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NEW YORK CITY TEACHERS' RETIREMENT SYSTEM
INVESTMENT MEETING

Held on Monday, September 13, 2021 via Videoconference

ATTENDEES:
DEBRA PENNY, Chairperson, Trustee
DAVID KAZANSKY, Trustee
THOMAS BROWN, Trustee
JOHN ADLER, Trustee, Mayor's Office
NATALIE GREEN-GILES, Trustee
SUSANNAH VICKERS, Trustee, Comptroller's Office
RUSSELL BUCKLEY, Trustee
THAD McTIGUE, Teachers' Retirement System
SUSAN STANG, Teachers' Retirement System
RONALD SWINGLE, Teachers' Retirement System

REPORTED BY:
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ATTENDEES (Continued):
ROBIN PELLISH, Rocaton
MICHAEL FULVIO, Rocaton
KATIE PIRO, Rocaton
RENEE PEARCE, Teachers' Retirement System
ISAAC GLOVINSKY, Teachers' Retirement System
LIZ SANCHEZ, Teachers' Retirement System
GREG ZELIKOVSKY, Office of the Actuary
DAVID LEVINE, Groom Law Group
CYNTHIA COLLINS, Mayor's Office
ALEX DONE, Comptroller's Office
JOHN DORSA, Comptroller's Office
JIM BROWN, Teachers' Retirement System
JIMMY YAN, Comptroller's Office
KOMIL ATAEV, Teachers' Retirement System
STEVEN YUAN, Mayor's Office
TINA SUO, Bureau of Asset Management
WESLEY PULISIC, Bureau of Asset Management
DANIEL HAAS, Bureau of Asset Management

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MS. PENNY: So I guess I will start. Good morning, everyone, and welcome to the Teachers' Retirement System investment meeting. Today is September 13, 2021. And I will hand it over to Thad to take the roll call.

MR. McTIGUE: Good morning, everyone. John Adler?

MR. ADLER: I am here.

MR. McTIGUE: Good morning, John. Thomas Brown?

MR. BROWN: Good morning, Thad.

MR. McTIGUE: Good morning, sir. Natalie Green-Giles?

MS. GREEN-GILES: Good morning, everyone. I am here.

MR. McTIGUE: David Kazansky?

MR. KAZANSKY: Present.

MR. McTIGUE: Russell Buckley.

MR. BUCKLEY: Good morning, Thad. I am here on behalf of Department of Education Chief Financial Officer Lindsey Oates. A happy first day of school to those of you who celebrate.

MR. McTIGUE: Debra Penny?

MS. PENNY: I am here.

MR. McTIGUE: And Susannah Vickers?

MS. VICKERS: Good morning. Susannah Vickers, I am here.

MS. PENNY: Good morning. Madam Chair, we have a quorum.

MS. PENNY: Okay. Thank you, Thad. I see we have Yaffa here. Good morning. Perfect. So we are going to turn it over to Robin from Rocaton for the Passport Funds performance review.

MS. PELLISH: Good morning, everyone. I am, in turn, going to ask Mike Fulvio, but first I want to say it's a pleasure to be back with the Board. Mike?

MR. FULVIO: Good morning, everyone. Wonderful to see you all. We will start with -- it's actually in the quarterly report for the Passport Funds, and we are going to take a moment or two to just go through the fiscal year results, which are included in that report as well which we did not review together over the summer. So if you wouldn't

mind flipping ahead to page 24, I will make a few comments there about what we saw as a reminder in the markets during the 12 months ending June 30, 2020, and you will recall that captures much of the market recovery that we saw over the last 12 to 18 months as the world became more adjusted to deal with an ongoing global pandemic, and with the market recovery that we saw during that 12-month time period ending June 30th, you can see really strong absolute returns across markets which naturally served the participants invested in the passport funds quite well from an absolute return perspective.

The Diversified Equity Fund which ended the fiscal year with 19.7 billion dollars returned 43 percent for that 12-month time period. When compared to the broad US market, the Russell 3000 Index, you can see that market was up about 44 percent and the Hybrid Benchmark, which represents the underlying asset allocation of the fund and also includes non-US equities. You can see the Hybrid Benchmark was up about 41.7 percent. So the

relative outperformance between the Diversified Equity Fund and the Hybrid Benchmark was driven largely in part to the contribution of active management among both the underlying US actively managed strategies as well as the non-US actively managed strategies. So not only strong performance in absolute terms, but also on a relative basis during that 12-month time period you can see the active US composite outperformed the Russell 3000 by approximately 14 percent.

And then in the international composite, strong outperformance there. You can see 38 percent return versus about 35, 36 percent for the international composite benchmark. So again, it was a strong period for the US, up 44 percent. Non-US developed markets up about 32 percent and emerging markets up about 41 percent.

I will pause there and see if there are any questions on the Diversified Equity Fund. Otherwise I will comment on the other funds before spending a moment on the active manager scorecard. Hey, John.

MR. ADLER: So didn't we decide to start doing an 80/20 or something like that benchmark?

MR. FULVIO: We did, yes, and so that

will begin effective July 1, 2021, and you will see that on the next report.

MR. ADLER: Do you have any sense of how the Diversified Fund did versus 80/20 for the past fiscal year or no? The answer is no.

MR. FULVIO: On a rough basis it would have outperformed because of the strength in the US markets and the value add that we saw both across the US composite and the international composite, so we have expected some value add there as well relative to that benchmark.

MR. ADLER: Perfect. Thank you.

MR. FULVIO: So beyond the Diversified Equity Fund, you can see the Balanced Fund had assets of 581 million at the end of the fiscal year with a fiscal year return of about 12.1 percent. The International Equity Fund returned about 37.5 percent ahead of its composite benchmark. The Sustainable Equity

Fund returned 39.6 percent, which you can see here lagged its benchmark by about 3 percent, and then below that the US Equity Index and International Equity Index Fund in the first full fiscal year you can see those returns of 47 percent and 36.5 percent respectively.

Not hearing or seeing any questions, I am going to ask everyone to flip ahead to page 38. And that begins the active manager score card and that's also covered on the following page. There is no new flags to note here to the Board. These flags are similar to those that we reviewed last quarter. And any necessary manager reviews will be held in the coming month or so when we engage with managers to discuss performance and any updates they have. So I will pause there. Go ahead, Robin.

MS. PELLISH: Maybe I can add a point to remind folks, Mike and I are so used to looking at this scorecard that it's obvious to us, but just to make sure everyone knows what we have done here, in the first four sets of numbers columns, one year through expected

mean net, these are excess returns. So we take the actual return of the manager after fees, after their benchmark return. So what you see here is either outperformance of the manager's specific benchmark or underperformance, and then we have the fourth column. Expected mean means expected excess return over time, and where there are green highlights, either light green or dark green, that means that the manager has outperformed significantly relative to their benchmark, relative to their benchmark and relative to our expectations, and the red or pink highlights are where they have underperformed.

So what we are trying to do is just say how has this manager done relative to the benchmark and relative to our expectations of their excess return, and then we put it in one or two standard deviations away from the expectation. So all we are trying to do is take the return numbers and put them in some sort of actionable framework because we know managers will outperform or underperform under various periods of time and a lot of it's

noise, and we are trying to highlight where it's significant deviations from expectations.

So there is only one manager that has significantly underperformed. We have talked about this. And the other managers are either within expectations or above expectations, and we also pay attention to the above expectations because what you want to make sure is that the manager hasn't changed their style is not altering the risk management process. So that's what this scorecard is intended to do. Any questions or comments on this?

MR. ADLER: Looks good. Thank you. Very helpful. I guess you guys will be engaging with Cardinal respectively?

MR. FULVIO: We can address it in executive agenda.

MS. STANG: Oh, that's right.

MR. FULVIO: Russell, did you have a question?

MR. BUCKLEY: Yes. I just wanted to quickly ask about the tracking error. I noticed some conditional formatting obviously

on the excess return. I was curious -- I see on slide 40 that the tracking error has some light blue, dark blue. Is the conditional formatting not there because they are all within expectations?

MR. FULVIO: Yes. That's exactly it.

MR. BUCKLEY: Thanks. Just wanted to confirm. And there is no conditional

formatting applied to the consistency column?
MR. FULVIO: There is not.
MR. BUCKLEY: Got it. Thank you.
MS. PELLISH: Okay. Maybe we can make move on to July, Mike.
MR. FULVIO: Great. So if everybody has that report handy, I will just make a couple of quick comments not only for July but really what we have seen in markets through the summer, and I guess the key takeaway, we have continued to see positive results for equity markets in the US and abroad as a whole over that time period, particularly in US and developed markets.
Emerging markets for the month of July lagged by about 6.7 percent or negative 6.7

percent, but we are seeing more volatility in the markets so that there is a driving factor there. Increased focus or discussion around the growing number of cases in the US related to the Delta variant increased concerns for inflation. Is that inflation here to stay, or is that more transitory? How much of that is related just to the sheer opening up of our economy and supply deficits as it relates to labor shortages and other materials? So we have seen through so far the beginning of this year the cost of materials certainly increased as well, and then also as we look at, you know, ongoing discussions at the Federal Reserve, an increased likelihood that in late 2021 they may begin tapering the monetary stimulus in the works.
So a lot of discussion in the markets and as you can see here, all told, July was a positive month for the US and developed equity markets abroad. It also did mean positive returns for the Diversified Equity Fund as a whole. So you can see at the end of July the return for the month was about 1 percent.

John, you did point out the Global Market Composite Index, which again incepted on July 1st. We did backfill the performance of that with the Russell 3000 Index which as you will note was one of two benchmarks for the Diversified Equity Fund historically. So 1.1 percent return for that market proxy. The Hybrid Benchmark which continues to represent the underlying benchmarks for each of the strategies within this fund at their target weight returned about 80 basis points.

So some modest outperformance by both the US and non-US equity composites during the month, and so far a good start from a fiscal year perspective, and you can see calendar year to date the fund has returned about 14.8 percent versus the Hybrid Benchmark at about 14.2 percent. And again that global composite benchmark as shown here, the first six months of that calendar year to date time period represents the Russell 3000, so that's why you would not expect to see, John, to your question earlier, the value add if it was the 80/20 in that prior time period.

MR. ADLER: Prior time periods are the previous benchmarks and then prospectives from July 1st will be the new global benchmark?

MR. FULVIO: That's correct. Beyond the Diversified Equity Fund, you can see the Balanced Fund for the month had a return of about 42 basis points. The International Equity Fund ahead of its benchmark returned negative .68 percent. The Sustainable Equity Fund with strong month for value add on a relative basis outperforming by about 3.3 percent had a 6.3 percent return, and the US Equity Index Fund and International Equity Index Fund returned 1.7 and negative 1.2 percent respectively.

So if there is no further questions there I will spend one moment on the preliminary monthly returns through August, which are on the benchmark report. Again, another positive month across the board with the global market composite for the Diversified Equity Fund up about 2.7 percent for the month. The Diversified Equity Fund

Hybrid Benchmark was up about 2.5 percent. We should expect to see these track relatively closely looking forward and maybe even more closely over time.

The underlying benchmark returns there, you can see the Russell 3000 Index with a return about 2.8 percent, so another strong month for August. The diversified strategy composite up about 2 percent and then the active US equity composite returning about 2.3 percent -- active US equity benchmark. My apologies. You will recall beginning July 1st that benchmark reflects the underlying manager targets. Their benchmarks held at target, and that follows the same approach as we discussed with the international composite benchmark which returned about 2 percent.

The Balanced Fund benchmark returned 70 basis points during the month, and then beyond that you can see the underlying components of the International Fund and composite benchmark developed ex-US markets up about 1.8 percent. Non-US small caps up over 2 percent and emerging markets with a strong month of about

2.6 percent. The underlying strategy for Sustainable Equity Fund was up over 4 percent also ahead of its benchmark, and then the index funds were each up 2.9 and 1.8 percent for the US and non-US funds.

Okay. Well, if there is no other questions on the reports, we will pass it back to madam chair for the next topic.

MS. PENNY: Okay, great. So next up we are going to turn it back to you. We have the educational overview of the CLO equity.

MR. FULVIO: Wes, did you want to introduce this topic?

MR. PULISIC: Yes, please. Hi, everybody. It's Wesley Pulisic here on behalf of Comptroller Stringer. I would just like to thank you for the opportunity to discuss this topic with you. CLO equity is one of the managers or strategies within the opportunistic fixed income opportunity set. Tina Suo who has just turned her camera on has been the lead on this within the alternative credit group, so I am going to hand it over to her and I think she has some slides she would

like to walk through if that's possible to share.

MS. SUO: Doesn't look like I can share now, but I believe that you do have the slides.

MS. VICKERS: Liz, is it possible possible for Tina to have shared screen privileges?

MS. SANCHEZ: Yes, I will give it to her now.

MS. SUO: By the way, there are two Tinas. I am logged on two devices. One for the camera, one for the desktop. Too many devices. Maybe you have to give me the privilege on both.

Oh, yes, I can do it. I just got it. Okay. So let's start. Good morning, everyone. My name is Tina Suo. I am a senior investment officer in the alternative credit team. I am here to give an introduction of collateralized loan obligations. It's not a new product. In fact, it has been around for many years from the late 1980s, but it has grown tremendously especially recent years

due to the wide support from institutional investors. Given this renewed attention and interest, we believe it is the right time to give an overview of this product and address some of the questions you might have which we hope would help to demystify this product.

The presentation is broken down -- can we go back to the summary page? The presentation is broken down into three sections. First of all, the definition what exactly is a CLO. Second, an overview of the current market, and finally what does it mean when we say we invest in CLO. Next page.

A CLO essentially is a securitization backed by a diversified pool of loans and financed by debt and equity. So what exactly does it mean? Basically what that means is a CLO is very similar to financing companies that borrow money from bad investors, raise equity from equity investors, and invest in a diversified pool of loans but for a finite period. So if the finance company doesn't really have a legal maturity, a CLO does.

So the chart here shows the assets and

liability side of the CLO in a typical capital structure. On the left-hand side, the assets side is a pool of 150 to 300 senior secured broadly syndicated loans, the same type of loans held by your system. On the right-hand side, the liabilities portion, there is debt and equity. Here you will see the typical capital structure. There are different tranches of debt from Triple-A to Double-B. These letters signify their seniority, meaning which ones get paid first. As the names suggest, Triple-A tranches has the highest priority in terms of payment. The loans on the assets side generate interest income, and these will go to pay the coupon on the debt tranches first based on the order of seniority. Only after the debt holder receive their coupon payment, the equity holder will receive what's left. This is commonly referred as cash flow waterfall.

Any question in here? If there is not, I will move to the current market. Next page.

So now let's look at how this market has evolved. While CLOs have been in existence

since the 1990s, their issuance wasn't really meaningful until early 2006 and really increased in the years leading up to the financial crisis. This was due to the appetite at the time for all types of securitization projects, namely CDOs. Keep in mind that during this time the majority of CDOs were backed by tranches of subprime mortgage-backed securities. CLOs were really a small portion of the CDOs issued during this period. As you see on the right-hand side, total CLOs peaked just under 300 billion precrisis. What's not shown here is that total outstanding subprime-backed CDOs was more than 1 trillion. Post-crisis subprime-backed CDOs have disappeared because of the very poor performance during the crisis. The CLOs in contrast performed very well through the crisis, and investors came back to this asset class. As a result, the market grew significantly post-crisis with strong issuance every year since 2012. Even in 2020, CLO issuance only paused in March and April, and by May it had come back. This year

global issuance continues to be strong, reflecting very robust investment for the product. Next page.

CLOs issued prior to great financial crisis are usually referred as CLO 1.0 to distinguish between the CLOs issued today, 2.0s. The reason for the distinction is because there is some key structural differences between the 1.0 and 2.0. There are lessons learned during the crisis from the subprime-related CDOs that prompted those changes. The table you see here summarizes the key differences. One, the portfolio is much more conservative. There are more restrictions. For example, there is a minimum first lien which is higher in the 2.0. Triple-A below rated assets are lower subject to a limit of 7.5 percent versus 10 to 15 percent pre-crisis. There is a much smaller bucket for high yield bonds, and there is no tranches of other structured products that can be included, essentially eliminating leverage on leverage.

Two, there are better protection of

senior debt. Senior debt nowadays is a smaller portion of the entire capital stack, meaning it's less levered so the portfolio can withstand higher loss before senior tranches is impaired. Three, there is better asset liability matching. The finances of CLOs is locked at issuance, and there is no mark-to-market triggers that will cause for selling. So CLO managers are incentivized to hold assets over the long term rather than liquidating at the lows. Next page.

Investors in CLOs have a wide range. Typically, higher rated tranches are owned by insurance companies and banks because of their yield pickup compared to other investment grade debt. Equity tranches are sometimes retained by the managers themselves or by the investors that are attracted by the higher income and higher total income protection. Those also tend to be investors that can withstand intermittent volatilities and have longer time horizons. Here on the table laid out investor types for each part of the capital structure. As you can see, pension

funds, insurance companies, these are the types of long-term holders that they invest across the capital structure. Next page.

Investing CLO debt. Now, let's look at what CLO, where CLO debt pays and compare them to with similarly rated corporate debt. The chart on the left-hand side compares a yield of a corporate bond versus a CLO tranche that had the same rating. The green bars are the differences. As you can see, at each rating the CLO tranche yields more than the corporate bond. This is due to the greater complexity of CLO debt and of course, lower liquidity.

Now, let's look at the riskiness of CLO debt. We compare the default rate and loss rate of CLO debt versus corporate bond and subprime-related CLOs. First of all, CLOs perform much better than the CDOs. Secondly, if you compare those to bonds, CLOs also have lower default rates and in turn loss rate. In fact, there was no Triple-A or Double-A rated CLO debt that has ever taken a loss including those issued prior to financial crisis. This is very remarkable. Next page.

So now let's look at the historical returns of CLO debt and equity. The table here shows the annual returns of the past few years and compares that with high yield and bonds. First of all, as you can see, CLO debt and equity tend to have extremely strong rebounds after a period of distress and this benefits investors that have longer investment horizons. The feature also makes them a very good fit for trigger-based contingent capital.

Secondly, on the right-hand side of the chart this shows that CLO debts have favorable risk/reward characteristics compared to other spread products. For example, the Double-B related CLO tranche have similar volatility as high yield bonds but higher returns for the past five years. Next slide.

Now let's look at the characteristics of the CLO equity and its historical returns. As a reminder, CLO equity is about 9 to 10 percent of the capital stack and receive residual income from the assets after debt servicing is paid on a quarterly basis. This is what we call the cash flow return. There

is no date curve here. Equity returns get paid from the very first quarter after issuance. Historically the cash flows generally by equities average about 18 percent year on year. What's notable is that even 2020 cash flows to CLO equities was 11 percent, another year of double-digit return. At the end of the CLO's life cycle, CLO equity also gets a final payment after all debt has been paid off. So there is a realized IRR for CLO equities if the CLOs have been liquidated. The available statistics is until 2014 vintage, and as you can see on the right-hand chart, median realized IRR have been 13 percent during this period. However, there are significant vintage and manager dispersions which speaks to the importance of having vintage participation and partnering with the right managers. Since both the cash flow return and residual value are very sensitive to portfolio losses, CLO managers need to actively manage the portfolio and achieve a balance between risk and spread. Next page.

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Now let's look at the assets that's backing the CLOs, basically bank loans. Post-crisis bank loans have become a large institutional asset class, exceeding 1.5 trillion globally. Today many issuers are large companies with substantial equity backing. As a result, defaulting loans have been stable and trending down. Currently, the last home defaulting loans is less than 1 percent, much lower than the long term average. Year to date only four issuers defaulted. There have also been more upgrades in loans than downgrades. During 2020 what we saw is when loan price was also impacted, the equity holders were very willing to contribute equity, therefore preventing default and losses of the loans. Finally, as mentioned earlier, CLO portfolios have certain criteria that limit the type of loan it can hold. As a result, loans held by CLOs tend to be higher quality on this broader loan market.

The graph here shows the percentage of Triple-C rated assets and default rate of CLOs and compare that to the broader loan market.

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As you can see, Triple-C rated loans and default rates are both lower than CLOs in the broader loan market, speaking to the quality of the loans held in CLO portfolios. Studies also show that CLO managers were able to add value by selling at-risk credits early. This has resulted in lower portfolio loss of CLOs compared to the broader loan market which is again favorable for CLO debt and equity investors.

This concludes our presentation of CLOs. We are available for questions both now and after the meeting. Thank you.

MS. PENNY: Okay. Thank you so much, Tina. Does anyone have any questions for Tina or Wes?

MS. PELLISH: Just to jump in here if I might. I think this was very helpful and a great presentation of what is sometimes a complex strategy. We have -- I can tell you that Rocaton clients, many of Rocaton clients are investing across the capital stack of CLOs, and the reason we thought that this made sense as an agenda item for today's meeting is that we may be bringing some investment ideas forward for the opportunistic fixed income portion of the pension plan, and we thought it might be easier to talk in general about this asset class and then at a later date talk about a specific investment opportunity.

MS. PENNY: Thank you, Robin. And still no questions? Okay. All right. Hearing none --

MR. BUCKLEY: I wouldn't mind asking a couple of quick questions. Mine may be very simple. I am just trying to make sure I am following the whole of the presentation. So Robin, you actually mentioned investing across the capital stack. That's to imply that we would, you know, invest in either senior mezzanine or equity tranches in theory? That's what investing across the capital stack means?

MS. PELLISH: Yes. That means you can choose -- depending on your risk/return objective, you choose what level of the balance sheet essentially you want to invest in.

MR. BUCKLEY: Gotcha. I don't want to get too in depth on that other than would there be situations with the same manager we would be investing in all three tranches or you can pick and choose as you go?

MS. PELLISH: Well, it's typically you would pick a strategy that's focusing on a specific part of the investment structure because you have really identified your risk tolerance and your return needs, and so you don't typically mix equity and above investment grade. That would be very unusual.

MR. BUCKLEY: Got it. Are we investing with managers who are picking the strategy and they are picking up various CLOs within that specific strategy and they would typically be focused on specific tranches?

MS. PELLISH: Yes. Typically you are saying this is what we want to get out of this investment, and therefore we are looking for a manager who has experience investing in this part of the CLO market.

MR. BUCKLEY: Got it. Thank you and I guess I wanted to be switching gears slightly, one more question. I want to make sure I was capturing all the acronyms. We were talking about CLO 1.0 and CLO 2.0 and that's helpful. There was another acronym thrown in here. It's MBS, mortgage-backed securities? Is that sort of the equivalent for CLO 1.0, or am I picking up on something different there?

MS. PELLISH: Tina, do you want to respond?

MS. SUO: Sure. Mortgage-backed securities is different. Mortgage-backed securities are backed by usually residential or commercial mortgages and there is agency and nonagency. So you know, those are not CDOs or CLOs.

MR. BUCKLEY: CDO.

MS. SUO: CDO is collateralized debt obligations. So what happens was there were during the crisis -- prior to crisis there were a lot of nonagency or what we call private label which is really a nice term for subprime. Subprime mortgage-backed securities ended up being issued, right? So the lower rated tranches of those cannot be sold. So

then they were packaged into CDOs and they were handled by the CDO desks and sold as CDO products. So those are called subprime-related CDOs. So you know, first of all, there are just a ton of subprime-backed RMBS and then there is subprime tranches backed CDOs. So combined that's why, you know, the total -- the total exposure and the size of the crisis was just really massive because you kind of combined the two, right, but really we are -- but I digress. We are really focusing on CLOs. CLOs was lumped into CDOs prior to crisis, right, but CDOs really depend on what the collateral that's backing the CDO structure. So if you look, CDOs used to be only backed by loans and bonds, and later on prior to crisis people introduced CDOs that are backed by subprime mortgage-backed securities or tranches, lower rated tranches of the subprime RMBS. So those CDOs were the ones that had problems and severe losses.

MR. BUCKLEY: CDOs. They are not CLOs. Is what you are saying? They are a subset of

CLOs?

MS. SUO: Okay. So CLOs is a subset of

CDOs. CDOs just mean collateralized debt obligation. The debt can be all kinds of debt. It used to be that it's only high yield bonds and loans. Later on prior to crisis, the debt backing the CDOs became tranches of subprime RMBS. So the debt could be other products: Consumer loans, auto credit, and student loans. Things like that. So it's really those. When you look at CDOs, you have to separate into the collateral type. The type of CDOs that are backed by subprime-related products were the ones that defaulted and had severe losses and they never came back. There is none basically. Subprime but nonQM products do exist but there is no CDOs backed by those products anymore.

MR. BUCKLEY: Thank you, Tina. I appreciate the lengthy discussion. I want to make sure I got my acronyms correct there and understood what we are talking about. So I will take a step back if there are any other questions.

MS. PENNY: Okay. Hearing none --

MS. GREEN-GILES: Sorry. I have a quick question. Still trying to process. It's Natalie, and this sounds incredibly naive probably, but everything you are describing sounds relatively lower risk, higher quality, and I am wondering why is this considered part of the alternative space because it sounds not in that typical profile.

MS. SUO: You know, I think -- first of all, CLOs is a securitization product. There is great complexity of the product. There is -- you know, there is -- in order to buy it or assess, you know, typically people look through the underlying loans and here the underlying loans is between 150 to 200 across, you know, basically all industries, right? So in order for investors to kind of purchase, you know, they need -- there is great analytical ability or analytical platform that's typically required.

Secondly, it is -- it has lower liquidity. A lot of these tranches don't trade. They don't -- you know, they are

bought and held by banks and insurance companies and pension funds. So typically there is issue of sourcing those assets. And from there they are not really held by major bonds. In fact, I will say any product that have daily liquidity needs is not a good fit for holding these products simply because you can -- first of all, it's hard to buy. Secondly, it's -- you know, if there is daily liquidity needs they are -- you know, when we are forced to sell, there may not be a market. So mutual funds typically are not a natural buyer of these products and managers that have expertise in these products. There is a limited number of counterparties that regularly trade and they get color from who might be a seller. So it's essentially a very -- I wouldn't say completely private, but a lot of bilateral transactions.

MR. PULISIC: Natalie, just to add to that. By the way, that's a great question. Because the higher tranche stuff, the Triple-A tranches within CLO, those are investment grade. Those don't meet the return targets

for your opportunistic credit program. That's why we look at the lower rated stuff that had a higher return target with better risk profile relative to other things in the market. That's where that would be more appropriate for your return targets. So you are right. The Triple-A stuff are purchased by insurance companies, and I mean, we haven't had the discussion but there could be a place for that exposure within Teachers but that doesn't meet the return target for OFI. So we look at the lower rated stuff for that return profile.

MS. GREEN-GILES: Thank you. That is extremely helpful.

MR. PULISIC: But you picked up on it so I appreciate that. Thank you.

MS. PENNY: Okay. Any other questions? All right. So Tina and Wes, thank you again and now it's time for executive. Do I hear a motion to go into executive session?

MR. BROWN: So moved.

MS. PENNY: Thank you, Mr. Brown. So do I hear a second?

MS. VICKERS: Second.

MS. PENNY: Thank you, Susannah. Any questions? All those in favor, please say aye. Aye.

MR. BROWN: Aye.

MR. KAZANSKY: Aye.

MR. BUCKLEY: Aye.
MS. GREEN-GILES: Aye.
MR. ADLER: Aye.
MS. VICKERS: Aye.
MS. PENNY: Any opposed? Any abstentions. Okay. Going into executive session.
(Discussion off the record.)
MS. PENNY: I'm sorry. We are back into public session. Ms. Stang, will you read out, please?
MS. STANG: Certainly. In executive session we received an update on the implementation of an investment initiative within the pension fund. We received a presentation on the allocation of a composite within variable A. Consensus was reached,

which will be announced at the appropriate time. We received a presentation on the implementation of a policy within the pension and variable funds. Consensus as to a path forward was reached.
MS. PENNY: Thank you very much. Okay. Anything else? Okay. Hearing none, do I hear a motion to adjourn?
MR. BROWN: So moved.
MS. PENNY: Thank you, Mr. Brown. Do I hear a second?
MS. VICKERS: Second.
MR. BUCKLEY: Second.
MS. PENNY: Thank you, Susannah and Russell both to save time. All those in favor, please say aye. Aye.
MR. BROWN: Aye.
MR. KAZANSKY: Aye.
MR. BUCKLEY: Aye.
MS. GREEN-GILES: Aye.
MR. ADLER: Aye.
MS. VICKERS: Aye.
MS. PENNY: Any opposed? Any

abstentions? Okay. We stand adjourned. See you on Friday at the CIM.
(Time noted 12:26 p.m.)

C E R T I F I C A T E

STATE OF NEW YORK)
: ss.
COUNTY OF QUEENS)

I, YAFFA KAPLAN, a Notary Public within and for the State of New York, do hereby certify that the foregoing record of proceedings is a full and correct transcript of the stenographic notes taken by me therein.

IN WITNESS WHEREOF, I have hereunto set my hand this 23rd day of September, 2021.

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YAFFA KAPLAN