Freddie Mac Single-Family Home Starts Here Podcast Episode Transcript:

Freddie Mac Single-Family

CRTcast: Talking Risk Intelligence with AD&Co

Announcer [00:00:01] Welcome to the Freddie Mac Single-Family CRTcast a series Under the *Home Starts Here* podcast. Now investors have a front row seat to conversations discussing economic and housing markets, portfolio management and analytics, servicing policy and credit risk management from Freddie Mac leaders and other industry experts.

Mike Reynolds [00:00:23] Welcome to Freddie Mac Single-Family CRT cast a new series under the Home Starts Here podcast focusing on credit risk transfer and its three spokes securities, reinsurance and mortgage insurance. Hi, my name is Mike Reynolds. I'm vice president of Single-Family CRT at Freddie Mac, and I'm excited to be hosting this new series for Freddie Mac. When our marketing team proposed that we start a podcast for CRT, I was on that really exciting. It's my first podcast. I've listened to so many. I'm a huge fan. And then they asked who would be a great first guest. Really the first person I thought of externally was Andy Davidson. Andy, you know as president of Andrew Davidson and company, we extended an invitation to you and thank you so much for joining me.

Andy Davidson [00:01:18] Oh, it's great pleasure to be here as part of your inaugural event.

Mike Reynolds [00:01:24] Andy you know, I think I can make the argument that we are here in large part to your efforts, you are Fundamental into the development of the CRT program. And were involved early on, even before we were to start to talk about CRT and why don't you to share with us a little bit on how did you get involved in CRT and why?

Andy Davidson [00:01:51] Yeah, thanks once again. Thanks for having me here today. So the CRT discussion really came out of discussion of what should we do about the GSE's after the end of the conservatorship? And what we want it to do is figure out where should the credit risk of the market be borne? Should all be borne by equity investors? By the government? Or by someone else? And one of the solutions was to have private capital bear that. So actually, the first speech that I ever gave that included discussion of credit risk transfer, which I don't think we call that at the time was a date that I remember pretty well, which was May 6, 2010, at the Chicago Fed's bank structure conference. And what happened is, while I was giving the speech, all of a sudden, like half the people in the audience got up. I was thinking, like, is it either that bad, no one cares about this stuff or is it that interesting? They went to, you know, call their press or someone to spread the news? Well, it turns out that while I was giving that speech was when the flash crash happened and the stock market dropped about a thousand points, then recovered later on. But everyone was rushing out of the room to deal with their risk management issues. So from there, I kept working on this idea with Freddie Mac, Fannie Mae and FHFA. And by around May, about a year later, I was actually working on some structures with the people at Freddie Mac. And, you know, those structures sort of later turned to become into the CRT deals and then another year later than that, about February of 2012, we held a big held a big roundtable discussion in Washington, DC About 80 people were there representing sort of all aspects of the mortgage industry, including regulators - we even had the press there as well and sort of discussed what it would be like to develop a CRT market. And then it turns out the first deal was actually done a little bit more than a year after that in July 2013, with the 2013 DN1 deal. So, you know, from start to finish, it was actually not as long a time as you would think to go from spreading an idea to creating a transaction.

Mike Reynolds [00:04:07] And particularly this type of idea, which was relatively mostly brand new, at least in this form. And I certainly remember the DN1 transaction that was a deal we uh...you know when we first started working on that, we thought if we could get a 100 million dollar deal done, that would be a huge success. And we initially went out the door with a 400 million size and we upsized it to 500 million. We upsize it by one hundred million. And so that was definitely a really, really good. Now, Andy, you know, as president of Andrew Davidson and Company, why was this of interest to you? Why was GSE reform on your radar for the president of such a premier analytics company?

Andy Davidson [00:04:56] So I would say there is really two things. One is just as a person, as a company, we've always felt that it's our job to contribute our knowledge and expertise to, you know, making the mortgage market function better in any way that we can because we think a better functioning market is good for our clients. And then the other reason was that we had developed a fair amount of analytical expertise in credit as a result of the financial crisis and other modeling work that we were doing. And we saw that there was a, you know, well, a wide-open market of people who are expert in credit, who were looking for more things to invest in. And so we just wanted to work to create the products for our clients.

Mike Reynolds [00:05:44] That makes a lot of sense. Tell our listeners, Andy, a little bit about Andrew Davidson and company, what high level what are some of the business segments that you have and just give folks a little bit of color on your company?

Andy Davidson [00:05:58] Yeah, thanks. Yeah, so Andrew Davidson Company started in 1992. I'd left Merrill Lynch then and the idea was really to just have a small consulting firm, maybe sort of a handful of people who could bring some of the analytical techniques that were used on Wall Street to sort of the buy side. Turns out actually Freddie Mac was actually one of my first customers. But the consulting side of that business actually shrunk over time, we started building prepayment models first and then credit models and valuation models and now licensing of analytical tools to analyze mortgages, some auto loans and some other areas as the bulk of our business. And we still do a little bit of consulting, but the really the main idea was how can people outside of Wall Street have the same kind of tools that Wall Street has so everyone can deal with each other fairly?

Mike Reynolds [00:06:57] That...that's really powerful and it's a theme that we have our expand on that. It's a theme that we have at Freddie Mac pretty regularly. We deal with sophisticated financial instruments, which really only experts, qualified investors should be participating in. But even for our well qualified investors across the segments, capital markets, reinsurance, we find that the our customers need assistance. They're not always going to have the going to have the capabilities to be developing their own proprietary models and to be able to reach out to service providers. Analytical firms such as yourself, to be able to bring those functions in-house is definitely contributed to an expansion of the customer base. And again, I see that both on the securities and on the the reinsurance side. You know, I remember when I first met you, it was probably it was in 2012 at that time, just like you had said, you had already established a relationship with Kevin Palmer who hired me back in 2012 at Freddie and I still report to Back in Vegas in 2012 we went out to dinner and I just thought it was really, really fascinating that connection and you touched on it right here in this intro of a credit market had developed, you know, not not necessarily intentionally coming out of the out of the great financial crisis, but a lot of expertise in mortgage credit was there. Legacy PLS was dwindling. It took a while, but it was dwindling and a new appetite was there. You know, Freddie did issue the first Modern's deal back in the late 90s. And that has a lot of similarities to today's CRT, but it never really took off in the same way that CRT did. I think it I think it just had that right combination of this made sense from housing reform perspective to be a distributor, matching it up with the needs of potential credit investors and then certainly giving the tools and the access in the data to those customers and it really has come a long way, right?

Andy Davidson [00:09:14] Yeah. I mean, I would say one of the great things about the Freddie Mac program and I think why it is so successful was the focus on getting data into the hands of the investors and really providing sort of quality information to support the program all along. You know, so Freddie Mac and Fannie Mae, you know, through their MBS programs, always had sort of a highly professionalized approach to creating and supporting a market and being able to sort of transfer that expertise into a credit market I think is probably the key to the success of the market. And it was just really great to be able to work with people who shared that vision, because one of the problems really in the private label market before was a deal structures were changing frequently, that jail terms were changing frequently and that

documentation wasn't always consistent. And so the investors were fairly nervous about moving into a new asset class and Freddie Mac and Fannie Mae really have focused on being consistent in the production of these deals and in the data and disclosure, and I think that just made all of the difference in what's how you could get you know past that first couple of hundred million dollars into a market that's now a 50 billion dollar market.

Mike Reynolds [00:10:34] And that, completely agree. And we got a lot of good advice for us to pursue that path. That was the first building block that we did do in 2012 as we released the data. And then, as you said, it took us about another year before we actually did a deal. And I recall here internally at Freddie the discussions that we had on releasing that data, it was controversial. We had a fair number of folks here at the company that thought we were really giving away too much value by...by publicly disclosing that data and, you know, the arguments that we on a CRT team made and that ultimately prevailed and were well endorsed by our then CEO, Don Layton was if you're if you're going to attract the kind of capital that we're trying to attract, you have to release the data. You have to enable individual markets and firms such as Andrew Davidson and Co. to be able to train models on on the GSE performance. And I think in hindsight that really turned out to be a great move. I can't imagine that we would have anywhere near this kind of traction had we not released such a such a large data set and continue to update it. But I'll tell you, at the time, it was a it was a controversial decision.

Andy Davidson [00:11:53] And if you look back to the time the Modern's and before that, you know, the GSE's really had sort of a monopoly on credit data. And so...so it might be natural to think because you have a monopoly on the data, you have sort of monopoly on the understanding of credit and should be the only ones bearing that risk. But I think, you know, as we go through the crisis and start thinking about how much equity you really need to have, you know, that's also one of the important components of managing that risk. And so if you start to think, well, maybe our expertise isn't just to only have the expertise about the data and the credit, but it's really about how to create a market and manage a market, then you can start to say, "oh yes", broadening the understanding of the data is what's going to bring in the capital that we need to bear this risk and enable you to really leverage your expertise, which is not just in corralling data, but really making a market work. And I think that change in philosophy has proved super successful and is why this market's gotten to where it's gotten to.

Mike Reynolds [00:12:58] I completely agree. And, you know, there are many benefits for Freddie Mac as an issuer to CRT, the interaction with capital, it certainly tops their absolute protection, earnings protection and a variety of environments is it's high on the list. And then that third party, I would say oversight that might be too strong a word, but sharing of the data, sharing the performance of the transactions. We do have experts at the company, underwriting experts, loss mitigation experts, REO disposition experts, I think we've assembled a really good team and a set of processes. But I'll also argue that it's a very healthy process for us to be expanding those results to that larger universe. And now we literally have hundreds of third parties that can do their own modeling, can do their own assessments. And I think on net, that makes for a healthier US residential housing system.

Andy Davidson [00:14:03] You know, I would say that was certainly one of the hopes, you know, right from the start, you know, back in 2010, 2011, 2012 was thinking: what is the role of CRT in creating a better housing finance system? And, you know, it's unfortunate that we haven't gotten the rest of the process done. But CRT is really now a cornerstone of many people's thoughts on how GSE reform should proceed going forward.

Mike Reynolds [00:14:30] So, Andy, with the benefit of hindsight, what are some of the things that have played out in the market, the way that you were hoping maybe what are some of those things back in that 2011, 12, 13 time frame that, you know, it kind of surprised you now that we're we're just about 10 years later.

Andy Davidson [00:14:51] So back then, you know, the two biggest concerns people had were that the market just wasn't going to be very big, sort of like you've talked about the size of the initial deal. A lot of people saying oh this is a 10 billion dollar market and it couldn't grow more than that. And then what would happen if there was ever a bad event that, you know, these types of instruments just couldn't function through any sort of financial crisis? And so actually so both of those issues have really sort of worked out pretty well that the market, you know, blew past the 10 billion dollar number pretty well. As I say, it's now up to about 50 billion outstanding. And I know what the number is, 60, 70 billion dollars or so

or more of deals have been done. And then through this year, about a year ago, when we had the great liquidity events, obviously the market was disrupted for a while, but really was able to get back on its feet pretty rapidly. So obviously, we didn't have a home price decline. We just had a liquidity event in the rest of the financial system. But it was really rewarding to see the resilience of the market through that. I would say the one big surprise this past year, though, was the issue that came up with the fixed severity deals, of the formulaic severity deals, the initial deals that I don't think we could have anticipated at the time, that there could have been a massive delinquency event that would lead to forbearance that wasn't producing losses. So obviously, some of those first deals didn't have some of the protections in terms of language on delinquencies that we would certainly put into a deal now or that were put into some of the later deals or avoided altogether by using actual losses rather than these fixed severity losses.

Mike Reynolds [00:16:48] Yes, I agree. And I think those are some great points on those fixed severity deals we clearly, nobody anticipated a COVID like scenario with such high delinquencies, and we're still in the middle of it, although I think, you know, looking at HPA the supply demand dynamics, supporting home price growth, it seems unlikely that we're going to get you know substantially large losses given the level of delinquencies that we had. But, you know, we did initially roll out the transactions as fixed severity, and that was intentional, that that that was part of the market development efforts as we saw it. You know let's focus on fixed severity, there were some other reasons why we focused on severity. And then we did move to actual loss in 2015. And really, the the driver behind actual losses is as good as we think we constructed those fixed severity schedules to approximate our actual losses, there was still this basis risk that...that they wouldn't match either, that we would get paid less than our actual losses or would get paid more in that basis risk could really only be eliminated by the transition to actual loss. So clearly, we did not see COVID specific, but I do think we were right in the general theme of like let's let's move to an actual loss construct. And, you know, funny enough, Andy, I was leading the program at the time and and it was really important to us to be doing a lot of market outreach and to try to move with the market, you know, lead the market, but move with the market. And we were doing surveys and it was really about 50/50 split, about half our market participants did not want us to move off of fixed severity, they wanted us to stay with that construct. And I have not repeated that survey this year, but my guess is if I repeated that today, you know, everybody would be saying give me actual loss.

Andy Davidson [00:18:51] Yeah, I think that's definitely true. I remember you know the concerns back then were, you know, how do we know what the servicing is going to be? How do we know how loss mitigation was going to be? And once again, this is really a testament to the program that you set up that you were just very clear about what you would do, what you wouldn't do. You established a very clear reputation that all loans are going to be treated according to standard rules and that the investors were not taking on the risk of idiosyncratic performance. They were taking on the risk of, systemic or systematic performance based on how the loans actually performed. And there wasn't going to be any sort of sorting of good loans and bad loans who just sort of take it as it came along. But you would do the best you could to minimize the losses. I think there's great trust now that that that is what you're doing and that's what you have done for the last five or six years.

Mike Reynolds [00:19:49] And it's been tested a couple of times. You know, Harvey and Irma were really big tests and I think that that massive diversification that these pools have really came came through and or that type of event. Certainly COVID was a nationwide event. Do you have any view on TRACE? I know that's a little bit outside of your space, but you know, we've had a lot of conversations about, we did see the market recovery after that liquidity event. And, you know, I think that the transparency with through the on the FINRA website, you know, through the TRACE functionalities, probably both, you know, accelerated the the downward price action as well as helped recover that market faster. That that's my view, I don't know, do you have a view on TRACE?

Andy Davidson [00:20:38] Yeah. So from a very high level sort of abstract place, Wall Street used to have more liquidity than its investors than the buy side. And, you know, that's shifted over time that many of the buyside firms have much greater liquidity than Wall Street did. So when Wall Street had the bulk of liquidity the price transparency was either not necessary or maybe not even that good, because Wall Street sort of could make a market and stabilize things. So you could sort of always go and sort of force them into a bid ask spread in a moving market. But without sort of their ability to always make a market and be the sort of source of information on where value is I think TRACE adds value to let people know where the market is, where transactions have been done. Obviously, in a very choppy market, it's going to look

worse. But as soon as transactions start occurring, I think things can firm up behind those values. So, as you say, it has both positive and negative aspects. But I think given the structure of the market now, it's a net positive.

Mike Reynolds [00:21:54] Mm hmm. Mm hmm. So you know, one of the things we're looking at with CRT and I had touched on it a little bit in terms of earnings protection for Freddie Mac and capital relief under the final capital rule that's issued by FHFA. But it's just this general concept of what are we protecting against what was the Great Recession, a one in 50 year event? You have to go back to the Great Depression to see that type of event or has now COVID somehow made us think that these big national events are going to occur more frequently. And I know at Andrew Davidson and Co., your CRT model, has these deterministic paths where you identify very specific types of paths from benign to to stressful to very stressful. And you actually have assigned probabilities to to the potential of those paths developing. And I think that that is super useful and in a lot of applications to help folks kind of understand and quantify. And I would say, generally speaking, at Freddie, we do absolutely use specific stress paths, but we also do a lot much of our analysis is based upon a stochastic Monte Carlo simulation and there's not necessarily a weighting on any one path other than just how many paths did you run? I don't know. Is that do you and your team of experts, have you did you really kind of think about that deterministic path and how did you come up with those weightings and how does that work with your customers and helping them understand the risks that when they're making a buy decision?

Andy Davidson [00:23:46] Yea, thanks for asking about that. Yes, so the one of the issues when we're looking at something like credit risk, we want to look at fairly rare events. So if you think of like a triple AAA scenario or AA scenario, that's something that you expect to happen much less than one percent of the time, maybe about a half a percent or time or a quarter of the percent of the time. And so if you think of analyzing that in a Monte Carlo fashion, Monte Carlo is just, you know, rolling the paths, you know, random selection of paths over and over again. If you want to find an event that's a one in 100 event, you'd have to have at least 100 samples and then you still wouldn't know if you really got the right one in one in a hundred paths out of all the possible paths. And if you wanted something that was like a one in a quarter of a percent chance, you would need to have at least four hundred paths and then say, oh, I'm just going to find the worst one path. And so what we wanted to do is have a method that would really supplement the Monte Carlo method, so we still use Monte Carlo methods for many purposes, but for trying to look at the performance of these types of instruments in the severe stresses, we want something that would generate very specific, severe stresses. And then we would use some analytics to determine what the probability of those outcomes are. Basically, looking at default probabilities as a multiple of some based default. And looking at some of those people are sophisticated, sort of a correlation curve that tells you what the probability of the all the loans acting together versus all the loans acting in a dispersed fashion. And so from that, we can generate fewer paths, just these deterministic paths that we assign probabilities for and make it easier to more accurately measure the value of rare events. And so, you know, so these two approaches, the Monte Carlo approach and the scenario approach can work in sort of concert with each other and sort of can use to balance one type of analysis versus the other to make sure you're staying on track. But we also find that there's two main advantages to the scenario approach. One, that it's a lot more efficient. So we're calculating twenty scenarios rather than two hundred or 400 or 500 scenarios. And if you think of the number of loans and every one of these CRT transactions, and we'd have to generate each of those loans individually, we're saving a lot of work. The other thing is that it's much more transparent. So you can look at the specific scenarios, see which tranche breaks, why it breaks when it breaks, and sort of just get a much clearer picture as to what would it take for this bond to perform in this fashion. So we found it's been very useful to us and to our clients to use this scnario based approach for these types of instruments.

Mike Reynolds [00:26:26] Well, I think that sounds I think that's well explained. Thank you for doing that. So this is our first podcast, Andy, for our audience, we're going to try to keep it on the shorter. Is there anything else that you want to share before we wrap up?

Andy Davidson [00:27:02] Yes, I guess the one other thing that added to the surprise about the CRTs, you know, we were really thinking about this as sort of a GSE, Fannie Mae and Freddie Mac product. And I think the world has seen that this is actually a good approach. We've seen the mortgage insurance industry really embrace it. We've seen other uses of similar technology. And, you know, I'm grateful for the work I did with Freddie Mac at the start to get this going. And, you know, it's looks to see where it goes in the future. And I don't think we've reached the end of the potential of the CRT market.

Mike Reynolds [00:27:37] That's a great point. We have seen a number of other issuers, non-GSE issuers, enter into the market, into the asset class, including banks. We've seen a similar technology applied to other assets, so that's a that's a good way to finish it, there's more to come. So, Andy, thank you again. We really appreciate you taking the time today and then just all of the great work that you and your team and your company have done over the years and again, your instrumental role in helping develop the CRT market.

Andy Davidson [00:28:11] Thank you so much for having me on today.

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