

Taylor Pearson:

Hello and welcome. This is the Mutiny Investing Podcast. This podcast features long form conversations on topics relating to investing, markets, risk, volatility, and complex systems.

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Jason Buck:

Zed Francis, welcome back to Mutiny Investing Podcast. Right away, right at the top, plug away. Where could people find your website? Where can they find you on LinkedIn? Anything else?

Zed Francis:

Yeah. Just www.convexitas.com, and then my name is Zed, Z-E-D. So that's probably one of five of them on LinkedIn, so that's easy to find.

Jason Buck:

You guys post great essays to your site, but you also, I guess, you repost them to LinkedIn and do you put more content on LinkedIn than just your essays or how do you set that up?

Zed Francis:

Yeah, no, between podcasts, TV appearances, posts, we definitely do the LinkedIn thing. Devin is my business partner. He's getting on me to actually utilize LinkedIn as a tool. We'll figure out if I can learn something new and if it's useful, but yeah, you'll see an annoying amount of us, I think, probably over the next year as we learned to utilize it.

Jason Buck:

Good. I look forward to it. By the way, you walked right in my trap of saying that you guys are philosophically boomers because right away I said, "What's your website?" and you said "www dot ..." Did you want to start with http back then? When are people going to stop saying www dot for their website?

Zed Francis:

Well, I mean, as soon as I get off my Netscape browser, maybe.

Jason Buck:

Why I wanted to bring you back on was a year in review. Wow. How unique? Everybody does their year in reviews, but I actually liked a lot of the comments you had about Q4 and what you were thinking

about in 2023. So I wanted to bring you on to discuss some of those. Let's just start, I think, with more of the simple ones of Q4. You saw a lot of the action in Q4 especially in December was from tax loss harvesting and then also RMDs. So let's just start. I mean, tax loss harvesting is a little more obvious than the RMDs, but let's just talk a little bit about both.

Zed Francis:

Yeah, and I guess we'll kick it off tax loss harvesting. So obviously, it was a year that anybody that accumulated additional assets in 2020-2021 likely had the opportunity to do some tax loss harvesting, especially because there's enough names that move dramatically, right? There's probably stuff in your portfolio that was down 90% and hopefully only 20 basis point holding, but some serious moves.

So yeah, I think that definitely puts some pressure on the broader market at the end of the year. You can see it on funny days. To me, my best example of, "Oh, that tax loss harvesting must be happening today." Everybody has tools. The tools are getting better for tax loss harvesting, but I still think most people basically open up their brokerage account and then go to the column that says gains, losses, and then filters it to the highest, to the lowest and they start at the biggest loss.

There was a couple of random days like the week before Christmas where Apple was down 3% with the NASDAQ down 50 basis points and you're like, "Okay. This is the start of tax loss harvesting," because Apple is probably your largest holding with it being the largest company and it's down 20 odd percent last year. So surprise, surprise. It's probably the biggest dollar loss, not percent, but dollar loss in your account, and that's where people started. So you can still physically see it going on.

So I think that that's one side of the pressure that I think is reasonably talked about and is a real thing when there's not a lot of trading volumes that can actually dominate to some extent, but I think the more interesting side is required minimum distribution from DC, defined contribution retirement plans. The reason why I think it's less talked about and more interesting is it's just important now and hasn't really been that important before.

So '60s, '70s, '80s, slowly but surely, most folks transitioned from DB, defined benefit, to DC, defined contribution retirement plans. So there's not a lot of we'll call it legacy money until more recently, and more recently, those folks that transitioned into how they're saving for retirement are now becoming of retirement age. So 20 years ago, this wouldn't be a big number because there wouldn't be a lot of people retiring and the pot wasn't as big, but now it's a pretty big number. So it's something you should start paying attention to as we go through the next 20 years of folks actually having to sell things on the schedule that's mandated by the IRS essentially.

So the other piece that's interesting beyond it, not really being a dominant player until more recently, is the required minimum distributions are set at the account value at the start of the year. So say you're 82, I believe, is your actuary table says you're going to live 10 more years so you got to sell a 10th of your assets every year. So say at 100 bucks. So at the start of the year, so it says, "Okay. You got to sell \$10 worth of stuff, 10% of that \$100 at the start of the year," but in 2022 it was obviously a year where pretty much all assets fell. So your ag is down 20%, your SV is down 20%, so on so forth. So your 100 bucks, now \$80, and you don't have to sell 10% of \$80, you got to sell \$10. It's set at that price of the account value at the start of the year.

So it becomes a pretty material amount of liquidations that have to take place. Again, if you don't do, it's a 50% haircut basically. That's a forced tax upon you for not doing it. So you're doing it. You're doing it no matter what. There's no way to avoid it, but it becomes pretty darn material. Everybody does it in a waterfall fashion. So depending on which custodian your assets are at, they basically pick an arbitrary day in December when they're actually going to process all these required minimum distributions, and it's essentially between December 10th and December 23rd because nobody wants to work during the

holidays. We want it done before then. We also want to get it as close to your end as possible. So that's your waterfall.

So those two weeks in the middle of December, I think they had a pretty overweighting impact on the pressure in the market from these thoughtless selling programs. The back side of it, which is I think possibly what we're experiencing the last two weeks of right now, is people, forced to sell those assets, they have to pay taxes on them, and now they have cash and they might just go put it back into the market. You didn't have this windfall of cash. You don't need it for life expenditures right now. You might need it over the next year or whatever, but you probably have an overallocation to cash just naturally because you're forced to sell assets and now it's in your taxable account and you probably go redeploy it into the market.

So I think it affect both ways, a decent amount of pressure in December, forced liquidations, and then, "Hey, we got some cash. Let's go put it to work," and you go buy back all the same stuff that you probably just sold.

Jason Buck:

There's so many things I want to highlight there because I actually love this subject and like you said, it's not talked about enough. One things I want to highlight, like you said, it's not on a percentage basis. It's on an actual dollar amount, on that \$10 on the \$100 example. Everybody thinks, "It's just a percentage," and, "What is my net assets at the end of the year?" and it's a percentage of that, but like you said, no, it's much worse than that.

I think you and I have talked about, I think you think that that constant selling pressure that you get from these distributions is similar what we saw in December of 2018 where you just saw just this constant tick down on the markets. That's why we didn't see really a ball spike in December of 2018 and maybe not as much in December of 2022 because it's just constant every day that selling pressure over a two-week period.

Zed Francis:

Yeah, and the parallel between '18 and '22 is your fixed income and your equities were down, right? So you didn't have that situation where your \$100 is still \$100 just because you had actual diversification benefits of holding different things. Everything's down, so that forces that \$100 in 2018 to 90 bucks and then 2022 to 80 bucks. So definitely a parallel between those two Decembers.

Jason Buck:

Then part of it too is I think about often is, and you may disagree with me on this, but to me, we have just an end of one experiment. When we're talking about these defined contribution plans and thinking about 401(k)s subject to IRAs or whatever it is, and especially starting we're moving into target date funds now. Every millennial or Gen Z is only going to have a target date fund really as their only optionality. They maybe have two to six options at best.

So to me, we haven't actually seen what this experiment looks like. Like you're saying right now is once people are starting to reach retirement age, they have to have these required distributions, and we haven't really seen what happens on mass at really scale. I really wonder about, especially it almost exacerbates it with the target date funds and you could speak to that as far as you don't get to pick and choose as much to what you can or can't sell. Then what happens if we're underwater for a decade and people are just getting pinged with these required distributions?

Zed Francis:

Yeah, no, I think the broader wealth transfer that everybody acknowledges is going to take place over the next 20 to 30 years. It's going to obviously move things substantially. The more mechanical those movements are, the more disconnects they have the ability to create. So I would agree that having more and more rules-based investment guidelines both in terms of how you're meant to do distribution and invest will create bigger gaps in terms of, we'll call it market fair value pricing from one day to the next. There'll be some hairier things that show up that hopefully create opportunities for others, but it's not fantastic for those individuals that have to walk down that path.

Jason Buck:

Do you think it makes any difference though historically in any retirement you had a lot of options or different things you were invested in, but now if you're in a target date, do you think that has a dramatic effect when you're going to sell off those pieces in December?

Zed Francis:

I don't think anybody owns anything that different, ultimately, especially in those types of accounts or more broad-based. It's like what's the difference between a couple of mutual funds and a target date fund in terms of the underlying assets that they hold? Not dramatic.

Jason Buck:

Then how do you think about ... I was thinking about, like you're saying, this constant selling pressure, especially in December, then like I said, a lot of times they're just buying it all back in January, but then the countervailing force to that is the boomers have these required distributions, but then millennials have these target date funds where they're, just every quarter, they're just dumping money into their target date funds, and so you have pressures on both sides. How do you think about the forces on both sides of that equation?

Zed Francis:

Yeah, I mean, us millennials don't make enough money to swap-

Jason Buck:

Offset it.

Zed Francis:

... what the boomers have. So I don't think there's a balance, necessarily. I think the boomers holding 70%-80% of global assets matter a lot more than the rest of us.

Jason Buck:

Speaking of which, how do you think about that wealth transfer? There was a benign argument that essentially Bitcoin could be a wealth transfer mechanism between the generations in the sense that as Bitcoin increased and eventually as institutions came into Bitcoin that maybe the boomers were buying into Bitcoin at the top when the millennials were hopefully exiting their gains. I mean, obviously, it didn't happen, not likely to happen, and who knows what's going to happen in the future, but how do we have that wealth transfer and how much of a haircut does that wealth transfer have to take? Like you're saying, basically, target date funds, real estate, for it to actually transfer, what's the timing mechanism?

What's the actual asset value? How much of a haircut to nav are you going to take to really transfer that wealth? We'll see how real that wealth is, I guess.

Zed Francis:

Yeah, I mean, it's like everything in life. Those with a ton of money probably don't take any haircut. They've created the correct vehicle to avoid both the tax man and friction from transitioning those assets from one generation to the next, but the rest of us folks definitely have a leakage to both the tax man and probably have some friction. If most people their main assets, their house for an average person, okay, that's going to be the mechanism that's going to transfer wealth to the next generation. Most likely the two, three, four kids don't want the house. So okay, we've got to sell the house. Well, there's not only a tax event but a friction in the marketplace to eventually get cash on the other end for those folks. So yeah, I mean, I think there's going to be a lot of choppy, interesting things that take place over the next 20 years as that event unfolds.

Jason Buck:

Yeah. Like I was saying, you have to throw out the 100-year back test data on housing, especially if boomers are the first generation to own two to three houses. So not only they're trying to transfer their house, they're trying to transfer multiple vacation homes and the kids don't want it and everybody's forced selling. It's going to be really interesting to see what happens to those markets.

Zed Francis:

Well, the kids might keep the ski house and sandals resort condo, but I think the house on the burbs get sold.

Jason Buck:

The other thing you talked about December that I thought was interesting, at least in bull markets, is the idea around in December, things were fairly benign on the month besides FOMC meetings. So you had extreme movements over one to two days and then completely benign markets. So tell me about this bipolar market that we saw in December.

Zed Francis:

Yeah, no, the most interesting thing in bull markets for December is effectively options were saying only two days mattered and they were back to back. It was the CPI release and the December FOMC meeting. Start of the month, basically, if you were just buying at the money, but buying at the money call, it was saying, "Ah, we think the market's going to move about 4% over the month," but if you were only targeting essentially those two days trading that same option strategy, targeting those two days, it basically said 3.6%.

So the market was basically saying, "Those are the only two days that matter and then we're all going to just go run off to vacation into the holidays and be fine." So to me, that was the interesting thing is to just take the other side, say, "Those two days might matter, but I actually want to own some convexity for all the other days. It just seems too cheap."

By happenstance, you never know if it's going to work or not, but that doesn't really matter. The pricing seemed wrong and the options and, obviously, those two days happened, were actually very benign, ultimately, the two days everybody was focused on, and then the fireworks were the following six to seven trading days.

Jason Buck:

Like you said, you had to, just in that month, had to pay close attention to FOMC and CPI, but we'll get into that in a few minutes of what does that look like next year, how closely we should or do you think we should pay attention, but another one of the curve balls I'll throw at you is there's been a lot of sound in theory lately about the zero data expiration options and being over 50% of the market and everything. Is there anything to this? What's your take?

Zed Francis:

I think the exchanges are incredibly happy. Otherwise, I don't think it does much of anything. Main reason is just if an option has only a couple hours left, it's no real risk. So it's not really moving marketplace. It's either a hundred or zero delta. Guess what? People that are selling those options aren't really delta hedging them to go ahead and hedge that risk because it's basically unhedgable risk or doing it with a linear instrument would be the incorrect way to hedge that risk.

So somebody that sells a bunch of those one-day options, they're either just riding it out because they have enough other things in their book to keep it balanced or they turn around and go buy some of the same, they spread it. That's the only reasonable way to go ahead and hedge that risk. So ultimately, I think it's immaterial for option pricing, market movements, things along those lines, but the exchanges are very, very happy. They're going to lean into this. It's not only going to have AM and PM every single day expiries, they'll start doing 15-minute increments.

Jason Buck:

That makes me think of two things. One, I'm trying to think, I think it was Horizon Kinetics that came out with the idea that one of the ways to hedge inflation was to invest in the exchanges, and maybe that works on, well, the LME, the London Manuals Exchange or maybe some of the Japanese exchanges, but as you know, like you're saying, basically, a lot of the US exchange of Chicago and everything are really just based on S&P, E-mini options. So that doesn't really have anything to do with commodity inflation. So that's one we look at. That's where the bulk of it. It's all really around E-mini SPX and the options around those positions, but also, what do you think about the conspiracy theory that this is just the market makers trying to pin the numbers on SPX?

Zed Francis:

I mean, market makers don't like anything that's directional. So it does make sense for their bread and butter about how they like to make money.

Jason Buck:

Exactly. So the other thing that you ... So we'll start thinking about now 2023. In your letter, you talked about the story of 2022's rates, but you think maybe the story of 2023 is going to be credit. So this ties back into how important do you think these FOMC and CPI numbers are going to be, and you've said that you believe that rates are going to be more range-bound next year. What gives you that belief?

Zed Francis:

So first off, I believe fixed income is the most important metric to pay attention to for all markets at pretty much all points in time. So it's not just 2022, Jason. For my entire career, I've been yelling at people, "It's rates, stupid. That's the most important thing." So it's a big shift for me to say, "Okay. Rates, put them in your back pocket, know what's going on there, but let's turn our focus to credit."

My main reason for that is I do think that 2023, ultimately, rates are going to be pretty darn range-bound because you have two opposing forces that are going to keep things in, and it's a pretty wide range. Tens I think will be 3% to 4.5%. It's not 20 basis points wide, but after moving 400 basis points last year, it feels like a reasonably tight range.

The two opposing forces are I think whether or not we go into recession, who knows, but the economy's slowing. So you're like, "Okay. A slower growth world is going to put a cap in yields." So I think it's going to be tough for ten to go above 4.5% if global growth is slowing. Who the heck knows where to, but slowing.

The other side of that, which I think is at least more interesting on my view is I think the Fed is not going to adjust their stance. So that's putting the floor, if you will, on the range and yields because even if GDP growth is negative, if the front end of the curve has a forehandle on it, you're not going to be too far away from 3% in tens.

The reason why I have a pretty strong belief that the Fed is going to hold the line is credibility. What they care about more than anything else is being very important. They must be saying that importance and credibility or else things don't really work to their liking because what do you mean by that is, tangibly, they really only have two tools. They can move the Fed funds rate and they can buy and sell assets, and both of these things have probably some effect on the real economy in the future, probably not a lot of effect on the real economy immediately, and some effect on asset prices, maybe somewhat immediately over the long term, but those tools, they're not dramatically effective for enforcing change tomorrow.

What is very effective at enforcing change tomorrow is we'll just throw it under the umbrella of forward guidance like the Feds speak, "We will do anything to save the market." It carries a lot of weight and that's an intangible tool. To be able to utilize an intangible tool, you just have to have full credibility. You can't have anybody saying, "Oh, I'm willing to fight the Fed now because I don't think they can do it." Then if it all falls apart, they must maintain that credibility.

I think the only way for them to truly maintain that credibility is to just stay on the path, say, "Don't fight us. We ain't changing market. You're wrong, we're right," and I think they're going to be much more steadfast and be willing to make a policy error to maintain that importance and that credibility.

Why do I think that they're focused on this? Why do I think that they're actually nervous about ... Their credibility in the marketplace is ... Developing market, central banks had a rough '22. Kicked off with UK. Obviously, obviously it started on the fiscal side of the house making, look, just say a policy error, adding stimulus in the face of inflation that created some problems, but the central bank over there had ... Nobody listened to their message, if you will. The market force has overwhelmed the central bank and that's not a small economy or a meaningless economy. This is developed one that people take note on and say, "Maybe the central banks are losing a little bit of control here."

Then the other one that's still unfolding is Japan. I think everybody was already run off to the holidays when they made their shift at the end of December, but then getting broken and their yield curve control moving things from 25 basis points to 50 basis points of their target, the market instantly taking at 25 basis points and actually pushing it through and, frankly, they're tens in Japan and the JGBs have been trading above that 50 basis point target for pretty much all of this year is, again, something that's making the Fed nervous. Another major central bank, people aren't listening to them right now and are fighting. Their message is actually working and winning. So I think they'll do anything that they can to maintain credibility even if it seems like a policy or because that ultimately is more important to them for the long haul.

Jason Buck:

There's so many things I want to touch on in there. One is, and hopefully we'll get to a little bit more in the UK and Japan later, but credibility. This is the one I've never been able to wrap my head around in the sense that I never personally think about, "Is the Fed credible or not?" Then again, I'm not a Fed watcher. I also happen to have a general philosophy that they're more trend followers than being able to do anything in markets. You may disagree with that, that's fine, but then also, do you think it's more like a Keynesian beauty contest of if the market participants in aggregate worry about Fed credibility and positioning then that's what you need to worry about. Not is actually the Fed credible? It's like, do people perceive them as credible? Is that what you're saying?

Zed Francis:

Yeah, no, it's right. No, you need the people that move money to listen to them. As soon as they stop listening to them, then the ability to use the intangible tool of Fed speed forward guidance, anything along those lines loses its effect. Meaning, if we actually get to a really bad situation that the ability for the Fed to put up the wall and be like, "We'll save everybody. Stop selling," that doesn't work anymore. They'll do anything to make sure that they still have that ability to influence, basically, market participants at a whim.

Jason Buck:

One of the things we heard in 2022 is everybody's talking about, "Oh, it's one of the most telegraphed recessions in history and people are positioned for it and everything," but then you hear people banging on of like, "Yeah, but why are high-yield credit spreads so tight?" So do you think that lulled people into a false sense of security and we might see that start to break out a little bit in 2023?

Zed Francis:

Yeah, I mean, so the first half where you said why I've gone from 15 years of saying rates, rates, rates, and I'm like, "Eh, I think rates are actually going to be boring this year," especially comparative to everybody's focus and credit is where I want to focus my attention in terms of what it's saying about the market. Credit, as you mentioned, is incredibly tight considering what we've gone through in 2022, and what most people thinking that slowing economy, potentially recession, these should be all things that says credit should be widening, and that obviously hasn't taken place.

So you have high yield 50th percentile historical spreads. You have market IG about the same, 40th-50th percentile. Then you got long and IG at 20-ish percentile. So bull market, incredibly tight. So one of the main things that has happened here, and my view is just very simple, flows driven pricing, if you will, that's influenced credit dramatically over the last year and forcing it to be much tighter than fundamentals could possibly argue.

So there's two main ones on the demand side. Demand side, all right. So I think a sneaky one is there's a decent amount of money that's been funneled from the government to union pensions as part of many of our trillion dollar acts that have been put in place over the last two and a half years, and-

Jason Buck:

Just to highlight that, sorry, I don't want to interrupt you, but to highlight that really quick because you were the first person I really heard talking about this is the March 2021 COVID-19 relief bill had a section 89B that really affected union pension. So I just wanted to highlight for people to know this 89B rule is what brought a lot of this money into pensions, like you're saying, that's on the demand side.

Zed Francis:

Yeah. So government topping up their friends' pensions, but, of course, the government when they give money, there always rules attached to it and the rules attached to it are essentially they couldn't take this money and go buy Bitcoin, they needed to go ahead and invest in something that the government deems to be safe. What does that mean? It means treasuries, investment grade credit, MBS. So it was auto-demand of new money being forced into those marketplaces.

Another dramatic increase in demand over the last year is corporate. I mean, public pensions too, but corporate pensions are incredibly well-funded. It was a fantastic year for corporate pensions and everybody's like, "What the heck? Every single asset went down. What the heck are you talking about?" Well, a pension, there's two sides of coin. You have assets and you have liabilities. Those liabilities are discounted at an A or better curve, meaning that if interest rates or credit spreads widen, but interest rates go up a lot, discount rates go up a lot, meaning the current present value of your liabilities falls dramatically.

So what happened last year? Sure, your asset portfolio's down 20%, but your liabilities were down 35% for an open pension plan, meaning you went from being underfunded to the average corporate pension plan is about 105%-110% funded. They're fully funded for the first time since 2007.

So what happens if you're a corporate pension and you're fully funded? Well, you sell risk assets, you sell equities, you sell VCPE or pull your commitments to those privates, and then you buy whatever the assets that are the discounting mechanism of your liabilities, i.e., A or better credit. So there's a huge rotation from those pensions acting honestly responsibly like, "Hey, we don't need to outperform liabilities anymore. We're fully funded. We just need to perform inline with their liabilities." So they start buying the assets that are the same mechanics of the discount rate of their liabilities, but they're also price indiscriminate buyers. They don't really care. They just want the asset and the liability to move in lockstep in perpetuity so they never have to think about the darn pension plan that's been a weight around their neck for the last 15 years.

So

So the two huge demand influences on credit that helped get it to the place where it is right now, and again, I said market credit. Both IG and high yield is 50-ish percentile and long- end IG is 20-ish percentile. That's why. It's specifically pensions trying to buy long duration credit. That's where the real force is coming from on demand side. So surprisingly, we have a funky curve that is extraordinarily flat between front end and long-end credit.

Counterforce, I mean, sorry, not counterforce, on the other side, supply is also helping credit tighten. New issuance of corporate credit just goes up every single year since it became a real market in late '60s, early '70s, grows at a GDP plus nature. 2022 was the first year in, I can't even think, there might have actually been another year, but 2022 was actually net outstanding corporate credit since financials fell. I think it's actually pretty simple to think why they're not issuing a lot of additional debt.

If you were a CFO of a corporate, you obviously issued debt for operations, "Hey, we're building a factory. Let's go ahead and raise some money to go ahead and put those bricks on in the ground," but they also the last 20 years of really low interest rates were probably borrowing money to buy back stock to increase dividends, doing some fun financial engineering, and that's an easier decision to make when you're borrowing 10-year paper at 2.5% like you were in 2020-2021.

Now that you have to pay 6%, it's not as easy to say, "Let's go borrow a bunch of money at 6% to go buy back or stock." So they stopped doing that piece of it. If you only need to issue money for operations, you probably have about the same amount of maturing as you do that you need to raise, and so it was quiet. So you had these dramatic influence of increased demand of pretty price indiscriminate buyers coupled with supply way under shooting expectations simply because it probably didn't make a ton of

sense to pay 6% to buy your stock back or at least an easier, I mean, a more difficult, excuse me, sell to aboard to go along that path. So it just forced credit tighter. Lots of demand, not a lot of supply, well, what happens? Prices go up.

Jason Buck:

No. You segmented me perfectly to talk about the ladder of corporate paper, but I want to tie that back into in a weird way is you were talking about the pensions and the reduction on the liability side. I just think it's always interesting to me is for the last, I don't know, decade plus, people have been banging the drum that, "The pensions are underfunded. They're underfunded, they're underfunded. This is going to be a disaster. It's a slow-moving train waiting to happen." What always surprises me or makes me giggle is that the hidden forces of the underlying markets tend to correct things more than people can.

So everybody always talks about wealth inequality, et cetera. The wealth inequality previously was as high in the 1920s. Well, the '29 crash rectified that wealth inequality, right? Markets tend to mean river and tend to take care of those things rather than politicians with a stroke of a pen.

So it was always interesting to me that everybody was really upset about the unfunded pensions, and like you're saying, now they're overfunded, and all it took was rates coming back up and a little bit of a protracted recession in 2022 to make that happen, and it throws everybody out the window. So part of the one that where I'm tying it back in is, understandably, a lot of people were really banging the drum previously like, "They can't raise rates. They can't raise rates," because if you raise rates up to 2% to 3%, you're going to absolutely break the economy because people can't service that debt, right?

We started getting fours and fives, and all of a sudden, everybody had to recant their statements or they say they keep adjusting their numbers higher, right? It's always interesting how the prognostication changes in realtime, but part of that was as some of our friends like Chris Cole, Mike Green have said too is if the rates get too high, these corporate entities are going to start defaulting on mass and it's just going to be an absolute disaster.

The problem is you may be able to call that, but then the timing's difficult, right? You can have a thesis, but then getting your timing right is an entirely different scenario. So one of the things you brought up that I think is interesting is when are you issuing that paper and you create ladders over time? So it really depends on when those ladders are coming due, and then more importantly, can you refinance or repaper those positions? It's not necessarily, can you afford it? It's just that in a Minsky sense, it's like, can you roll it over, refinance it? More importantly, when are those ladders coming due and does that give you a better sense of when that timing gets pushed back or when you see inflection points where that timing could be risky?

Zed Francis:

Yeah. So corporates acted responsibly unlike our government of utilizing the really low interest rates to extend maturities. So IG space is really extended maturities because I think they can borrow 50 years if they really want to, right? So investment grade doesn't have anything in our face in terms of a maturity ladder high yield because they obviously can't issue, well, the market doesn't like to digest really long-term paper for high yield, and so their maturity ladders start waking up in 2024 and then the meat of it is '25, '26. So it's not in front of our face.

So if we're going to start seeing defaults, it's not going to necessarily come from inability to refinance that paper. It's going to come from actually not making money from operations, becoming cashflow negative from actually operating your business. Why that wasn't a big deal in 2022 is inflation is good for all those folks. If you borrowed a bunch of money and then your revenues are going up just based on

inflation, maybe your real value add in terms of profits hasn't gone anywhere, but your nominal has probably gone up just because of inflation.

So 2022 was a fine environment for even, let's call it not fantastic operators in the high yield space. 2023, that might actually change. We'll see what top line looks like, but I think the surprise might be a massive decrease in growth and potentially inflation or at least the ability to pass through costs onto whoever you're selling your services to, get their services to. That is potentially the problem is actually massively slowing in the ability to actually continue to raise prices and maintain any margins and wandering into a slowing growth, potential recession, whatever the heck it is, could actually cause defaults in the high yield space even though there's not a maturity wall right in front of us.

So that's why I'm hyperfocused on credit for 2023. Not only is it, I would call it too tight from technical matters that are abating at this point in time, but also we're going to have to start actually focusing on fundamentals maybe for the first time in a while. Those fundamentals might not be saying great things for credit, especially as we enter the back half of the year.

Jason Buck:

Just from a pragmatic sense, what do you use to track the maturity ladders? Are you using FRED data and what are you looking at? How do you keep track of that?

Zed Francis:

Yeah, no, make sure Bloomberg, you can use FRED. It's actually not too hard to digest total outstanding debt. So culmination of all those sources is what you utilize to pay attention, but yeah, IG. Everybody refinanced in latter half of 2020-2021 to 10 plus year maturities for the weight of the average issuance. So again, an investment grade is not going to have problems anytime soon from a refinancing standpoint. High yield centers around five-ish year issuance, right? So that's why the meat of the ladder is '24, '25, '26 because they did most of refinancing in 2020-2021.

Jason Buck:

Then like you said, that gives you the aggregate and then if you want, you could be a fundamental credit person and start picking and choosing your battles in that credit. The thing you mentioned that it just shocks me that I have to keep reiterating this because you would think it is patently obvious, but we're talking about rates, inflation, recession growth, all these things, right? They come in waves. If CPI numbers come down, they can come back up. If anybody studied the 1970s, the waves of inflation were crazy. All the intervening years of the '70s went up, it went down, it came back up again.

It just seems shocking to me that I keep having to bring this up is if we see the inflation numbers come back down, everybody think everything's great, maybe rates come back down a little bit, everybody's going to think real estate and all these things are great again, but we could easily see, I can't call it the timing, but let's just say the second half of this year, inflation numbers come back up and everybody's going to act like they're shocked and they got caught with their pants down. Well, it's like it's the most obvious thing historically is nothing, just everything works in waves. I don't know. Is that shocking that you have to say that? It just doesn't make sense to me.

Zed Francis:

Yeah, and I think part of it too is after prices move up 10% and then all of a sudden your comps are effectively that new price, if it was 100 bucks and now it's 110 bucks, it would have to be \$121 to be the same rate. So it's like your comps get easier and easier that are going to naturally quiet the inflation

numbers for a period of time and then we'll see what happens if there is another wave or not, but yeah, no, I would agree that the focus on a month to month number is probably misplaced.

Jason Buck:

Let's talk about this holy trinity, I would say, of correlation, liquidity and volatility, right? They all affect each other. What was the more interesting thing I guess in 2022, we started seeing correlation dries obviously with stock bonds. Even on my walk this morning, I was listening to another podcast, Dylan Grice was on Alpha Exchange and he was once again talking about correlation and volatility. We usually don't see spikes in vol until we see spikes in correlation, but it's interesting that other people like you and Chris Cole, et cetera, I think illiquidity is tied more to volatility than necessarily correlation. How do you square that? Essentially, things were more correlated in 2022 and we saw medium size vol. We didn't really see too many spikes in vol. So if correlations increase in 2023, do we need to see illiquidity before we see a spike in vol or how do you think about the combination of those three factors?

Zed Francis:

Yeah, because I think most folks would say that high correlations cause illiquidity, which then likely causes a significant change in volatility. It's like you're wandering path, if you will. In 2022, high correlations didn't really cause significant bouts of illiquidity in basically any asset class.

Why do I think that's the case? I think probably part of it is active managers were reasonably light on risk and comparative to their historical standards. So people that can quickly adjust their portfolio were well-positioned, was probably part of it and had ample liquidity. So that probably muted the impact of high correlations into illiquidity.

The next piece is the amount of passive investing as a total percentage of all assets is obviously incredibly high and a passive investor or investment product, it's just fully invested, really. There's no mechanics to force it to go ahead and puke assets at any point in time. So that's quieter on that side.

I think there's been a massive increase in private investments and private investments, obviously, not needing to necessarily mark themselves day to day, also provides a little bit of a buffer from high correlations driving massive increases in illiquidity and then potentially eventually volatility. The culmination of people being forced to sell things to live their lives, they had a buffer in 2022. People had a decent amount of cash and/or ability to extend credit on credit cards and whatnot. So consumers didn't become necessarily forced to liquidate assets, which can cause the waterfall. So I think it was the mixture of all those kind of things why a incredibly high correlation across all assets in 2022 didn't really drive bouts of illiquidity that most people, I probably would've assumed, would've taken place.

Jason Buck:

Do you think part of that is you really need to stay in credit markets, you need to see illiquid credit markets or some volatility in credit markets or some default or scares to see those true spikes in volatility?

Zed Francis:

Yeah, no, I mean, credit markets are always going to be the core of experience of massive illiquidity. I mean, March 2020 was actually scaring the Fed was credit markets and treasury markets, frankly, froze. That's what matters. They didn't really care about the S&P moving 10% every single day. They weren't happy about it, but that wasn't the focus.

Jason Buck:

How do you think about the BREIT and stuff? Do you think that's foreshadowing and especially if we have all of these financialization of markets where we're trying to turn illiquid nongranular products into liquid products and especially on the credit side? Do you think that's foreshadowing or that is just an anomaly with the BREIT situation?

Zed Francis:

I wouldn't necessarily say it's foreshadowing, but it definitely provides a little bit of extra kindling if we ever actually get to a massive illiquidity event, right? So it's those types of vehicles likely help starve off illiquidity events until you get to a place where you can't fight it anymore and then cause a much bigger explosion than you would otherwise have.

Jason Buck:

That's fair. You mentioned Japan earlier, and so I have a couple of questions about it. I don't really have too much of an opinion here in the sense that moving the yield curve control band from 25 to 50, is that just a function of basically having a new head of the BOJ and he just wants a little bit more wiggle room and/or is this a sign that finally the widow maker short GGB trade is back on and people should be taking advantage?

Zed Francis:

Yeah, I think it's a little bit more of the latter. The amount of asset purchases that they were doing before off meeting made that change was 5x their normal daily asset purchases. So I think they were fighting it and they could sense that they were going to lose and possibly lose in a big way. So again, from a credibility standpoint, you can't lose. You just change to make it seem like, "I always wanted to do this. You didn't force me to do it. I wanted to do it."

So yeah, I think they're starting to lose a little bit of control, but at the same time, as you said, people have been fighting them and wrong for 20 years, so it's easy for them to bat people back at this stage. So they have some more life within them before and some tools that they can do to act like the market did influence and make decisions, they did it on their own whim, but yeah, no, I think they're getting to a little bit of a inflection point and their ability to control the markets as well as they have over this whole period.

I think the main reason is not only are things bound to a point that it's problematic, but you don't have the monetary and fiscal side of the houses probably operating in line with each other because inflation in Japan is a problem. Their citizens are getting to a point where they're probably not very happy, and thus the people that are elected officials are not very happy and they're going to not want to move in the same way potentially as the monetary side of the house. They're an island and they import a lot of things, and so it becomes hairy quickly for somebody like that.

Jason Buck:

Yeah. It's outside of your purview of mandate for what you do at Convexitas, but I'm just wondering, does that short shade, GB trade start to look tantalizing to you or is it still like this is just too hard and you can't predict the forces or pressures from the people running the BOJ?

Zed Francis:

Yeah. I mean, I'd rather participate in markets that are not 100% manipulated because I'd like to think I have some edge. I don't have any edge there. I know what the fair value is and it doesn't matter.

Jason Buck:

Then just to bring it back out because you were my go-to when we started seeing the wonkiness in the guilt markets and it started to affect LDI and all of a sudden everybody learned what LDI meant, but one of the things that you described it on as a bridge loan, and I thought that was a great way of describing it. It gave me a way to frame it and to think about what actually happened, what transpired, and why it was resolved so quickly. So I guess because you have a bit of a background in LDI, especially even on the British side, so can you give quick rundown of what happened there?

Zed Francis:

Yeah. So I mean, the quick rundown, we already talked about US pensions and it was a great year for US pensions, right? It's not dissimilar over in the UK. Again, what they care about is do they have enough assets to service liabilities? If rates are going up, liabilities are falling and probably their assets too, but all in lockstep and in a fine way.

So why became an issue? Say they were 100% funded at the start of the year, and on paper they were still 100% funded at the end of August and at the end of September too, but their assets were not necessarily in liquid things. Everybody, when you have a very stable low interest rate environment, probably get a little greedy. Over in the UK, their pension liabilities are discounted on a guilt plus linkers curves. That's treasuries plus tips, basically type of curves. There's no credit involved in their discount rate, where the US, again, is like an air or better curve. So it is credit in their discount, right?

So in theory, you shouldn't own any credit if you're 100% funded. You should just own guilts and linkers or everything's in lockstep, but over in the UK, unlike the US, most of these pension plans are still open, i.e., new employee is getting added to that pension plan. They're not going into a 401(k) type of situation. It's still a defined benefit society. So because the pension plan's open, you may be fully funded with all the people you currently have working, but a new liability just showed up because you hired a new person.

So the reason for being a little bit of greedy in those plans is to hope that your assets can outperform your liabilities just enough that you don't actually have to contribute any additional money for that new person that's being added to the pension plan, and they're not going to take massive risk, but they're going to over time maybe start taking a little bit of risk.

So the risk was, "Okay. We're going to buy some UK corporate credit. Even though it's not under discount rate, I want that extra 50 basis points spread. I'll buy some high grade UK credit." Then the UK credit market isn't as attractive as the US credit market so like, "Oh, let's buy some US credits." You're going from guilt to credit, "Okay. That's adding a little bit of illiquidity." Going from locally domicile credit to international credit, "That's a little bit more illiquidity."

Then they started going into privates and infrastructure and things that have truly no instantaneous liquidity. They're off market instruments. So that became their problem in August and September of last year that their assets and liabilities were still call it one-to-one approximately there. So the actual pension was fine and not being damaged, but when they needed some liquidity to support a lot of the instruments in the derivative space that they had on in their portfolio, they didn't have the natural source of it because they had moved out the illiquidity ladder all the way into some privates and you can't post privates to the exchange for supporting the collateral for your derivatives.

So when things were getting hairy, the Bank of England reached out and said, "Well, what's the problem, guys?" and they said, "Well, listen, we're totally fine. Trust me, we're totally fine, but I need two weeks. I need two weeks to figure out this story because we called Blackstone, they're really happy to buy all of our privates, but it's going to take them a little bit of time, need to do due diligence, and we agree to whatever haircut that it is to get our cash out," but that's it. We just need a two-week bridge loan."

They're like, "All right. For two weeks, guys, rather than selling things, we're going to buy everything on the planet, give you the head room to go ahead and figure things out and then everything's going to be okay." They were able to find a buyer for their illiquids in that two-week period, and then, hey, the problem for the moment was solved. I think that most people are very focused on, "Ooh, the derivatives, mass destruction. Who the heck at 1% interest rates is having 100-year duration in a portfolio?" all that kind of stuff. That's just folks that don't understand ALM, asset liability management. They're not trying to make money in absolute terms. They just want their assets and their liabilities to move in lockstep, so they're going to own what liabilities are discounted at, which in that case is a decent amount of guilt and linker risk, and that's where derivatives came to play.

Their error was not having a liquid portfolio, not the investment strategy in terms of the ability to hedge out those liabilities. It was getting greedy and turning your portfolio from fully liquid to something that's less liquid.

Jason Buck:

Well, that's why, like you said, that the Henny Pennies of the world, it didn't lead to a cascade of consequence because like you said, it's a bridge loan for illiquid market to market have assets and whether they could bridge it over that two-week period to get better pricing, but you brought back a lot of memories for me actually because I realized I vividly remember having this conversation with you while I was in a long layover in Paris at Charles de Gaulle airport. So it's bringing back some weird memories for me, but the further nuance of the bridge loan though that I think that you highlighted that was really interesting to me is it's a sizing issue as well.

If you're a very large pension, you have either an internal or an external team that are really managing a lot of those liabilities, those linkers and even some of the derivatives for you, but if you're a smaller pension, you don't get great management on that. So they're getting pulled into commingled funds, and those commingled funds weren't having the capital calls say at the beginning of 2022 or intervening periods of saying, "Hey, we need more cash on the books. We need to adjust the book around." It was more like all of a sudden it was like, "There's not a problem, there's not a problem." Now, "There's a huge problem and we're all in a commingled fund together, so we're all going down together." Isn't that part of the nuance as well?

Zed Francis:

Yeah, no, the pensioners that actually were damaged in that event were the smaller plans that invested via a commingled product, right? Because again, if you're doing everything and somebody managed accounts, their issue was not having enough liquid capital to continue to support holding onto those positions because the whole goal here is you want your assets and your liabilities to match each other and you just got to be able to hold on, right? That's much easier to achieve that if you're in separately managed accounts versus in a commingled product because a commingled product says, "Hey, we need more collateral." There's not a natural source to go ahead and achieve that in a commingled product.

So those commingled products actually did delever during that event and probably sold things at potentially inopportune times and actually were damaged. So it was always all good ideas also need the

right operational structure to achieve those good ideas in the best format. A lot of investment industries and products. Commingled product is often not the right wrapper to achieve your goals.

Jason Buck:

Exactly. Well, unfortunately, we're running up on time here and I feel like you and I are going to have an ongoing theme of we just keep pushing back the food talk to next time. One of these days, we'll do a food podcast or maybe we need to start a whole new podcast. As you know, I've been texting. It's been interesting trying all these different hummuses from Lebanese, Israeli, and it's actually made me think about markets at the same time too. The comparison is the thief of joy, and as you know in that region, there's so many different varieties coming, intermingling of countries from mercantile economies. It's like it's almost impossible to compare two hummuses, and I just think of all the things you and I were touch talking about I'm trying to pull on here. It's like there's just so many nuances in markets. Otherwise, I could spend 10 hours talking to you about these things. So trying to cover five topics, six topics in an hour is probably a terrible idea, but thank you for coming on again, but plug away again, website, LinkedIn, et cetera.

Zed Francis:

Oh, do you want the www again?

Jason Buck:

I was just going to set you up, see if you did it.

Zed Francis:

Yeah, just find us at convexitas.com. As I said, my business partner is forcing me to use LinkedIn this year, so there'll be a decent amount of random posts where we're attending things, things where we write things like this, chats, but please reach out and find us in those two places.

Jason Buck:

I'm not sure if this will be out before. We're going to be down in Miami together in probably less than 10 days for the week of January 30th for all the hedge fund week. If you happen to be down there, say hi, give a shout out. We're happy to say hello, grab a coffee, whatever. Zed, thanks for coming on.

Zed Francis:

Thanks as always, Jason.

Taylor Pearson:

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