

Jake Remley

Episode 249: Zombie Securitizations and Tail Risks: Understanding Fixed Income Challenges



GUEST Q & A

Stewart: Welcome to another edition of the InsuranceAUM.com Podcast. I'm Stewart Foley. I'll be your host. Welcome back. It's so nice to have you. We've got a great podcast for you today talking about maybe my favorite topic, fixed income, with Jake Remley, CFA, senior portfolio manager at Income Research & Management. Jake, it's your second time. I can't believe we didn't scare you off the first time. Welcome back. How are you?

Jake: Thanks, Stewart. I'm so glad to be here. It's a real honor to be on the podcast.

Stewart: You were just mentioning that you like the podcast. Now, it was somebody else was saying that to me this morning and it's like, it's guys like you that really make this podcast work. We're always trying to bring the latest and greatest of market color to the audience that we have, which is made up almost entirely of insurance asset management professionals. I get asked once in a while like, "How do you know that all your downloads are insurance investment professionals?" And I go, "Well, try to get your buddy to listen to one or try to get your significant other to listen to one, and you'll find out quickly that the only people who can make it through one of these are guys that are, they're steeped in the tea like we are."

Jake: Absolutely. It's really broadened my understanding of what's going on out there, and I think that it's very digestible in a walk-to-work type way.

Stewart: That's very nice of you. Thank you. So you've been on before, but one of the things that's helpful, I think, to people, I just have a major ax to grind where it comes to younger professionals. And I think that oftentimes, people think that you just land in a senior portfolio manager slot, and it isn't always obvious how someone gets there. I do think that a lot of times, students in particular think that people like you and I have it all figured out. And that couldn't be further from the truth, at least where I'm concerned. So what would be interesting to know is where did you grow up and what was your path to your current position?

Jake: Yeah, sure. I grew up in Newburyport, Massachusetts on the North Shore, and my path was really not all finance-related. I began with my education as an engineer, geological engineering specifically. And after school in the '90s, I went into systems consulting and engineering. So I built a tech and systems background. I didn't take my first finance class until I went to business school, and I fell in love with fixed income specifically because it had so many tangible connections to thinking like an engineer. And the analytical process of understanding how bonds work and how they fit together really resonated with me.

Stewart: That geological engineering, that business can get a little rocky, let's be honest. Can't let it go. It's absolutely true that people come at this from all different walks of life, and I do think that people who are fairly quantitative gravitate toward fixed income. I just think that there's a nice mathematical relationship with duration and convexity, which soothes our inner calculator, I think, somehow.

But we're going to talk about some things that I am not familiar with today, and I'm thrilled to be learning new things. And that's really the theme of the podcast is, learning new things, and I'm oftentimes at the front of that line. So Jake, one of the things that is interesting, and when we do these podcasts, we have notes. And I've been in fixed income a long time and I've never heard the term that is in the first question. So I need a little help just even to define the term. The question reads, what is a 'zombie securitization' and how does one avoid them? What would be super helpful is if you could define what they are and then talk about how do you get there and how do you avoid getting there?

Jake: Yeah. Sure, Stewart. Zombie securitization, which is a term that our senior ABS analyst often uses in the context of the scheduled cash flows, so really it's a break in those cash flows, either from an outright write-down or loss of principal and/or interest payments, which can often take place if you have shortfalls, or there's an extension of the cash flows. And lots of times you see that when there's a relatively low coupon on the deal and then you are effectively out that coupon because it's effectively reinvestment loss by having that extension.

So in the history of securitization, which goes back to the '70s, the vast majority of securitizations have been fine and they don't fall into this category. The technology works. It's near and dear to my heart. I've been involved with securitization for 20 plus years, and I think what we've experienced has been a few bad apples, which have been dramatically disastrous, if you will, for investors.

So even beyond the subprime meltdown and OA, there's been a couple large blowups in single asset, single borrower CNBS. Most recently, earlier this year, 1740 Broadway had a write-down of all of its tranches and an impairment on the senior tranche of 26 cents. So all of its subordinate tranches were written down to zero, and the seniors took 26 cents of loss. A few years prior to that, Toys R Us filed bankruptcy, specifically Chapter 7, and a number of the below investment grade tranches were written off. We've had tranches in subprime autos written down recently, and that has been really a function of core estimates of losses in those borrowers' ability and willingness to pay.

So in all these cases, there's just a set of assumptions and estimates that were wildly wrong, and you have a cashflow schedule based on a structure that had leveraged those assumptions to the point that in many cases, the seniors were okay, with the exception of 1740 Broadway, but the subordinates took write-downs.

Stewart: I don't know the property 1740 Broadway. Do you have any details off the top of your head that I think that stuff is always of interest to institutional investors that go?

Jake: Yep, absolutely. So 1740 Broadway was an older office building and was a 10-year mortgage. It was issued in 2015. The cap rates were very low then. As you probably recall, interest rates were quite low in 2015. So cap rates in commercial real estate were low, which increases the valuation or the appraised value as a result. Just like a bond, the price would be increased relative to a drop in yields. So in that case, it was really a function of some exogenous shocks, COVID and work from home being the biggest. But there was also a deterioration in the appraisal, I think, going on under the surface relative to the fact that the building had become antiquated. The tenants decided to depart. There were two tenants, major tenants in the building, and they both decided to depart a couple of years ago. And the appraisal was just far too high at \$600 million, and it liquidated after a lot of legal fees and expenses at about \$170 million, which was not even enough to cover the senior tranche return of principal.

So in the deal, the most interesting part of that deal was that if you were in the senior tranche, you were paid 150 basis points of spread. If you were in the double A tranche right below it, you were paid 175 basis points in spread. So 25 basis point difference for what effectively resulted in 74 points of recovery value foregone. And so the idea here is there's no way to predict COVID or the fact that this appraised value was since on the dollar after 10 years, other than to say 25 basis points even though it's rated AA, is not enough compensation for the possibility that you could get wiped out without the collateral being worth zero.

Stewart: And was it an office building?

Jake: Yes, it was.

Stewart: And the question, I guess the question that pops up in my head is if I'm an investor, I'm having a good look at all my single assets, single borrower CNBS exposure, right?

Jake: Yes.

Stewart: I remember, and I know you do too, you've been at it long enough to know too, and you'll have these numbers. I've quoted these numbers in the past, but it seems to me that like in '06, I'm just making up numbers here, but in '06, subprime versus agency collateral was like 40 basis points wide. And it's like not that long later, one's got a bit of 60 and the other one's got a bit of par, and it's like you've really got to understand these structures and the waterfalls to understand your risk properly. Is that fair?

Jake: Absolutely. And I think that really gets to the heart of what we try to do, which is model the outcomes in using essentially what is an insurance tail risk approach to valuing the protection that those subordinate tranches are providing the senior tranche. And that gets at the overall structure, we would say more than the rating agencies do with their probability default approach versus the expected loss approach. So using the expected loss approach, the risk of taking a full write-down on your tranche becomes a very large factor in your expected returns. And then if you take that expected return and you say, "What is the annualized spread that would compensate me for that potential risk?" it's typically what we would call an option, credit option cost that's much larger than what you normally would get paid for for that subordinate tranche relative to that senior tranche.

In the case of 1740 Broadway, it was 25 basis points to go from the triple A's to the double A. And in the securitized world that comes with that write down risk. If you go out and buy a double A corporate bond, you're not going to have that same write-down to zero risk. It's just much, much more remote. And so looking at that 25 basis points, it really then becomes a function of whether you should buy a little bit more of the senior tranche to contribute the same amount of spread at the portfolio level, or buy that subordinate tranche. So you can say, "As a risk-adjusted return focused manager, what is my information ratio or my expected return over my expected risk of buying that subordinate tranche relative to buying maybe a slightly larger amount of that senior tranche?"

And that's how we would say investors should approach it beyond just looking at the ratings and saying, "Oh, that's double A. That would be great at 175." And 175 is a great level for a double A rated bond. But you have to then remember that it comes, in securitized world, it comes with structural leverage, which can be very-

Stewart: Until it gets written off and then it's not.

Jake: Exactly.

Stewart: Right. And I think you're making a point. You're making a really interesting point here. My background, I usually don't get into my background or whatever, but at the end of the day, I ran a bunch of money for insurance companies. I ran money inside as a CIO and I ran money as a PM. And one of the things that I think sometimes that clients of asset management firms don't necessarily appreciate is, A, how expensive the analytics are to do the kind of analysis that you're talking about, because it is expensive to buy those cashflow models, and then you have to do your own work because you're not using that model out of the box. That thing is highly modified by people who really know their stuff, and that's how you come up with making good decisions on bonds that can make a 74 point difference in the recoverable. And that's why I think that a lot of times when you get down to why do I outsource to one manager or the other, it's stuff like world-class analytics that can make a big difference, real difference in outcomes like the point you're making.

But so when we think about and what I think you're talking about here is tail risk. And you mentioned that there are an increasing number of types of asset securitizations. In other words, the collateral type is there's new things coming into the market. So if there's not a lot of history in a particular asset class or something has changed material in the asset class, how do I quantify these securitized tail risks? And further, there used to be, and I'm going back in history now, there used to be securities that had very small triggers that could make significant differences in the cashflow outcomes. How do you evaluate security structures at scale to identify these potential risks that can have significant downside?

Jake: Yeah, I think you're really getting at the heart of the matter, which is how do you build the uncertainty into your model relative to the fact that you don't have a lot of data. It probably is data coming from relatively fair weather economic conditions, and you don't know if what you're looking at is a mean or a median or a mode of that data over time. I think when you looked at what happened with subprime in 2007, there were some warnings. We had a rash of early pay defaults in early 2007, which was dismissed, I think, in large part as outliers or idiosyncratic events when they were really forming the right side of the tail of performance of this type of borrower and collateral. So when you look at any collateral that is relatively new, I think you have to automatically assume it's not going to be normally distributed.

And there could be log normally distributed. It could be crototically distributed, which is basically a fat tail, and you have to put it through its paces in your scenario analysis, which from our perspective means doing binomial modeling, which is a very flexible form of option modeling around downside risks in different distributions. And when you talk about those triggers that you just mentioned, using American-style optionality to model those, so American-style optionality, which you can do with binomial modeling really allows you to have that kind of knockout option. So you're partway through, let's say you have a 10-year maturity, but you're 5 years into it and it's a trigger that rapidly amortizes the senior tranche and your subordinate tranche then becomes effectively a 15-year bond with a very low coupon or perhaps no interest for a while. You can model all that using different types of basically American-style options, which basically are valuing your subordinate tranche as a form of insurance protection, which is essentially exposed to that tail.

Stewart: One of the things I loved about structure, and I'm not God's gift to math, but one of the things I love about structure is how quantitative it is and the modeling that takes place and how you can identify these situations that can make a material difference on the outcomes. So it gets me to my last question for this podcast before we get into a couple of fun ones is how do I compare apples to apples using this approach? We've got a variety of collateral types. There are some that are brand new. Not all of them are going to work out. How do I make a comparison, both on a risk from a risk perspective and relative value?

Jake: Yeah. So I think you're really looking at how the tail might affect the overall outcome with the idea that in the vast majority of cases, you're going to be fine. So the vast majority of future outcomes, you are okay. So there's some small risk that you're not, but that risk, the key is that risk. How much does that risk get leveraged by the structure and by the fact that you are picking up only X amount of basis points to take that risk.

So if you look at that leverage and you value that leverage, and you've said it's worth 50 basis points of basically insurance-based protection on the tranche, if I were to go out and protect myself against that risk, how does that 50 basis points compare to what I'm picking up? Oftentimes in the investment grade, subordinate tranches, you're not picking up that much. You start to pick up a lot more when you go down below investment grade. So you tend to see, say, the BBB tranches be the most overvalued to that risk-neutral tail insurance-related value. And then if you were to go and say, "I could buy some amount of the seniors as an alternative," then that's going to get you a much better information ratio.

Stewart: That's outstanding. I'm curious to know, I want to go back to the broken structure at the top of the show. Do you guys ever pursue any of those structures opportunistically? Are there opportunities in that or is it pretty much once a structure's broken, there's not a lot of upside?

Jake: Oh, absolutely. I think if the mandate allows for it, that can be some of the best risk-adjusted returns you could possibly find in fixed income over the long run. They don't often exist or they exist in very small and almost uninvestable sizes. But when we had a breakdown in securitization on the magnitude of the home equity meltdown, then you can really start to take advantage of some of these structures where there's a lot of good borrowers. There's a lot of good cash flow embedded in a broken structure, and you can value that with much higher margin of safety on your invested capital. And that is the flip side to this all, which is the no bad bonds, only bad prices. And if you can get the right price, even if it doesn't look much like a bond anymore, in other words it looks more like a lump of cash flows with a residual payment over time, you can really start to take advantage of these types of zombie securitizations.

Stewart: That's exactly what I used to tell my students bonds were anyway. That's perfect. But it does really get down to, and I mean this, I don't mean to necessarily, but it really lends itself to a bottom-up security selector. You've got to be in the weeds. I've met plenty of guys on the structure side and I have a lot of respect for what they do. It's just not something that I want to do. You've really got to be neck deep in it. And so is that bottom-up style is really where income research and management. That is really your approach. Is that fair? I don't want to put words in your mouth here, but just summarizing. When you look down at the level of detail that you're looking at in these portfolios, that lends itself to a bottom-up style.

Jake: Absolutely. So we don't focus on investing around a macro forecast. So we naturally will follow the macroeconomic trends and situations going on, but we are looking at every bond on its own merits. And that is essentially what you have to do here. To your point, it is a lot of rolling up your sleeves and really getting into the cash flows and the specific nature of the collateral, the type of structure that it's being projected through, and what the potential upside and downside is. So that is a lot of time and effort, but it does create very consistent results over the long run, which is really what we're focused on. So not only do we want our bonds to mature at par, but we want to take as little volatility risk or have as little price volatility in the meantime as possible per unit of return.

So if we consider return really essentially the yield or the spread that you're earning, and we have a choice between a bond that is issued at par and then trades down to 90 and then right before maturity returns to par, versus one that just trades at par the whole time, we're going to take the one that trades at par the whole time for the same amount of spread compensation. So from that standpoint, this approach does give us that quantitative tool to measure that potential as well as measuring the potential that you have as zombie securitization. So that from that standpoint, a risk-adjusted return manager that does a bottom-up, has a bottom-up approach like us, can really use this to protect themselves, but also increase the information ratio or the return per unit of volatility risk over the long run.

Stewart: That's fantastic. I learned so much today about structured securities. Thank you so much. I've got a couple of fun ones for you out the door, if you'll engage me, goes back to the top of the show when I ask you about how you got into your seat. And a lot's changing in the insurance and asset management arena. A lot's changing on the insurance side. There's just a lot going on. If you were 21 or 22 years old today entering the industry, what advice would you give to someone like that, having the benefit of over 20 years in this space in particular?

Jake: Yeah, absolutely. So I wouldn't change anything about my path. And I think the benefit specifically in my case where I studied geological engineering and had some exposure to earthquake analysis and statistical likelihood of different types of earthquakes really helped me in the long run. I didn't foresee that, but my point is that finance needs a lot of bright minds, but it also needs minds that think outside the box a bit. We can tend to fall into group think, and the securitization is no exception to that. So having exposure to other disciplines and other types of science, or psychology, for that matter, and the behavioral biases that we tend to have in group think, really I think is useful and can really serve you over the long run in the finance world.

Stewart: That's fantastic. And my last one goes, you can have lunch with up to four guests, including yourself. Who would you most like to have there, alive or dead?

Jake: Yeah, I love the question. So I'm going to take a scientist approach here. I'm going to go with Marie Curie.

Stewart: Wow, there you go.

Jake: Yeah. Only person to ever win a Nobel Prize in both physics and chemistry, which is just an incredible feat.

Stewart: That is an incredible feat.

Jake: Absolutely.

Stewart: Amazing.

Jake: And Richard Feynman, because he had this extraordinary ability to explain complicated topics in science very simply and without math. So he could talk about physics without using formulas. I think he wrote an entire book without using a formula on physics, which is just incredible. And then last, Nassim Nicholas Taleb.

Stewart: Oh, there you go.

Jake: Yeah. So he's, outside the walls of academics, I think has done more.

Stewart: He's outside the walls of everything, I'm pretty sure.

Jake: Yes, he is an unconventional thinker about statistical theory, which I think is wonderful that we have him too.

Stewart: Antifragile, a great book of his. That's super cool. It's interesting. He's an interesting guy. What a bright guy that guy is. I just think he does have some interesting thoughts that really make you stop and go, "Huh. Okay, I see how this guy's approaching the thing." So really a cool table of lunch, and joined by you, of course. Jake Remley, senior portfolio manager. Jake, hang on a minute. Jake Remley, CFA. Let's not leave that off. That's important stuff. Senior portfolio manager at Income Research & Management. Jake, thanks for being on. Thanks for taking the time.

Jake: Thanks, Stewart. Really appreciate it.

Stewart: Thanks for listening. We'll see you next time on the InsuranceAUM.com Podcast.