SPOTLIGHT ON:
TREASURY MARKET CENTRAL CLEARING EXPANSION

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Brian Ruane: Good morning, good afternoon, and good evening. Firstly, for those of you that don't know, my name is Brian Ruane, and I'm the Global Head of Clearance and Collateral Management here at BNY Mellon.

Thank you for joining us today for the panel discussion where we're going to focus on the SEC’s recently announced expansion of central clearing for the U.S. Treasury market — a rule that will have profound implications on how the U.S. Treasury market operates. Our objective today is to inform educate our audience, and we'll cover the specifics of the final rule, its markets impact, as well as how market participants should be preparing.

Today's session is a follow on from the webinar that we hosted in November, on the Treasury market, we covered the proposed central clearing rule then and today we'll describe the final rule more completely. We'll get into specifics, but the final rule adopted in December by the SEC, really is quite significant. It will result in the majority of U.S. Treasury market trades being centrally cleared, virtually all repo transactions and interdealer cash market trades — that's roughly $3 trillion and daily transaction activity. The industry has two years to get this done for cash trades, and two and a half years for repo, given the size of this left all that time will be needed.

So let's jump right into the panel. I'd like to introduce my excellent panel today there are a number of subject matter experts here to discuss the changes in more detail and what it means for the market and many of you on the line today. So firstly, we have Jason Granet, our Chief Investment Officer, then we have Laide Majiyagbe who heads financing liquidity and markets businesses. Eric Badger, who is Global Head of Sales and Relationship Management for our Clearance and Collateral Management business and Nate Wuerffel our Head of Market Structure here at BNY Mellon.

Before I begin, I'd like to note just a quick few housekeeping items. We're going to record today's webinar and we'll make it available as soon as we can. We'll be reserving time at the end of the panel to field questions that are submitted by you the attendees., If you'd like to submit a question, there's a Q&A chat box function, which can be found at the bottom right hand of your screen. Type in your question and hit submit, you will only see the question that you've asked. We'll do our best to address all the questions before we hit the full hour. Okay with that, we'll start, and I'm going to start by firstly, addressing this to Jason. So Jason, perhaps you could help us to set the context for what we're going to be talking about today?

We're here to talk about central clearing of US Treasurys. This is a big change for market structure, but this is not the only thing that's happening in the US Treasury market and rates markets at the moment. Let me start. Let's talk about the size of
the Treasury market. The market has grown rapidly and is approaching twenty-seven trillion. This seems set to continue what should we expect in terms of supply?

**Jason Granet:** Good morning Brian. Good afternoon, good evening to any of those listening. And thanks for having me always great to be here and hope everyone’s having a great start to 2024 as well, happy and healthy to everybody.

As Brian mentioned we’re sitting at a Treasury market at twenty-seven trillion. I remember when ten trillion was an ‘Oh my God’ number and now we’re here with twenty-seven and then if you read some of the more recent prognostications coming out of the CBO and others we’re looking at something in the mid-forties trillions, you know, within the next decade.

So not only have we had tremendous amount of growth, but it’s expected to continue to happen and as we have this conversation, we’re on the precipice of a lot of discussions in Washington on what the budget and the numbers look like, but I think it’s fair to say the direction of travel over time is for bigger and more.

And then locally, we’re having more as well. Last year, especially after the debt ceiling cleared over the summer was seen as a very heavy supply year in the back end of the year, and this year, if you look at it in kind of interest rate risk measures, the amount of coupon issuance in the Treasury market is somewhere between 30% – 50% more than we got last year, so there’s going to be a lot of digestion that needs to happen last year. There was a heavy leaning into T-bills, you see the percentage of t-bills in the market is tending towards the higher end of the range over historical time period.

And the Treasury has told us that they’re going to slowly migrate that into more coupon issues, longer tenors, et cetera. So there’s a lot of dynamics just happening in the shape and the way in which the treasurer issuing at a time when you have this a lot of growth, so I know we’re here to talk about the market structure. That’s a kind of on top. That’s the cherry on top – but there’s a lot happening just from the volume of market.

**Brian Ruane:** Are there any other key variables that you say we should be looking at with respect to rates and the funding markets, Jason?

**Jason Granet:** Yeah, well look it’s hard to talk about the Treasury market. You use the words repo- changing, cash markets changing, without looking at kind of the bigger, broader cross currents and interest rate markets and treasuries are kind of the place that people call home when thinking about interest rates and so, you know, let’s talk about a few things and here as we talk, I think it’s a few minutes after the inflation report came out and everyone is talking about “has the Fed policy crested?,” “are we done with this cycle?”

We’re in the mid-fives, you know, most people listening to this probably lived the bulk of their career with something like zero interest rates. We had a big change over the last few years. Are we there? Does the Fed have everything in control? What’s the next step? There’s been a lot of discussion recently on the balance sheet of the Fed. We went through two big bouts of QE over the last fifteen or so years now people, we’ve been through a very significant shrinkage of the Fed balance sheet or QT as it’s colloquially called and there’s debates has been recent speeches, market commentary from, from Fed presidents that possibly were coming to an end to that, and we saw some funding pressures at the end of the year, right after Thanksgiving at the end of November. So the market is definitely changing, You have this intersection of the supply and Fed policy coming together and then by the way, not only is it a leap year and an Olympic year, but it’s also an election year, so things are going to change. You might get new cast of characters making this decision, you know, you say we have a two- to-and-a-half-year implementation period. Things could change with policy makers and rules. We have regulation that’s coming through. So there’s a very significant amount of crosscurrents that are happening with interest rates. The Fed direction of policy regulation and then we’re talking about the biggest market structure change to a very, large, globally important market, you know, it’s going to be a lot for people to process over the coming months and years.

**Laide Majiyagbe:** Just something to add if I may. Statement dates, just in Brian’s question about what are the things to keep watching, I think keeping a close eye on key statement dates like year-end, month-end, quarter-end, and big liquidity outflow days. I think it’s going to be very important this year when we look at the year-end dynamics. Last Christmas or going into the end of the year, there’s the normal broker-dealer year-end constraints that leads to less participants, but the volume of issuance coupled with money farms extending their maturities and so less liquidity in the funding market. We saw spreads triple over a short period of time, they’ve since normalized. Now, I will say, and that’s what we’re here to talk
about. Being able to clear some of those trades I think enabled the market to have some outlet for some of those pressures, but I think looking at that over the course of this year, is at least something that I’m keeping a really close eye on. Statement dates may continue to be pressured, especially if QT continues at the current pace.

Nate Wuerffel: Both of you mentioned QT and I think that is a great point to make, and it’s a key watch point also for how the Federal Reserve will manage that process. Obviously we all remember — I remember particularly well because I was at the New York Fed at the time — but September of 2019 was this moment in time when repo rates suddenly spiked because it was going through the first round of QT and so how the Fed manages that process will be really important and what’s interesting is that it’s this intersection of policy and rates, but also it has to do with supply, right?

So as the Fed is rolling its balance sheet off, about a trillion more in supply per year, comes into the private sector and so when the Fed begins to slow QT and eventually stop QT is an important watch point, I think for all of us.

Jason Granet: And people have scars from last spring.

Nate Wuerffel: Yes, absolutely.

Jason Granet: There’s a few, there’s a few open wounds still to heal on these things.

Brian Ruane: That’s right, okay, maybe we’ll move on now to actually central clearing. So we’ll start with you Nate. We’ve all been talking about resiliency of the Treasury market for a number of years. The SEC rule is arguably the most significant of the reforms, the official sector’s advanced. Do you agree? And maybe you talk about that for a few minutes.

Nate Wuerffel: I do agree, and I think this will be a pretty significant change to the Treasury market structure in coming years. The SEC’s rule on central clearing is really the product of a broader interagency effort to improve the resiliency of the Treasury market.

We talked, at our last webinar, and so if you want a little bit more detail on this, you can go back to that webinar recording, but let me just hit some of the highlights this, you know, this effort comes out of the interagency working group.

That’s comprised of the Treasury, the SEC, the CFTC, the New York Fed, and the Federal Reserve Board. Those five agencies work together to help coordinate their activity in the Treasury market and following the pandemic, they laid out a plan of five work streams that they wanted to pursue to make the Treasury market more resilient.

You can see those five on the screen here: market intermediation; resilience; improving data quality and availability; expanding central clearing, which we’ll talk about today, enhancing trading venue transparency and oversight, and then leverage and fund liquidity risk management practices. So, a pretty big slate of reforms, the IEWG put out a report just in November of last year, giving an update across all of these five.

So what about central clearing? The SEC adopted it in December of 2023. And when they adopted it, they also explained both in the proposal in September of 2022 and in the final rule, why they chose to pursue central clearing. They really highlighted two key issues with the market as it exists today.

So in the Treasury market, many people assume a Treasury instrument, it is a risk-free instrument, it settles on a very short-term basis, but the SEC highlights work that was done by the Treasury market practices group that examines the risks associated with settling a Treasury trade.

And in that trade, what they found was some inconsistent risk management practices, even though it settles on a T1 basis, you still have to rely on your counterparty to deliver either a security or cash on the moment of settlement. When there’s times of stress you get worried about that counterparty exposure, and in fact, you might pull back from those counterparties and those times and in the pandemic, there were some signs that this was starting to happen before the Federal Reserve intervened.

So the SEC highlighted these risk management practices, and they highlight that the CCP’s centrally cleared trades tend to have more risk management practices than not centrally cleared trades and they also point out that in the Treasury market, there’s actually a shrinking number of centrally cleared trades in the cash market where there’s just 13% of the market that was fully centrally cleared and because there’s such a large non-centrally cleared component of the market that actually
can compose some risk to the CCP itself. So if you have a problem in the non-centrally cleared part, the SEC highlights this risk of contagion to the central counterparty.

Three sources of risk, they highlight: one in the interdealer cash markets where it used to be the case that inner dealer markets were FICC members, central clearing members trading with each other, but today about 60% of the volume or so is done by non-FICC members and principal trading firms in particular. Second leverage trade, so they are squarely focused on concerns about the risks around leverage. That leverage, for example, hedge fund financing transactions that when those unwind, they can have these spillover effects. Then the third risk that they highlight is in bilateral repo where there can be bilateral repo transactions that have very low or zero margins, so they highlight that as well.

And they highlight three areas where CCPs can help manage those risks. First of all, CCPs have default management processes that are an orderly way to handle a default of a member. They require margin be posted by the members for their transactions, and they also have liquidity resources that can be drawn upon, in the event that there’s a default. So that’s sort of their rationale for central clearing.

So what’s in the final rule? So the SEC required in the final rule that they adopted in December that clearing agencies, covered clearing agencies — there’s currently one in the Treasury market, the Fixed Income Clearing Corporation — that those clearing agencies provide central counterparty services for treasuries and that they require that their direct members submit into central clearing, eligible secondary market transactions. Eligible market transactions is the key thing here, and I’ll talk about that next. They also have some requirements that Treasury CCPs separate client margin from house margin, which is something that is not done today. So that’ll be separated under, under the rule, which allows the collection of client margin and that they also facilitate means for non-members to be able to centrally clear their trades. So what are the eligible transactions that need to be cleared?

First of all, all repurchase and reverse repurchase, so basically all of the repo market needs to be centrally cleared. If a member of a CCP is conducting a repo transaction, that must be centrally cleared. In the cash market, purchase and sale transactions by CCP members must be cleared if they’re acting as an interdealer-broker, so interdealer-broker platforms typically operated by a CCP member have to centrally clear those trades, whether those transactions today are being done by FICC members or non-FICC members, non-CCP members.

And then lastly, any purchase and sale transaction between CCP participant and a registered broker-dealer, a government security dealer or government securities broker — so basically trades between dealers or brokers. There are some exemptions in the rule, so it does not include repos or purchase and sale transactions where you have central banks, where you have sovereign entities, like, let’s say the IMF or an international financial institution — so there’s a laundry list of these in the final rule — or a natural person. There are also some specific exemptions around state and local government repo transactions that have been included.

So the final rule does have some changes from what was proposed in September of 2022, and I wanted to highlight some of those. These are pretty notable issues, one is first of all the implementation timeline is now known and I think we were pleasantly surprised. I think many market participants were pleasantly surprised that the implementation timeline gives a little more time than people were expecting to get this done. CCPS will need to make changes to their models and their risk management and their access by March 30, 2025, but then importantly everyone else all these transactions that need to be cleared cash market transactions in two years, by the end of 2025, need to be centrally cleared and then repo transactions by mid-2026, so the end of June of 2026. So roughly two years for cash, two and a half years for repo.

There are some changes that have been made to the final rule that narrowed the scope of the rule. Let me mention three of them. First of all, in the proposed rule, in the original proposal in September of 2022, all hedge fund transactions in the cash market purchase and sale transactions between a dealer and a hedge fund, CCP member and a hedge fund needed to be centrally cleared. That’s no longer in scope; that was removed from the scope of the final rule and when you read the language there, the SEC talks about taking an incremental approach to central clearing and that this, for that reason these hedge fund transactions don’t need to be in scope in the final rule. I would note though that the all repo transactions have to be centrally cleared, and so, of course, hedge funds often use repo markets as well, and so to the degree that they are, those transactions would have to be centrally cleared under the final rule. There’s also some pending separate rules related to the definition of broker-dealers and currently in that proposed broker-dealer definition rule, hedge funds would be
required to become broker dealers if they meet certain quantity thresholds in terms of their trading activity. And if that were the case, if that were finalized as it's been proposed, then they would become broker-dealers and therefore would have to essentially clear their transactions, so this is a key watch point, that other rule about the definition of broker dealers, so keep an eye on that. Interaffiliate repo transactions — so a number of global firms use interaffiliate transactions to move liquidity across their legal entities to manage liquidity, to manage where they place it, manage time with day issues. The SEC was responsive to comments in the comment letter period that highlighted that it was important for this liquidity management to be conducted. However, the SEC did not want there to be an endrun of their rule by conducting a whole bunch of repo activity through a non-CCP member affiliate. So what they did is, they said you can exempt these inner affiliate transactions, however, your non-CCP affiliate if they are doing external repo that has to be centrally cleared.

Finally the state and local government repo, there's an exemption for state and local governments conducting repos. So if you're a state and local government, you enter into repo transactions that could be exempt, however, it does not apply to pensions for state or local governments. There is one part of the rule that does seem broader. In the discussion of triparty collateral transactions, it talks about mixed triparty transactions. We think of that as general collateral trades, and so if in a general collateral trade, a Treasury security is allocated as collateral at the outset of the transaction, then it must be centrally cleared.

You should read this section yourself because dealers and money funds, anybody you know, operating in the triparty market, will need to look at this part of the rule. It appears to suggest that if you conducted an agency GC trade where you could put in agency MBS, if you allocated Treasury security to that, which many transactions do that, that would need to be centrally cleared, so it's important to take a look at this portion of the rule. Finally, just a word on minimum margins and haircuts; there's been this discussion in the, in the ether about having minimum margins or haircut requirements, in addition to this central clearing rule or maybe in lieu of it. There is no mention of that in the final rule and it wasn't going to be in the final rule. There is a requirement that FICC members or CCP members, of course they've got to post margin for their transactions to the central counterparty, but it doesn't necessarily mean that the CCP members have to collect that margin from their clients. So that's still a discussion between clients and their CCP members. However, my best guess is that official sector may continue to pursue these minimum haircuts through other means. That could be through margin rules that promulgates are best practices or other means Basel III. So I do think that this is something to also keep an eye on.

**Jason Granet:** I just don't think the last sentence has been written.

**Nate Wuerffel:** Yeah the last word is not there, I don't think we're there yet. I'm just going to cover a couple more slides and then I'll hand it back to Brian, but I just want to highlight the impact on the Treasury and the cash repo markets. This is really, this is why we talk about how significant this is in the cash market, $700 billion a day in average volumes, about half of that is dealer to customer, half of that is interdealer-broker markets so that IDB part is going to be centrally cleared. In the repo market it’s four and a half trillion market that doesn't include the overnight reverse repo facility that the Fed is running, that’s an additional $700 billion, but in the repo markets, the uncleared market alone is $2 trillion of repo and reverse repo. In the triparty market, much of which is not centrally cleared, even though it's on the triparty platform is 674 or plus. So when you add those gray bars up, that's, you know, well, over three trillion that's the number of Brian had mentioned, so a very significant amount of activity has to find its way into central clearing.

How can you prepare for that? So first of all, as we were talking about, you need to assess your eligible transactions, what things are required under the rule you need to think about access models and we're going to talk about that in just a minute. How do you actually get your trade cleared whether you're an FICC member or indirect non-member you need to be prepared to manage the risk of those transactions that's going to be requiring margin to be posted by FICC members, liquidity commitments and we suspect collateral management needs are going to grow. Finally you need a change management program because this is really significant from technology operational changes, onboarding and importantly legal documentation — that's one of the big lifts for central clearing.

I think really it’s going to reassemble the functioning of the Treasury market when this is all said and done. So two and a half years from now, maybe three, four years from now I think what we're going to see is a different world with respect to the Treasury market. I do think counterparty risk will be lower in times of stress and that should make the markets more resilient in those times of stress, but the trade off of is that spreads in liquidity, you're going to have, you know, you're
going to have slightly higher yields, wider bid ask spreads, wider spreads in terms of low margin, high volume trades or between on and off the run transactions because transaction costs are going to be higher. Balance sheet capacity might be a little bit better because central clearing takes some of that off your balance sheets, so we do think it will really reassemble the way the market functions. So pretty significant changes.

**Brian Ruane:** That’s great. Maybe we’ll move, Laide, to talk a little bit about the practicalities of the rules. So with the rule, now final, we all need to start planning for how this is going to be implemented the FICC, the Fixed Income Clearing Corporation — currently the sole counterparty — has a number of different ways to centrally clear trades, including direct membership, but there are a lot of firms many on this webinar who are not going to be direct members and need to figure out how to get their trades cleared. Laide, can you give us an overview? How central clearing can be done and how we can help with that?

**Laide Majiyagbe:** Thanks, Brian. So the slide we have on the screen is specifically relating to the FICC sponsored member program, it's the most widely used. BNY Mellon is a large sponsor in the market today, so we’ll focus on that in detail, but before I do that, Brian to your point, I’ll go back a little bit and talk about what models are available to non-direct members.

The FICC’s website does have some details around all the models. We're going to spend a lot more time on the sponsorship, but let me just do basic background refreshers. As a non-member, there are probably four ways or four models the FICC has available like I said, the sponsored member is one of them and the most widely used. I won’t go into the details on all of them just yet, but that's the kind of main one.

In terms of the sponsored member program itself, there's kind of two things to ask yourself: one is who can be a sponsor, who can sponsor you? And it's any direct member of the FICC except interdealer-brokers. BNY Mellon is a sponsor today and we sponsor in size already. Then who can be sponsored? Any eligible buyer or I guess as the FICC says — a qualified institutional buyer. I will clarify that the FICC may change or expand that definition in line with the mandatory clearing rules because as it stands, it's any qualified buyer within FICC approved jurisdictions. That's important because over the years, a lot of the sponsors have worked very closely with their FICC, I would say the jurisdictional eligibility today is quite broad, but there could be one or two jurisdictions that may or may not be eligible.

Let's get into the sponsored membership, what is the sponsored membership program? At a high level it is a model within the FICC that enables a non-member to become a sponsored member of the FICC. So what do you get by being a sponsored member of the FICC? You can participate in clearance like direct members, but you don't have the burden of all the other contributions that direct members have to make, like margin and trade settlements are done by the sponsor on your behalf. Any back and forth in terms of margin calls goes directly to the direct member instead of you — so it’s very efficient — which is why it’s the mostly used. There’s about a trillion at the recent print that we looked at of repo going through the member program today.

How do you participate? I’m going to go back to something Nate said, and I want to just re-emphasize it. The participation and the time to get into the SMP program, there’s a few legal documentations that have to go on between the FICC, the sponsor and the sponsored. That takes a while; it’s anything between six to twelve months of legal negotiation and so to our points earlier, Nate's point and I think we made it as well in the other webinar, preparation is key. Starting to get your head around which model do you want to use to access? What legal documentation is required? Even though there is a long implementation timeline, these things take longer than we think, and so we really recommend, you start to reach out to us or to whomever you are thinking about in terms of sponsoring. Once the legal documentation is in place, then the process or how it actually works is the direct member — I’m going to use BNY Mellon as an example in the space — will enter into a repo transaction with its sponsored member and those transactions then onward get novated to the FICC where the FICC then replaces the sponsor and faces the sponsored member directly and hence the clearance. That’s it in a nutshell.

Brian, in terms of what the program entails, like I said earlier, it’s important to highlight, the margin requirements between the repo counterpart and its sponsor, it’s not mandated by the FICC, but then the sponsor takes on the default fund contribution, any liquidity contributions required by the FICC, all of the settlements and trade confirmations are done with the FICC by the sponsor. I’m going to pause there. I think that’s it in a nutshell.
Brian Ruane: So Eric Badger, you’re out talking to many of the clients that have joined us today. In the clearing and collateral management business, we serve as the primary settlement venue for government security transactions, including those that are centrally cleared by FICC. We also help market participants manage the collateral for repo transactions on our triparty and repo settlement platform. How is this going to work with central clearing? What kind of conversations are you having?

Eric Badger: Thanks Brian, and great to be part of this panel. Hello to all the clients out there. So today we are offering our institutional clients a range of settlement services to support trading and financing activity both from the bank and international markets, importantly for U.S. Treasurys, but also from our Pershing broker-dealer platform and we’re to continue to provide those clearance and settlement services after the central clearing mandate is live.

Now, a little more specifically, I would highlight that we support FICC and their members for a number of government security settlement services again, for trading and for Treasury repo - a bit about what we've talked about today. And this includes auctions, Jason, you mentioned the coming supply dynamics for daily cash trading and also on the financing side GCF important part of the market. Laide alluded to FICC’s Financing Services CCIT is another one I’d highlight along with SMP, as well as the sponsored GC service. Over the past year we’ve supported growth across the most popular access services, SMP certainly very popular, but also the sponsor GC service.

I’m expecting to see growth in particular for sponsored GC over the course of the next 2+ years because of the mandate obviously, but also because of the operational efficiencies that it offers. It’s important to note that sponsored GC settles via triparty and follows the same operational and onboarding process that triparty repo trading does today. So in this way, it allows clients to transact in the CCP the way they do via a traditional triparty. Maybe one way to think about that would be that it offers all of the benefits of triparty, plus all of the benefits of clearing.

As I mentioned, the onboarding steps are straightforward, obviously we’ve talked about this, there are FICC onboarding requirements that need to be considered in parallel. As an aside, the FICC has done an excellent job of engaging with the industry and pushing a lot of information out there, so there is a lot of that available and I think they will continue to do so. We are working closely with them, but for our side, the process for onboarding is very straightforward for sponsored GC, you need to execute an annex agreement to the triparty docs. It’s not a heavy lift, it’s only a few pages long. You need to complete a new collateral schedule or Schedule 1, and then we will open new triparty accounts based on those completed docs.

Also on the operational side, very straightforward process that follows the traditional triparty repo activity, the trade is matched by both parties: the sponsoring and the sponsored member. Cash and collateral are exchanged once complete, and the details are sent to FICC who completes the novation process.

So Brian, in summary, BNY Mellon will continue to play an important role for clients as a settlement bank, and we’re working closely with FICC and the industry on the clearing mandate and specifically to support repo.

Jason Granet: I know we’re going to take some questions from the audience, but I just want to highlight, you know, Laide laid out a lot of documentation and things, we had some more highlighted here. I would say, like, you know, we’re pretty much ready to go across the board. I know it sounds like there’s a lot of boxes and arrows in these things, but for us, this is kind of, you know, who we are and what we do, and so, you know, on top of the things that were said, I think it’s pretty easy and we have the stuff ready to go. I think that’s part of the message that we want to send here today as well.

Laide Majiyagbe: Right, and I think there’s a few, as we said, we’re already actively sponsoring today.

It’s not new, the documentations that we’re highlighting is the processes that will enable a new participant to be sponsored. So we’re ready, we’re big in the markets today. We’re about 25% of the sponsored market today. It’s just the timeline to establish a new sponsored relationship, especially if you think about the multiple relationships you may want to establish, it’s better to kind of get on it ASAP.

Eric Badger: That’s a perfect point. We’re doing it today and ready to do more.
Laide Majiyagbe: That's right.

Nate Wuerffel: You mentioned the FICC’s materials, I just wanted to mention the website that they have because it is chock full of information on this point, but UST clearing dot com. So if you want to go to that website, you’ll find a lot of material from FICC on central clearing, its implications, and a lot of the details around these models as well.

Jason Granet: I heard that website was trending on socials.

Brian Ruane: So thank you to panelist. It was great panel. We are developing a guide which will keep in touch with clients on which will actually, as you said Jason, simplify really all that we just took you through.

Now we’re going to go to the questions that have submitted. So John Morik will read out the questions.

John Morik: We have several questions. First one is related to, Nate you touched on this, maybe you can help clarify here will there, would we expect any clarification on those mixed trades? The specific question was about, if I do an equity trade and I have some UST (U.S. Treasurys) to fill that trade, what happens in that instance, what's your expectation there?

Nate Wuerffel: Yeah, that's a great question, and a good opportunity to clarify here. So one of the things that the final rule says is that the, that the rule applies to existing products cleared by the covered clearing agency FICC and it doesn’t require the central counterparty to expand the number of products that it currently clears. So for example, if you entered into a non-traditional repo, let's say it had equities as collateral that was provided, that is not a transaction that can be cleared by the FICC today. So it’s not going to be subject to the mandatory clearing requirement, even if you allocated Treasury Securities as collateral into that transaction because it can't be cleared by FICC. Now FICC does clear agency repo GC repo trades. So an agency shell in which the schedule allows for Treasury security and if you allocate it a Treasury security, our reading of the rules that, that would be an eligible transaction that need to be centrally cleared. There is quite a bit of agency repo that is done on our platform about a trillion dollars of that, so with quite a bit of activity that would need to be centrally cleared under this interpretation. But again, if you're doing something in a transaction type, that's not a product that FICC clears today, it can't be subject to the rule because it can't be cleared by them.

John Morik: Okay, another follow up and Laide and Eric, you touched on this as far as the implementation timelines are concerned, are there any industry efforts ongoing to maybe harmonize or standardize some of the documentation and what's typical? I think you may have said this Laide, but maybe again, a question came across on the time horizon for a sponsor with a sponsored member? What does that timeline look like?

Laide Majiyagbe: Thanks John, I’ll start with the question about industry efforts. There’s a lot of discussion in the industry about it. SIFMA has just started the innings of a working group to hopefully simplify and standardize one of the most heavily negotiated documents that is required to establish relationship with a sponsor.

There’s about four documents that need to be in place and I said, the customer agreement is the one that is most heavily negotiated. There's work that hopefully will simplify and streamline that, so preparedness is key, starting early. I think it's going to take a lot of legal resources across the whole street to get this over the line.

Eric Badger: Yeah, I would just add, I think that's exactly right. It is a heavy lift from a legal perspective, once docked though...

Laide Majiyagbe: The rest is easy. Correct, that’s right.

John Morik: For further clarity, Nate, you touched on the asset types, associated just now. Some questions we're getting are around trade types, open trades, intraday, repo, et cetera. What's the clarity around that?

Nate Wuerffel: Sure, yeah, and I would, you know, so some of this is going to be important for FICC to clarify, right? So we don’t, we don't determine that here. In fact, market participants need to carefully look at the rules and interpret what eligible transactions are, especially FICC members and FICC itself will presumably have some guidance on this. But again, I would go back to that if you look at the very beginning portion of the rule of the final rule, it very explicitly, says that the rule applies to products that are currently cleared by the covered clearing agencies and it does not compel the covered clearing agency to expand the list of products. Now it could be the case that FICC expands the list of products that it clears over time, presumably it would do that through a transparent process. It is required, I should say, under the rule to update
its rule book for models, for risk management purposes, for segregation of customer margin accounts. Sixty days following
the publication of the rule and the Federal register, the rule has not yet been published in the Federal register. That’s when
it becomes ‘final’ final.

Right now, the SEC’s put it out, but it’ll become published in the Federal register and then sixty days later, FICC has to
promulgate its proposed rule book changes, so it’ll be key to watch for that Federal registered date, and then also for the
FICC’s new information. As of right now though, some of the transaction types that you mentioned, John, they’re not
currently cleared by the FICC and so if that’s the case, then it would not be mandated under the rule.

Jason Granet: Just so I understand that myself, is it — because I think this is a nuance point that I think would be valuable
for everyone — is the product the Treasury or is the product the trade type or both?

Nate Wuerffel: Yeah, well I mean it needs to be a Treasury security in the first instance, either cash purchase or sale or
repo, but then it really needs to go down to what is it that FICC centrally clears, what product do they clear? And so they
have different products.

Jason Granet: The product is in your story here is the trade type and I think that’s an important thing for people to
understand because, you know, when it comes to the trade types that people are engaging who you are, where you’re
domiciled, maybe you have multiple entities that are transacting in different places, that links then back to the
documentation that’s in place. Just to kind of drive home Laide’s point, understanding this earlier depending on who you
are and how complicated this is for you so you understand the matrix of intersections that could happen for you.

That to me, that’s the big takeaway here is that people hear ‘oh Treasury clearing, oh I traded a Treasury.’ Well now it’s a
Treasury inside an agency repo trade, this product type, there’s some nuances, people need to understand what they’re
doing the intersection of their jurisdiction and their legal ramifications of that, and then what FICC does or doesn’t do and
putting those pieces of the puzzle together. I just want to make sure that people see that.

Laide Majiyagbe: If we add on just on the jurisdiction point, the reason I highlighted it earlier to Nate's point is, it’s what the
FICC can do. So are you in a jurisdiction that isn’t currently eligible all those questions need to be answered and Brian
mentioned it, I want to echo it as well. We’re working on a guide for clients so that we can help, to the extent possible, in
just helping navigate how you think through all these things. Some of that is then figuring out what you might need. We’re
here to help our RMs (Relationship Managers) are here to help you think through that and talk you through it, but just
starting to understand what it means for you. I think is super important.

Jason Granet: And I’ll put my market practitioner hat on, as these things go through pockets of liquidity and the market are
going to feel more comfortable in different places. If you have eight places that are required to go in and two places that
aren’t, you might want to bring all ten in because that’s where the liquidity might be, even if those two, if there’s something
in the exceptions and the rules that make it not how you trade, what you trade, and your ability to get the best execution in
the marketplace, it might be to bring everything in. I think that there's going to be some considerations on that also.

Nate Wuerffel: I would think of this is like liquidity begets liquidity, right? Like the more liquidity, there is the more liquidity
there is.

Jason Granet: Quite frankly I think that’s one of the goals here, right? We talked about the growing market we talked
about, you mentioned off the run or different things. The hallmark of the Treasury market is its liquidity, its global presence.
So many of these different things, a big part of the agenda of the agencies that you laid out the official secretary agencies is
to protect that and maintain that, so my personal view is that the liquidity is going to grow and it's going to, and it's going to
concentrate so market participants who might be on the fringes might find a reason not to do this. I think that they're going
to want to get educated because that’s all liquidity is going to be, and you’re going to want to be a part of that game.

Nate Wuerffel: You hear this all often, and I’ve heard this from our good friend Daryl Duffy, hopefully who’s online, when
markets go through central clearing, they have tended in the past to actually grow in terms of liquidity and so it’ll be very
interesting to see how this plays out in the Treasury market.

Laide Majiyagbe: That's right.
Brian Ruane: I think that's it. We're coming towards the end of the time allotted, so I'd like to thank the panel for an excellent discussion today and for our audience for listening and the thoughtful questions. The Treasury market is central to what we do here at BNY Mellon as it is for all of you, we look forward to engaging with you on all of these changes ahead and guiding you through this period.

We will later this month be in-person doing something similar with clients in Tokyo. And we're planning events in Paris and in London. So hopefully we'll be seeing some of you if people would like us to come visit them at their offices to talk through this anymore detail, we're happy to do that. Please go through your Relationship Manager and we look forward to working with you really over the coming two years on this change, that's about to start. So thank you all for joining us today and thanks to the panel.

Laide Majiyagbe: Thank you.