# RBC Capital Markets Global Financial Institutions Conference

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TWO HARBORS
Investment Corp.

Kenneth: Good afternoon, everyone, and welcome to the RBC Capital Markets Global Financial Institutions Conference. My name is Kenneth Lee and I'm the Senior Equity Analyst with the firm covering the mortgage REIT sector. And welcome to our industry panel, Mortgage Finance: Market Update and Investment Opportunities.

I am very pleased to be joined by our panelists today. We have here with us Ilker Ertas, head of Securitized Products at Annaly Capital Management. Ilker joined Annaly in 2015 and previously served in various mortgage trading roles at several investment banks. Next, we have Bill Greenberg, CEO and President of Two Harbors Investment Corporation. Bill previously served as co-CIO at Two Harbors and joined the company in 2012. Welcome, everyone.

Now, before we dive in, perhaps each of you could give a brief overview of your topic. And we'll start with you, Ilker, and then followed by Bill.

Ilker: Sure. Hey, Ken, thank you. Hey, Bill, thank you very much for joining. With the largest capital base among our peers, Annaly's positioned to be leading diversified capital manager in the mortgage REIT space with over $100 billion total assets. We have around $14 billion permanent capital invested across four investment strategies, agency MBS and our three credit businesses, residential credit, middle market lending, and commercial real estate.

Enclosed within these four businesses we have flexibility to invest across asset classes based on relative value, inherent risk and market dislocations when they arise. We have longevity as a public company and operating since 1997 in very different market environments, as well as economic and financial crisis, including but not limited to 2001 stock bubble, 2008 housing bust and great recession that followed, and obviously recent pandemic.

We have an incredibly strong risk management culture and as a levered investor it's important to note that throughout each of these crisis agency funding market functioned relatively smoothly. Happy to expand on that point, Ken, later if it is helpful.

We see our strategy as being one that will ultimately touch every part of the housing finance market driven by organic growth and partnerships. That's all I have.

Bill: I just want to thank Ken for having us here today and thank RBC for hosting this conference and thank you to everyone who's participating and listening in. So, as Ken said, I'm the CEO of Two Harbors. You know, we are – we're an agency only mortgage REIT and what makes us different is we also invest in mortgage servicing rights. We like to call it an agency plus MSR strategy or sometimes more simply just agency plus.

The most interesting thing that we have about our portfolio construction is that mortgage servicing rights act not just as a, as an interest rate hedge, but also as a mortgage spread hedge so that we can generate what we think are the same or better returns as a portfolio without MSR but with lower exposure to mortgage spread risk. We've built out an extensive platform over many years in order to acquire MSR through bulk and flow channels, although we're currently relying mostly on flow to acquire MSR at the moment, but that changes over time.

We think what we're doing is pretty unique in the world. There's few other REITs that have MSR on the size and scale that we do and in particular also with the hedging impact that it has relative to the rest of our portfolio. No other REIT is thinking about the paired construction of agencies in MSR the same way we are. And so, again, and I think what we're doing is pretty unique and pretty cool. That's all I have.

Kenneth: Okay. Great. Now, we're going to keep this discussion relatively interactive. And for those of you who are participating on our webcast, you may submit questions at any time and we'll try to address them throughout the session. For now, let's just start off with a couple questions and let's start off broadly and talk about housing finance.

And Bill, I'll address this one to you. Could you give us a high level view of the markets in general and perhaps some of the trends that you have been seeing recently?

Bill: Sure. Well, you start off the question by talking about housing finance and I assume you mean a little bit housing finance reform and things of that nature, housing finance policy. Overall, we expect the Administration to generally be cautious about reprivatizing the GSEs. I would expect that we'd see things like the credit box expanding a little. I would expect G fees to be stable. I would expect foreclosure moratoriums and forbearance programs to continue to be extended, all the things that you would think which would be consistent with a more borrower-friendly posture than the previous Administration. Overall, my opinion is that the mortgage market is working and I don't see very much impetus for – to force through any big changes here.

In terms of the overall markets, it's been a volatile little period here. Since the end of the year, ten year rates are up 70 basis points in swap rates, even as the front end of the curve has remained anchored. Volatility has risen. Mortgages have had a volatile ride during this rate selloff. Current coupons widened as much as a point during the month of February, although they've recovered some of that in March.

The biggest thing that I see happening these days is overall mortgage spreads are at very tight levels. These spreads, one common measure of mortgage valuations are in the 30 basis point areas and option adjusted spreads can be zero or sometimes even negative, depending on how you look at it. So, we don't see that as being very attractive at the moment.

My experience tells me that future opportunities are likely to be more attractive than the current ones in the mortgage market. And so, that's one of the things that we're looking out for.

Kenneth: Okay. That's great. And that moves into the next question. Let's talk about investment opportunities in the current environment, specifically on opportunities within agency MBS. Now for the past year or so this has been a very attractive area for investments and both of your companies have investment portfolios skewed towards agencies.

Could you outline some of the key factors that have been driving such a favorable environment and could you give us your investment outlook right now for agencies? And for this one, we'll start with you, Ilker.

Ilker: Sure. Actually, I see your question as two parts, so let me start with the easier one, which is why it has been that much favorable for the agency MBS. So, as great mathematician Leibniz said, nature established patterns originating in return of events but only most part. So, late half of 2020 has been very similar to earlier QE3 environment, so similar design, available to have attractive funding in repo and dollar roll markets, Fed taking a bigger amount of supply of agency MBS and very attractive historical evaluations. So this was the most part of Leibniz's equation, now the differences versus QE3.

Prepayment environment has not been as friendly as the QE3 period, so this was the less favorable part. But commercial banks, unlike QE3, has been another big buyer of MBS in addition to Fed and other asset classes in QE3 lagged the agency MBS. This time around other asset classes tightened in line with agency MBS. So, there were two very strong favorables and one unfavorable versus the QE3 and in QE3 period agency MBS have done very well. So this was the reason why agency MBS have done very, very well, very attractive valuations, very good funding, and massive amounts of demand from Federal Reserve, and more important, the commercial banks.

Now, let me talk about outlook for agency MBS going forward. Given how risk assets have performed since the second half of 2020, agency reinvestment landscape is somewhat less attractive than earlier 2020. However, our outlook for agency MBS remained constructive due to a number of factors. First, available to have attractive funding in repo and dollar roll market continues. In fact, repo market has been becoming more and more attractive every day. So term, especially the term repo availability I have never seen this favorable in my career.

Secondly, the technical backdrop that we talked about will persist for the course of the year because of the very strong nominal carry and continued bank demand. So, we looked at – I think I mentioned this in our earnings call – long-term deposit ratio of commercial banks are 50 time, is in 50 time lows. So their deposits keep growing but they are not issuing enough loans that keeps growing. So, this might be changing after this stimulus bill and reopening. But that will still end up being like a strong technical for agencies.

Also, there is a potential for improvement of the prepayment profile. Remember, I said that the only downsides for agency MBS versus the previous episodes was elevated prepayments. Now steeper curve and early signs of burnout so prepayments may end up being a headwind for mortgages and for a long time this time around. So, it has been like really, really hurting mortgages.

And a final note, we can't look at agency MBS in isolation. As I said, during previous quantitative easings, other risk assets like the MBS tightening and that gave private investors opportunity to rotate into other asset classes. In contrast, this time around nearly all spread products tightened in line and some are even like more than agency MBS. As a result, we are still constructive on the outlook for the agency MBS sector and there will be more relative value opportunities in the agency sector going forward because of the steeper yield curve. So that can be more alpha generating opportunities. Thanks.

Kenneth: Thanks, Ilker. And I think you touched upon this. In terms of the dollar roll specialness, now this is something that both of your respective companies have recognized it as an earnings benefit over the past few quarters. Could you just briefly remind us how this benefit occurs and, importantly, how long do you think this dollar roll specialness could persist? And maybe I'll direct this one to you, Bill, to start off.

Bill: Sure. Well, when speaking of roll specialness in TBA futures contracts or TBA futures contracts in general, the roll, just to go back to basics here, is the price difference between two contracts for different settlement dates one month apart. And in general, for TBA futures contracts or any futures contracts, the roll is considered special when the carry implied by those prices is greater than the carry that you would receive from owning the security, the equivalent security.

Oftentimes, people like to express this roll specialness as an advantage in implied funding rates, again compared to what it would cost you to fund the security in the repo market, as Ilker said, which is as favorable as anything. A special roll can arise for several reasons. But in general, it's the result of a general mismatch between buyers and sellers of the contract.

In the current case, this has been caused by the Federal Reserve buying lots of TBAs for near-term settlements and mortgage originators, simply other people as well, who have been busy refinancing mortgages like crazy and selling TBAs forward for one or two months in the back months in order to hedge their pipelines. It's this dynamic which has the effect of making the near-term settlements more scarce and the far month settlements more common.

For most of 2020, the roll specialness in the current coupon hovered around 100 basis points special, more favorable to repo, although that has come off its highs. For a little while it traded as low as I want to say 20-25 basis points special, although now it's increased again to maybe 50 or 70 basis points. It's come back a little bit. It's retraced a lot.

And in terms of how long it lasts, I agree with Ilker. It's likely to last as long as the Fed continues to buy and to be in the market. One thing to note though, however, is that the Fed is going to be reactive and proactive in terms of what coupons they're going to buy. If the interest rate market continues to sell off, the Fed will likely shift their buying of those coupons up in coupon to stay with the production coupons. And so, if you're talking about a specific coupon, Fannie 2s or whatever, how long will the roll specialness there lasts depends on how long the Fed is there, depends on how long Fannie 2s are a production coupon as well. I'll stop there.

Kenneth: Okay, great. And then for the next topic and perhaps we'll start with you, Ilker, broadly speaking how is your company positioning the investment portfolio given the current macro and rate environment?

Ilker: Sure. To start, I would characterize our strategy of balanced portfolio that we believe will perform well across different market environments. In MBS, our lower coupon holdings remain largely in TBA, while our higher coupons are predominantly in pools. This barbell approach maximizes the liquidity and benefit from high levels of nominal carry in the dollar roll market, while providing us cash flow stability across different interest rate environments. As of quarter end, I believe approximately 6% of our portfolio consists of higher quality specified pools, which provides like improved convexity due to prepayment protection or prepayment certainty and while the remainder is mainly consolidated in seasoned pools which are beginning to experience some prepayment burnout.

We are also very diligent on hedging the interest rate and curve risk. Majority of our hedges are on the long end of the curve, like it's like either swaps, treasury futures or swaptions that are mostly focusing on the long end of the curve, which benefited more recently from the steepening a lot. But there is an important market dynamic that was going on. Last six to eight months, mortgage performance has been very directional with rates, That is they tended to widen into selloffs and tighten into rallies. Another way to say is that market hedge ratios are a lot higher than model implied hedge ratios.

In fact, I had a long talk about this during a yield conference about model splits in October last year. So, anybody interested, I believe it's on their website.

However, this relationship has been changing a little. There are signs, early signs at least that MBS performance may be returning to more historical normal, that is tightening into selloffs and widening into rallies. We are watching this dynamic because it will have massive impact on hedging and convexity structure of the mortgage market.

I should have mentioned this to your earlier question about Annaly's size and scale of the platform, which enables us to hire best and brightest talent and we can afford to develop good analytical tools and risk management tools because of the scale. So, all those investments enable us to watch these kind of developments like a hawk and we'll adjust our hedging and portfolio accordingly. And given the environment for the spread levels for risk assets, we believe also relatively lower leverage profile is prudent today. We lowered our economic leverage from late 2019 throughout 2020. This will give us dry powder if spreads widened or macro environment changes. Thank you.

Kenneth: Great. That's very helpful. And then, outside of agencies and we'll address this one to you, Ilker, how are residential credit assets looking in comparisons to agencies in terms of relative attractiveness? And perhaps you could just talk about what assets within that residential credit space are you looking at.

Ilker: Sure. Let me start with housing fundamentals. There seems to be a consensus among market participants and economists about strong housing, especially in HBA and we share this view. So we do not differ that much from market on this regard. _____ HBA has been driven by like historically tight supply, favorable demographic shifts, recent migration outside of the urban to suburban centers, general trend for need for larger homes that either accommodate work from home or maybe let's say like more flexible working arrangements even after the pandemic, ease of monetary conditions, and more importantly very strong household balance sheets. And this last point is the most important one for mortgage creditors.

And let me point out differences of this housing strength versus the period of '03-'06. As we all know by now that housing strength at that time was fueled by lax lending standards and belief about home prices will keep going higher. This time around, lending standards are still very disciplined and there are no signs of over supply of housing. Also, household balance sheets were nowhere as strong as today. Not to mention that there are much better controls around documentations and appraisals this time around. So, given this view we are very bullish on residential credit.

So, within residential credit, what we do is like we like in the – so, I'll split your question into two sectors, like within residential securities and residential loans. In the securities front, well basically we like these non-rated higher tranche NPL/RPS short spread duration assets as well as up in structure short CRT assets. Relative to agency MBS, these assets that I mentioned have lower extension risk and higher return on equity per unit of spread duration. More products are also seeing significant depth regarding funding, including term funding.

So, our view is that these products are defensive in their nature and shorter assets gives us accretive returns and will allow us to reinvest pay downs if when longer spread duration assets widen from these tight levels. Now, our main focus, expanded prime vol loan effort and financing this effort via securitization continues to be a priority and we are focused on new strategic relationships to grow our sourcing capabilities which yields further optionality on the residential finance.

When the pandemic first hit in March/April, many non-QM originators were stuck with significant devalued product as whole loan buyers stepped away and did not honor existing pipeline commitments. As a result, majority of non-QM originator segregators temporarily shut down production or were operating at very reduced capacities. I want to note that Onslow Bay, which is our wholly owned subsidiary, honored all outstanding home loan commitments and supported our origination partners during the pandemic by continuing to provide liquidity. This goodwill built will be one of our strongest assets in sourcing new collateral in this area and as we form new partnerships with our originators. Thus far in 2021, we are seeing gradually increasing volumes following very slow 2020, as many of originators have dipped their toes back into the space to reboot or restart it.

One final note. The backup in rates may actually help us stimulate non-QM origination volume. As agency refi volumes goes down and gain on sale margin compresses for the agency refis, this may help incentivize originators to prioritize expanded prime and non-QM production.

Kenneth: Great. That's very helpful color there. And then, the next one and this was to you, Bill, and you touched upon this that one of the differentiating factors for Two Harbors is the MSR portfolio. Could you comment on the current environment for investing in MSRs? What are you seeing in MSRs and what do you think are the valuations and potential returns there right now?

Bill: Sure. So, I'd say the MSR markets have largely healed from the events of 2020. I'd say in bulk markets there are often eight to 14 bidders typically. The pricing is competitive. We’re seeing decent amounts of volume come through the market in line with or slightly higher volumes than what we’ve seen in previous years.

For us in particular, although I think it’s throughout the industry that flow volumes, we’re able to buy MSR on flow, has been substantial and that makes sense if you think about it. Flow volumes really follow the refinancing volumes and many of the originators, we have a platform where we have around two dozen flow seller partners that we interact with and when they are refinancing lots of loans they generally want to sell the servicing and so that generates lots of flow volumes for us. And so, we’ve been able to through a combination of flow and bulk purchases in the last couple quarters, we've been able to maintain and even slightly grow our MSR balances, even in this very fast prepayment environment.

I think that flow always is cheaper than bulk MSR and that is no exception today. We see flow MSR to be call it 200 to 400 basis points cheaper than bulk, although the bulk packages can be situationally attractive from time to time. We think that even with MBS at today's tight levels, we think that the paired construction of flow MSR combined with mortgages, either TBAs or some specified pools of certain kinds, can be in the low teens, which we would say that mortgages by themselves are mid-single digits to mid-high single digits. And even the current coupons, with the roll specialness, which I acknowledge is a lot, still has pretty low hedge adjusted carry as well.

So, we think that creating a paired construction of MSR with mortgages is attractive. It has had attractive returns. And also, given the mortgage spread hedging characteristics of the construction should be well-protected even if mortgages happen to widen out.

Kenneth: Okay. That's great. That's great color there. I think at this point we'll take a question from the webcast participants. We've got two questions and the first one is about the topic of prepayments and I'll address this one to both of you and anyone can chime in first. But what are you seeing in terms of CPRs right now?

Ilker: Well, that's a very generic question. Like different parts of the universe are paying very differently. So, again, I can talk about prepays all day, because as Bill knows, like I have been involved like most of the like respective models in the mortgage universe, like the Yield Book being one and Lehman and Barclays being other which will become Bloomberg right now.

So, when you talk about prepayments you need to think about two things right now. Number one, how will the recent steepening and recent selloff will do for the prepayments. And second, will there be a burnout anytime soon and also like how will the different parts of the mortgage universe will end up prepaying is a part of this. So, with this selloff like the best borrowers like used to get like around 2.6/2.7 current coupon mortgage and despite ten year note selling of like I said with the basis points, initial like 30-40 basis points selloff of debt did not even like make a dent on the mortgage market. All it did was reduce the profitability of the mortgage originators. But after that, it starts almost moving one for one because mortgage profitability spread had narrowed.

So, right now the best borrower, best of the best borrowers are probably getting like 3-1/8 to 3-1/4 mortgage rate. So, the obvious one is like this takes the entire 2020 production 2.5s outside of the refi window because they're out of the money. And in fact, like if you look at as 50 basis points in the money is like a refinance-ability. If you defined it that way, it used to be like almost 75%-80% of the mortgage universe was refinanceable at that point. Now, it is close to 55%-

60%, I mean in some respects around 65%. So there will be like slowdown on the lower coupon really good quality collector.

But here's the other thing. As these non-bank mortgage originators, which have taken a big market share from banks over the years, and they invested a lot last two-three years, a lot of them went to public. So, they need to keep originating, so they need to keep making them. Will they be and including the brokers trying to approach higher coupon borrowers _____ But what's happening with these high coupon borrowers, especially the good one borrowers is I also want to split them into different groups though.

The ones that originated in 2018 and 2019, they are really, really good collateral, good collateral meaning that borrowers have high loan balances and good credit quality. And let's put it this way, borrowers are financially savvy because they were originated at the current coupon at that point and they get a massive shot drilling down. So these guys are already paying like 55-60 CPR for a long time and that universe has been shrinking.

And so what will happen is they will probably end up going to collateral that I have been mentioning like call protected collateral. But it's very difficult. So, let's talk about them. So, refinancing happens mainly on two channels. One is that the borrower calls and gets a mortgage rate and refinances and the other one is broker or a loan originator aggressively calls the guy. Hey, you are in the money. Like why don't you refinance and I will save you like whatever, this much money per month.

So, in these two channels the first channel, the borrower calling, there is burnout. There is legitimate burnout. If you haven't called by now after all this media effect that we call in the prepayment landscape, after this much in the money for this long, you'll probably not be calling. On the second front, second channel is the one that I have been talking where broker is making the outgoing calls. There will be more outgoing calls coming with these guys, but it's also being saturated right now. So, I'm expecting prepayment behavior will no longer be a headwind for the mortgage investors two-three months from now if rates stay around here.

Bill, I don't know. You also used to look at prepayments a lot so I want to hear your views also.

Bill: No. I agree with most everything you said. I interpreted the question actually slightly differently, which was just like what prepay fees are we experiencing on our portfolio. So, I'll answer that question, then I'll make another couple comments about one interesting thing that you said.

So, you know, our portfolio consists in specified pools in terms of very high quality, mostly loan balance and geography kinds of stories and in aggregate in the last month we saw that prepaying at around 30 CPR. That's typically pretty fast for that kind of collateral. These are generally higher coupons, not the current coupons. But even so, that's pretty fast as far as these things go and can be attributed to lots of things that Ilker talked about.

On the MSR side, I don't know if I mentioned this here, but our portfolio's roughly $180 billion in notional amount. That's pretty big. It's hard to make a thing that big not pay essentially cohort. And so, the average speed that we're seeing on our servicing portfolio in the last month or two was around 35 CPR. Even within that, we often like to say that – this is the entire cohort. It's not all specified collateral or collateral that would trade with a pay up, but it's also not cheapest to deliver. It's a mix. It's the whole cohort. And so, you know, the way that we stratify the world, we think that roughly 50% in round numbers of our portfolio, of our MSR portfolio would be backed by collateral that would trade with some sort of a pay up.

Now, so that's where our stuff is paying. I just wanted to comment to one thing that Ilker made me think of where he talked about the spread between the primary rate and the secondary rate having been very wide and then in this rate backup that has compressed and, as Ilker said, cut into originator profit with only half of that amount being passed on to borrowers. That's true but I would also say that the fact that the primary rate didn't move as much didn't mean that the compression of the primary/secondary spread didn't make its way into prices.

For instance, in the MSR market when rates were at the lows and the primary/secondary spread was at the wides, embedded in servicing prices was the idea that the primary/secondary was going to compress if rates stayed constant and, therefore, MSR prices, MSR multiples as we quote them were low, say they were three mult back then, because of the expectation that primary mortgage rates would go from 2.75 down to 2.5 or to 2.25 rise in prices. Now that rates have backed up and primary/secondary spread is back to long-term averages roughly there is no expectation that forward mortgage rates will decline a lot from the current mortgage rate. And so, it's sort – it's akin to an effect of you have a forward rate in the rate market. And so, that effect has happened and it's been reflected in MSR prices for sure.

Kenneth: Great. That was a great discussion and we'll just take one more question from the webcast audience before moving on. And this one is directed to you, Bill. And the question is has the cost to servicing loans gone up in a period of shifting guidance from DC?

Bill: The short answer is no. A slightly longer answer might be not yet. I think we saw this in the, what I call the first financial crisis, although it wasn't the first, the '08 financial crisis. Prior to '08 you had the cost to service performing conforming loans being around $4 per loan per month and in the wake of some of the regulations and stuff like that that occurred in the wake of that event, a lot of that was passed through to the servicers and so now I would say generically the cost to service a performing conforming loan is in the, I don't know, in the $5 to $7 per loan per month area.

So, we did see an increase in cost, mostly due to the increased requirements that were imposed from regulation and otherwise. Now, we didn't see a compression of those costs in the previous years, in the previous Administration when you might've thought that enforcement of those sorts of things would've been less. And so, a reversal of that back to a more normal '08-'09-'10 sort of area, I don't expect to see that flow through in any meaningful way. As it is, the cost to service loans is often done on a tiered menu sort of basis. The cost to service a performing loan is something. The cost to service a delinquent loan is this. The cost to service a loan in foreclosure is something else. And so, it's menu driven and so that's mostly how people manage the costs of different environments.

Kenneth: Okay, great. Great. Now let's move on to the topic of interest rates. Obviously, we've seen a lot of movements in interest rates recently, especially on the long end of the curve. Wondering if both of you could talk about any potential implications there. And we'll start this one with you, Ilker.

Ilker: Sure. Obviously like two things happened and they are linked obviously. Markets sold off and most of the selloff happened in the long end, hence curve steepened a lot. So, this is what it is.

So, what – the thing about this time around though, even though selloff has been really, really sharp, market was not off-guard this time around. So, we did not see too much like convexity hedging coming through like the old days. Like in the old days if like ten year sold off this much in this period of time, it would've been a lot more dramatic in the market. So, this was like very well established and after the Georgia election like almost everyone was expecting like a major stimulus was coming in and also like pandemic news, when this vaccine news coming in. So, this is like well, well expected.

So the effects on mortgages of the steeper curve, so it's a double-edge sword. Obviously like almost all mortgage investors love the steeper curve. So, you basically have the forward rates. When curve is steep, forward rates are even higher than the current rates are implying. So that will make a lot of mortgages out of the money and that reduces their option costs. So that's one part of it.

Even though this also makes the hedging of them a little bit more expensive, because as your hedges roll down the curve, you short a five year mortgage one year, you short a five year instrument. One year later you end up being short a four year instrument and as the curve is steepening you are basically, your short will costing you a lot more. That's fine. And your mortgages do not rolldown as much as the rolldown is happening, so this will make hedging a little bit more expensive.

But, despite that, almost all mortgage investors will love the steeper curve and especially mortgage professionals. The guys who spend their life professionally trading, buying and selling mortgages love a steeper yield curve. Why? Because when the curve is flat, almost everyone prices everything correctly. There is agreement around. But as curve steepens, so there will be mispricing appear. So there will be structural shifts in the mortgage market. For example, CMO machine can find better arbs so you can create structures that will look very, very appealing to some part of the curve and extension part of is not being priced and all that kind of stuff.

But mortgage – like curve steepening will increase the alpha generation for the mortgage professionals. So, there will be a lot more coupons to trade, a lot more derivatives to play, a lot more IOs and up in coupon down in coupon like a lot more relative trades happen. Like nothing makes me as a guy who basically lives and breathes mortgages like last 20-25 years than a steeper yield curve like has been trading relative value. We welcome that a lot and we look forward to it. It has been very boring trading mortgages, like rising tide lifts all boats. So now, all boats, now it will be a lot more relative value driven and a lot more like analytical driven.

Bill: Ilker said something that made me think. He said all mortgage professionals like a steeper curve. I wonder what his view about mortgage amateurs, whether they like the steeper curve or not, too. But anyway I, again, I've known Ilker for a long time and we've shared lots of thoughts over the years. I obviously agree with everything he just said about the pros and cons of a steeper curve.

Ilker forgot although was implicit in his comments that funding will remain low in the steep curve, as well as higher forward rates and slower future prepayments and so forth. One, another detriment to a steeper curve is higher rates especially often come with higher volatility. So, not just in terms of curve rolldown increasing the hedge, potentially the delta hedging costs of mortgage might go up in that environment as well.

And while it's true that the CMO machine and that kind of thing might be able to find better arbitrages when the curve is steep, we try to hedge our partial durations across the curve pretty closely and not take a lot of curve risk. And so, we're trying to capture the spread sort of wherever it is. And so, when you say that mortgage investors like steep curves, which sort of makes it sound like we're borrowing short and investing long and running that gap. That's not what we're doing.

We hedge that pretty carefully. And so, lots of things feel better when the curve is steeper. I agree with that. But in terms of the direct impact, it's a little harder to pinpoint I'd say.

Kenneth: Great. That was a great discussion, both of you. And if I were to stay on the topic of mortgage professionals, the next topic is when we looked at historical economic returns for the mortgage REITs that we cover, we've seen that economic returns show a relative resilience and this is even during the time that the yield curve was flattening in the past. So, could you just remind us again how important a factor is active management in terms of generating and being able to generate returns across various macro conditions? And maybe, Ilker, I'll have you start this one and, Bill, feel free to chime in with any additional comments as well.

Ilker: Again, this is I like this question a lot. I really like it a lot like. Active management, portfolio management, like or alpha generation, let's put it this way. That is why we are not replaced by computers and probably like mortgage market will be the last one to be replaced by computers like almost every product has been somehow, artificial intelligence and all that kind of stuff.

In fact, like when I teach mortgages to like college students and all that kind of stuff, sometimes when we talk about that, I basically say to them this. The difference between mortgages and other products is the non optimal exercise of the call option. Homeowners have this option and they don't exercise optimally. Sometimes they refinance where they shouldn't or sometimes they don't refinance where they should and this is like a very, very difficult thing to model and that's why you can never have a closed form solution. You will never have a Black Scholes type formula for mortgage optionality. It can't be because it's _____ dependent also.

But regardless of it, active management is very important. And I just gave one example like earlier when we were talking, like directionality of the mortgages with the rates. There are signs that that's changing. So, if the mortgage professional is sitting, like a mortgage portfolio manager sitting at his desk misses some of these early signs, he can be on the wrong side of the environment that's changing.

So that's a very good example for the active management. And it's as we said in the previous one, we were talking about the curve steepness. Some people will misprice some part of the curve. Again, what you need to do is at that point you need to be able to take advantage of those mispricings while hedging different parts of it. Well, you can basically take advantage of those.

So, yes, active management is very, very important in mortgage universe and we think we don't active management. Let's think about this. You are basically buying a government guaranteed paper with negative convexity on it. So and that negative convexity has to be managed for you to make outsized returns. Otherwise like there's not that much to do.

Bill: Yeah. There's not that much to disagree with there. One thing I'd add is that active management, having people with experience and expertise is especially important.

It is important in the mortgage securities market for all the reasons Ilker said and I would add actually people who've been around and been able to see lots of different cycles in lots of different environments and be able to make those intuitive leaps between one environment and another I think is crucially important.

But I was going to say also is that it's also crucially important in the MSR market where the markets are more illiquid. There's more relationships involved in acquiring the asset, in moving the documents back-and-forth, overseeing the assets, overseeing the servicers and so forth. And so, I think, I mean I agree with Ilker in all of what we do it's a very, very important part of the strategy.

Ilker: Ken, in fact, like while Bill and I were sitting I guess we call it virtual lobby before this conference started, we were chatting over there. So, we just talked about him. So most of the people who are in the mortgage market right now have not seen a turnover environment, have not seen like a deep discount environment for a long time. Last time it happened was like 1994. Yeah. We had it like something in like 2005 to 2007, like those '03 refis, 2003 refis become discount or that kind of stuff.

So, people have not traded in the turnover environment and we are looking forward to it because it has been all a one-way street for a long time. So, I'm very, very excited about changes happening in the market. For example, those Fannie 1.5s if market continues selloff they will be, hopefully they will be, they will be deep discounted, will be deep discount for a long time so that we can still talk about turnover and all that kind of stuff.

So, that will give us opportunity to basically generate alpha, because there's a new environment which has not been there for a while. There is not that much historical data to look at it and people in the market don't have that much experience on it.

Kenneth: That's great.

Ilker: But we _____ like we used to, like when our CEO, David, when him and I used to trade, start trading mortgages way back, current coupon was Fannie 6.5 and higher coupons were like Fannie 8. And, in fact, like when we were talking about that, people who are older than us used to say that, hey, you young kids, like we used to trade like Fannie 10s, Fannie 11s. Things have changed.

So, again, like now Fannie 1.5. So hopefully like mortgage rate comes up and we will have like strong turnover securities that we can _____ and prepayment securities, refinance securities so that we can all buy and sell different parts of it and generate alpha for our shareholders, our stakeholders and go from there.

Kenneth: Sounds like there's still a great opportunity for the potential to add a lot of value there. So, that's great. That's great.

Ilker: Yeah. For example, before I used to say people who are in the like asking career advice, unless you don't like software industry which is obviously the best thing in the world, if you want trading, mortgage trading is still the most fun part or maybe you want to trade Bitcoin, but that's separate.

Kenneth: That's great. And moving on to the next topic and this is somewhat related as well, something that there's been a lot of movement in terms of the macro environment. Wondering if you could talk about current thoughts around when we could potentially start to see the Fed taper their accommodative policy and how you're thinking about potential implications in that kind of scenario. And maybe for this one, I'll start with you, Bill.

Bill: Yeah, sure. I think judging from the conversation that we've had so far, this might be one area where Ilker and I maybe diverge a little bit. I think clearly the market expectations are for some sort of tapering maybe in 2022. That might be right. But I happen to think that there's probably more risk to that timeline shortening than there is to it lengthening.

Vaccinations are running way ahead of schedule. President Biden indicates that all adults should be vaccinated by the end of May. CDC has put out guidance for reducing social distancing for people who are vaccinated. Stimulus checks are in the mail, $1.9 trillion. Those will make their way into the economy shortly.

So then taking all that together, I sort of, I would not be surprised to see something happen this year. Chairman Powell himself has indicated that while – he wants the Fed to support the economy through the pandemic. If herd immunity kicks in faster than expected then Fed accommodation might be removed faster than expected also.

Now it's true, I think history shows that the Fed is quick to add accommodation and slow to remove it. I think that's true and they'll probably in all likelihood wait until they see some of these effects come through the data. But we all know how this happens. The markets react before that and the whisper of a whisper of doing something will probably cause some spread widening in the asset class. I don't think there's any way to avoid it, no matter how carefully they try to craft the message or to give advance warning.

And so, I think that's in the cards sometime this year. And so, as a firm we generally try to hedge our rate and curve exposure carefully, as I said. We're not making big macro interest rate calls. We're not macro interest rate traders. We're mortgage investors, so we hedge ourselves pretty carefully. But that said, I'll go back to the paired construction that we have with the mortgage spread hedge feels to us to be particularly attractive in this environment where the future direction and timing of spreads is particularly unknown and potentially volatile.

Kenneth: Ilker, we'll see if you have anything to add. Otherwise, we'll move on.

Ilker: Yeah. I think truly, Bill, I don't think we will disagree much. I want to disagree but we – I don't. So, basically, yes. Market consensus is like early next year and risk is that it might be a little bit earlier. So this is pretty much it because like economy is running a little bit Better. But like market consensus is early next year and that's where I am. I am also calling for early next year.

But difference, okay. You remember, like I've been comparing always like differences from the past. So, the last taper tantrum, everybody remembers that. So now, let's go back to last taper tantrum. So, what happened on that one was like before that happened market was not prepared. Market was under the assumption that they were Fed put and Fed will basically keep doing it. And Fed announcement came as a big surprise. Not only that, when the Fed announcement came, so we were all under the assumption that Fed will first stop buying and then reduce their portfolio to pay down, so maybe even like active selling. That was pre-taper tantrum announcement when they do and then they will hike the rates.

So, this was the assumption all of a sudden that everybody was watching. And then, all of a sudden when the taper tantrum news come, you immediately priced all of these things at the same time. So that was a very, very wild reaction.

So, this time around, number one, Fed is not making that mistake. So, Fed is very, very clear. So, right now we know what they say about taper tantrum will be taper – what they say taper will be. Taper will be first they will be reducing the net purchases. Second, they will stop purchases but keep reinvesting. So, market already knows and market is much more prepared this time. So, when the announcement comes in, even if it's like couple months earlier than most market is anticipating, reaction will be less than last time around. So that's our view.

And also, by the way, it's also welcome that at some point this taper ends, because in the end we want private investors like ourselves to be investing on these things. And Fed has done very good job, so they obviously helped the housing market, stabilized the market. But sooner or later these things will be gone and market needs to prepare for it.

Kenneth: Now that's a great point there. That's a great point there. We just have time for one more question at this point. So, let's talk about expected returns in the credit environment. Wondering if the panel could just talk about what kind of returns are you getting from new investments currently and, relatedly, how should we think about the potential impact from the recent decline in mortgage spreads on those kind of expected returns? And for this one, why don't we start with you, Ilker?

Ilker: Sure. So, obviously in our last earnings call, we basically said at high singles to low doubles. So, and that's, we are still there, like a little bit better than that because things have widened a little bit and there's a little bit more spread on that. So, and specialness after all improved a little bit also. So, we can say that on agencies you can now reach double digits.

But more importantly, like in the other sectors, for example in the resi sector we can achieve very into double digits, like low to mid-double digits on some of these securitizations that we are generating and even some of these like low spread duration products we are approaching like high single digits on that. So, new investment returns are obviously not as good as what the existing portfolios have and that's fine. Like I said, like Fed's taper will be more than welcome.

But even in this environment, even still with this limited volatility, even though it increased a lot, you can still generate like very high singles to low doubles in the mortgage market and into doubles in the residential market and way into doubles in like other areas of the – other areas that we operate, such as middle market lending.

Bill: I think I already mentioned in my remarks sort of what our expected returns were. I mean we see things a little bit differently. I think mortgages, depending on what you're talking about, are mid-singles to mid-high singles on mortgages hedged with swaps and we think we can get to low teens with the current MBS spreads and when it's paired with flow servicing.

Ilker: I'll only add one more thing, obviously. We talked about alpha before. We talk about portfolio simulation, alpha and everything. So, these returns can be enhanced with active portfolio management obviously. That we are not mentioning about.

Kenneth: Gotcha. That's very helpful. Well, unfortunately, we are out of time right now. So, I'd like to take this opportunity to once again thank our panelists, Ilker and Bill, for joining us today. I really enjoyed our discussion today. So, thank you, everyone and take care.

Ilker: Likewise. Thank you.

Bill: Thank you very much for having us. Thank you, everyone, for listening.

Kenneth: Good. Thank you.

END

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