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**Mike:** **00:01:39** Okay.

**Adam:** **00:01:40** That was the experiment.

**Mike:** **00:01:40** That was a lot longer than I thought.

**Rodrigo:** **00:01:43** Brian's maybe.

**Mike:** **00:01:49** Let me apologize, hopefully-

**Adam:** **00:01:51** Do we have any time left to chat?

**Rodrigo:** **00:01:52** …

**Mike:** **00:01:53** … late. Sorry about that everybody. We will work on that.

**Rodrigo:** **00:01:58** Apologise? Don't apologise.

**Mike:** **00:02:02** I'm Canadian. Well, ladies and gentlemen please welcome to the stage Mr. Brian Moriarty and I will also remind everyone that if you're looking for investment advice this isn't the place to get it, you should consult a licensed regulated individual in your area but we will have wide ranging conversations here and will have a lot of fun and we do have Brian Moriarty from Morningstar here with us

today. Very excited about this conversation. Before we have Brian introduce himself, I am having a lovely Armagnac today. I don't know about you gentleman - cheers.

**Rodrigo:** **00:02:41** I got a little white wine. A little…

**Adam:** **00:02:46** I have to be the starter at a swim meet in an hour. I hear it's frowned upon to be drinking in advance of officiating but next time I'll try to push that limit and see what they say.

**Mike:** **00:02:57** That's understandable. What do you have B?

**Brian:** **00:03:00** I have sparkling water because it's still on the clock and I have a 2 year old, so have to be sharp.

**Mike:** **00:03:06** Always on the clock.

**Adam:** **00:03:08** Will never report you to-

**Rodrigo:** **00:03:09** I don't even know what that means.

**Mike:** **00:03:12** Nobody watches this show. It's really not even happening.

**Adam:** **00:03:16** I want to have to talk about in our opening the compliance monologue we talk about consulting with regulated professionals in your area and I don't know about you guys but I constantly get requests for people to review portfolios that were put together by qualified regulated advisers in people's areas. And man, well if one in a hundred are thoughtful reasonable portfolios that address somebody's unique objectives and situations, then that would be an exaggeration. What are your thoughts on that honestly? Is the idea being regulated advisory in somebody's jurisdiction, a reasonable qualification, like can we not get people better guidance on the type of people that they might seek out to help provide advisory services on their funds?

**Mike:** **00:04:21** Sure. But let's do a show on that. Rather than stealing for Brian's-

**Adam:** **00:04:27** Okay, fine.

**Mike:** **00:04:29** I want to know about who Brian is, besides my dungeon master.

## Backgrounder

**Brian:** **00:04:36** I mean that's taken up 2, 3 hours a week for the last year that adds up. I've been with Morningstar since January of 2013, be my year anniversary coming up in

almost exactly a month and the manager research team since September of 2015 which is- and encompassed a lot of pretty interesting markets, loved every minute of it. I did not intend when I graduated from college to join the financial industry, I wanted to work in government or public service or something like that. Can always talk about that if you guys want to but ended up here, and I loved every minute of it since.

**Mike:** **00:05:13** That's amazing. So what do you do at Morningstar?

**Brian:** **00:05:16** Sure. I am associate director of the fixed income manager research team which is, there's about 12 of us. I have 6 analysts that I am overseeing along with my own coverage list and so we do manager research. We're talking to portfolio managers, we write the Morningstar analyst rating, that's that gold, silver, bronze neutral negative rating you see out on funds we don't have anything to do with the star rating on that as a component of what we're looking at. Interview portfolio managers, right to report, spend a lot of time looking at portfolios and really trying to understand how the sausage is made so to speak and if managers are doing a good job or not.

**Adam:** **00:05:57** How has that process changed over the years Brian? I don't know if you were exposed to what things were like 3 years ago, 5 years ago, 10 years ago but I would imagine that up from, like Morningstar learns from the feedback, from the process. What have you guys learned over the years on this?

## Then Versus Now

**Brian:** **00:06:15** Absolutely, at the beginning, manager research is technically Morningstar second line of business. The first was packaging mutual fund data which at the time when Morningstar was started in the eighties you couldn't get consolidated fund data anywhere else. After that came the research side of it, but at the beginning it was very short like 2 to 3 paragraphs that can fit on a third of the page, the Morningstar, that kind of one page report is what they were known for, we were known for at the time and that was manager research at Morningstar for a long time was this shorter report. Then in the 2000s in the early to mid-2000s we expanded that into what we now know as Morningstar manager research was is a much more robust report that does a deep dive on different pillars right, to 4 or 5Ps we're currently down to 3Ps that we are rating people process and parent, we'd no longer rate performance and price which if we're talking about evolutions that's the big one that came out recently is that last year we switched to this new methodology which cut it, we cut out, an analyst no longer rates price and performance. Those are automated to a degree and what we're doing what we're trying to signal with our ratings on people process and parent is, are they going to build the capture alpha that's available in a specific category? So the higher the ratings on those 3 pillars that I mention before. What we're saying is that they are more likely...This manager

is more likely to capture the alpha available in any given category, and it changes obviously from category to category.

**Adam:** **00:08:00** That sounds more qualitative. What are some of the inputs to that? Those qualitative models that you guys consult as you're trying to draw conclusions in those 3Ps?

**Brian:** **00:08:14** At the start at least, it's kind of basic what people would expect for manager research, meaning we are interviewing the portfolio managers, were talking to the support staff, the analysts, we're collecting data from the managers but that is a much smaller piece at least in my experience, in my perspective. The relationship that we have with the portfolio manager is much less, it's reduced compared to maybe manager research that's done at an endowment or a pension or something like that, obviously a big reason is that we don't have capital that were putting to work like those firms. We do have those interviews and then after that it's ripping apart the portfolio to understand, this is what the manager told me, so did they perform the way they would have expected, the way they explained it? How does that match up with the portfolio? Are there inconsistencies between the two? A lot of times the manager will say especially in fixed income and credit, we don't take a lot of risk and we're trying to be defensive or whatever, and then you look at the fund's yield or they've got Mez structured products or whole business loans or something like that that does not match up at all. So we're trying to understand what's in the portfolio and what are the expected performance patterns knowing what we know about the portfolio and that's really-

We obviously look at number of analysts, manager tenure, manager investment and all that stuff which is all components of our ratings but those are not like I'm not going to say they've got 30 years' experience and 40 analysts. But that's a good people score. That could be a good people score but we're not just that superficial. It's what's the analyst experience in Mez credit or whatever? Are they churning through people 2 to 3 years and they're out and gone. Like what's going on underneath the hood? We don't really care for, I should say those headline numbers that are cited often are not- That's the starting point, that's not what we care about at the end of the day.

A**dam:** **00:10:19** How do firms use this research? Typically if you've got an institution or an advisor to practice, how should they look at the research that you guys produce and drill into the most salient characteristics of your reports?

**Brian:** **00:10:38** We're writing it, our goal is to help investors make better decisions and to choose between this massive offering that they have available to them. The investing universe, it's been getting smaller but it's still really massive and if you just go by headline numbers or returns or the marketing materials that a fund manager is putting out, it can be hard to differentiate. You look at funds that have two

different total return bond funds might perform similarly and then they end up having wildly different underlying holdings and the reasons they perform similarly are completely different. Our reports are meant to highlight those specific points, what's going on in the portfolio, how a fund is expected to perform in different markets so that investors have a much better sense of what they're buying. Sometimes we might have in our reports the whole process, or portfolio section might be dedicated to one or two trades or to something specific that happened that highlights bigger picture what's going on. So it's not a checklist report, we're not trying to tell an investor everything about every fund but what are the most important points? What's going on? What were the big drivers of performance in certain periods? For example, March of this year was the big one that we really spent a lot of time understanding and why things happened the way they did, but it's not done. Like I said it's not a checklist. This is not descriptive at all, this is our opinion focused on the specific most important items that we think investors should be aware of for any given strategy.

## Credit

**Adam:** **00:12:19** So credit, I have always decomposed it as long rates and short a put, depending on the grade of the credit, short a put that's out of the money but the out of the moneyness is a function of the quality and size of the equity tranche that buffers the risks to the credit holders. Is there an explicit model internally that you guys use that sort of says, its Mez data or it's triple C or double B minus or what have you and then are able to price that as an option and sort of relate it to some OIS spreads or historical OIS spreads on that credit grade relative to treasuries or something like that. What kind of models do you guys bring to bear on credit? It's always been a mystery to me how to analyze it.

**Brian:** **00:13:22** It's difficult and there's no good answer to that, so we don't have one sort of master model that we're plugging in the stuff, and two what we do instead is collect as much historical data as we can on different tranches and sectors and slices of the market and then look at performance at different time periods. For example like an easy one, I'll kind of back up to just talk about what I mean, is that an easy trap for a newer analyst to fall into is a fund...let's say it's the period of 2016 to the third quarter of 2018. Let's say for fixed income that was an extremely bullish period. They look at a fund for that period and volatility is really low, yield is really high, Sharpe ratio looks beautiful, they're going to say, well this is great, and I'm going to look at that and say there's a problem, there's a red flag in there. It shouldn't look this good to have a Sharpe ratio that high, it means they're taking on, let's say something that is less traded or thinly traded, paying off a high coupon which gets returned or gets backed into the Sharpe ratio and suddenly you get this beautiful looking investment that is actually carrying a lot of hidden risk that is not necessarily volatility but it's gap down risk or something like that that's going to

show up in a huge sell off, for example, in March or even the fourth quarter of 2018 to a certain degree, but much more so in March.

What we're doing is looking at different sectors and slices and tranches, for example, CLOs, the rating spectrum for CLOS or for CRTs, credit risk transfers, something like that and saying alright, what's the standard deviation of all of these things? What's the coupon? What's the actual drawdown loss and then we use those pieces to try to build an understanding of how a portfolio might perform, because something might be a small thin slice of a portfolio and end up being 90% of their driving their performance up or down markets just because the skew so to speak on these things can be massive in certain environments and disappear entirely in other environments.

**Adam:** **00:15:34** I'm going to throw a Corey under the bus since he threw it out there but, he's wondering what happened to IOFIX in March. I think it's a good case study anyways that we can dig into what the value of digging a little deeper the way that the qualitative team at Morningstar does, and how that might be able to add value.

**Brian:** **00:15:57** Absolutely yes. That was one pretty well known, I think. It blew up spectacularly in March, the fall was almost a straight line down on its growth of 10,000 chart to up a massive degree and what was going on there is, before that if you cut off the March period and just looked at it since inception through 2019, it was just a perfect step-up line in its growth of 10,000 chart and effectively the returns looked like they were auto correlating with themselves. What was going on there is that that portfolio held, at the beginning it's owned a lot of odd lot sub non-agency mortgages, either junk or not rated. Odd lots they were buying at the beginning because then you can buy odd lots then you can round them up, marked them up to the round out position. And they were buying stuff that even other very legacy large non-agency investors whether it's PIMCO or … and so on. Those investors were not buying the stuff that IOFIX was buying. So you ended up having this beautiful return chart, but then in March when liquidity disappeared completely those positions were all...and they started to get out flows, they had to mark everything down, to an extreme that I frankly haven't really seen maybe in one or two other cases. Over time they had also added a number of credit risk transfers or CRTs which are issued by Fannie and Freddie, these are effectively mortgage credit beta, issued by Fannie and Freddie that had never really been tested in a downturn. So there was an overnight, or excuse me, over the weekend, they were trying to unload as much as they could to meet redemptions, they ended up selling most of their CRT position because that was the more liquid of the two components of the portfolio, and then they managed to survive through Monday and then that same week I believe on Tuesday was March 23rd, 24th the bottom, and then they survived after the Fed stepped in. It's one where if you had looked at the returns of this portfolio, this looks amazing, there is no risk here, there's no volatility, I'll

put it that way. There's no volatility, and then the risk realized and investors booked massive extreme losses.

**Mike:** **00:18:24** Is that similar to the bank loan side of things?

**Brian:** **00:18:28** That is riskier than the bank loan, or at least the realized risk has been more extreme in this sort of RMBS Mez mortgage credit part of the market. The bank loan market is closer to, between IG and high yield corporate credit and so it's not - I wouldn't expect to see the same level of drawdowns there, the risk to the bank loan market is that rates stay low for so long and that investors just sort of bleed out. They're pretty similar in terms of liquidity risk given the bank ones are not technically securities, their liquidity is challenged especially in stressful markets but what happened to the IOFIX was a really specific thing that we are constantly on the lookout for. We've noticed the things that led to that fall, any fund that saw massive losses in that period was most likely over exposed to mortgage credit risk in different flavors, and that's really especially kind of the Mez structured stuff, it's always where you can hide risk for bull markets and then they are revealed in bear markets, especially liquidity challenged markets.

**Adam:** **00:19:45** This is what always, really I struggle with in credit. Where credit, it's really easy, there's a lot of innovation in credit markets. Things sort of CLOs and all manner of structured and sub-structured type of issuance. Every time they create a new structure, there's no history previous to when they create it, and because of that you can go many months and in many cases many years without being able to observe the true risk character of the structure because the option that you've sold is very far out of the money on a condition that we haven't seen before, or we haven't seen recently or is unlikely to present itself. We don't trade credit for that reason because we feel like we can't empirically measure the risk in any way, we certainly would acknowledge that for many markets the biggest risk that we take is the one that's ahead of us and so the largest drawdown is ahead of us and there's always risks that have not manifested yet that we need to be prepared for. But in credit, because of the number of different types of structures and the constant, again, innovation in the space, you constantly have these structures or these types of credit with very short histories and it's very easy for investors to get into trouble by just not knowing the underlying risk that they're facing. We see this in Canada, we've seen this, that these offerings to retail investors for years. Mike you go back 25 years dealing with individual investors in Canada, and you put these private credit funds that for 10 years never have a down month and it seemed like free money to uneducated Canadian investors or inexperienced Canadian investors, and advisors and out of the blue, there is an event and now they are gated and now there's some sort of credit waterfall that everyone is going to wait 18 months for everything to go through, and you can't get your money back and you have no idea how much money you're going to get back. How do you as an analyst step into that swamp and navigate it and put your name on the risk metrics that you're going to

put out there to help people be made aware of? It all seems like very nebulous and very hard to wrap your head around and quantify.

**Brian:** **00:22:34** It is, and that's one of the reasons why we... Back to your question why we don't have explicit inputs into a model of some sort like that, just because in a lot of cases we know based on historical experience that even if we had a number to plug in we wouldn't be comfortable with that number, it wouldn't be right in the end, a realized sense. So it's hard frankly, that's why we spend a lot of our time understanding, for example, with CRTs because that's a more recent example and I can use this as a case study for how we would think about it, is that CRTs were created in 2013 specifically to move the mortgage credit risk on Fannie and Freddie's books off to the individual investor, to investors, whoever they may be. At a high level that sounds great, but in the sense that if I am a taxpayer or I am somebody in the government I don't want to pay for Fannie for his mistakes ever again so I'm going to move this risk off of their books into the investor's books. The problem with that from the investor perspective putting my investor head on now, is that a lot of things, first of all, the tranches on CRTs were extremely thin. So 50 basis points, 70 basis points, 150 and so on. You only need 50 or 100 basis points of losses before that tranche is gone, it's wiped out. That's nothing in any sort of extended market, or in any sort of extended bear market. At the same time you're thinking about things where Fannie and Freddie is selling this risk off of their books to me and to buyers, don't you think Fannie and Freddie knows more about what's going on in that book than whoever they're selling it to in the pool of mortgages, and also what they're selling this risk transfer for item security, it's a reference note to this pool of mortgages, you don't actually get any ownership of the pool of mortgages so there's no collateral underneath it except the GSU's promise to pay. So, when you run down the list of all of those features, we don't know how it's going to perform necessarily, we don't have any data to plug into it but you look at all that and you're like okay this is eventually going to be a problem and we don't know when or how. That's just how, anything new like that, that's what we do.

**Adam:** **00:25:03** Every investor enters into a purchase agreement with asymmetric negative information. Like Fannie and Freddie always have an edge, they know exactly what the underlying are, they've got hundreds of thousands of data points, and of portfolios with symbols, similar underlying that they can use for pricing at their end and the public markets have none of that information or much less of it and are therefore at a major disadvantage. So does the public market participant, what sort of a premium do they price these at in order to overcome this major information asymmetry or how should we think about that?

**Brian:** **00:25:48** It's come down a lot. In 2013 and '14 when they were new, the premiums were huge and people who were buying them then, ended making a ton of money. Since then, they've come down to next to nothing because now demand is huge, people want mortgage risk. So, if you put this period into context at the same time as this

is going on, a lot of fixed income investors were in love with the consumer. Like the corporate balance sheets and consumer balance sheets are just getting better and better, so over this period more and more fixed income portfolio managers wanted exposure to the US consumer. Best way to do that is mortgage credit. So demand was increasing at the same time as this was going on and so they just kept pricing it tighter and tighter and tighter and tighter until it became in a lot of ways uneconomic to buy these things but they were still being bought. And what happened is that people were convinced to buy these, and let's say convinced as a loose term but one of the things that everybody pointed to when they're buying these was that stress tests showed that they would have come through 2008 in flying colors. That's true in the sense that the model stress tests said this but these didn't actually, right, this is the back tests. These didn't exist in 2008.

**Adam:** **00:27:10** Who writes these stress tests? Is it Fannie and Freddie or is it Morningstar?

**Brian:** **00:27:14** No we do not. It would be Fannie and Freddie along with any investors who have their own capabilities to do that, kind of pulling out the reference pools and plugging in that way. It's difficult. Then what we saw happen is that these things ended up creating a pretty big bifurcation in investors where, funny people were happy to buy these things for all the reasons that just listed and other people were looking these things kind of like something isn't right with that, we're just going to wait.

**Mike:** **00:27:50** What is an investor to do then? Is that is that the approach or there's something here that's not quite right because in the beginning as you point out there was pretty significant premium to harvest or return-

**Brian:** **00:28:06** Yeah. That's what we struggle with and it's what our job is, is to differentiate or to identify, if you were somebody who is willing to buy that at launch and harvested that large premium. From our perspective when we're looking at that in a portfolio, how much did they buy? Which rating? Which tranche were they buying? So we're saying you're willing to take this risk, that's not a good or bad thing on its own, but what was the decisions that went into taking on that risk and how much capital are you putting at risk? Are you know yellowing it, or you're saying you know, what if this goes bad, I'm not going to lose a lot but if it goes right we're trying to- like are they trying to find the asymmetric bet in this offering whatever it is. That's what we do, we apply that same framework to anything. Somebody's buying CLOs or has been buying CLOs recently, to tie that back to a different market that's growing by leaps and bounds. Are they buying triple B, double B CLOs that the yield is huge but they're going to become immediately illiquid in any sort of sell off and cause huge problems? Or are they triple A, double A, single A and so on where you're getting a much better risk/reward offering regardless of the outcome. We don't want to say don't take any risk because then you'll never earn any return but rather are you taking a risk safely, and trying to pick your spots a little bit better.

**Adam:** **00:29:38** Can we trust the rating agencies? They've obviously let us down in many prior crises. What has changed at the rating agencies to allow us to provide them with greater credibility.

## Credit Rating Agencies

**Brian:** **00:29:56** That's a good question. I don't know if anything really has changed at least not that I've seen. I think there's no good one for that. We use the credit rating agencies, we look at the yields for what it's worth on the buckets around the ratings, so we're going to say if a portfolio manager owns X amount of triple C, what's the yield on their triple C bucket versus the yield on the market's triple C holdings? Because even if the ratings are wrong the market is going to be closer in yield and going to be one way of seeing if, are they over or under exposed to risk in a particular rating bucket. I will say though that for what it's worth, triple A CLOs there's never been a default in a triple A CLO, they've just been rock solid through every kind of market environment which is impressive when you think about what a CDO did in in 2008. We're careful in how we look at that and we try to use market measures of risk as much or more than just pure credit ratings.

**Adam:** **00:31:05** For our audience, what is the difference between a CLO and a CMO?

**Brian:** **00:31:11** The difference is the underlying. In a CLO collateralized loan obligation those are bank loans that have been pooled together and securitized, mostly bank debt leveraged loans, the bank loan Morningstar categories is another example of funds that own these things. There are also commercial real estate's CLOs or CRE CLOs but those are less common. But the distinguishing characteristic is that both bank loans and CLOs pay a floating rate coupon. With the CMO or CDO underlying in those cases were mortgages and...But the structure of the actual the pool in securitized structures is the same that's been applied everywhere and anywhere that it can be.

**Adam:** **00:31:56** Why is it that that the CMO's and the CDOs defaulted because the Fed was not able to fire hose funds to individuals in 2008, the same way that the Fed was able to fire hose funds to corporations in more recent periods, so the collateral is secured by the Fed in a way that mortgages aren't or is that too simple?

**Brian:** **00:32:24** I think that's a little bit too simple. I think that what we saw with the CMO market leading up to and into 2008 is that the underlying, the collateral is just a lot worse than it's ever been anywhere before or since from my understanding. If you think about a mortgage default, people can leave like you can just walk away from it, with a bank loan, if we're tying it back to the CLO example, bank loans are the first lien debt, the corporations have promised to pay, they're secured by something, these are all secured loans. Even though the structure, it's a 3 letter word, the structure makes people nervous, the structure is the same. There are a lot of

problems with the bank loan market now, where I wrote about during the summer. But the underlying is just, despite those concerns the underlying in this case is just a lot stronger relative to what the underlying was in 2008. Obviously the Fed-

**Adam:** **00:33:23** … the lien is secured in a way. Okay.

**Mike:** **00:33:26** And obviously the Fed certainly has a component there, because they were so much quicker to act this time around. So I think we absolutely would have seen a lot more carnage in every kind of market if the Fed had not acted as quickly as they did.

## Bond/Equity Versus Equity/Equity

**Rodrigo:** **00:33:44** Given the landscape that you just laid out for us on the credit side of things, when we think about the 60-40 portfolio, this idea of having 60% of your assets and risks, in equities and 40% in fixed income. I'm finding more and more that advisors, that 40% is less about safety and more of a title of safety. It's credit that is very high risk if you need some yield, that to me ends up being less like a bond/equity portfolio and more like an equity/equity portfolio. What are your thoughts on how people should think about credit in that sleeve or should it be its own sleeve with different types of risk ratings?

**Brian:** **00:34:32** I think you need to differentiate investor, you need to differentiate between credit risk which is effectively equity risk or rate risk duration, which is going to hopefully act as a ballast-er, counter cyclical to credit and equity risk. So I think it's easy to buy the best performing core plus or multi sector fund or so on and without realizing that maybe that was the best performing fund of the last 10 or 15 years because it's duration was underweight and it's got no duration or very little duration and then it's been massively overweight credit for the last 10 years and that's why it's racked up such a good record. I think those strategies, especially above average managers, can continue to do that and can continue to outperform, so I'm not going to paint a black and white picture but I think you need to be aware of what those funds are offering you in terms of where are they getting their return from. So if you truly want 40% of the portfolio to act as a counter cyclical weight to the equity part of portfolio then treasuries and TIPS in the long duration, and say something like that verses my portfolio is large enough to let's say absorb a certain amount of losses or even it's okay if fixed income part of my portfolio loses 3 or 4 percent this year. I'm okay with that because I know I'm going to catch the rhythm the same way. If that's okay that might be fine but investors just need to know that's what a certain 60-40 portfolio is going to give them, is just muted equity risk or credit risk. Credit risk is equity risk light, so.

**Adam:** **00:36:22** What always was a mystery to me is if you go back and...so there is two components of this because one is the benchmark or the indices of different credit sleeves to triple A verses investment grade versus high yield et cetera, and so many papers have been written and we've done similar research internally about the fact that higher yielding or lower grade credit when you adjust for default in recovery, so default probabilities and recovery realizations through history, taking more credit risk has not been rewarded on a risk adjusted basis. And that in fact, our own research shows that it hasn't been rewarded on an absolute basis over a very long time horizon. In other words investors would have been better off just investing in high grade credit on a duration adjusted basis after adjusting for defaults and recoveries than moving out the credit curve. So that's one dimension of this, the other dimension is-

**Mike:** **00:37:38** Adam, are you talking about that in the context of the entire portfolio or just in the bond side?

**Adam:** **00:37:43** No. On the bond side. On the fixed income side.

**Mike:** **00:37:46** Yeah. Just want to contextualize.

**Adam:** **00:37:48** Good point. The other side of that is that the credit indices may not be reflective of the opportunity in the space. For example, … constantly points out and to be fair I have not done research on this and I'd love to hear your thoughts on this, but the fact that active management can play a higher value role on the credit side than on the equity side in terms of choosing better credits at different credit tranches. Notwithstanding the fact that it hasn't paid to take credit risk, is there a better opportunity for high quality managers to take advantage of credit risk on the fixed income side than we've observed on the equity side?

**Brian:** **00:38:36** Yes. Absolutely. The answer to that is yes. I would say that both of those things that you said are true actually. So if you were to just look at the market returns of double B versus single B versus triple C, what you described in terms of not getting paid for taking on triple C or lower risk is accurate, that has been observed. I would agree with that. At the same time, we also have seen that it's been very possible for a certain let's say above average managers to find the opportunities within the triple C part of the market or single B non-rated or what have you to outperform even the double B benchmark on absolute or risk adjusted returns. There absolutely has been opportunity for that. I think part of that has to do with just the massive opportunity set relative to equities, so they're just more securities out there, there are more inefficiencies than the equity markets, so all of the conditions that let's say were in place for equity managers to outperform 30 or 40 years ago, they have not gone away in the credit market.

**Mike:** **00:39:45** It's hard to find, it's hard to contemplate, there's liquidity risks and waterfalls that are opportune, going someone has to get out of a portfolio, because it happens to be a tranche lower than it was.

**Brian:** **00:39:58** Yeah. There's all sorts of weird nuances and niches within this market that are still ripe for managers to outperform. The corollary is also true in the sense that it's still ripe for managers to book to make a lot of mistakes and book massive under performance. So it's just an area where we've seen that active management, there's still a wider range of outcomes which means good and bad, and so it's-

**Mike:** **00:40:24** More dispersion. With the spread so tight, it gets hard. Any commentary there? It's just seems so...so minuscule for the effort-

**Brian:** **00:40:36** Yeah. It's rough. As an example, a lot of high yield managers that we cover, actually this year especially in March and April, actually started buying investment grade corporates instead because that offered a better risk adjusted return than the high yield market did. And so, for managers who were able to do something like that versus just an index or a beta play or something like that, it's strange to say that high yield managers who bought investment grade outperformed other high managers who didn't, but that's kind of what happened in some cases. I think the problem is that they get to a certain point where you're just not getting paid to take the risk for spreads. So I think high yields spreads right now are 430 or so. So I noticed the yield on the high yield categories, 430 basis points plus or minus, back out 2% for inflation. At that point what we really start to pay attention to is are they bottom feeding, are they going to stuff that end up not going to get paid or they just telling investors, hey look, this is it. I think we can't do any better. That needs to be said frankly, which is one of things that we've been trying to do recently is that outside of bottom feeding credit or going way long duration there's nothing good out there. You need just have to accept that.

**Mike:** **00:42:05** Yeah. So we're at 5000 year lows in interest rates, so that's a bit of a headline. Maybe just shifting gears, just a touch, how might we think about saying in the bond complex, how might we think about hedging the bond portfolio to inflation. Not in a portfolio context but just in the fixed income context, how might someone approach it that way? TIPS is one way, certainly hedge is an explicit sort of CPI type of inflation, anything else out there that investors can sort of use inside their portfolio if inflation is a concern for their 40?

## Hedging the Bond Portfolio

**Brian:** **00:42:45** Yeah. Inflation is a bond investor's nightmare frankly and the same way you would overcome the low yields is just higher more risk, higher yields. If you are confident that your high yield will last longer than inflation does, you're making an explicit sort of timing bet on the duration of inflation versus the duration of your asset,

your higher yielding asset. That people are going to do that, that's not something we would recommend. I think in the fixed income world TIPS is really the only way, outside of credit and taking in a high yield to outpace or try to outrun inflation which-

**Mike:** **00:43:30** Convertible debentures from oil and gas and gold mining company?

**Adam:** **00:43:36** Actually that's where I was going to go because I remember back in 2018 there was such a hubbub about the fact that such a huge portion of the high yield market was related to the energy sector. So it was I guess this sort of an indirect way, an indirect play on certain types of inflation if you want to get cute.

**Mike:** **00:43:57** There is a mention there too that the sector breakdown of the various tranches of debt as you answering from, but you go. Hit it.

**Brian:** **00:44:07** No. That's completely accurate that they do change pretty dramatically in the industry composition from rating tier to trading tier. I was going to mention, with TIPS there was that and we've done a lot of research, there's a piece in 2017 that we wrote because that was the 20 year anniversary of the TIPS market. That analyzed their performance and they did extremely well, they beat inflation. The problem is that, so did of every other asset over that 20 year period because there was no inflation. But I think when you think about TIPS specifically, I mentioned this before in a comment in one of these a few weeks ago is that if you're buying, first is the break even rate, so the inflation expectations and if you buy it at an inopportune time and inflation does not exceed the break even rate then you're kind of wasted your purchase, you would've been better off with nominal treasuries. At the same, time different parts of the TIPS market are correlated to different things, so the short term TIPS market is more correlated to actual changes in published CPI. The problem is that changes in published CPI it's of month to month, energy is the huge component, that's like are you just really correlated to energy verses the 30 year TIPS market which is more correlated to actual changes in future expectations. So where you're buying into TIPS curve, you're going to get different. It seems obvious in retrospect but knowing that beforehand, it might help at least with expectations what your getting out of that allocation.

**Adam:** **00:45:35** It seems like you could structure some kind of explicit inflation hedge credit portfolio by collateralizing with rates or repo and layering on CDS and an inflation swap or something like if you really want to get cute and just absolutely had to be in credit. It just seems like why are you using credit to hedge inflation risk which I think is...I mean if you're forced to be in credit or like you know lots of compliance reports on what is required, 40% of a portfolio for a balanced investor to be in credit or in fixed income. So it's 100% legitimate question, does prop the question is that a reasonable policy in any environment.

**Mike:** **00:46:23** In a portfolio context you can expand that, and you can think about TIPS is a meaningful account contributor to that, but what about the Quadratic Eyeball product? Do you cover that? You have any comments on that and how that might fit? Because that's kind of a unique and interesting different thing.

**Brian:** **00:46:40** It is yes. So I'll have to pass on specifics. I know many of my colleagues have met with that team but I have not. Unfortunately we don't cover it at this time. I know it's gotten a lot of attention and like I said we've had meetings with them but I can't speak to it more than that.

**Mike:** **00:47:00** That's fair.

## Fallen Angels Premium

**Adam:** **00:47:01** One thing I always...Like the only thing I ever have really gravitated toward in credit, is this Fallen Angels Premium. This idea that there's a structural barrier to arbitrage for credits that lose their investment grade status. So they're getting downgraded below investment grade and they are forced sales by insurance companies and pensions who need to maintain a portfolio above their, a certain credit quality. Is that still a thing? Do you still observe this Fallen Angels Premium and if so, are there any funds out there that target this and that you might recommend?

**Brian:** **00:47:45** Sure. So it's definitely still a thing. And high yield managers love when this happens for what it's worth just because one thing that's been observed and I think one of the reasons why fund managers perform so well is that I think about a company that has been downgraded but they were IG for some period of time. So they have levers that they can pull that a small high yield company that's...maybe there's no equity in the high yield company in the IG company, they've got equity cushion and so on, they can cut the dividend, there's typically more that a Fallen Angel can do to either stabilize or to get back into the IG market in one, two, three years versus a triple C or single B rated company that's just so far away. Even if they can get the IG it's 10 years in the making or something. They just have more they can do.

**Adam:** **00:48:40** That's a really good point. I like it.

**Brian:** **00:48:43** Typically bigger capital structures and like I said high yield managers kind of feast whenever this happens. A lot of high yield managers we would recommend in terms of that have been successful doing that, first one that couple come to mind would be the BlackRock High Yield Fund, the PIMCO High Yield Fund, and the Artisan High Income Fund. Three of those are different, they are different flavors. For example, the Artisan fund which I cover is a very concentrated very nontraditional high yield fund and it's the kind that going back to what we've talked about the beginning, if I were to look at it at first, raises a whole lot of red flags in terms of concentration triple C risk and so on. But it's one of those that once you

start to dig in, the construction actually works in a lot of ways to offset those risks combined with really good security selection and research versus something like the PIMCO or the BlackRock funds which are more the … fund as well which is gold rated. Those are all more broad market traditional high yield funds but all of those managers will like I said feast on Fallen Angels and really kind of add them in size to their portfolios and capture a lot of returns that way. GE was a big one, sorry.

**Adam:** **00:50:01** Just dovetailing on that whole concept, and I actually have no idea, is that the Artisan Funds? That's what it's called?

**Brian:** **00:50:06** That was one of them.

**Adam:** **00:50:07** So is there an edge in credit to managers who run a reasonably sized, like I can just imagine PIMCO and BlackRock being the box at the moment, well certainly PIMCO, a box on everything fixed income and BlackRock being the box and everything in every asset class at the moment. Is there an advantage to managers who run a smaller portfolio, they're able to take advantage of opportunities that just the gigantic funds, they make it a piece of, but it would be so small a contributor that it doesn't really matter? Is that a criteria that investors might want to consider?

**Brian:** **00:50:55** Certainly yeah. It's tricky to answer that though. It's nuanced to answer that because Artisan is one example, Diamond Hill runs too funds as well, what corporate credit and in high yield that are all in the same sort of vane, were smaller portfolios concentrated positions, look more like equity portfolios and that's why I mentioned earlier, to me if I were to add one of these to my own portfolio I would treat these as equity risk. But you absolutely can because a lot of times credit coverage or credit due diligence is so time onerous for the analysts that you think about let's say a team that is a broad market fund and they have to cover everything and the analyst has 60 names or 50 names on that list verses, and that team let's say they've got 10 or 15 or 12 or whatever and it's just they can just dedicate a lot more time and they're not as rushed to cover everything coming in new issue market. All this stuff or sitting on too many credit committees, like a credit analyst and credit PM are pulled in so many different directions. Anything you can do to minimize that can be beneficial. Now, the other firms mentioned, …, PIMCO, BlackRock, they've got so many bodies that they can do all these things and still be good at it. But you need to know what game is it that your manager's playing, in order to get it. Because you just need to fit that-

**Mike:** **00:52:14** It's the politics of portfolio management. Can the analyst get the idea, run up to the portfolio manager get the approval to get the piece on the book? How flat is that management salad? There's a lot of that in professional portfolio management that is an opportunity for excess return I think. Interesting point. How does ESG and I want to come back, how does ESG play a role in the bond market in bond portfolios?

**Brian:** **00:52:46** Sure. We recently, Morningstar recently came out with a new ESG rating which we call the ESG commitment level, which I will touch on in a second but to answer your question specifically what we've seen in ESG in fixed income is, the most interesting part of it in my opinion anyways is the impact side of it which is managers that are financing deals that have a very explicit ESG or impact investing goal which could be funding public housing or water rights or solar panels and so on. I find it more interesting at a personal level rather than just buying, like creating an equity screen and buying stuff that scores well but you're still just buying the equity and maybe you're punishing or rewarding good or bad actors. But it's still just screening at the end of the day. Verses on the fixed income side which is really the place to do it this impact investing thing, where you're targeting specific deals that have a very specific and measurable outcome at least ideally, according to whatever ESG lines that you've laid out for yourself.

**Adam:** **00:53:55** So it's better to think about it as an expression of values than it is trying to extract some premium or as an investment objective, it's more of a value subjective than an investment objective and if you think about it properly then you could do a better job.

**Brian:** **00:54:15** Yeah. It's interesting that there aren't that many fixed income funds that are doing this impact investing, there's only a handful. I cover 2 or 3 of them. They've actually outperformed their peers, there has been a performance premium from these things but I think the reason why there has been-

**Mike:** **00:54:33** …

**Brian:** **00:54:35** Correct. So a lot of these things that they're buying have been smaller deals that not everybody's buying or that they've had a hand in structuring because they're also often acting as the advisors on these deals. Suddenly you've got a deal flow pipeline and not everybody is buying it and you've got a nice premium you can collect.

## Governance

**Mike:** **00:54:56** I think another indication of that too is in the equity space. That if you look at governance clearly underperforming, you look at greenness outperforming, and so when you think about green washing and EV's and all of those types of things, all of a sudden if you have an environmentally sensitive ESG, you have this outperformance and I think we have to, we would all concede in the short term these are just sort of random effects, they're not necessarily direct results of better ESG. Or, otherwise you would conclude that governance doesn't matter and it actually underperforms to have a better governance, so you would make that conclusion but that's interesting.

**Rodrigo:** **00:55:40** So in the category ESG, is there general overlap when you put these different ESG funds together, is there like Ven diagram of like 80% of values align and they go off on this 20% on their own or are we talking about the wild west where I'm a portfolio manager, I have certain values, I'm going to provide water through these businesses and that gets piled in there along with 1000 other different views on ESG. Like what we looking at?

**Brian:** **00:56:15** Yeah. It aligns pretty well, there's a lot of overlap and I think the reason for that is at least if were sticking in the fixed income world, governance is actually not really a thing in fixed income ESG investing. You don't have any ownership of whatever you're buying, a lot of times it's you need that for example, municipal debt that where a lot of this growth has come from and so you immediately cut off the governance part of it most of it and a lot of the social stuff as well is kind of cut at least by a third, maybe and half just given the kind of deals and the kind of market that you're operating in. So, the only thing that's left is mostly environmental along with some social stuff. So, you get stuff like the PACE loans out in California which were loans that sat above a mortgage, they were first linked to the mortgage to put the solar panels on top of the house, then those loans are packaged and securitized and sold. These will sit with the house they don't sit with the owner so a homeowner can take out these PACE loans, make their house green and then leave and they don't need to pay for it, so there are a whole lot of...it is the wild west that turns, going back to the end of your comments from earlier like new things coming out. There's a whole lot of new stuff coming out in this part of the market that fits the ESG criteria really well. Is it going to be a good investment or not who knows? But it's been mostly this muni stuff along with these environmental projects that they've been financing.

**Adam:** **00:57:49** One of the things.

**Mike:** **00:57:50** Go ahead Adam.

**Adam:** **00:57:52** Well I was going to shift gears. You've got something on this theme.

**Mike:** **00:57:55** No.

## Relative Value Arbitrage

**Adam:** **00:57:56** No. Okay. Certainly our team is uncomfortable taking equity risk or capital structure risk in general. So one of the areas of credit that I've always found more fascinating is the idea of relative value arbitrage. A company you've got different securities that are backed by different parts of the capital structure or they're all priced and so there's the opportunity, maybe a first lien is overpriced relative to a second lien, or an unsecured or relative. The equity tranche, some kind of convertible or whatever. Is that an area that you also cover and if so what opportunities are

there? Is it an attractive area for investors to look and what kind of criteria would you use to evaluate the effectiveness of managers in that space?

**Brian:** **00:58:52** That's a good question. Yes and no. We do look at managers who do that, the problem is that there isn't really much. It's hard to tell who's actually doing that versus who's doing it well and who is just saying they're doing that and kind of hiding behind more of a macro approach. The reason I caveat, lead with all those caveats is that really good fixed income managers that are operating whether it's in dedicated corporate credit or some more multi sector sort of core offering as well, if they are outperforming a lot of their outperformance, and they're doing a good job of it is going to come from being able to move between those opportunities at relatively good times. I'm not talking about market timing specifically but relative value of one sector versus another and then within each sector, am I over underweight securitized for example - we use that. Right now within securitized, what's attractive currently, the only thing that's left really is commercial mortgages, CMBS. Within CMBS, am I agency or non-agency, in my conduit or single asset single borrower. If I'm in one of those, am I triple B or double B? For example, triple B minus CMBS risk right now the spread is between 450, 500 or 550 which for a triple B rated asset is right now, is really attractive. But the problem with trying to find a manager who does that well is that it's really hard to identify the managers that are doing that and then if they're doing it well is it risk versus luck. And the reason it's just, there's no sort of flag reading or easy way to say managers that are doing that explicitly and only that within capital structures, there are couple of firms that try to do that really well. Thornburg comes to mind as one of them with mixed success I think, but they're one of the ones that more explicitly takes that type of approach.

**Adam:** **01:00:53** Just mathematically it's just much harder to sort skill from luck when you don't have...when you have almost no correlation with any other benchmark, the challenge with absolute return in general is that you can, especially if you've got infinite scope about what you can invest in long or short, the noise term dominates so profoundly over intermediate horizons that it's just impossible which is why I think many institutions like to focus on some sort of benchmark oriented evaluation. Because it's much easier or at least you can identify skill versus luck more effectively in much shorter horizons, if you're benchmarking in something that's highly correlated to your strategy relative to something that's completely uncorrelated.

**Mike:** **01:01:50** Well, you think you can.

**Adam:** **01:01:51** No. I totally agree yes, and there's lots of tricks that managers play in order to pretend or optics that they look like it and stuff.

**Mike:** **01:02:03** I'm being the curmudgeon.

**Adam:** **01:02:05** You're out-curmudgeoning me. But we're on exactly the same page, really good. But I love that space because at least conceptually and I agree it makes it much harder to evaluate whether it's a measure of skill or it's just luck in a reasonable horizon but I like it because your definitionationally removing all other sources of risk other than your ability to distinguish between different parts of the capital structure of the specific firms. So all idiosyncratic risk is removed, all market risk is removed and it's just literally I'm going to do this capital structure and how much skill can I extract from that which appeals to me conceptually.

**Brian:** **01:02:45** The hard thing, I agree, and just to give my two cents is that the hard thing when it comes from our perspective for evaluating a firm like that is that, a strategy is that often those strategies, the hurdle rate that they're setting for themselves is LIBOR, or LIBOR plus 30 or something like that.

**Adam:** **01:03:04** Which is appropriate. Totally.

**Brian:** **01:03:06** But that makes it harder to-

**Adam:** **01:03:10** Because there is no correlation, LIBOR has no vol. Because there is no correlation and therefore-

**Rodrigo:** **01:03:16** It's a pure return analysis. The hurdle doesn't work.

**Mike:** **01:03:21** Yeah it's all skill.

**Adam:** **01:03:24** It is. That's exactly right. It's all skill plus the near term they can't be correlated any other…

**Mike:** **01:03:30** So therefore it's all skill. Both on the positive and negative side.

**Adam:** **01:03:36** That's true. Insofar as alpha is intercept plus error term, which means we have no idea to determine which is which.

**Mike:** **01:03:45** Looks nicely. See there, I'm an optimist.

**Adam:** **01:03:51** Nice framing.

**Mike:** **01:03:55** Well, there's a couple questions in here just to as we're over an hour but any thoughts on a couple of questions here on ANGL by VanEck, do you guys cover it? Any insights there? If you don't its fine.

**Brian:** **01:04:12** Yeah, I'll have to pass on that one. The reason why is that we split passive versus active manager research and so that would fall on the passives team which I do not.

**Adam:** **01:04:23** But that is an explicit Fallen Angels Index.

**Brian:** **01:04:27** It's done really well, I follow the performance of it.

**Mike:** **01:04:31** Then there's one other, any views on CLOs and the growth of CLOs? I think we talked about that a little earlier.

**Brian:** **01:04:37** That one I can speak to. That was my paper in May, article in May was touching on that a lot. It's been huge, it's massive. At this point CLOs are over half or roughly half of the bank loan market in total. So you think about bank loans are now over a trillion market size, half of that issue is roughly is gone to feed the CLO machine and if you think about that demand verses the supply that's been coming out of the private equity market in terms of issuing most of this loan issuances come from, and if you think about the fact that within the loan sector at this point most loans are being issued are either covenant like which means it's easier for issuers to, or their PE sponsors to sort of wiggle it within the deal or their loan only capital structures. So the big draw with a bank loan which I mentioned before is that they're first lien to anything below it, they're secured, they have got let's say a fixed rate bond below it unsecured and then a full equity cushion below that like a full capital structure. A lot of loans now are that's it, it's just a loan because its financing some PE deal and so recovery rates have just come way down relative to where they were pre 2008. So if what you're getting out of bank loans is recovery rates that are lower than they've ever been before they're not offering the 80% and the average long term averages is 80%, realized now it's closer to 60. And you are getting something that's floating rate that can be called away at any time, there's no call protection on these things, I realise I'm talking about specifically bank loans now but it's just horribly difficult to outperform in this sector for a dedicated bank loan manager. It's going to be really tough, that sector. I think that flows up to the CLO market. Obviously you're doing away with some of this because you're dealing with a pool of securitized loans and like I said before triple A CLOs have never defaulted, knock on wood and so I think-

**Mike:** **01:06:51** But they've changed…

**Brian:** **01:06:51** No. Who knows? I think that the default rate did spike coming out in March in CLOs and so obviously there's risk there, these things are not perfect. I think all of the underlying complaints that I have about loans obviously flows up into the pools of CLOs and so I think you're going to get...this doesn't even get into the economics of CLOs where you've got, let's say second or third tier managers who the loans that they're putting into the CLO are all coming from their one warehouse financier whether it's JPM or some of these banks. There's a relationship here between their financer and the loans are putting in CLOs back to the CDO-

**Mike:** **01:07:33** I wonder how that gets by the board of directors?

**Brian:** **01:07:40** Like I said, there is a lot of strengths to that market but we have been pretty concerned about it for about a year.

**Mike:** **01:07:49** All right. There you go. That's-

**Adam:** **01:07:53** That's the detail we were looking for.

**Mike:** **01:07:54** Sell them all. I know there's 3 letters, ABC's, sell them. So is there anything Brian you're working on right now that's got you super excited or terrified? Anything in the bucket that's really making your juices flow that you want to share.

**Brian:** **01:08:18** Yeah. I don't know if it might be freezing the juices rather than making the flow, but-

**Mike:** **01:08:22** Yeah. That too.

**Brian:** **01:08:27** We've already talked about a lot but the low yield thing, we've been kind of beating the drum that people need to either accept that they're going to go out on the risk curve or accept lower returns to negative returns, if we're talking about inflation overshooting 2%. It's going to cause a lot of problems and if you are sticking within the fixed income box trying to answer this questions it's going to be really difficult. There's no good answer but we were telling everybody that, or at least reminding them that there's no magic bullet for these types of things.

**Mike:** **01:09:01** Do you cover preferred shares at all or anything like that? Is that way out of your pervue?

**Brian:** **01:09:06** We do not. Offhand that could be one approach, you're going to get more than in some other places but we don't. We cover them but I don't.

**Mike:** **01:09:25** Awesome**.** Anything else gentlemen?

**Adam:** **01:09:28** Did we ask about the preferred closed end funds? That I was distracted for 2 minutes and-

**Rodrigo:** **01:09:35** We just talked about preferred funds and him not covering it.

**Brian:** **01:09:38** Yeah. I had to pass on that one.

**Adam:** **01:09:40** No worries. Sorry ....

**Mike:** **01:09:43** Yeah. What about the marijuana sub-loan industry, like with the CBD Cryptowana.

**Adam:** **01:10:03** That's right. The new fund we are launching EV Cryptowana Fund.

**Mike:** **01:10:10** Too good. Everyone's a little punch drunk on Friday, I love it. Any other thoughts guys? We're over the hour this was-

**Adam:** **01:10:20** Covered a lot of ground?

**Mike:** **01:10:21** A great deep dive into the credit world and so given that there's no hope anywhere to reach for yield or anytime you reach for yield you're going to have your whole alarm cut off. Is there any parting thoughts you can offer? .

**Adam:** **01:10:38** For those who are forced to be in fixed income here, what segments should they be focused on right now?

**Brian:** **01:10:47** Sure. I think at this point you have to look at TIPS. This came up a little bit earlier, I should have mentioned before is that if we think about that inflation hasn't overshot yet, part of that might be that just simply the fact that we're under employed right now. Like employment is so low and so if you think about if the Fed keeps rates pegged low and then either stimulus or something happens where we roar back to full employment like that, that could have a huge overshooting impact on inflation at least potentially and so you got to look at TIPS I think right now. Even though the yields are not, you're not buying them purely for the yield or at least the yield right now.

**Adam:** **01:11:29** You opened the macro Pandora's Box and Mike…

**Brian:** **01:11:33** I don't…

**Mike:** **01:11:40** I've been waiting for someone to talk about employment.

**Adam:** **01:11:45** Next I'm going to bring up … and we're all going to get in trouble.

**Rodrigo:** **01:11:51** All right.

**Adam:** **01:11:54** So guys that was great. Thank you Brian, see you Wednesday.

**Brian:** **01:11:58** Yeah. Have a good one.

**Adam:** **01:11:59** There is the banner again. God love you Ani, this is great. All right, thanks guys, have a great weekend, thanks for tuning in , don't forget to subscribe.

**Mike:** **01:12:12** Yep, click, like, leave a comment.

**Adam:** **01:12:14** Exactly. All right.