EPISODE 78:

2019 Round- Up: A look back on the lessons we've learned

[INTRODUCTION]

[0:00:05.3] Benjamin Felix: This is the Rational Reminder Podcast, a weekly reality check on sensible investing and financial decision making for Canadians. We are hosted by me, Benjamin Felix and Cameron Passmore.

This is our last episode for the 2019 calendar year. Episode number 78 and we thought we would do a little bit of a retrospective where we look back at some of the past discussions that we had with guests throughout the year.

[0:00:28.9] Cameron Passmore: We're so grateful to all the guests that joined us. We had 26 guests. One join us every other week. We met people. We went to New York City this past summer which was amazing. I did an interview in Sydney, Australia. We had some guests live in our studio here in Ottawa but mostly were done online over the Internet and turned out great.

[0:00:50.8] BF: We've had a lot of guest who you know – our relatively small Canadian podcast, it's not risk fre- from the perspective of a guest to come on a smaller, maybe less established podcast. So for that, we're very grateful for the type of people that are willing to come on the podcast and talk to us.

[0:01:10.5] CP: Along that, I've seen many people on their Twitter feed say I just say no to podcast because so many people are getting invited so many times and we've been lucky enough to get early on some phenomenal guests which clearly have helped increase our awareness and increase the numbers. Which makes it, I'm hoping, easier to get guest going forward. And now that being said, we have guests booked right through May now, I believe.

We thought for year end, we would do a compilation of thoughts from 14 different guests, assembled into a story. Every guest was amazing. Every guest brought insights so we don't mean to necessarily leave people out and mean they weren't as great. But it's just a story we decided to weave into about a 50 minute or so episode today. And as Ben says at the top here every

week, this is a weekly reality check on sensible investing and financial decision making. That was the point of this podcast.

[0:02:03.0] BF: Yeah, we're going to play these clips that we found impactful and before we play the each clip, we're going to talk a little bit about why we found that particular clip to be impactful. And we'll just go through it like that and we hope the story that we weave is useful to you.

[0:02:20.6] CP: Again, thanks for listening all year and happy new year and we will be right back.

[CONVERSATION]

[0:02:28.8] BF: Welcome to episode 78 of the Rational Reminder Podcast. As we described in the introduction, we're going to play a series of clips form guest interviews that we had throughout the year and these are clips that we think really fit in with the theme of our thinking throughout the year as a whole.

We're going to try and weave them together into a bit of a story. And before each clip, we're going to describe why we thought it was impactful and after the clip, we'll tie it in to the next clip and it all kind of fit together. But you'll see how the story comes together as we go.

[0:02:57.8] CP: The first one is from Rob Carrick who is the personal finance writer for *The Globe and Mail* and I thought to kick off, I would ask him, do you think that Canadians have a healthy relationship with money?

[0:03:10.9] BF: This is an important question, when you think about, what is this podcast about? I mean, it's kind of in the name, The Rational Reminder Podcast, that the goal of the conversations that we're having between each other and with guest is to give people the information to think more rationally about money and financial decisions in general.

I think that asking Rob about the relationship that people have with money is, for what I think are obvious reasons, an important part of being rational. If you have a terrible relationship with money or with anything, it's really hard to make good decisions about that thing. What is really

neat about Rob is that he hears from so many Canadians. He knows what people are thinking. His inbox gets flooded

[0:03:52.0] CP: For decades, he's been doing this. Yeah. He can see long term trends. Very interesting perspective.

[0:03:59.5] RC: RC: No, I think the relationship with money is as unhealthy as it's ever been. I'll back this up by saying how much financial stress seems to be a big theme right now. I'm actually working on a project about this. I'm trying to document why economists say the economy is doing reasonably well, not spectacularly, maybe it's slowing but it's doing okay. Unemployment — I've been covering economics for about 25 years, unemployment's had a staggeringly low rate on historical basis.

Wage increases aren't great but more or less in the range with inflation. Most people have made a lot in housing. Stock markets over the past five years have done pretty well even if last year wasn't that bad. And yet polls continually show people our stressed about money. People who are in the corporate world say, money stress is impacting productivity at work.

You're starting to see companies introduce like a financial counseling and credit counseling and financial planning, services for employees to get their heads out of their money and into their job and I'm working on trying to figure out what's going on here. But that tells me, people, they're spending too much, they're not saving enough and they know it but they don't know how to get out of it.

[0:05:05.9] BF: Based on what Rob is saying as you all heard, in general, in broad terms. People have what you might call a stressful relationship with money which is understandable and easy to believe when you see how most people think and act with their money. But the question that follows that is, what do you do about it?

[0:05:23.3] CP: What do you do and how do you think about it? For that, we reached out to Dr. Moira Somers who is a wealth psychologist based in Winnipeg. And she gave us some interesting perspective on how to think about your money. How to plan for your money and for your financial future.

[0:05:41.4] BF: How can you make your lifestyle and decisions that you make with your money, how can you make those align with the values that you built around how you want to think about money? When you do those things, it might decrease stress. Specifically, we asked Dr. Somers, what are some easy changes that people can make from a lifestyle perspective to improve their financial health and here's what she said.

[0:06:05.3] MS: You know the biggest thing that you need to do of course is to make sure that you are saving adequately and that you're bringing your spending in line so that you are taking care not only of your current self but also your future self. And people often just are insufficiently in touch with where their money is going. And so, it makes it hard for them to put aside the money that they need for their future selves.

So, job one I think is to have a period every once in a while. It doesn't have to be constant, but of tracking finances and really getting clear about what's coming in and where it's all going to? And asking the questions kind of like that house purging guru asked, you know about stuff in your house, "Does it spark joy," to ask the same of your spending? Is this really where I want my life energy in the form of money to be going?

And sometimes we find that when I have people do these exercises, we sometimes find hundreds of dollars per month. And one case it was actually thousands of dollars per month that was, that was going into unpaid or unused subscriptions for services, online services that they no longer used. Bank fees that they were incurring for accounts that were essentially sitting dormant. Overdraft fees that were unnecessary because there was money sitting in other accounts. It was just remarkable just how unconscious a couple could become.

And the good news was that that – the growing consciousness is something that often allows people to turn their ships around. So, becoming conscious of where things are going and making sure that they're going in the direction you want is, is probably job one.

Automating things, so that you don't have to decide again and again and remember again and again what it is you want to be doing is probably the next most sensible thing. I think more and more advisors just do this automatically now. You know, there's a reason why 98% of mortgage payments are made on time every month. And that's because the bank doesn't leave it up to our motivation or our memory to get that mortgage payment from people.

They make sure that it happens automatically on people's payday. They pay themselves. They make sure that that mortgage gets paid right away. And I think that if we would treat our own retirement plans or our own education savings plans or vacation goals in the same way, if we would automate those contributions. If we would automate, the percentage of future pay increases that, that go into our savings, it just makes it that much easier to implement. Pre-commitment automation are big friends of ours, in the 21st century and we need to do better at really harnessing that.

[0:09:15.0] CP: Super interesting to me to hear Dr. Somers, talk about how important behavior is. A lot of people might be able to behave well on their own and we've talked a lot about being DIY investor this past year. But we had a neat conversation with Barry Ritholtz in New York this past summer.

[0:09:31.4] BF: This is one of the things that I know I say this all the time so now I'm self-conscious about saying it too but one of the things that I'm not crazy about talking about because it feels like it's a sales pitch, it's the value of working with someone who gives financial advice. Obviously, we believe from our perspective and anecdotally that there is value there in having someone to cut through all of the noise. Now, Barry Ritholtz sits in the same seat as we do. He does the same thing in the States.

Knowing what we know about behavior and how people like Dr. Somers and Dr. Daniel Crosby who we had on a later episode. How important they say behavior is for investor outcomes, we wanted to ask Barry what he sees is the biggest value from financial advice.

[0:10:18.3] CP: As you'll hear, he doesn't mince words about adding advice.

[0:10:23.2] BR: That's easy, that's the behavioral counseling. That's what we do and we do it in a lot of really subtle ways. Some are overt. When we bring people on the process, we don't just take people's clients. We make sure they understand what we do and we're trying to figure out what they want.

We spend a lot of time debunking nonsense, getting people to think about long term and not dealing with the availability bias or the recency effect or all the over confidence bias. There are

so many different things that people do that are just natural human responses, that we really spend a lot of time trying to show them the context of this. That market draw downs and crashes are inevitable. That recessions happen all the time.

That these things are cyclical and if we had any confidence that anybody that could consistently forecast, well then, we might swing in and out of portfolios. But you know, all you needed to do is be wrong once and all the lucky calls beforehand turn out to be meaningless.

We created a series of things that we think have been really helpful. And once people understand their investing towards a goal and how the market did last week, last month, last quarter isn't relevant and that drawdowns are inevitable and people selling snake oil and promising you, "I will get you out in time and then I will get you back in." Once they realized the statistics and the evidence
about that, it's a very different conversation and all of that is behavioral.

[0:11:58.2] CP: I kind of got a kick out of Barry talking about how much time they spend debunking nonsense. He was very passionate about that when we were with him. They spend a lot of time getting people to realize the stats and be as we say, rational with things. That isn't always the case in the industry.

[0:12:15.4] BF: Yeah. I mean, financial services in general – I mean, finance as a whole, it's financial economics, it's a social science which means there's a lot of room to have rules of thumb. Everything's uncertain anyways so you can kind of say whatever you want.

[0:12:30.7] CP: We had Alexandra McQueen on this past year and she's a financial author, educator, editor and an annuity expert here in Canada. And she also teaches at York University.

[0:12:41.8] BF: We asked Alexandra what is the difference between financial economics which is at least somewhat scientific and I know I just said that it's an uncertain anyway. But there is a way to approach this scientifically, what's the difference between that and financial planning? Two very different things.

[0:12:59.6] CP: And I must say, looking back or thinking back to all the interviews we did this past year, this line coming up is one that has stuck out to me all the way along.

[0:13:07.3] AM: Right, it's a great question. Think about, financial economics is s branch of finance which looks at the efficient to allocation of resources under conditions of uncertainty. You think, "Oh! That sounds exactly financial planning." But it is an academic discipline. And in Canada, at any rate, the discipline of financial planning hasn't really advanced to the level of an academic discipline. One, financial planning is sort of governed by rules of thumb and almost folklore versus financial economics which is governed by lots of quantitative thinking, equations, lots of rational econs.

[0:13:47.1] BF: We're operating in this world where financial economics is one thing and financial planning is this different hang and financial planning is governed by or at least full of folklore, just rules of thumb and stuff. When we have all of that folklore type information which there's tons of and people actually use this in their decision making which is, I would say a flaw. But they do.

When we have all of these stuff out there, I think that one of the most important things that people have to do if they're going to make good decisions is have their own set of beliefs. And having a belief system is something that we've talked about How we developed our own but we asked Ted Seides and maybe Cameron you can just talk about who Ted is briefly.

[0:14:31.0] CP: Ted is host of the popular podcast, the Capital Allocators Podcast. Former hedge fund manager and possibly most famously worked with David Swensen at the Yale endowment which is the gold standard of endowment portfolio management. Incredible pedigree and we've reached out to Ted last summer and he graciously agreed to come on the podcast.

[0:14:52.8] BF: But we asked Ted what he learned from working with David Swensen.

[0:14:57.6] CP: The main take aways working with David Swensen and to go back to your original comment, we started his podcast with a belief system which is why we were confident starting a podcast because we did have a belief system that's structured in theoretical thinking and tons of research and it's a consistent approach that we use across all of our clients.

Because of that, we were able to do this, communicate the ideas. If we were not on the same page, you couldn't do this.

[0:15:21.4] BF: Or if you didn't have belief system at all, there's no framework to cut through what is from that framework nonsense as Barry said. And what is worth using in making a decision.

[0:15:31.1] CP: Or if you did have a different belief system for different clients. But that's not our case, right? It's consistent across the board, we didn't have that you couldn't do this. I thought Ted did a great job in explaining how important it is to have, A, a belief system and B, an ability to communicate it.

[0:15:45.3] BF: Which is fascinating when we think about it in the context of investors. If you think about a couple, two people who are together investing for their retirement, having a belief system is part of that because if you believe in a way to do things and you're going to make decisions accordingly. But being able to communicate that to all parties involved, whether that's a spouse or if it's parents that you're helping financially or siblings or whatever, other people in your life, the ability to have a belief system and communicate that to all of the stakeholders in your life becomes extremely important.

[0:16:19.4] CP: Here's the answer that Ted gave to our question, can you talk about what you learned and what lessons you learned from David Swensen that have carried you through your career?

[0:16:27.7] TS: Well, sure. I learned a lot. He wrote it all up in a book. At the time he wrote the book, I felt like I knew what was going to be on the next page. If you were distilling a lot of what I learned into something that's broadly applicable, I would say the core of how David approached the investment problem, which is pervasive, is he developed a certain set of beliefs about investing. Then he was incredibly good at communicating those beliefs to his constituents which is his board, his team.

Then being very creative about what strategy he was going to use to tie into those beliefs. For David, a lot of it was in the book. It's an endowment of the long-time horizon that leads to an equity orientation and diversification and he didn't think you are truly diversified in a 60-40 asset portfolio, so he diversified across other things that look like equity-oriented assets.

Then when you really get into the weeds a little bit, what David possesses that very, very few investors of all types do is just an extreme discipline in being able to stick to the plan. And being able to communicate in such a way that encourages everyone around him to stick to the plan.

[0:17:43.4] BF: Ted told us how important it is to have a belief system and be able to communicate that belief system. And you know, I was just thinking, the ability to communicate a belief system, that's not just other people, you got to be able to communicate it to yourself because you can believe something and as soon as you run up against something that doesn't fit with that belief, if you can't communicate what the impact of that thing is.

[0:18:04.1] CP: People can tell if you don't believe, if you're sitting in a client meeting, if you don't really believe it, the clients can tell. I think people, by listening to you, I know you're pretty passionate about this belief system, especially one based around like a quant, theoretical type model.

[0:18:19.9] BF: For us, sitting in our seats for sure, that's important and I think for the end investor, whether they're managing their owner investments or working with an advisor, I think that to some extent, they also have to have that on some level of grasp with the belief system. Whether that's straight index funds which I think are really easy to get and people understand. Or if that's factor investing, just having a grasp and the ability to understand and communicate why you're doing what you're doing is so – Why are you doing it that way?

[0:18:48.1] CP: I think this does give confidence to people. Whether you're doing this philosophy on your own as a DIY or with an advisor or with us. If you have more confidence, you will be a better investor.

[0:18:59.3] BF: That's certainly true. Now, one of the challenges with that is that there are a ton of different models out there that suggest whatever. Like indexing is better or factor investing is better or stock picking is better. We had Wes Gray who is the CEO of Alpha Architect which is a Quant index creator and ETF manager in the States. And we asked Wes, how do you choose a good Quant model? How do you choose the best Quant model? There are all these different ways to say, this is the optimal portfolio, how do you decide what you should actually do?

[0:19:33.5] CP: In classic Wes style, he gave a pretty colorful answer.

[0:19:37.0] WG: Yeah. I mean, honestly, one of the things that we've learned over time is there's really no such thing as best. It's about understanding the transparency of what the heck are these people doing and how does this fit in my process or how does this help clients achieve a particular goal?

I think the most important thing when you're dealing with quant shops is how transparent are they? Because you need to understand what they're doing, because you then need to explain it to someone and how focused on education and reality are they? Because all these models that are doing anything that's going to add "excess return" in like a back test or historical sense, well, the reality is those things earn expected excess return, because they probably suck.

They're either higher risk or behaviorally being challenging to own. So, it's not really about like how awesome your quant model is. It's about how reasonable is your quant model and how much do you help us explain this to clients so they can actually sit and deal with this quant model.

I think the ability to help on the behavioral side to help people stay on their seats, which is not really pure quant, but kind of pure quant with a behavior element, is what allows people to actually be successful. Let me summarize. If I had a black box quant shop who doesn't tell me what the hell is going on and they just say, "Hey, it's all proprietary. Just trust me." Even if it was free, I would not want to do that, because presumably whatever they're doing will have a bad streak.

I'd much rather go to a shop that's like, "Hey, here's what we're doing. Here's a bunch of materials that explain, outline why this works, why it stinks sometimes. When we're going through bad times?

We'll help explain that to your clients so they don't blow out exactly on time." That actually has a lot more value than, say, this black box quant shop. That let's presume they had an even better quant model. Let's just assume that was true. I think you need the whole package these days.

[0:21:45.2] CP: I really liked Wes's answer and how straightforward he is for a guy who is brilliant. He has a PHD from Chicago. And intellectually, brilliant and does a great job and great research into very complicated stuff. He does make it quite understandable.

[0:22:00.1] BF: He makes it understandable. He makes it explicit that no matter how good your model is, and no matter how good your research is, whatever you want to call it, however you want to frame it. At the end of the day, what matters is your ability to hang on to that investment through good times and bad.

[0:22:17.8] CP: Not to overcomplicate that process, to have a process and a belief system and to stick with it. I thought this next clip does a great job of highlighting that, we had a chance to meet Jonathan Clements who is a former personal finance writer at *The Wall Street Journal.*

[0:22:33.4] BF: We know from the clips we've just played, you've got to have, well, behavior's important, you've got to have a belief system, you've got to be able to communicate that belief system to yourself and other parties that are involved in your financial situation. There are all these crazy quant models out there and all these different ways about thinking about portfolio management.

None of them are necessarily the right one. And so we asked Jonathan Clements understanding, investing is kind of figured out as Dave Nadig told us. Investing's kind of figured out, we kind of know, in general how you should do this, whether that's index funds or factor investing or whatever you're comfortable with I guess is the answer, based on what Wes is just saying.

We asked Jonathan Clements, what is the hardest part of investing?

[0:23:14.1] JC: The hardest part is accepting that it is indeed simple and not trying to be overly clever. We are hardwired to believe that the harder we work, the more clever we are, the better our results are going to be and it's simply isn't the case.

[0:23:29.4] CP: Wes talked about how you have to be able to communicate some pretty complicated quant type work and make sure you know what you're getting into, to listen to Jonathan Clements talk about keeping things simple is so vital. And as people know, we are fans of the market and we believe that markets are relatively efficient and it's very tough to beat the market. We had a chance to talk with Dr. David Blitzer who was the head of the index committee at Standard and Poor's New York City this past summer.

[0:23:58.0] BF: We asked Dr. Blitzer, I mean, – if you haven't listened to that episode, you've got to have the context that he's been at Standard and Poor's since pre, the index investing boom, he was around when indexes were just used to sell newspapers and he's seen through the whole growth of index investing as a thing which wasn't always.

[0:24:17.2] CP: We asked Dr. Blitzer why it's so tough to beat the S&P 500?

[0:24:21.9] DB: I guess the two or three theories and stories and so on. First is the cost. I happen to call up a bank and ask them about they charge, buy yours, treasuries and they quoted me several basis points as the fee. And when I sort of got over the shock, "That's not so high." And I looked at and saying, "I'll buy a portfolio 500 stocks, It will cost me about three basis points, anything more than that for you as treasuries, it's ridiculous." The cost is definitely number one.

There's the, I remember who the argument is but if you look at the home market, the home market is indexed and so on. There's some winners and some losers, you take only part of it and that kind of thing. I think the other thing is, you know, if you look at the stocks in the S&P 500. Look across the whole 500 stocks. How they did in a year and obviously some did not very well and a few did very well.

It's skewed to the extreme right-hand side. If you within as an active manager, if you want six or seven stocks in the extreme right-hand tail, the ones that probably a few times, six times with the index overall bit, you'll be in fat city. But the chances of you owning those stocks, even on a random selection basis, not very good. If there five stocks out, about one of 500 chance, that's in your portfolio.
If you own the index, you own all of them and so on.

Over time, these huge stocks at the end and you know, the tail, that account for the lion share of the performance in any given year and so on. I think that's what's really doing it is if you're in the index, through your fund or whatever, you're going to own something of both. That also is part of the reason why the equal weighted version of the 500 seems to do much better than the cap weighted version over the long term.

[0:26:24.3] BF: With all these models out there and all these difficult financial decisions that we make in investing and allocating our own money, it's easy to say as Jonathan Clements did that keeping it simple is the hardest part. Of course, that makes sense because there's so much information out there and there's so much uncertainty out there.

Understanding as Dr. Blitzer just explained, why it's so hard to beat the market, makes it maybe a little bit easier to understand why keeping things simple is so important.

[0:26:53.1] CP: It's also, you think about market efficiency, there's so much work that goes in. Just think, in the S&P 500, all the work by all those companies and all those employees, plus all the work by all the analyst and all the industry participants to price those shares, there's so much information that is now available to the academics to figure out what is the best way to invest.

[0:27:16.0] BF: This is where it gets nuanced, right? We're talking about these models and we're talking about belief systems, we're not talking about why it's hard to beat the market and this is a nuance, the fact that it's hard to beat the market because the market's pretty efficient, it doesn't mean that there are opportunities to seek higher expected returns.

The insights to do that can come from ideally, a theoretical source that's backed by imperial data.

[0:27:42.0] CP: I had a chance when I was in Sydney last March to sit down with David Butler who is the co-CEO of Dimensional Fund Advisors. And the question I asked him was, what is it like working with people like Fama and French, we've talked about it so long and these kinds of academics that are heavily involved with Dimensional Fund Advisors. And I just asked him, "You work with them regularly, what's it like?"

[0:28:04.2] BF: It is always this idea of, "Okay, you can't beat the market because it is efficient but how do you draw insight from what the market is doing and how the market it pricing assets?" And I thought Dave had a great answer.

[0:28:16.4] DB: Yeah, it is incredible. They are the most inquisitive. They are obviously all smart but they are very modest and they are funny. But I think that the modesty part is the part that

strikes me the most. I think about working with this group and I think it started with Merton Miller because people always talk about Merton as the godfather of all of these economists. But the way Merton collaborated and the way he had this level of modesty that was unparalleled, I think he set a tone for these guys.

That there always is another answer around the corner and you have never finishing what you think you never have the complete answer and a model that is just that right model. It is not reality and if it was reality, it wouldn't be a model that is what Fama and French and these guys who always say. So, what you always try to do is you try to look at what you – the empirical data that's out there. You try to build models that explain that empirical data to the best way possible.

And you continue to tweak that model to do better and to do more. And so, the term that I heard Fama used one time is called the pursuit of truth. You know you are never going to get to truth but you are always in pursuit and I would say Dimensional that is really the culture of the business. It is this constant pursuit. It is a constant pursuit in trading. You know how do we trade a little bit better. Can we do this? Can we tweak that to get another basis points?

In research, can we use this information to translate into portfolio advancements? But all that's done with a very wary eye and I think if I was a client of yours or any advisor we work with, you know one of the things that I would take satisfaction is that you don't have this firm that's leveraging models and shooting for the moon and hoping for the best. It is a very sensible methodical approach to capital markets and what we deliver.

And again, going back to the 38 years of the firm, you know the delivery has been just that very consistent, very methodical, very clearly thought out advancements in the capital market space and Dimensional frankly is number one. I mean Dimensional is the firm that you asked the question earlier on when we talk about multi factor and smart beta and all of this stuff that is starting to bubble up in the market. Dimensional has been doing that for 38 years.

[0:30:28.9] CP: So as Dave said you never really get to the truth, you are always on pursuit of the truth in academia and these are just models that they all use but Dimensional being the first one in the factors base, I always find interesting that it goes back almost 40 years, 50 years more than Fama studying this stuff. So, we often have the challenge of trying to explain what factors are to people. So, we thought it would be a neat idea to invite your mom on the show.

So, Andrea joined us this fall for us to attempt to explain factors to her. Now what's interesting is the second most downloaded episode.

[0:31:02.2] BF: Yeah, nice work mom. But we can talk about the academic literature and this ties right back to the earlier things we talked about communicating those ideas. An investor that doesn't understand and this is what West was talking about, an investor that doesn't understand what they are invested in or why they are investing in that thing, it is going to be really hard for them to stay invested when volatility strikes as it most definitely will. Or tracking air strikes, which can be worse than volatility depending on how you are thinking about or how well you understand the portfolio.

And we talk about the literature like what Dave was saying and how great these researchers are on all of these different things but something that somebody, a listener pointed out to us is you guys referenced these factor things all the time, what does that actually mean. And so, Cameron and I were like, "Oh yeah." I guess we need to be able to explain that.

[0:31:51.8] CP: So, we took a shot, it is a bit of a long clip but I think you hear the discourse between the three of us.

[0:31:58.0] BF: Okay, so a stock is the value of the company's book value. Book value just means the assets that the company owns basically like physical assets, a building would be an example of what would make up the book value. So, the price of the book value plus the discounted value of future cash flows. I know there are a lot of big words in there. So, we will unpack it.

[0:32:19.0] FEMALE: Yeah. I don't know what a discounted cash flow is.

[0:32:21.4] BF: Yes, that is the most important part. So, I am going to explain it. So, when a company earns profits, you as an investor, you want to invest in that company so you can partake in the profits. Now when you are buying a stock, you are buying a stream of profits in the future because the company is earning profits now but you also expected to earn profits in the future, which is why you are willing to pay money for it. You are buying the future profits.

Now the discount rate, the thing that you asked about, the discount rate is the rate at which you discount those future profits to decide how much you are willing to pay for them today.

[0:32:51.7] FEMALE: Okay. So, I am taking away the projections of the future.

[0:32:56.3] BF: You are projecting the cash flows into the future but the term would be –

[0:32:59.2] FEMALE: You are not counting.

[0:33:00.1] BF: You are counting them less. You are counting the ones in the future less and you are counting them less and less the further that you get out. The reason the discount rate is important is because it reflects the amount of risk in the cash flows. A very low risk instead of cash flows like a very safe company, you would apply a low discount rate because you are fairly certain you are going to get all of those future profits.

[0:33:22.8] CP: So, discount rate that means that you are charging or expecting a lower return because it is a safer investment.

[0:33:29.3] FEMALE: Right.

[0:33:29.9] CP: So that's why the discount rate is lower, right? So, you are paying a bit more now to get more certain future cash flows whereas the riskier stock with more uncertain future cash flow. You are going to say, "Well for me to own this I am going to pay a lower price, therefore ensuring you have a higher expected return." The risk of the investment, the higher the expected return. Otherwise, why would you invest in it? I am not sure I'm are succeeding here.

[0:33:55.4] FEMALE: So yeah, I am not. Can we go back to the discounted value? So. if you've got a company that has high risk, you are going to project a higher discounted value?

[0:34:06.5] BF: A higher discount rate, which is going to reduce the amount you are willing to pay for the future profits. So, it is like if you are buying a company do you expect to have profits of whatever, a thousand dollars. Your share is going to have a thousand dollars per year that you are going to expect to get from them and you are fairly certain you are going to get this year's but less so next year and decreasing the certain going into the future.

Because of that uncertainty, you are going to be willing to pay less for each success of your cash flow so that the cash flow in five years from now, you are not going to pay a thousand dollars for it because you don't have it yet and you are going to pay less and less depending on how risky or how uncertain it is that you are going to get future cash flow five years from now or whatever point in the future. So, if it is certainty you are going to get it, you might pay $900 for it.

That is a low discount rate, you are only discounting a thousand-dollar cash flow to $900 but if you are really uncertain that you are actually going to get it –

[0:34:53.4] FEMALE: I am going to pay 700.

[0:34:54.4] BF: Seven, six, five, whatever. So, the less you are willing to pay that is a higher discount rate. You are discounting the cash flows at a higher rate. Now the reason why this is important is that if you actually do end up getting the cash flows that you expected, if you paid less for them meaning a higher discount rate at the beginning, if you paid less for them, you are going to end up with more return.

Because if you paid $600 for this thousand dollar expected future cash flow. If you actually end up getting a thousand dollars, yes you took some risk but you made a $400 profit in that example. So, the way that that translates into financial speak I guess is when your discount rate is higher, your expected return is also higher.

[0:35:35.1] CP: And there is millions of people like you doing this all day every day as they choose how much you are willing to pay for stocks in the market. There is all kinds of people doing this discounted calculation on every trade. So, you are competing with other buyers. So, we are looking at two stocks of identical future cash flows the ones riskier. So, the riskier one will have a greater discount rate therefore you are paying less. But you are going to be competing with other investors for that same stocks. That competition goes on all the time.

[0:36:03.4] FEMALE: I have another question. How do you determine the risk?

[0:36:06.6] BF: Yeah so that is the question. And so that is what the market mechanism kind of what Cameron is talking with all of these people competing with each other to determine how much they should pay for assets that is –

[0:36:18.1] FEMALE: How risky is that stock?

[0:36:18.9] BF: Correct and no one person can say what the right value is. But the aggregation of everybody's guess regarding what the price of stock should be that ends up creating a price and that consensus price has implicit in it the discount rate. Does that make sense?

[0:36:37.2] FEMALE: Okay. I think so.

[0:36:37.8] CP: There is a hundred million stock trades a day that go on around the world. So, what they are doing they are pricing in an enormous amount of information about those stocks and those discount rates all the time. Academic sciences worked on this for 50 plus years and that is where they have discovered that certain factors explain expect to returns.

[0:36:59.6] BF: We need to back up because we are still at risk. Factors sort of decompose risk into different types of risk but where we are now, so we are at a place where the higher discount rate indicates a lower price. You are willing to pay less for the future cash flows and you are competing with these other people. So even though nobody can say definitively how risky a thing is the market's price is the best proxy that we have for how risky –

We know how risky the market thinks the thing is even if I can't say it this discount rate should be six percent. What we can do is look at what is the actual price? What are the companies actual expected cash flows and from that we can figure out what the market is applying as a discount rate? So we can look at market prices and use those prices to figure out, which stocks the market thinks are riskier. If we look at two different stocks with the same expected future cash flows.

So, you are an investor looking at these two different stocks. Both of them you are expected to get the same amount of future cash flows but one of them is trading at a lower price. So, they're the same expected future cash flows but this stock is trading for $10 dollars and the other one is

$11. The $10 stock, the market is deciding that stock is riskier because these two companies have the exact same future cash flows, expected future cash flows but one of them is cheaper.

[0:38:12.4] FEMALE: And the market is determined by all of these millions of people that are investing and they have determined that there is more risk in that one?

[0:38:20.0] BF: Correct. So, before we introduce that clip of explaining factors to my mom, I mentioned tracking error being a risk and it ties back to understanding. So why am I investing in this thing? And the reason that understanding is important is because that thing that you are investing and if it is not the market will likely have performance different from the market over some periods of time. Now, when we are talking about factors, over the long term you expect that difference to be positive.

But over a given period of time, it can be negative. Now this is tricky because it leads some people to think that because a factor portfolio can trail the market because of that it is riskier than the market and so one of the questions that we get a lot is how long do you need to have to make factor investing make sense? And because it is such a common question, we wanted to ask Larry Swedroe, who is one of the best factor communicators in terms of understanding and being able to communicate the underlying ideas. So, we asked him that exact question.

[0:39:16.9] CP: So, Larry is the director of research at Buckingham Asset Management, which is a very large RIA based in the St. Louis area and he has been a longtime friend of ours so much so that we ended naming our boardroom after him. So, we asked him is there any merit to avoiding factors because you can't wait for them to deliver.

[0:39:31.7] BF: And I will say this clip has been something that I sent out from the transcript, the text, I have sent it out probably 10 times since we recorded it because I get the question so often.

[0:39:40.8] CP: Well think back to our interview with Dave Getch in 2017, you know we have talked about how you have to learn to embrace variability and embrace volatility and know what you are going to be going through. Nothing we have seen in our careers is anything statistically abnormal. It feels abnormal at the time but it never is.

[0:39:59.0] LS: What people fail to understand because they are unaware of the evidences that any one factor can go through very long periods of underperformance and that's the point we make in my book, *Your Complete Guide to Factor Based Investing*. We have a table that shows the odds of each factor having negative performance. Even the US, we estimate US stocks there is a 3% probability that it could underperform totally riskless treasury bills over 20-year periods.

And as I mentioned, we've had three 13-year periods where US stocks have underperformed TiVo so that can happen to one factor. If that's true, why would you want to run the risk that your portfolio is totally concentrated? Virtually all of your eggs are in that one basket. That makes absolutely no sense to me at all. In fact, the shorter your horizon the more likely it is you can underperform by very large amounts.

And I'll give you one great example, from 2000 to 2002, the S&P 500 lost about 40%. Our equity portfolio, which is much more tilted to small and value and international, did lose money during that period. But our model portfolio like I have that you see in my books only lost about 6%. So, what if you retired and you were sitting with that period, you didn't have the ability to wait out and get the better returns in the long term, your portfolio crashes because you retire in 2000 and are now withdrawing from that portfolio and you can't recover from those loses with money that is already spent?

People get this backwards. Actually, the shorter your horizon the more important the diversification it becomes.

[0:42:02.1] CP: So, I like how Larry talked about you have to be able to embrace the volatility, understand that these things are normal. And from there, I wanted to link this to the conversation we had with Jill Schlesinger who is an author and part of the CBS News team on television. A personal financial reporter for CBS news and she talks about how emotions can get the best of us even though we may know what Larry says is true, humans are still human.

[0:42:30.8] BF: It is interesting because we started out with sort of bigger picture in general behavior is important and these next couple of clips really focus on the micro level or the individual level of how behavior impacts real decision making.

[0:42:46.8] CP: So, in Jill's book, she talked a lot about blind spots. So, we asked her if she can talk about some of the common blind spots that investors face.

[0:42:54.1] JS: Well, I just think that most of us tend to be guided by either fear or greed when it comes to money. And you know, I'm sure you guys have talked about this on the podcast, there's a series of underlying behavioral economics theories that really do play into why we can often make choices that are not optimal. Of course, that flies in the face of standard economics, right?

You get some economists who says, "Well, where this line meets this line, that is supply meets demand, that's equilibrium, that's what happens." Except then real life takes over and you're like, "Wait a minute, that didn't work out that way." And so, what we now know is over time, that human beings sadly, because we are human beings, tend to let emotions guide a lot of our decisions and that's why we feel better putting money into our retirement accounts when markets are trading higher.

We feel scared and anxious and nauseous and we don't think, "Wow, this is a great buying opportunity," no matter how many times people like you and me quote Warren Buffett, people are not going to feel happy when the market is going down and they are invested. It is a conundrum to be a human being, isn't it? The financial world is just one expression of that.

[0:44:10.2] BF: So, we have blind spots that is a known thing. Behavioral economics has been studying pretty extensively. But one of the challenges with those blind spots is that many people, I don't know most that may not be fair to say but it probably is most. I will go with most. Most people won't realize that they have those blind spots because they are over confident.

[0:44:31.1] CP: But don't you find it interesting how you can feel scared and anxious as Jill said when things don't go the way you expect. Where did that overconfidence go in the down markets?

[0:44:40.6] BF: That is a great question. That is a great question. I think one of the things that came from one of the discussions that we had this year and it is from the guest that we're about to play. A clip from but this isn't a clip, he talked about this adverse selection that happens with – he was describing a do it yourself investors, where he threw out the number and I don't think

that he had real statistics to back this up but say 10% of investors are really equipped psychologically, educationally equipped to be great successful do it yourself investors 10%.

And of that 10% the ones that actually go and become do it yourself investors is going to be much lower because the 10% if equipped to understand their own limitations. They are going to be ones that are rational enough to not try and do it themselves. So, you end up with adverse selection where the people that go and do it themselves are the people that are probably too over confident to be doing themselves.

[0:45:40.2] CP: Fascinating and behavioral finance is absolutely fascinating. It is a massive field. That is why invited Daniel Crosby on. So, he is an adviser and what do you call him? I think he is not a psychologist. He is a behavior scientist I guess with Brinker Capital. Well-known in Twitter, great Twitter following, great author. He's got a couple of excellent books out there and he is a fabulous guest. So, we asked him about over-confidence, which is as he puts the granddaddy of all behavioral biases.

[0:46:11.5] DC: Yeah, it's the biggest deal. There's like 177 different behavioral biases at my last count. But overconfidence is sort of the granddaddy of them all because overconfidence is the bias that begets all other biases. It's the bias that enables every other bias because being a good behavioral investor means telling yourself, admitting to yourself that you're just a susceptible to making poor decisions as the next person. Which is you know, a form of humility and once you're able to do that, you diversify. You get professional help. You do all the things you ought to be doing.

But overconfidence says, "Hey. Yeah, I know this is a problem for humanity at large but I'm different or I'm special." In a very real sense, overconfidence, if you could root that one out, all the others begin to die off a bit and yet overconfidence is really central to our happiness. If we view the world as it actually is, we'd be much less happy than we are, I think.

I'm employed now but I was for many years an entrepreneur. Entrepreneurship is universally and exercise in overconfidence. Every single time someone starts a business, it's a bad idea, probabilistically speaking. Like 90% of businesses fail, every time you start a business, you're doing something that doesn't make much sense from a strict probability standpoint. Starting a restaurant is even dumber from a strict probability standpoint. And yet, we're glad people start

restaurants, we're glad people start businesses and so in a respect, overconfidence helps us get through the day.

I think we, as men in particular, evidence of dramatic levels of overconfidence and if I hadn't had the overconfidence that I have, I never would have talked to my wife because I had no business talking to her, right? If I had seen myself as a truly was, you know, I'm glad I talked to my wife. I'm glad I started a business. I'm glad I wrote a book. I'm glad I did all these things. But my advice is sort of to be overconfident in other parts of your life, right?

"Hey, you think you're better looking than the next guy? Good for you," whatever. We're going to not question the voracity of that. But you have to leave overconfidence aside when it comes to investing because it's very dangerous.

[0:48:35.5] BF: Investors are overconfident and we know that.

[0:48:38.4] CP: Well. I love how we said thankfully we are overconfident otherwise you wouldn't get a new restaurant. Why would you open up a restaurant? Imagine this world but you are right if people are not overconfident?

[0:48:48.0] BF: Entrepreneurship in its entirety – I mean capitalism in its entirety requires overconfidence so of course we should be thankful but I think at the level of the individual investor investing the money that they are going to use for their long term financial goals like sure, go and start a restaurant over here but when you are investing in the stock market to achieve long term goals you got to try and check the overconfidence.

[0:49:11.2] CP: And it is because of all of those overconfident people doing all of these work that is what makes markets work and our next guest, Dave Nadig, talks a lot about how investing is largely solved.

[0:49:24.0] BF: We mentioned this earlier in this episode too before one of the clips and yeah, he is right. He talks about why we are working at the edges. We have largely understand, and depending on with either framework you choose, whether it is a risk based framework or a behavioral framework, we can explain the extent of differences in market returns through science. If it is social science but close enough to science.

[0:49:51.8] CP: So, I had seen him at a conference last fall and he had a presentation talking about the investment world as largely solved and I find such a provocative question. We invited him on the podcast and we did exactly ask him that.

[0:50:04.9] BF: And his answer is fascinating, you will hear it in a second. But he explains that investing solved but that doesn't mean that investing is solved. Understanding how markets work, which I think what he meant by investing being solved but it doesn't mean that people are going to be good investors. And that ties back to the overconfidence, the behavior and the understanding and so in Dave's opinion, the next grand challenge and he talks about grand challenges in the clip.

The next grand challenge is really about helping – so investing solved, check, it's done. Next up is helping people make consistently good financial decisions, which requires communication. It requires overcoming all of these biases that we know exist. So even though we can say what the – well, we can almost say with the perfect portfolio looks like that doesn't solve investing at the individual level.

[0:50:55.7] CP: Absolutely not. He was a terrific guest. And as of right now, the number one downloaded episode of all time.

[0:51:03.4] DN: Yeah. Sure, what I mean by that is that you know, I tend to think of the world in very broad strokes. I think about grand challenges, right? The idea of grand challenges like, "Get a man to the moon in this decade," as Kennedy said. Or, you know, understanding human consciousness, that's the great challenge of neuroscience, right? Or, self-driving cars, that's the grand challenge of Tesla right now.

So, I love these grand challenges. I think they focus the mind. And for a long time, investing was kind of this grand challenge and starting you know, going all the way back to the Fama-French and then all the amazing work that's been done, you know, Jim Simons. All sorts of people over the years have teased apart what really makes market works, to remove as much uncertainty from it. And while it is not still a science in the sense that I can tell you precisely what set of inputs is going to reveal what set of results. I feel like it is incredibly well-understood.

And the pieces that we don't understand that get knocked down in the academic journals once a year are very small. The pieces – people are now talking about scraping five basis points of alpha from better trading strategies. Or timing strategies or you know, arbitraging sub-second price discrepancies and information flows. That's the deep end of the pool, right? That is fundamentally a solved problem, the way that building a building is to solved problem and we're just arguing about what you're putting on the roof.

So, from that perspective, I just don't think that there's that much 'interesting' left in the core science of how investing works. It doesn't mean it's easy. It just means it's largely solved. There's lots of solved problems that are not easy. and the reason I put that out there was because I think the more interesting challenge, the real grand challenge, is human beings and how we interact with money and how we plan for a lifetime.

The idea – people who are actually in the financial advice business going on a journey with their clients, from 30-year-old junior executive at Nabisco or something like that, through estate planning. That journey? That is a grand challenge and the number of variables that come into that process, the number of opportunities to screw it up and have that person on the street, the number of opportunities to get something really right and make a difference between having their kids struggle to get through college and just have a free ride through college because your parents saved enough, those are huge meaningful, challenges. There's almost no good work being done about how to do that job and how to understand how human beings interact in positions of uncertainty. I'm much more interested in the work of people like Dick Thaler who really try to tug at behavioral issues in investing than I am about folks that are finding factor number 27.

[0:53:52.4] CP: So, there is our attempt at a 14-clip storyboard for the year. I think it turned out okay, pretty interesting people.

[0:53:59.5] BF: And I replay them in my head all the time because they have been so impactful not just these ones but all of the episodes that we've had with guest but going through these clips, it just speaks to the quality of people that we have been – we, you and I Cameron as host have been lucky enough to convince to come on the podcast.

[0:54:17.8] CP: So, what is your main takeaway looking back over 52 episodes in 2019?

[0:54:22.6] BF: The main takeaway from what perspective?

[0:54:24.4] CP: In general, if you think about the podcast.

[0:54:26.2] BF: There are so many different angles. I mean the things that we talked about today just in learning more about what is important for investors in general, what is important, most important for us and our capacity as helping people be better investors. I think we've learned a ton. Bigger picture, I mean we know that the podcast has been unparalleled in terms of communicating with clients. So, I had someone say to me, a client, "I love the podcast. It feels like we have a meeting every week."

And I mean that is from where we sit in the communication being so important as we have been talking about, from where we sit that's exceptionally powerful.

[0:55:04.7] CP: What's into that is it is making that person more confident.

[0:55:07.1] BF: Which ties right back to all of these things that we are talking about. What is the next grand challenge in investing? It is helping people be confident in making the financial decisions that they are making hopefully with good basis like you are making those decisions for the right reasons. But having confidence in those decisions that's founded not the overconfidence bias type of confidence.

[0:55:25.8] CP: You know I think it is interesting how we feel on this recipe of a couple of current topics, planning topics, investment topic and bad advice of the week, I think that combination with a guest is a neat recipe to give people enough flexibility, creativity and rapidity in the podcast to get things interested and yet learn something every single time in 45 minutes or so each week.

[0:55:49.6] BF: It's true. There has been a whole evolution in the format and the length of the podcast and you are right, a lot of it comes from feedback that we get from listeners, which we love and by the way, I had in my inbox before we started recording this today, our first audio, I hadn't listened to it yet. So, our first audio recorded listener question so that's exciting.

[0:56:07.9] CP: Very exciting. So, thanks to everyone for listening all year. It's been an incredible experience to put together these ideas to try to communicate them. Hopefully we get better every week. We have great guest lined up, we got lots of analyst ideas that we have in terms of content to bring out on the podcast.

[0:56:23.9] BF: But yeah like you said Cameron, thanks everyone for listening and we greatly appreciate it.

[0:56:27.6] CP: And Happy New Year everybody.

[END]