what happened was people gave us really small amounts of money to invest. Small amounts to an institution in those days might be a few million dollars. And that's how we got started.

Then based on our actual results, our live results, people started getting confidence that we could actually deliver what we said.

And then a funny thing happened was instead of lagging the performance of small-cap indices, we started actually having higher returns than benchmark indices. And that total was a shock. So, anyway, you know, it just supported the idea that flexibility has value.

Raj Mahajan: That's amazing. That's really amazing. So, you've mentioned all these existing and future Nobel Laureates, some of whom were on Dimensional's board and others contributing to the research. What was it like to manage them in the traditional sense? How did your investment team work with these legends in the industry?

David Booth: It was actually very exciting because, number one, you couldn't blow smoke in their face. You had to get your A game together. On the other hand, if for our clients, as independent directors, their job was to really monitor our results on behalf of the investors in our funds. Who better to monitor our results than these leading academics?

The world of finance, if you take out Merton Miller, Gene Fama, Bob Merton, Myron Scholes, Fisher Black, it's a much different field today than it was-- than we have, you know?

Raj Mahajan: Understatement. Totally. You mentioned trading is a big factor in Dimensional's performance. Can you explain the firm's approach to trading and how that actually affects returns?

David Booth: Yeah. Suppose you have an index fund within the job is to have zero tracking or relative to an index. Now suppose a new stock comes into the index that day. It'll come in at the day's closing price. That's the way all index funds that I know of add stocks to the index or their bonds.

If you're an index fund, that means you have to buy at the closing price because that's the price that's going in at the index. So, if you're an index fund manager, you'll say, "I will pay anything. But I have to have tonight's closing price guaranteed." And you're doing it at a time that every other index fund manager is trying to track the same index, you're all trying to go the same index at the same time.

And so, we said, well, we don't think that's a good way to trade. That said, particularly in small-cap stocks, as we used to tell people, small-cap, collectively they're very liquid. You take the universe of all small-cap stocks, there's plenty of trading volume. So, it's a big room. But it's a small door. You can't be pushing a lot of money through it at any one point in time.

Raj Mahajan: I like that. Big room. Small door.

David Booth: Yeah.

Raj Mahajan: In fact, all the ideas that you're describing about lowering transaction costs, that's what we're in the business of, is providing liquidity and finding ways to lower

transaction costs. Sometimes it's in the form of a block trade. And other times it's an algorithm that's finely tuned to buy on the bid, sell on the offer, cross the spread when you have to, but identify ways. Because basis points really matter to our clients. And we're constantly hunting for the best way to do that.

David Booth: See, the social value in that is it makes prices even more likely to be fair. Because if there's a wrinkle in the price, your guys jump all over it. So, that's the ultimate in democratization.

So, you know, Joe or Mary coming in to invest from their home in wherever, they don't have to worry about prices being fair.

Raj Mahajan: But David, the thing that's extraordinary about what you've said is we're doing this today with world class technology. we've spent hundreds of millions of dollars to develop. Doing this in the early '70s on small-cap stocks where, talk about opacity in terms of identifying where the market was on that. And to know that the outperformance in your strategy resided in being able to execute efficiently. That's next level.

David Booth: In some ways, and summarizing very quickly, what I learned is in our business, the money management business, is about trust. Investment solutions is our business. Trust is our product. And coming up with ideas that are sensibly executed that, overall, over the long run deliver what you said they were going to do, that's how you establish trust.

So, that's how we got started. It was based on the idea of we think we understand how markets work. The competitive advantage of markets. All these people out there buying and selling, they have a lot of anxiety because, to the extent that they know something, well, it's not reflected in the securities price. To the extent they have undiscounted information, the half life of that's got to be very short. So, they're out there very anxious.

So, what we would do is we thought we were providing a liquidity service, really. We'll go out there and provide that liquidity at a price. For a fee. And that was the idea of how we got started.

Raj Mahajan: And the education programs that you run.

The advisor network of people that are connected to Dimensional. Tell us a little bit about when that idea came to mind and what was the logic behind taking that approach?

David Booth: So, we started the firm in '81. By 1989, we were pretty well established with the institutional clients, with the mutual fund. And a financial advisor, Dan Wheeler up in Sacramento said that he would like to have access to our funds.

Raj Mahajan: One single advisor said that?

David Booth: Advisor. Yeah. So, he came down to our offices and made the case why we should give him access for his clients. So, he had, I don't know how many individual clients he had, but he was managing money for individuals. And we said, "We're not too sure about that because individuals are in and out of the market. And we just can't have that in a mutual fund. A mutual fund's a good idea as long as everybody behaves themselves and they don't trade too much."

He said, "Oh, no, we won't trade a lot." So, we said, "Okay.

We'll give you access to the funds. But if we catch you trading, we're going to shut you down."

Raj Mahajan: Fair enough.

David Booth: So, he said okay. Funny enough, about a year later he comes back, and he goes, "I think there's a business in this. I've come across a lot of other advisors that would similarly like to have access to your funds. But they can't get in."

And we said, "Okay. But administratively, we can't handle a lot of clients. So, here's the deal. What we'll do is if the people that are interested, they need to come at their own expense to our offices for a day or two of training. And then at the end of it, if they seem sensible, we'll give them access to the funds. And secondly then, they're going to have to, instead of investing directly in our fund, they'll invest through an omnibus account. People like at Schwab and Fidelity, and in those days Pershing.

Raj Mahajan: Yeah, right.

David Booth: And looking back on it, that doesn't seem

very clever. I mean, we're putting all these hurdles in front of people. They liked it. And what they really liked was the fact that they had to go through the hurdles and know everybody else had to go through those hurdles. So, they felt more comfortable investing in a commingled account.

Raj Mahajan: Almost a community type effect.

David Booth: Yeah. Right. And so, we started small. And then once again, it just built over time.

Raj Mahajan: You're one of the few firms, if not only, that implements the same investment philosophy across its investment vehicles. Why has the company stuck with its one strategy?

David Booth: Well, because it's the right one. I mean, it works.

Raj Mahajan: Yeah, that's a good reason.

David Booth: There's still the whole idea. We still think for most people the best way to start to think about investing is to approach the idea that the market's not predictable.

That's like life in general. If you look at people, 25 years ago could you have forecasted where you are today? Or can you forecast where you are going to be 25 years from now? No, you started down a path and then you adjust. You manage the uncertainty.

Investing is about managing uncertainty. Just like life is. And we think the best way to manage uncertainty is the way we do it. Instead of trying to predict what will happen, we plan for what can happen. And then, here again, bringing up Black-Scholes, we're flexible. We look at results. See what happens. Just like you do in life. Some things work out well. Some don't. And you make adjustments as necessary. And that's really what investing's about as well.

Raj Mahajan: You know, it's very sound. Very sound. And to me, that's one of the most extraordinary aspects of your business is taking these academic ideas that are in various journals and translating that into an end advisor who can communicate with Main Street about not only what they represent, but why they can outperform.

David Booth: Well, you know, one approach I've used. Last

Thanksgiving I had a fun experience. Told my two kids and their plus ones and my partner over Thanksgiving, bring me a story about uncertainty. A big decision you had to make full of uncertainty that worked out. I don't want to hear a bad story. Just give me a good story.

And their stories were incredible. And all of them had something in common. First off, people could forecast a little bit. But it was largely whatever decision they're making, they knew it was uncertain, so they had to pay attention to what happened. Adapt to it. Control what you can control. Plan. Don't predict. And then play for the long haul. And get the benefit of compounding. Almost all investors realize the power of compounding. I think Einstein called it the eighth wonder of the world or whatever.

Well, I think that's what life is about too. You are the result of the compounding of many decisions you made in life. Maybe even that's where wisdom comes from, getting people to talk about it. And they go, "Well, that's really-- all those principles." Well, the principles, the same principles we use in investing. Plan, don't predict. You can't control the market. You can control how much risk you take. It's

also about managing uncertainty.

Raj Mahajan: I really love applying the magic of compounding to areas even outside of finance. Just doing something, a habit, 10 minutes a day in a year, just the amount of time you've done that. And all of the sudden it's a habit. It's part of your personality.

David Booth: That's right. But it's all managing uncertainty. There's the term that Bob Merton's kind of had, I got from him, which he has this great example which is carrying an umbrella. You can't predict the weather. You can get some forecast for the weather or what not. So, you have to make a decision to carry the umbrella or not. Sometimes you carry it, and you didn't need to. Sometimes you don't carry it and you should have. I mean, all of that's about dealing with uncertainty. And that's true. Markets are uncertain. But life is uncertain.

Raj Mahajan: I want to go back to your relationship with professor Fama. And what was it like to be a graduate student working for him? What about your relationship back then really was the foundation for all these extraordinary things you've done together as partners?

David Booth: Well, you know, I've tried to think about that. And he's thought about it a bit as well. But to paint a picture of it. So, it would have been 1970. I was his research assistant, which meant in those days I'd be over at the computer center all night programming something.

And so, what I would do is every afternoon I would go over to his office, and he would give me a list of things he wanted me to follow up on. And there'd be these pages of handwritten notes on a yellow pad. And I would look at them and I'd go, "Jeez, for the same amount of time he could have done the work himself." It was all about training me. He was apprenticing me. And for which I'm eternally grateful, obviously.

So, it just shows you what kind of person he is. And then, Gene's moral compass is totally due north all the time unwavering. And doesn't put up with anybody whose moral compass isn't due north. And that was such a great lesson from him. Here again, being an ex-shoe salesman from Kansas, I thought sometimes in real business you had to shade things or be devious or something. That doesn't fly with Fama. You get to do that once. And that's it.

Raj Mahajan: He's going to see right through it.

David Booth: He's going to see right through it. And being able to be careful to not overstate what you know. And in most arguments, if you don't have data, don't engage in the argument. I mean, that I learned from him. Because if you don't have data, you're just arguing beliefs, which is somewhere between boring and a waste of time.

Raj Mahajan: I want to stay on professor Fama for a second. Did you expect the seminal impact that the 1992 paper was going to have?

David Booth: Yeah, it was 1992-- yeah.

Raj Mahajan: ...for the listeners, The Cross Section of Expected Stock Returns.

David Booth: Yeah, yeah, yeah. Well, it was transformative. It was the correct way of going about the thinking. Even people that think they can beat the market, which you want to do, whatever your model is, the first thing you want to do is try to disprove your model. That's

another thing I learned from Fama. When he would come out, and now he was calling Ken French, come out with a paper. Once they come up with what they think is some new evidence, then they want to go back and try to disprove it. It's that kind of rigor that makes all the difference. It's made him who he is.

I think academics are shocked that we can make a business out of telling people what we think the truth is. Anyway, he says everything he's learned in business he learned from me, which--

Raj Mahajan: That's high praise.

David Booth: High praise. It's not true because what happens is he understands incentives so well that he understands business. He just doesn't see it packaged in that format. So, with the information he deals with, he figures out conclusions as fast as any businessman about any kind of business topic, pretty much.

As you can tell, I'm a big fan of his.

Raj Mahajan: And it must be-- the expertise around

incentives must be in the water at the University of Chicago.

David Booth: Well, it really is. It's probably the graduate school of incentives backed up by data. You know? I mean, that's about it.

Raj Mahajan: As you look out, forward, where do you see the asset management industry innovating the most?

David Booth: I think a lot of the innovation is going to come about because of administrative costs and technology being better, cheaper, faster. I don't know all the applications. But it's more likely to be that way than major disruptions in the science.

I think the science of investing has come a long way in the last 60 years. And there will continue to be innovations. It's not static. But I doubt that there are any kind of innovations comparable in magnitude to the innovation of efficient market hypothesis, multi-factor theory.

Raj Mahajan: Black-Scholes.

David Booth: And Black-Scholes. Merton option pricing. Those are all time home runs.

Raj Mahajan: So, you're saying that the frictional cost through technology will go down.

David Booth: Right. So, manager can deal with smaller and smaller clients. That will change things. If we can get closer to mainstream people, the more benefit we can provide. The big institutional clients don't pay much in management fees. It's smaller clients.

Raj Mahajan: Yeah. So, it's this part of this movement of the democratization of finance and getting Main Street more access to the best ideas.

David Booth: I'm glad you brought up democratization. Because that's really what has gone on. Sometimes investing in capitalism and stuff gets a bad rap. But this shows how the markets have become more democratic. You can buy index funds very inexpensively. How cool is that?

Raj Mahajan: It's almost approaching zero.

David Booth: Yeah. Anyway, I think that will continue. And the world will be better off for it.

Raj Mahajan: I want to move to philanthropy. And in 2008, you made one of the largest donations ever to a US university, to the Chicago Business School which changed its name to the Booth School of Business.

Certainly, the business school has played a key role in informing Dimensional's strategies. Tell us about what prompted the move, as well as the timing, 2008, of the donation?

David Booth: Well, what had happened to me by 2008, now by that time, we had been in business like 27 years. And I have a wife and two kids. And we were financially secure. And I provided as much for the kids as I was planning on giving them. So, I started to turn attention to giving back. And bingo, right at the top of the list is the University of Chicago. You've got a hint of as to how much they influenced me and how much they helped me. And so, I owed them a lot.

So, I said, look, what I want to do is give a big chunk of

what I have. And so, I approached the dean of the business school, Ted Snyder at the time, said, "Look, this is what I would like to give to the school. It's not really a gift. I view it as a partnership distribution because in some ways the business school--."

Raj Mahajan: The school has been your partner.

David Booth: Been my partner all along. We just didn't have a formal declaration. And he goes, "Holy cow. We were thinking about naming the school and we weren't going to ask for nearly this much. We'll name the school after you." So, I said, "Okay. Whatever."

Raj Mahajan: That's excellent. And how has the donation affected the business school?

David Booth: According the dean it's been dramatic. See, I told them, "I expect the business school to operate kind of normally. You know, be financially responsible. My gift is to pay for a lot of the dream stuff that you'd like to do. You couldn't get through the budgeting process somehow." And they really used it that way in order to attract the best professors.

Fama says that the finance department now is the best its ever been. And the dean breaks down business schools into eight. He said in his view, Booth is the number one business school in five of the eight. So, in finance, in marketing, so forth, he views that Booth is the best.

Raj Mahajan: That's amazing.

David Booth: Oh, then Fama had the best way of describing it. He goes it's not that my gift did anything, it just took away excuses.

Raj Mahajan: So, a bit of a lightning round. Maybe a couple other topics.

David Booth: Okay.

Raj Mahajan: You are a legendary basketball fan. Is it true that you purchased the Jim Naismith 13 Rules of Basketball and donated it to KU?

David Booth: I did that. People don't realize of all the major sports, basketball is, I think, the only one that you

can identify when it was founded. When it started. It was founded, actually as a class project by James Naismith in 1892. Springfield, Massachusetts. And--

Raj Mahajan: He was a Kansas coach, right?

David Booth: Well, after he got his degree, he went to Kansas and became the first physical education coach of Kansas. Taught there for 40 years. He's buried in Lawrence where the university is. And I grew up on Naismith Drive. So, it's in my blood.

So, I went to University of Kansas. Of course, basketball is big in Kansas. And when those Rules came up for sale at Sotheby's, eventually, they'd been in the family from 1892 till 2010. And then it was sold in auction at Sotheby's. And I was able to acquire them and give them to the university.

Raj Mahajan: I can't wait to tell my son that story. And so, I've got to ask, will Kansas win a NCAA championship in the next three years?

David Booth: Well, hey, I hope so.

Raj Mahajan: Talk about uncertainty.

David Booth: Yeah, I mean, look. If you look at the March Madness, there were 66 teams. If you look at the odds of any one of them winning, it's pretty slim. But somebody always wins.

Raj Mahajan: Somebody always wins. All right. So, now let's go to across the planet to Stockholm. Have you been to the Nobel Prize award ceremony?

David Booth: Hey, I mean, this is a straight University of Chicago kind of story. I've been to the Nobel ceremony twice.

Raj Mahajan: Twice?

David Booth: Once when Bob Merton and Myron Scholes got in '97 when they got their Nobels. And then in 2013 when Gene Fama got his Nobel. And it is quite an experience. And the Nobel Laureates have seven or eight days they have to be there. And they run them ragged. But they give them a couple nights off.

So, there's one night where there's a big ceremony. And in addition to that, there are a couple nights when the laureates have a free evening. The first time I went with Myron and Bob, I saw how to do it. How to organize it. So, in 2013 when Gene got it, and he invited me. They get tickets. Gene, of course, has all kinds of kids and grandkids, but he had two tickets left. One for Ken French, who's his longtime colleague. And one for me. So, I said, "Okay. But let me plan your two free evenings," which I did. And they were spectacular. And we had a great time.

Raj Mahajan: That sounds like a really good time. And a special moment for both of you. So, now let's go back to the investing questions. What's the biggest lesson you've learned as an investor, knowing that sometimes the best lessons come from investments that didn't work out as well?

David Booth: Number one lesson is something I guess I already knew, it's that investing's uncertain and complex. There's no way around it. There are a lot of things that's impossible to know. Or turn it around the other way, and starting with Fama's efficient market hypothesis, basically what that says is we think the stock prices reflect all the

available information. So, what's really cool is the idea that the stock market is really the original AI application.

Raj Mahajan: Oh, interesting.

David Booth: Yeah. Because prices reflect all the available information. And people talk about big data now, we've been dealing with big data for 60 years. We collect basically every stock trade on every stock in every principal stock market around the world every day. That's big data.

Raj Mahajan: Yeah, it sure is. It's actually a really interesting mental model when you think about it that way.

What's the best piece of advice you can give our listeners? Investment advice that you wish someone had given to you when you were younger in your career?

David Booth: Here again, you can't predict markets. Control what you can control. Make the best, informed choices you can make. Figure out what your goal is. Because life is uncertainty, you need goals. And manage the goals. Pay attention to the goals. Don't worry so much about short-term movements in the market. We don't think

people can predict those. But you plan for the long haul. Capture the benefit of compounding.

And I guess if you do all of that, then here's what I've learned, I think, which is along the way then you'll feel safe. You'll feel secure. Even though the market's fluctuating a lot, you've made the best choices you can. So, judge yourself by the quality of the decision you make and not the outcome.

Raj Mahajan: That's great advice. Finally, what are you most excited about in the world right now?

David Booth: I'm most excited about my two grandkids. I have two new grandkids. So, that's--

Raj Mahajan: Congratulations.

David Booth: Yeah. I used to think of myself as being an optimist. And now I think of myself more as a realist, which is what makes all of this really work, this, our system? What's the process? At the end of the day, it's all about ingenuity. We wrote about this in March of 2020 when everybody was under a lot of stress about markets, so

forth. Said, "Look, we don't think markets are predictable. So, I don't know where the market's going to go. But here's what I do believe though, is that when something bad happens to you, you don't sit there and take it. You figure out what it takes to get back on track."

And that's what goes on with companies. When something bad happens to them, they don't sit there and take it. They figure out how to get back on track. That's human ingenuity. It's true of individuals and it's true of firms. And I'm totally confident that going forward, that's what will happen here. I can't predict which ones are going to be winners. There will be winners and losers. I don't know who the winners will be. Or the losers. But I do have faith that we'll get back on track.

And so, that's kind of always my prevailing view. So, in terms of what I'm excited about now, what I'm excited about is I really have internalized all of that. And that's what I really believe.

And yeah, we have a lot of problems. And there are going to be some missteps and there are going to be some bad things happen. And we'll overcome all of those and, over

the long haul, we'll be just fine.

Raj Mahajan: That is probably the best place we could wrap up. I want to-- David, you're an inspiration to me. And I'm certain to many of our listeners. Thank you for joining us today.

David Booth: Okay. Thank you very much. I enjoyed it.

Raj Mahajan: And thank you to all of our listeners listening to this episode of Goldman Sachs Exchanges: Great Investors. This podcast was recorded on Tuesday, January 30th, 2024.

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