SIAPARTNERS

Central Clearing of U.S Treasuries & Repo

A Follow Up Review on Market Developments: Challenges and Considerations for the Way Forward

Septembre 2023

Study Background

Sia Partners (www.sia-partners.com) a global management consulting firm, undertook a major review and published our report related to the SEC's proposed rulemaking focused on Central Clearing for U.S. Treasury and Repo Products. We published that report in March of this year. As we noted at that time, the SEC proposed rule was part of a significant set of proposals from the official sector covering a broad range of topics for both buy and sell side clients. While the issues of Central Clearing were being addressed by the market, they were also in the midst of implementing T+1, a broad range of other SEC rulemakings including guidelines for Private Fund Advisors, and the implementation of FRTB; along with the recent announcement on the Basel End Game. Some of these efforts reflected policymaker concerns in the aftermath of the default of Silicon Valley Bank and market turmoil in spring of 2023. It was this back-drop that we began over a hundred discussions, starting in May, with banks, investors, third parties, and numerous policymakers to get their pulse on the impact of the Central Clearing proposal on capital markets and its participants. We further fleshed out our findings from March—vetted additional feedback from those institutions and focused on recommendations and considerations to address the SEC's identified concerns.

The majority of our firms that were involved in our study had also been involved in our prior studies on Post Trade Transparency which was an RFI by the Department of Treasury which we completed in September of 2022 and our March study on Central Clearing. Hence, the updated findings for this report reflect perspectives on numerous regulatory actions going back a dozen or more years (Dodd Frank, Volcker, Basel, etc.,) as well as the actions of the Biden Administration beginning in 2021. These topics which overlap one another include the impact of Central Clearing on expanding transparency and reducing leverage by the non-bank financial institution community (NBFI's); enhancing liquidity in the market; reducing the risks of financial disruption due to the use of excessive balance sheet and to place U.S. Treasuries and the Repo market close to an equivalent footing with the clearing of interest rate swaps and other products addressed in Dodd Frank.

Regulators have pointed to the prior major market shocks in 2014, 2019, 2020 as well as the most recent stress placed on markets from March 2023, and indeed even the LDI crisis in the UK from the fall of 2022 as evidence of broad market instability. The official sector emphasized that in their view, the imposition of a new intra-day margining regime via the FICC; a de-facto reduction in the use of "zero haircuts", as well as the reduction in the use of cross product/entity margining tools would significantly reduce the risks of market volatility. Our study participants vigorously disputed many of these claims arguing that while Central Clearing would reduce features of counter-party risk, they viewed the proposal as increasing liquidity and concentration risks, posing real problems on the legal documentation front, and impacting the ability for smaller and mid-sized investors and brokers & banks to support this measure. Hence, our report vets all those issues and more in the document.

Our report was able to capture some of the more recent interaction between the market and regulators including a brief review on the impact of the SEC's Covered Clearing Proposal; the CME/FICC Updated Cross Margining Agreement; the Fed's recommendations for capital hikes related to Derivatives Clearing related to Interconnectedness; and the broader Basel Endgame also announced by the Fed on July 27th. We also engaged the FICC several times to discuss our findings with them and to solicit their feedback in addition to doing a careful review of their microsite to garner the most updated approaches the FICC had in place.

Project Methodology

As with all our prior work, our feedback is based exclusively on the conversations we had with our project participants and some third parties which are all summarized in our report. They are supported with public sources pertinent to that feedback. We also had over a half dozen conversations with the official sector and shared our findings and received their feedback. All of those conversations were confidential, and we do not attribute to individual firms nor identify them. Our conversations with each of these participants lasted approximately an hour. In our conversations with each bank in our study we included a mixture of representatives from sales, trading, operations, collateral management, and legal, Some of our investors also provided a similar array of individuals for us to speak with. During May and June, we also co-hosted three webinars on the SEC proposal with several hundred participants. Hence, we are exceptionally confident that our report represents a broad consensus of the market on these issues although we recognize that subgroups (i.e., a particular investor category or size of banking institution) may emphasize different concerns.

Finally, we want to express our gratitude to our senior colleagues at Sia Partners—John Gustav, Eric Blackman, and Joe Willing for their support for this effort. The report drafting and review team included Chip Glover, John Lesko, Nic LaSala, Miles Dowling and Sean Bagasevich. Each of them provided invaluable contributions to complete this report and we want to thank them for all their time and commitment to this initiative working nights and weekends to complete the project. Their efforts need to be recognized which ensured the success of producing our study. We also want to thank all the participating firms for sharing their insights throughout this effort. Those institutions have unselfishly shared their time and we appreciate those frequent contributions.

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Executive Summary

A Fallow up on Central Clearing of U.S Treasuries & Repo

Executive Summary

A Follow Up on Central Clearing of U.S. Treasuries & Repo

Our study covered a wide range of topics, and we cover study respondent's views in detail in the full report below. However, we are identifying the key findings for each of the six sections as well as including some of the industries proposed recommendations for appropriate next steps. Some of those key conclusions included the following:

Impact on Liquidity in a Central Clearing Landscape

- Participants expect balance sheet, leverage, and risk appetite for the dealer community to be negatively impacted by the proposed requirement of Central Clearing and the margining mandated in the framework.
- Participants believed that the costs for clearing would limit liquidity from smaller brokers and small-mid-size levered and non-levered investment management firms.
- Firms believed investment and trading activity in cash and repos would not grow under the proposed rulemaking and likely decline due to higher costs, the loss of netting/cross margining capabilities across assets; potential hikes in capital costs for clearing (similar to OTC derivatives) and the loss of marginal business from smaller market participants.
- Study participants noted that there will be a significant increased layer of costs and resources which will be associated with the need for additional sponsorship services. This will include enhancements of operational, systems, infrastructure, collateral management, legal and risk management investments. This will be necessary to meaningfully increase the supply of access model providers to meet the demand required by the SEC proposal.
- Firms expressed near unanimous skepticism about the ability for the sponsorship or other access models to provide cost effective offerings to clients under the SEC proposal.
- Firms noted they were concerned that the necessary comprehensive cost-benefit analysis of the SEC proposal had not been conducted. Participants argued for a far higher level of scrutiny to determine who would bear the cost associated with implementing the proposal.
- Recent evaluation of the new Fed proposal on the 'Basel Endgame' suggest that institutions will face additional capital costs related to their repo transactions. Firms expressed concern that even without Central Clearing these added costs will prune liquidity in the repo markets.

FICC

- There was substantial discussion throughout our meetings as well as one to one with the FICC on the consideration of additional access models beyond sponsorship. Institutions agreed that roughly 25-30% of the repo transactions were cleared through the FICC. There was a consensus that expansion of the sponsorship models (which our paper covers in depth) would face numerous challenges on capacity, costs, on boarding, and limited revenues from clients. Firms agreed that a proposal that would also cover the U.S. Treasury market would not be cost effective.
- There was broad agreement on the need for review of the additional access models which the FICC notes are gaining increasing focus from clients. In addition, there will be consideration to the «done away" model once the rulemaking is articulated. The FICC also noted that they are committed to a substantial outreach and education program to the industry to discuss implementation of the program.
- Firms raised concerns about the concentration of a single provider (FICC) and the accompanying issues that would be associated with that approach.
- Participants were concerned on the impact of the Central Clearing proposal on the cost of the CCLF. Institutions argued that it was inevitable with such a vast increase in clients that dealers and investors would face a large hike in costs. The FICC noted however, that preliminarily feedback they have received is that the increases may well be limited given that the portfolios of the additive participants are likely to be 'matched' books or portfolios.

Central Clearing and The Impact On The Management of Margin & Collateral

- As part of the SEC's proposal, large investment managers would now be required to post margin at least twice per day and the associated cost increases for trading U.S. Treasuries will likely be passed down to their clients. Firms noted higher costs, margin/collateral/documentation build outs that would discourage investment related business.
- Core to the proposal was the discouragement/removal of the ability for dealers to provide zero upfront margin for UST and Repo. Participants felt that zero margins were done on short dated, higher quality asset trades and were often used as part of a cross product margin capability which meant margin was posted on one or more legs of a relative value trade.
- Institutions emphasized similarities to the steps taken under Dodd Frank for derivative clearing, encouraging the industry to vigorously pursue a standardized or common margin for the FICC to rely upon to ensure some predictability during normalized markets and put guardrails on excessive margin being called during volatile markets.
- Both banks and investors reflected the value of retaining the ability to Cross Product Margin/Netting to ensure their ability to optimize collateral, reduce capital outlays and minimize risks. Product breadth included cash and swaps that would be directly or indirectly impacted by this clearing proposal. Participants noted that the FICC-CME agreement (even the enhanced proposal in July of this year) did not cover clients and had serious gaps on covering cross asset capability.
- The SEC is expecting to reduce the overall risk of default by requiring NBFI's to initial margin on their collateral. The concern identified by the SEC was the abundant growth of balance sheet lent to NBFI's (non-bank financial institutions) who were unregulated (specifically hedge funds and Proprietary Trading Firms (PTF's), who were trading without posting upfront margin. The cost of enhanced margins, posted twice a day, will be passed down to the end investee clients.
- There was extended discussion throughout our studies on the accuracy of the FICC margin models. Participants who were familiar with the models from current clearing, noted that the model was not sufficiently transparent, lacked predictability, and could be more punitive than other clearing models. The FICC noted in response that their models were transparent with details in their handbook; operated with very traditional confidence intervals and holding day periods; and, that the FICC would review those inputs with any market participant using clearing. The FICC also has reached out to the market to enhance their understanding of their methodology and explain the improvements from July of their CPM program with the CME.

Operations & Technology Investment

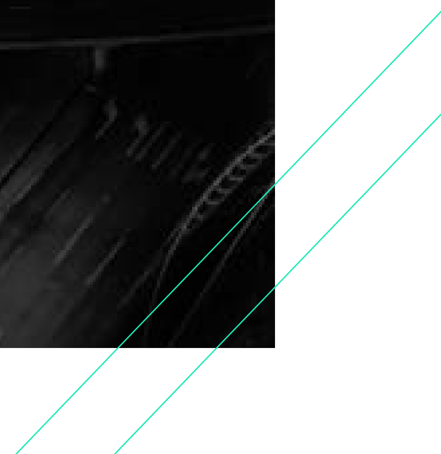
- Institutions were in near unanimity that due to leaner operations and risk capital availability, mid-sized brokers and smaller and mid-size investors would struggle to manage the operational investments required to implement the proposal. Institutions in specificity called out the need for firms to post intra-day margin which they are not familiar with and having to work through new liquidity risk programs and clearing capabilities to have an effective operational approach.
- Study participants emphasized that the inevitable result of implementing this proposal would be higher costs passed on to their investors—lower liquidity—fewer participants in the market and a result counterintuitive to the goals of the SEC and other policymakers. Our conversations with the largest institutions and with the FICC confirmed that firms had begun preparation for the implementation of the rulemaking stressing that they did not know the details which makes final planning very difficult. The largest G-Sibs had begun examining the costs for implementing this proposal; impact on client business (both sponsorship and execution and funding). The FICC noted that they were also reaching out to the market encouraging them to take preparatory steps and be ready for the proposal for implementation sometime in 2024.
- Firms recognized that there would need to be an expanded role for all third parties—consultants, lawyers, vendors, technology specialists--to assist with their efforts. Firms discussed the merits of different alternative business models and the impact on their final choices. Institutions agreed that the largest firms would need very substantial allocations to meet the requirements on both the principal trading and client side.
- Our operations sections confirms that participants believe that on-boarding will be an enormously time and cost intensive effort requiring both internal and external resources to support their effort. Institutions noted that efforts especially to build out more advanced collateral management systems to handle the breadth of their sponsorship activities as well as assisting clients through the process to avoid operational challenges.
- Numerous firms flagged that the CCP proposed rulemaking was occurring at the same time as a large regulatory push from the official sector. Institutions noted that the same resources devoted to T+1 would need to commit time to this proposal. They also noted that the outcome of the Basel Endgame would meaningfully impact their derivatives business and would likely increase the capital costs associated with their repo transactions.

Legal Hurdlesl

- Firms noted that the issues surrounding legal and documentation challenges were often overwhelming and the least understood by the market or the official sector as an obstacle for the implementation of Central Clearing. Institutions cited detailed experience with the speed of processing documents and necessary resources to speed up the process.
- The industry currently does not have a standardized document to use for on-boarding clients nor a template that firms have agreed upon. Banks and investors noted that everything now was customized and that negotiations could last 9 months to more than a year to agree to terms.
- Firms identified the difficulties with on-boarding clients at a pace anywhere near the anticipated demand cited by the proposal. Firms suggested that they were averaging about 50-60 clients per year and did not believe that number could increase significantly. Time challenges were the lack of standardized agreement or template; sufficient internal resources who could negotiate those agreements; sufficient external counsel available; ability to negotiate cross document terms and accompany addendum.
- Institutions noted major concern with the loss of cross product netting/margining and the need to re-paper those agreements separately which would re-open master agreements and associated credit agreements and take significant time to renegotiate key triggers and terms.
- Firms identified that there were concerns with default language and responsibilities that would be borne by the clearing entities or the FICC that also would need time for review and agreement.
- Participants flagged that time would need to be allotted to due diligence of hundreds of clients per firm; detailed and on-going reviews for KYC/AML provisions; credit assessments for each of those entities. Firms also noted that these were annual requirements and that for firms who were not using their offerings frequently they would be off-loaded leaving them in search of a new sponsor.

Risk Management

- Participants in the study shared the view of the regulatory bodies that the Central Clearing Proposal would reduce counterparty risk by eliminating any bilateral trading risks associated with repo and U.S. Treasury trading. Participants however felt that other risks (see below) would be exacerbated as a result of Central Clearing making the costs not worth the investment.
- Institutions identified that liquidity risks would be exacerbated through clearing. They noted that the proposal would increase the likelihood of unwinds by firms who could not meet intra-day posting of collateral in a time of market distress.



- There were additional concerns expressed about certain participants (foreign banks, smaller brokers and investors) being priced out of the market or lower their trading and investment reducing market liquidity during times of stress.
- Participating firms recognized the ‘interconnectedness» of the major risk categories, and the increase of contagion impacts from the proposal's implementation. Firms noted that operational, legal, liquidity and concentration risks could all spillover into the trading of other assets, funding of balance sheet and impacts of less credit worthy counterparts, creating unnecessary stress on the system.
- Concentration risk was identified by participants as being of concern at several levels. First, housing all the clearing at the FICC increased the risk associated with a targeted Cyber attack; an operational, or system melt down that could freeze the entire clearing of repo or U.S. Treasuries all happening without suitable diversification or back-up. The FICC noted that they had made significant upgrades to their resiliency and felt they were more than capable to handle the enhanced demand.
- Firms separately identified concentration risks with overlaps among the largest sponsors, execution counterparties, and those that provide prime service offerings all of whom dominate the clearing space as well. If one or more of those firms collapsed that would not only have massive impact on the FICC itself as well as on the liquidity of the other assets traded by those firms.
- Participants also supported the value of the Covered Clearing proposal (Spring 2023) which would require further resi-lience build out of the FICC and provide initial governance, operational, system and infrastructure guidelines for central clearers.
- The articulated goal of the SEC has been to reduce counterparty risk, enhance transparency of PTF's and hedge funds and eliminate "zero haircuts" for Repos and Treasuries. Institutions noted that Liquidity Risks would not be minimized by Central Clearing but rather could be exacerbated by a variety of pressures placed on the system due to enhanced and more frequent margin calls and reduction of market-makers and investors participating in the clearing process.
- Participants identified well-defined wind-down plans as a requirement to ensure the systemic stability of the market and broader financial system. If the FICC were to face severe financial distress or operational challenges, it could have a cascading impact on broader financial markets.
- If Central Clearing were to be consolidated into a single entity that is solely dictating terms to all market participants, the risk of contagion could become substantially more pronounced.

01. Impact on liquidity in a Central Clearing Landscape

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Impact on Liquidity in a Central Clearing Landscape

In our initial report published March of this year, we identified a myriad of concerns about the SEC proposal relating to the broader liquidity of the U.S. Treasury and Repo markets. Shortly after the release of that document the U.S. markets suffered through another financial institution related disruption, resulting in the defaults of several regional banks and their rapid liquidation, that once again required U.S. policymaker intervention. Amid the dissolution of the Fed's support for the broader markets, along with the steady hiking of interest rates, both the Treasury and repo markets faced shorter term liquidity shortfalls. In our follow-up discussions, shortly thereafter, study participants noted that like 2014, 2019, 2020 (2022 LDI in the UK) the proposal on the table for Central Clearing would not have de-risked the markets or solved for this particular crisis.

As background, the U.S. Treasury & Repo Markets play a substantial role in the functioning of the U.S. economy and the global capital markets structure, serving as a reliable source of collateral for the public and private sectors. As of June 2023, the daily trading volume of U.S. Treasury Securities sits at ~$759.7 billion, while the average daily balance of outstanding Repurchase Agreements lies at ~$5.3097 trillion. Maintaining the stability of these markets and ensuring the availability for buyers and sellers to trade USTs & Repos is crucial. Any disruptions to the proper functioning of these markets could have downstream effects on the U.S. Capital Markets Infrastructure, and the domestic and global economic landscape.

As noted above, the SEC's proposal suggests that shifting to a framework in which U.S. Treasury & Repo transactions are Centrally Cleared through a sole central counterparty clearing house (CCP) will lead to improved market efficiency, resiliency, and enable enhanced regulatory oversight. The SEC and other policymakers have asserted that centrally clearing Treasuries and Repos (joining portions of the Derivatives Swaps market) would avoid or significantly reduce the impacts of prior financial crisis. We tested that hypothesis in our first report and that thesis was nearly unanimously rejected. There were a minority of industry participants who have suggested that the SEC's proposed initiatives might improve the short-term availability and reliability of liquidity for those active in the market. The U.S. Treasury & Repo markets operate in a bilateral clearing framework, with Clearing responsibilities distributed across the market. However, the SEC's proposed framework would require a substantial shift in this structure, as secondary transactions of U.S. Treasury & Repo would be required to clear through FICC. As a result, market participants would need to gain access to the FICC directly by becoming a member, indirectly through sponsorship, or by alternative FICC access options.

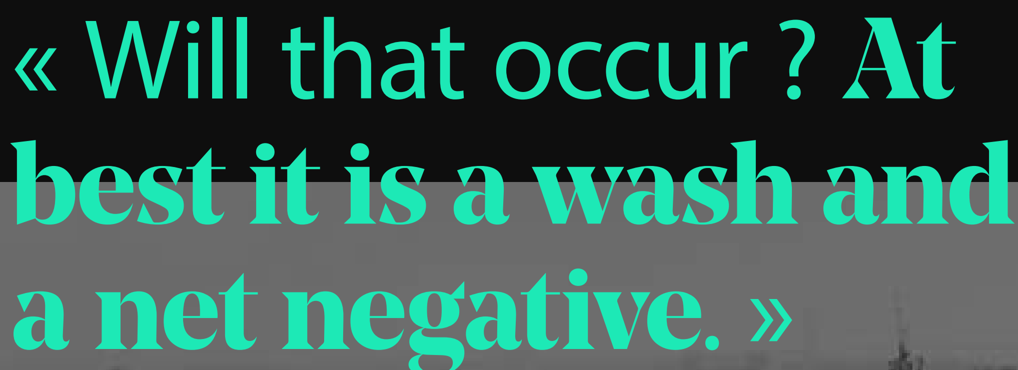
What Impact will this Proposal have on the Market?

Throughout our nearly year of discussions with our study participants, fairly or not, there has been a broad consensus that risk taking, and balance sheet had been profoundly hindered by oversight and regulation by global prudential regulators. Institutions have argued that relaxation of capital charges, SLR in particular, was essential. Participants in the late winter felt that the Administration might well consider those steps but the default of SVB and the broader disruption in the markets in March ensured that would not occur. Firms in our study did note that the issues were indeed cumulative as we address later in our paper. The burdens of funding new guidelines for T+1 and upcoming implementation of FRTB are part of a broader remit of supervisory efforts to ensure that bank risk-taking remains constrained.

With that as back-drop, the Federal Reserve announced on July 27 that it intended to add the complexity and interconnectedness indicator surcharge to banks that act as agents for clients on cleared over-the-counter derivatives. The Fed's recommendations mirror actions taken several years ago that were rejected. The proposal does convey a concern that there can be meaningful linkages between market participants and clearers and the potential for systemic risks. These issues echo dialogues that we have had on Central Clearing and the potential for the mixture of concentration and contagion risks as well as the impact they could have on the FICC and the market as a whole. To be clear there is no indication that the Fed was considering extending this guideline to the potential of U.S. Treasury and Repo Clearing. One of our dealers who had examined the proposal provided a caution flag when they commented: «***We don't view this as a near-term concern. Under the G-SIB surcharge proposal, the instructions would be clarified for the interconnectedness and complexity indicators to clarify the treatment of a banking org's exposures from client cleared derivatives positions. Currently, the indicators reflect positions to arise from the principal model, in which the banking organization faces both client and the CCP. The proposal would seek to also reflect in the indicators the guarantees arising from the agency model, in which the client faces the CCP, and the banking org guarantees client performance to CCP. From the text of the NPR we believe that the Fed cares about treating the two derivative clearing models consistently and not trying to use this proposal to expand the domain of the G-SIB surcharge over clearing products***."

However, we thought it was useful to get a sense whether a parallel effort to derivatives clearing surcharges would have an impact on the markets. A dealer firm who was just beginning to evaluate the proposal noted, "***The Fed has said in their Basel Endgame that they would raise capital of clearing derivatives to the higher side—using the European model that has been more punitive from a risk and economic perspective. We have seen Swaps client clearing firms halve recently and there is no reason to act as an FCM. This runs counter to the arguments to incentivize more business in clearing. It would certainly not be a positive for the cash side if they were to add capital surcharges.***"

« Will that occur ? **At best it is a wash and a net negative.** »



In evaluating the potential impacts of transitioning to a Central Clearing framework in the UST & Repo markets, concerns arose from both the buy and sell side study participants regarding the potential negative impact on liquidity. Firms speculated that several factors could contribute to a deterioration in liquidity, including reduced participation by market players and limited availability of capital for firms that remain in the market. More specifically, dealers and investors expressed concern that firms could be marginalized due to increasing costs that could constrict their ability to maintain profitability in each business. They were also concerned about more stringent margining practices, which could tie up valuable balance sheet capacity for firms across the industry. The consensus among participants is that while all firms will be impacted in some form or another, mid-sized and smaller firms, who lack the existing operational resources and balance sheet capacity to absorb added costs would be most negatively impacted by the proposal.

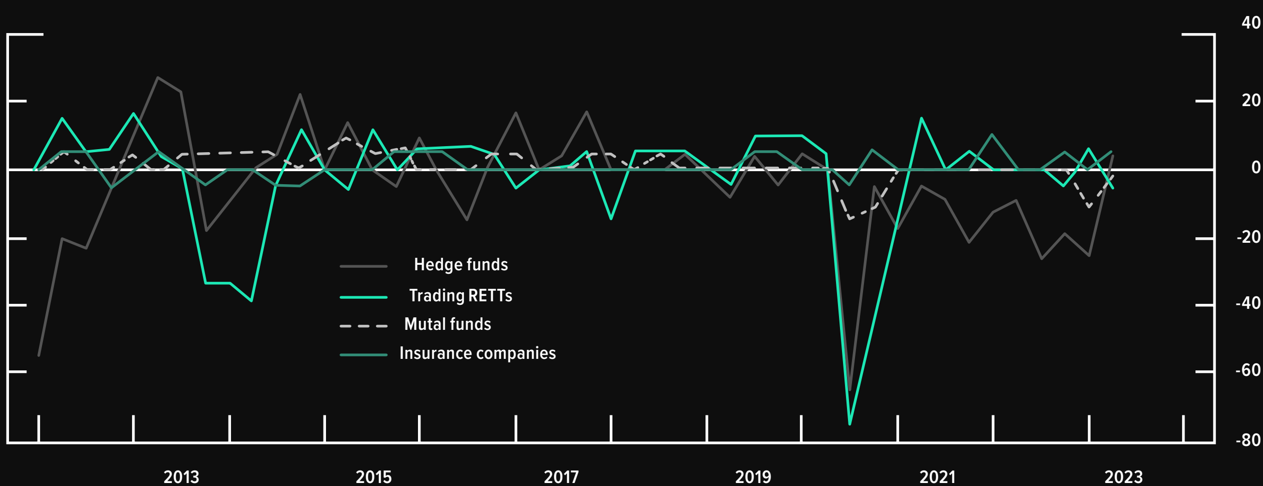
Study participants noted that an examination of the current state of the market, specifically the Treasury markets, reflects a generally efficient set of assets, setting aside the above notated disruptions which are externally imposed on those products. One U.S. G-SIB expressed this sentiment, commenting, "***nothing is wrong with the way markets are functioning and it's not even close to broken.***" They continued to explain, "***this is not a problem, and [by doing this] you are creating a cost to finance, and small firms would exit the market.***" These views were also raised during buy side discussions, with one Asset Manager setting out, "***anything that creates frictions and costs gets passed on, and the Treasury market will get more expensive which will diminish liquidity.***" When broadly assessing the impacts on market entrants, dealers and investors flagged the proverbial "80/20 or 90/10" rule, that the market is concentrated amongst the largest market dealers. Participants suggest that higher costs and increased obligations will run the risk of either pushing smaller entrants out of the market or diminishing their UST & Repo activity, which will either be absorbed by the larger players or disappear. A U.S. G-SIB noted "***all the fees get passed on to the client in the form of credit fees, fees on spreads, as well as fees to the FICC.***»

In moving to a Central Clearing model for UST & Repo transactions, participants expect there to be negative impacts from a balance sheet and capital perspective. One U.S. G-SIB explained what they viewed as the intended goal of the proposal, saying, "***the hope is that it would create balance sheet capacity and lead to benefits of offset***." They questioned this notion, saying, "***will that occur? At best it is a wash and a net negative***", further emphasizing that any balance sheet benefits are minimal, and implementation costs are not worth the upside. Additionally, participants expect that higher capital costs will have a substantial impact on the market, particularly during periods of market volatility or stress. One foreign G-SIB explained this view saying, "**with dollar-for-dollar capital requirements, numbers can go up a lot in times of stress, thus adding to pro-cyclicality**."

Impact on Liquidity in a Central Clearing Landscape

In assessing U.S. Treasury & Repo market liquidity, firms at times saw it as inconsistent and other times quite fluid. They near unanimously felt that availability is worsening due to the capital constraints placed on banks over the last several years. However, firms emphasize that the Bilateral Clearing framework currently in place functions smoothly and rarely plays a role in negatively impacting liquidity in the U.S. Treasury & Repo markets. Hence, some firms regarded the SEC's proposal as a "***solution in search of a problem.***" Firms consistently pointed to the need for a comprehensive cost-benefit analysis of the proposal and a far higher level of scrutiny to determine who would bear the cost associated with implementing these policies. In addition to reducing liquidity risk, the SEC has also suggested that the reduction in the unregulated use of leverage is one of their goals in establishing greater liquidity stability during periods of market volatility and are core to the SEC's proposal. Again, a small minority of our participants shared the view that excessive leverage use is correlated with heightened liquidity risk. However, others have noted that leverage use has remained relatively constant over the last 10 years, apart from a decrease in March of 2020. Others noted that leverage is viewed as a valuable tool for firms, which one G-SIB participant emphasized, "***leverage gives firms the flexible capacity to absorb paper, as balance sheet is expensive, and we look to utilize 100% of it every day.***" They further explained that "***[without leverage], for us to buy Treasuries, we would have to blow up something else.***" Leverage allows firms to step in and buy an asset without the pressure of needing to sell another asset(s), which can help increase both liquidity and market stability.

Figure 3.13 : Dealers indicated that the use of leverage by hedge funds was unchanged recently



Source: Federal Reserve Board, Senior Credit Officer Opinion Survey on Dealer Financing Terms.

The goal of moving to a model in which all secondary U.S. Treasury & Repo transactions are centrally cleared, is to strengthen the resilience of the UST & Repo markets through improved liquidity, especially during times of market stress. Through our discussions with both Dealer and Investor participants, we sought feedback on the impact that this mandate would have on the market, if the regulator's proposed outcomes were to occur and any potential unintended consequences of implementing these measures.

What Impact will this Proposal have on the Market? (continued)

Another one of our participants noted the impact it would have on the capital burden and costs of clearing when they commented on the Fed initiative, "***The proposal would have a significant impact on the capital burden associated with clearing services and the costs of clearing and the capacity impacting end users. The proposal would seemingly be at odds with policy maker goals to expand voluntary clearing and reduce economic risks.***" In addition, a large investor we spoke with about the proposal commented, "***We are not sure if the Fed is going to expand this beyond OTC cleared swaps. However, if it did apply to cleared repo agreements, it would completely undercut any arguments that clearing repo would improve liquidity in repo markets.***"

Larger banks recognized both the business and capital impact of this proposal in the derivatives world when they noted, "***the impact on U.S. agency activity would be "very material". The holistic regulatory framework doesn't seem to be connecting the dots in terms of how to achieve the outcome of ensuring more clearing. If we are trying to encourage more activity to be cleared, the proposed capital framework would make it significantly more expensive to offer those services. The outcomes could be reduced FCM capacity and an increase in fees.***"

Larger institutions noted their own concerns on the impact to Central Clearing when they commented in a recent Risk. Net article, "***The head of clearing at one G-Sib says that the overhaul would have an "extreme" impact on banks' capital levels: "I frankly would be surprised if any US G-Sib can continue offering client-clearing services, certainly to any scale, as a result of this rule change if it goes in as drafted." A separate head of clearing says that including client-cleared notional in the G-Sib score would affect the capital stack for the entire bank.***"

Policymakers should consider the balance of the impact that this will have as Federico Cupelli the Deputy Director of Regulatory Policy at the European Fund and Asset Management Association noted, «***the regulatory framework that was built post the global financial crisis is resilient. We do not need major changes and what we absolutely do not need are bank like recipes or solutions to further risk manage fund risks, liquidity risks, mismatches and the like.***»

Ultimately, the concept of clearing through a single CCP raised concerns about the impact on market volatility, with a U.S. G-SIB saying, "***by submitting to one marketplace, [we have a] huge problem with that.***" The increased margin obligations incurred because of this proposal only exacerbates the impact of higher costs on market participants. A foreign G-SIB explained the difficulties in "***aligning cash and collateral needs along with what is being requested for margining for the next day are punitive for all parties***."

The SEC's proposal for Central Clearing will require that all firms transacting in the UST & Repo markets have a means of facing the CCP, either by way of direct or indirect sponsored membership. The Sponsorship model, being one of the most common access options, is critical to the success of moving to a Central Clearing structure as it comes with an array of both dealer and investor side challenges in garnering sponsored access to the FICC. Firms participating in the sponsorship model will need to navigate the challenges of higher costs of doing business; stemming from increased margin requirements, operational buildouts, and regulatory compliance measures. Considering the already low-profit margins of the business, which is frequently identified as a loss leader for banks, any contraction of spreads would only exacerbate issues in the market. There are currently 34 firms providing Sponsorship services in the Repo markets. However, meeting market demand would require a significant increase in the number of firms that provide sponsorship or, far more likely, a significant increase in capacity from the most active current sponsors to manage a very large influx of new clearing entities. Many participants raised concerns over the substantial increase in costs for providing sponsorship services, suggesting it would impact a bank's ability to earn a profit and still cover expenses. A foreign G-SIB we spoke with addressed its expenses as a Sponsor and their increased exposure to default risks, explaining, "***if every trade had to be sponsored it would not work, as I would need to make 30 basis points just to break even and the overall wallet should exceed the 30 basic points for a unit of capital», while continuing to note that "even though it's not on your balance sheet, you would still be 100% liable.***" Sponsored firms may also need to absorb additional costs, depending on the details of their contract, as sponsors could be unwilling to cover all the sponsorship expenses.

When a bank provides sponsored access to the FICC, it is commonly viewed, within the industry, as a relationship-based business with lower pricing in the hopes of growing client relationships in more profitable business areas. Without the immediate monetary incentive, it's more difficult for a bank to provide sponsorship services, leading them to re-consider their broader exposure to the business. As a foreign G-SIB active in the Sponsorship business remarked, "***Sponsorship is a relationship business currently. The supply curve for this mandate is extremely steep and [we] try not to trade in less than 1-month durations, as the balance sheet cost is so high it's not worth it.***"

A U.S. G-SIB also noted the lack of profitability in the business, explaining, "***Sponsored Repo is not a good business, and it has negative Shareholder Value Added (SVA), and this is an instance where regulators assume it's a business that makes money.***" Given the lack of profitability in the business, a foreign G-SIB noted that banks, particularly larger ones, provide this service because "***the rates business is generally considered a required offering for banks to get higher profit margin business in other segments***." Given that banks often need to absorb costs associated with providing sponsorship services to their clients, balance sheet capacity becomes a significant focus for firms in this business. Considering these factors, the largest banks are better equipped to absorb the added costs, whereas to mid-sized dealers and brokers likely will not be able to or need to offer a different access model.

Should spreads on transactions shrink, the business would become even less profitable for banks offering sponsorship services in the market. To successfully implement the Central Clearing mandate for UST & Repo transactions, incentives that encourage firms to provide sponsorship services should be considered before additional action is taken. Firms were also concerned with margin squeeze events that have impacted other non-UST and Repo markets within the past few years. One representative from a large Asset Management firm noted the similarities this has had to margin squeeze events in the commodities markets, when they explained, "***this is similar to LDI in 2022 when the Pension market wasn't all cleared, and the margin requirement was the initial domino to fall.***" In addition, this Asset Manager also raised another comparable event, citing the Sterling Derivatives market,noting "***the subsequent run for cover started a domino ef fect, with self-reenforcing events including more fire-sales and more margin requirements.***"

Adapting to a new Central Clearing environment will require firms that provide sponsored access to the FICC to bear several upfront and ongoing costs. Firms, as we have noted, are concerned with the significant costs needed for upgrading technology, collateral management offerings and systems infrastructure to meet sponsorship demand under the mandate. A U.S. G-SIB confirmed this view saying, "***any model that a firm isn't using today will require a significant tech build, especially on settlements.***" Furthermore, a legal representative from a U.S. G-SIB explained, "***with respect to sponsorship, legal throughput is a huge hurdle, and providing Sponsorship may require additional infrastructure.***"

Considering the Regulatory costs involved with the Sponsorship model, both Dealers and Investors could be impacted from a cost perspective. One foreign G-SIB explained, "***it's not realistic for us to expand in the [sponsorship] space, as we are always under pressure to offload costs, and all of the costs such as KYC & AML are not cheap.***" Participants also stressed that if Know Your Customer (KYC) policies and procedures are not carried out properly, a firm may face substantial regulatory penalties and fines. The G-SIB concluded by emphasizing that these costs are ongoing in nature, re-iterating "***the need to keep KYC updated, as it's not a one and done thing and not a one-time cost.***" The KYC process also impacts sponsoring firms considering the resources required to validate, maintain, and update customer documentation for Sponsorship agreements. Sponsored clients will bear additional expenses due, in part, to providing and maintaining KYC documentation.

Lastly, the role of Futures Commission Merchants (FCMs) as a model in the marketplace has been a point of focus for firms and was frequently raised in our discussions. Participants explained that the FCM business was considered to be a relatively high margin and lucrative business when swaps clearing came about as a result of Dodd Frank. However, eventually firms realized that the business was not as profitable as expected. Many new entrants into the FCM business soon exited due to lack of profitability, with the raw number reduced from 22 to 13. A foreign G-SIB noted their viewpoint of the business and the comparisons to the futures market in saying, "***the FCM business is concentrated and low margin, which is similar to that of futures clearing.***" Given the low margins associated with clearing through FCMs, this G-SIB proposed bundling trade and execution pricing under a single fee. One Law Firm we spoke with commented on the role of FCMs, noting, "***FCM's getting clearing services post Dodd Frank proves the disincentive. When you segregate margin and clearing, you raise margin requirements when you disconnect that from futures.***" Several participants held the view that neither option, as described by several large banks in our study, is viable, whether bundled or not. They explained that fee revenue was insufficient to sustain their involvement as a provider in the Sponsorship business.

Central Clearing Impact on Larger Banks, Investors and Smaller Institutions

How G-SIBs would be impacted

The proposed shift to a Central Clearing framework will impact G-SIBs in the market, considering the range of additional costs due to the business, operational and legal requirements stemming from the proposal. A foreign G-SIB explained that they run a smaller business in the Cash market in comparison to their U.S. counterparts and noted, "***the cost of documentation, [and] operational costs associated with it would hurt businesses like ours***" Participants explained that the implementation of increased margin requirements will limit the ability for large U.S. & International Banks to efficiently utilize their balance sheet. While larger banks may be better positioned to absorb the added costs associated with CCP expansion compared with their smaller and mid-sized counterparts, they will still be impacted considering that they already operate on thin profit margins. For example, a representative from a U.S. G-SIB noted the difficulties in scaling the business, explaining that ***"top line revenue is tight, and scaling does not help at all. [if you did scale] the top line would look better, but with the costs of scaling, there would be no improvement to bottom line.***" Additionally, it may not be cost-effective for banks to incur substantial client acquisition costs, as they may be expected to bear some of the margin obligations for clients to remain competitive, especially for their key clients.

Small and mid-sized Dealers could face several obstacles within their business in adapting to Central Clearing for UST & Repo products. Unlike their G-SIB counterparts who maintain large balance sheets to better absorb added costs, small and mid-sized firms may not be equipped to do so as noted by a foreign G-SIB that "***not everyone runs a large enough business to absorb the added costs.***" Additionally, a U.S. G-SIB expressed that "smaller Broker Dealers with ~$200-300 million won't be able to support a sponsorship model." Small and mid-sized banks seeking to participate in the market to clear UST & Repo transactions may face substantial legal, operational, and regulatory challenges in making and facilitating trades. The Managed Fund Association noted this in their comment letter to the SEC, that, "***They may also need to expend significant resources on outsourcing, as well as on legal and consulting services. In addition to the considerable burdens borne directly by these smaller advisers, these costs could create meaningful barriers to entry for emerging advisers, and increase pressure on existing advisers for industry consolidation, thereby reducing competition and the investment choices available to investors.***" Those firms may also be deterred from building out their ability to Centrally Clear considering the potential for increased capital commitments required with higher margins and infrastructure investments.

Given the potential impacts to these firms, it is plausible that they will at least reduce their UST & Repo execution activity or exit the business altogether. This concern was raised by a U.S. G-SIB, for example, who stated, "***one of the challenges is that the smaller and middle part of the market that is not set up could well decide to step out here, which poses a risk.***" This was also noted in the Managed Fund Association's comment letter, in which they explained: "***The result of the Proposals, if adopted in their current form, would be to harm investors by increasing costs, making private funds less accessible, and decreasing competition by making it cost-prohibitive for many private fund advisers to remain in business and for new advisers to enter the market. This would lead to industry consolidation as smaller and even midsized advisers would be forced out of the market because they do not have the scale and ability to absorb the increased costs and regulatory obligations of the Proposals.***"

How G-SIBs would be impacted

In particular, the investor community could face substantially higher costs with the complexities of the transition to Central Clearing, potentially decreasing their engagement in the UST and Repo market. A U.S. G-SIB pointed to the challenges investors may face, explaining that "***for the end client, we view this as a large impact to them, as today they generally have a thin operations buildout.***" In addition, the same G-SIB further explained that "***[investors] are going to have to go through all their trades, receive the information back, and process all of that.*** " Some have acknowledged that investors may be unwilling to pay the fees to clear UST & Repo transactions through the FICC, noting the restrictive margin posting requirements stemming from the proposal. Even if Dealers were to reduce haircuts and take on the costs from margin posting requirements, these expenses could eventually impact investor fees.

Given the operational challenges and heightened profitability concerns associated with the centrally clearing of USTs & Repos, the industry risks minimizing buy-side participation in the market, as such firms will seek to identify more profitable fixed income products if at all possible. This was noted by a Primary Dealer, who explained, "***one of the challenges is that the smaller and middle part of the market, that is not set up, could well decide to step out here, which poses a risk.***" Another U.S. G-SIB similarly remarked, saying, «***if we make it arduous for multi-strategy funds, it will shrink the participant pool and heighten risks, ultimately leading to market disruptions.***" If end-investors decide to withdraw or reduce their participation in the UST and/or Repo markets, this could lead to a reduction in the pool of liquidity providers and ultimately impact overall market liquidity. Firms advocated for a more rigorous investor impact assessment, which was expressed in a Managed Funds Association letter to the SEC, when they wrote, "***we are strongly concerned that the aggregate cost of rulemaking would significantly harm investors, competition, and markets.***"

In our initial document we covered in detail the role of PTF's in this proposal and several firms reiterated the broader finding about their role in the UST and Repo markets. In our most recent discussions, both Dealer and Investor communities agreed that all market participants should be operating under the same rules, including PTFs. One foreign G-SIB participant noted that "***PTFs don't go home with risk and their purpose in the market is pretty small [in the overall market landscape],***" ***concluding that "[they see] no scenario they should get special treatment.***" Participants also emphasized the same point, that PTFs, in their role as liquidity providers, commonly leave the market during periods of volatility, when liquidity is needed the most. One Market Research provider explained that "***historically, they have demonstrated the ability to swiftly withdraw from the business within a single day.***" Lastly, participants noted that PTFs are reluctant to pay fees, with one G-SIB representative noting that "***PTFs have been fighting doing this and paying the fees for some time.***"

All-to-All Trading

Within the industry, Central Clearing is viewed by some as a pathway to shift to an All-to-All Trading environment, given the potential liquidity benefits laid out by regulators. However, a significant majority of our participants from both the Dealer and Investor communities challenged this notion. Some have highlighted that under an All-to-All Trading environment, firms may encounter difficulties finding a counterparty to trade, especially during periods of market volatility. On this point, a G-SIB we spoke with explained that "***All-to-All proliferation may lead to an overabundance of participants in the market, making it difficult to find a dealer," elaborating that "[it] becomes too concentrated and all one way with nobody left to coordinate.***" The consensus among participants is that All-to-All might be beneficial under normal market conditions, but not during periods of market disruption. There was also a broad consensus that under an All-to-All Trading structure, firms cannot rely on market-making banks to intermediate trades.

Firms also noted that large investors in the market are better enabled to expand their market-making capacity for All-to-All Trading, which could lead to reduced participation from smaller UST and Repo investors. Participants suggested that for an All-to-All trading environment to be effective, especially during periods of market volatility, firms must have the capacity to act as both a market maker and a dealer. However, many noted that only the largest firms have the operational infrastructure and balance sheet capacity to do so. Participants suggest that any negative impacts under an All-to-All Trading environment would worsen when markets become too volatile. For example, a U.S. G-SIB noted that "***matching them up in a calm market, yes that could work, but not at all one marketplace submitted together. What happens when the market goes the same way?***" Similarly, another G-SIB questioned, "in a market shock, who is going to take the risk if banks have diminished their own risk taking?" ***They continued in noting that in volatile markets, "all clients would run for the door and then no one is there to take a side and markets gap.***"

In summary, our participants magnified from the initial study their skepticism about the ability for Central Clearing to provide meaningful additional liquidity to the markets and indeed was likely to reduce the availability of additional balance sheet, leverage, and investments in Treasuries and Repos. There was additional doubt reflected about the viability of sponsorship as the lead access model and the cost benefit of expanding that business.

02.
FICC

02. FICC

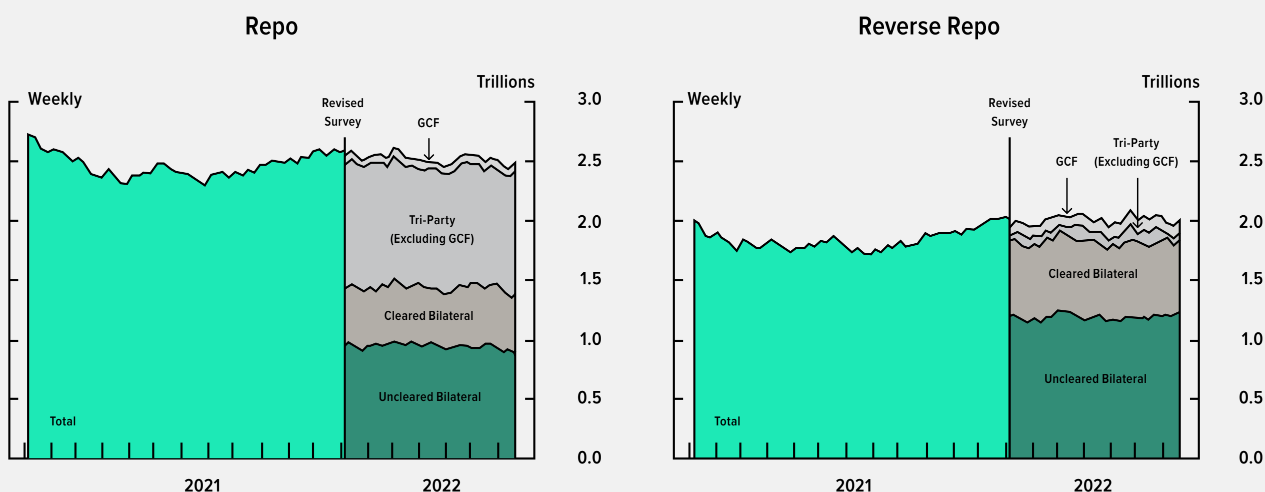
Impact on Liquidity in a Central Clearing Landscape

As regulatory changes are considered for Central Clearing for U.S. Treasury transactions, counterparties face the critical challenge of efficiently navigating access to the Fixed Income Clearing Corporation (FICC). Our participants noted that the numerous firms investing and trading repos and U.S. Treasury will need to thoroughly understand FICC access options to ensure compliance with legal and regulatory obligations and help facilitate optimized market engagement with the SEC proposed rulemaking. In our discussions with the FICC accompanied by their public commentary, there is a broad appreciation of the need for enhanced communication with the market on the various FICC programs. Participants in our study recognized the need for a comprehensive analysis of the FICC's access models and to evaluate how the evolving landscape impacts operational efficiency and risk management practices within the industry.

- Data published by the Fed in 2022 details that the FICC was responsible for centrally clearing approximately 20% of all repos and 30% of all reverse repos.

- FICC announced in June 2023 that they've reached a milestone of clearing $750B in daily sponsored activity.

The below graphic from the Primary Government Securities Dealers Report (Form FR 2004) provides a "breakdown of different market segments for all collateral classes. From the new data, we can observe that a large fraction of primary dealers' repo



Access model choices are core to the efficacy of the SEC's proposed rulemaking. A multitude of investor and bank participants in our study emphasized that the official sector and impacted institutions should conduct substantial analysis of access model choices, given the varied offerings would mean to their individual businesses and markets. Many study participants indicated a limited awareness of the various FICC access models beyond the conventional sponsorship approach, adding that their firms are not currently offering the less-conventional model options. Additionally, institutions were often unaware if access model options were cross sold within their firms, which is likely the case.

The FICC has emphasized in various public forums that access to Central Clearing can be obtained through multiple pathways contingent on the member's business structure and their client's legal and regulatory obligations. Our study participants reiterated that if a mandate for U.S. Treasury transactions is implemented, gaining access to the FICC will become a crucial focus, as such changes have the potential to bottleneck both new and existing Central Clearing counterparties.

The FICC has identified gaps in the market's understanding and readily acknowledges the need for comprehensive education and outreach initiative regarding access models. The FICC conducted a membership wide survey through June 2023 and is currently processing the survey results that will likely address some of these questions. The table below depicts the typical access options offered by the FICC:

	Full Service Member	Sponsored Menber	Prime Broker Member	Correspondent Clearing
Faces FICC	Yes	Yes	No	No
Position Netting	All	Next by Client	Across Clients	Across Clients
Margin	Yes	Yes	Across Clients	Across Clients
IDB Access	Yes	Yes	Yes	Yes
«Give-up Execution	N/A	Yes	Yes	Yes
Distnction of Menber	Reduction of Conterparty Risk Balence Sheet & Capital Relief		The direct participant; - May elect to carry the transactions at FICC in the same account as the direct particicpant's proprietary positions (and have clearing fund and liqudity requirements calculated on a net basis. - May elect to maintain indirect participant transactions in a saparate account is fully reponsible for performing to.	

Within the range of access models offered by the FICC, there are two additional and more idiosyncratic memberships available – Centrally Cleared Institutional Tri-Party (CCIT) and Tier Two Netting Membership for Registered Investment Companies (RICs).

- **CCIT Service:** Extends the functionalities of the GCF Repo® Service, acts as a membership category that ensures the successful completion of qualified trades for tri-party repo transactions involving GSD dealer members and eligible tri-party money lenders.

- **Tier-Two Netting Membership**: Tailored for smaller or less-conventional market players in the U.S. Repo market, aiming to widen access to Central Clearing.
  - This membership category is more lenient in terms of entry criteria compared to Tier-One, with examples including reduced net capital prerequisites, thus catering to a more diverse set of firms.

  - Despite this, Tier-Two members still have the privilege to net their transactions and diminish balance sheet exposure. Notably, a member of CCIT can concurrently be a Tier-Two Netting Member.

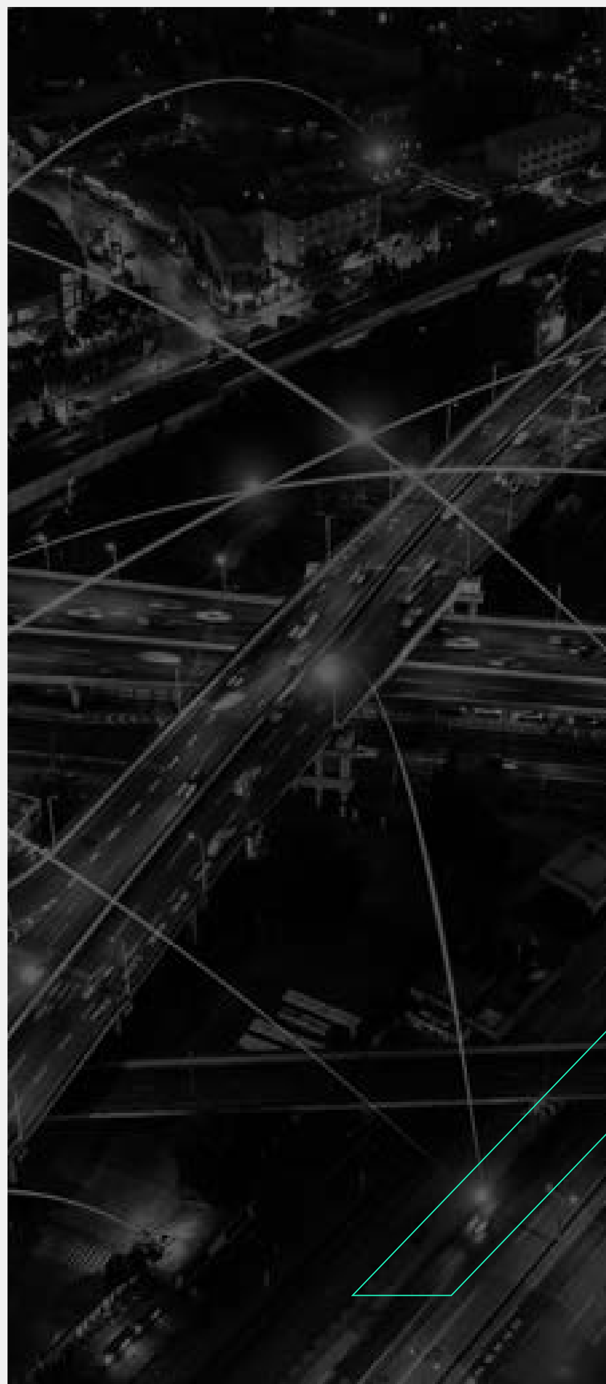
In a bank research document for clients, a G-SIB succinctly noted their views on access model options: "***The correspondent clearing model is similar in concept to sponsored repo in that the FICC member acts as both an agent and a guarantor for its clients on the platform. The correspondent is usually a prime broker that submits trades for clearing on behalf of the non- or executing member. The executing member can do trades with another FICC member, or with another executing member cleared by either the same prime broker or a different submitting member. They can also do trades with sponsored members. In these trades, while the prime broker is obligated to meet its own margin, CCLF and other liquidity requirements to the FICC, it does not guarantee its client's trades to the FICC, as is the case for sponsored repo.***" Another Broker Dealer commented while addressing the concept of clearing access options: "***The FICC's legal relationship is only to the direct member. Correspondent clearing does not require gross margining of client trades, but its correspondent's activity adds to the prime broker's overall trading volume and its CCLF obligation. The FICC notes that it plans to make some rule enhancements to the correspondent clearing model. While we do not yet know what these changes are, we suspect that they will be made once the SEC has finalized its clearing rule.***"

The FICC sponsorship models have been subject to significant scrutiny throughout the duration of this study. Participants noted that they can't guarantee an adequate supply of access to the FICC, which includes sponsorship, without an accurate determination of demand. One G-SIB went on to highlight their business model, stating, "***we are only offering sponsorship***

and CCIT access to our clients and foregoing any PB or Correspondent clearing, based on the fact that it feels the most comfortable to us, and we are set up for these types of services." The G-SIB continued to highlight, «***pinpointing the access models is very important, for the private and official sector. You cannot plan around the capacity for those models and their economic viability, without knowing more.***" Many participants outlined the operational and funding impacts and challenges faced by various Broker Dealer divisions, with one participant stating, "***The risk of setting aside capital for a venture like this that won't pan out for revenues. The current model predicates itself on SIFI's needing to be responsible for their clients' demand over 12-18 months. If I put away $1 billion of capital vs a demand of $100 million, I cannot rotate that. I structurally cannot do that. The mechanics make it difficult. When you multiply that out, banks will begin to care. The reality is they never intend to use those balances.***"

Further detailing the challenges associated with the mandate, a major Broker Dealer in the study explained how their clients will react to the new market of U.S. Treasuries saying, "***Roughly 70% of the market wants to continue bilateral trades and they will all will be forced to utilize FICC access models. 80% of that bilateral market does not settle—it is sold away, paired away, and/or cross-margined as an efficiency of the treasury market." They continued saying, "if you put that into a sponsored program, you lose efficiency and cannot do the same things with it. The non-cleared participants will have a higher cost and will not come free—and they have acknowledged it.***"

Among the various options that will need to get substantial attention if the SEC proposal is enacted is "Done Away" investing. It will become yet another important aspect of accessing the FICC if made available. Several firms provided feedback regarding funds utilizing Prime Broker and Correspondent clearing, emphasizing the need for easier accessibility to "Done Away." Per the DTCC – FICC has found that, many indirect participants elect to trade under a "Done With" model. This is often for regulatory, operational, and legal reasons. However, some recent analysis found that the "Done With" model is more widely used due to "***direct members preventing their indirect clients from executing trades with different brokers." For example, a Risk.net article noted that, "the SEC proposal does not instruct FICC to remove a provision that allows it's direct members to make access to clearing conditional on the identity of the executing counterparty.***" Commentary from the FICC suggested that they have a 'done away' model, in the form of sponsorship, and have not seen traction with it nor have they seen any major participant doing done away. This could have a future, but there are still a number of questions that the street has to work with. The return profile of the done away business has issues—spreads are thin and the cost of effectively have a guarantor business to the FICC is going to be a hurdle to work through.
The current state of Central Clearing at FICC presents significant challenges and opportunities for market participants in repo and U.S. Treasuries trading. As regulatory changes are being considered, understanding FICC access options becomes crucial to optimize market participation and adhering to legal and regulatory requirements. Access model choices under the SEC's proposed rulemaking require in-depth analysis and may introduce participants with lower creditworthiness into the clearing process, potentially increasing default and contagion risks. Sponsorship models have come under scrutiny due to the challenges associated with guaranteeing sufficient access without accurately gauging demand, even when accounting for CCIT and Tier-Two Netting. Operational and funding impacts pose further obstacles, and some market participants may prefer to continue P&L management and hedging via bilateral trading in other assets over accessing FICC. While Central Clearing offers risk reduction on an individual transaction level, potential systemic risks and the economic viability of access models necessitate careful planning and collaboration between the private and official sectors.



Developments at FICC

As referenced earlier, the FICC is presently responsible for Clearing of around 25+ percent of the repo market. Our participants shared the view that the significant increase in transaction volumes would pose considerable operational challenges even for the most efficient organizations, especially considering the intricate processes of netting, margining, and settlement. It is worth noting that currently U.S. Treasury cash is not centrally cleared, which creates an entirely new trade flow for Central Clearing. Study participants noted that while the FICC's GSD Handbook does touch upon operational standards and resiliency planning, additional oversite and industry input are needed to ensure a comprehensive evaluation at scale. Indeed, the SEC recognized Central Clearing challenges in their proposed rulemaking on Covered Clearing which was issued several months ago.

Concerns have been raised regarding the FICC serving as the sole Central Clearing Agent (CCA) for all U.S. Treasuries and Repos due to the inherent concentration risk involved. The centralization of clearing responsibilities for all such transactions exposes the market to potential disruptions with inherent increased risk to market data, technology, systems, risk management, margin/collateral, and settlement processes. Although the FICC addresses resilience measures in its GSD rulebook, without a more rigorous review, the market could be driven to operate in an environment of heightened risk across multiple vulnerable categories. One participant expressed concern about this approach when they commented: "***With the FICC being the only clearinghouse there is a huge risk that's not receiving sufficient focus. Are you not worried about Cyber risk and clearing all of this through one single place? Do you really think FICC could defend itself against a foreign government or bad actor? With the financial markets using a clearinghouse with no competition and there is only one place to clear, the U.S. economy would be harmed significantly if there was a successful attack on the FICC. Three things that are obvious to us are that this proposal would drive people out; it would drive up margin, and it would drive up cyber security costs.***» In addition to the operational risks to the market, participants were concerned with having a sole Clearinghouse executing these products and the implications of close out provisions. One Browker Dealer capsulized those concerns noting: "***The process for closing out in the sponsor structure needs to be streamlined. If we moved to a Cleared model and FICC could close me out--right now counterparties could close me out resulting in increased haircuts. The FICC can control my fate--to the extent that there are mechanisms to delay that would be important. We cannot be in a position where you could immediately force a default. It could be a house of cards, triggering cross defaults. There would be a diverse set of risks and layered on one clearinghouse with no other alternatives.***"

The existing regulatory framework does not require that clearing agencies include specific components in their recovery and wind-down plans. Rather, agencies broadly assess whether they can identify scenarios that may prevent them from providing their critical services; whether they have assessed the effectiveness of a full range of options for recovery or orderly wind-down and prepared appropriate plans for their recovery or orderly winddown based on the results of that assessment; and whether they have provided relevant

authorities with the information needed for purposes of recovery and resolution planning.

In an industry response paper to the SEC's most recent proposal on Covered Clearing, The Global Association of Central Counterparties (CCP12) address the new proposal on CCA's having procedures in place to access alternative sources of data as a risk control for the FICC when they noted, "Our view is that a CCAs should have reliable sources of price data and other substantive inputs. To achieve that goal, the Commission should focus on ensuring that CCAs have designed procedures for addressing circumstances where these sources are not available or reliable. By refocusing a final rule on policies and procedures, the Commission could achieve its regulatory goals while empowering CCAs to consider the unique aspects of their margin system in determining the relevance of "price data" and "other substantive inputs" from third parties to their system." The FICC had a different conclusion during their commentary when they suggested that CCA's should have the flexibility to develop reasonable back-up procedures and contingency plans for these types of circumstances, which will depend on the cleared products and market structure at issue and may not in all cases include the use of third-party secondary vendors or data sources. As a practical matter, use of a secondary third-party source of pricing data is not available in all circumstances. In addition, the FICC continued in their evaluation when they claimed that that there has been a considerable amount of consolidation among securities pricing data providers over the past few years. This has made it even more challenging to retain multiple vendors for each of the asset classes in which the clearing agencies require coverage, which includes almost every cash and bond trade effected in the U.S. and Canadian markets.

Firms value the diversification provided by having multiple clearing pathways, whether through various clearinghouses or bilateral agreements. Although concentration risk is discussed at length in later sections, it is worth noting that study participants recognize the potential for risks like those seen in the past financial crisis to impact the FICC, its sponsoring members, and the global financial markets. As we've noted, the current sponsorship offering pool is highly concentrated, with less than ten dealers handling two-thirds of the volume and just three firms accounting for the highest volume across all cleared products and sponsorships. Should such volatile conditions re-occur, the repercussions on sponsorship liquidity and related market products could be substantial.

In the event of a default, the FICC suggested that the CCLF is invoked as they explain,

- The Capped Contingency Liquidity Facility ("CCLF") is a rules-based, committed liquidity resource, designed to enable the FICC to meet its cash settlement obligations in the event of a default of the member to which FICC has the largest exposure in extreme but plausible market conditions. If FICC ceases to act for a GSD Netting Member, and CCLF is invoked, Netting Members and Sponsoring Members on behalf of their Sponsored Members are required to enter CCLF Transactions up to their reserved liquidity amount. Once FICC declares a CCLF event, Members will be required to hold and fund their deliveries to the insolvent Member up to a predetermined cap by entering repo transactions with FICC until they complete the associated closeout.

One G-SIB in our study noted the rising cost of business, explaining that, "***The street is aware of DTCC's growth, but the clients use it [FICC] sporadically. The costs are prohibitive and the CCLF needs to quarterly update the size and they have the habit of jamming the rate up on you—they are uncontrollable costs***." They continued noting that "***the entire universe is getting bigger and bigger and if you need to cover the largest counterparty to go under, and our costs are expanding and going through the roof.***" Another study participant estimated that, "***for a smaller broker/dealer they will be forced out of the business, and you will end up with a handful of outlets.***" When evaluating the industry's ability to carry out such requirements, they noted, "***we all may have the capability to do it, but it is very expensive to do so.***" A large institution articulated the reason on the matched book assessment with the CCLF as the lender of last resort when they stated, "***disagree with the matched book assessment? Why would it be different than client flow is directional and nothing changes. Swap clearing mandate on house and client side no one has a balanced book sliced and diced and why would cash be different. The overall point structure of CCLF last portion goes to Fed window wash liquidity through stress to the window and creates huge costs vs. limited moral hazard vs. having the Fed lender of last resort. Clearing on the client flow—if CCLF is a cost can limit some place client biz we can do.***" Another participant articulated quite specifically why they were dubious that the CCLF would not be more costly when they commented, "***In our experience with moving activity to sponsored we have not seen a meaningful increase in the CCLF. Some are the structural changes which look at cross entity netting. However, if you are missing 60% of the market, we won't be able to say that. The financing books could be matched or flat, but the outright dealer inventory will be directional and that will add to the CCLF.***"

As of March 31, 2023, the CCLF stood at $44B, depicted below is the CCLF amounts showing growth from '22. As of March 31, 2022, CCLF was $36.7B, roughly a 17% increase in size from last year. While 17% growth is substantial, we were unable to discern if this growth was due to an increase in members accessing Central Clearing or an increase in the CCLF by the FICC based on their calculation of risk. However, in a 2022 conference, FICC commented on the CCLF's economics noting that with netting, "***Market participants took full advantage of novating their buy side activity into the FICC. We've actually seen their CCLF obligation come down because of the netting that is achieved through our offerings.***" Additionally, they have since noted in the public domain that "***each Member certifies that the CCLF require-***

ment has been incorporated into its liquidity planning and related operational plans, including in the event of any changes to such Member's CCLF requirement." Prior to the CCLF's enactment, several FICC members requested that the SEC not approve its implementation when they illustrated the scenario that the CCLF is intended to address is not, in fact, «plausible,» as required by the rule. That is, because the CCLF treats U.S. government securities as ordinary «risky» assets, when they are not. U.S. government securities are, perse, riskless assets, from a credit standpoint. This means that at a time of financial crisis, money will inherently flow into U.S. government securities, not out of such securities.

The SEC's proposal outlines another substantial requirement called «the Segregation Proposal», which mandates that the FICC calculate, collect, and hold margin posted in relation to indirect participant transactions separately from that posted for a direct participant's proprietary transactions. The DTCC and FICC have publicly expressed their support for this proposal, with the FICC recommending a phased-in rollout to properly understand and implement the "Segregation Proposal" and address the significant impact on margin calculation and customer margin management. On this topic, a participant in our study noted, "***Customer asset segregation would matter in the event of mandatory minimum haircuts in the cleared model, that is then posted to the clearing house. Segregation of these assets is important in the event of a default. This will obviously be dependent on regulatory requirements and the requirements of zero haircuts.***" Additionally, to ensure that clearinghouses have enough capital to cover their risks, a broker dealer stated that a "***different house and client margining regime needs to be done.***" Separating house and client minimum margin requirements confirm that clients' positions are cleared through a clearinghouse taking on lower risk. However, house margin is posted for clearinghouses for their own positions which typically account for higher margins on these trades. Therefore, differing margin requirements between house margin and client margin exposes clearinghouses to less risk reducing the probability of a default.

As noted earlier, the FICC has indicated that it will conduct further analysis on the quantitative data derived from the most recent DTCC June 2023 survey to examine the feasibility and access to the CCLF. Industry consensus suggests that the FICC survey is a step in the right direction and a suitable platform for a structured assessment of the CCLF impact. Participants in the study indicated that they have begun evaluating their own portfolios to gauge the impact of the CCLF on their business. They noted that the FICC study does not include a review of market-related issues and overlooks the effect on risk-based capital when providing margin guarantees to the FICC. Additionally, there is an acknowledgment that the principal cost is associated with «financial resourcing,» raising the question of who bears the cost of enhanced capital, the capacity to conduct business, and the overall economics of the offering, which many consider problematic.

To address the potential risks associated with the proposed substantial increase in clearing activity, our study participants suggested a phased-in approach to implementing the mandate. This phased-in approach could involve gradually expanding the proposal to introduce certain counterparty types or asset classes into a centralized clearing framework. This incremental strategy would allow for ongoing adaptations and improvements to the system as the operational scale increases. Implementing an asset threshold to determine which investor and brokerage firms fall under the mandate could help navigate infrastructure expansion challenges and business impacts.

In conclusion, the current state of Central Clearing at FICC raises concerns regarding the large increase in transaction volumes and its operational challenges. The concern around having a single clearinghouse for all U.S. Treasuries and Repos is substantial, as it could lead to potential disruptions in the market. Participants are apprehensive about the implications of close-out provisions and the lack of specific elements in recovery and wind-down plans. The CCLF and «Segregation Proposal» are complex aspects that require careful evaluation and a phased approach to their implementation is recommended. Participants are examining their portfolios to gauge the impact of the CCLF and express concern about the financial resourcing and overall economics of the offering. To address potential risks, a phased-in approach with asset thresholds could improve the system and help the market adapt as operational scale increases.

Infrastructure

The FICC currently maintains multiple redundant data facilities and business centers throughout the U.S. to ensure that securities processing is not interrupted by a major event or regional disruption. In addition, to sustaining continuous connectivity to data centers, FICC supports access to its facilities via DTCC's Securely Managed and Reliable Technology (SMART) Network and SIAC's Secure Financial Transaction Infrastructure (SFTI), with interconnectivity established between these two high-capacity, fault-tolerant networks. The DTCC also maintains a Businesses, Technology & Operations Committee that oversees management's operation and development of the infrastructure capabilities, technology resources, processes, and controls necessary to fulfill DTCC's service delivery requirements and monitor key operational and technology metrics associated with the delivery of DTCC's services.

One concern expressed frequently in the study aligns with the increase in processing requirements and FICC becoming the sole CCA to the U.S. Treasury market. Specifically, a participant noted, "***if FICC does not have proven and extensively tested backups, there is a real chance we are in a completely locked up U.S. Treasuries market.***" When discussing with a major Broker Dealer the viability of them offering clearing to new participants, they detailed, "***FICC is in a tough position—they have heard feedback and recognize the need for additional operational support that the mandate will require. Their rulebook needs updating since the old models in there were aged. The FICC questionnaire focuses on the "familiarity" with the access models, but they were not specific. The FICC survey was looking to get more information, fill those gaps, and determine what to focus upon.***"

The SEC has requested additional input on the FICC's recovery resolution planning, ensuring that the Clearinghouse has substantial default and recovery process plans in place. FICC is also addressing the Covered Clearing wind-down plans as part of the latest SEC proposal. A G-SIB participating in the study commented on resolution planning, stating, «***In the event of a market move where Sponsored clients are posting margin, if you have a dealer blow up and the collateral and secondary sources of recovery are sufficient, the question becomes in what sequence of events does the wind down occur. We are curious about the firewalls for each step—will the FICC protect the CCP and its members? We are also extremely concerned that a default failure of a G-SIB would be a real problem for FICC.***"

It is important to note that FICC has publicly disclosed their risk management practices on their website, detailing their model development, governance, stress testing and liquidity management results. Participants in our study emphasized that the SEC should perform diligent and transparent model development reviews and capabilities testing on FICC systems. On this point, the FICC has communicated through their microsite on their testing measures and the importance they place on them, when they commented on the FICC's qualified liquid resources that are tested at least annually to confirm the providers are operationally able to perform their commitments and are familiar with the execution and operational arrangements with respect to FICC's CCLF process. In addition, they have communicated their measures being taken from a contingency standpoint, noting that that contingency arrangements are reviewed throughout the year but at a minimum once per product line or support unit. FICC also conducts facility specific work area recovery exercises throughout the year, but at a minimum once annually.

03.
Central Clearing and The Impact On The Management of Margin & Collateral

03. Central Clearing and The Impact on The Management of Margin & Collateral

Posting of Initial and Variation Margin

Core to the SEC proposal on Central Clearing is the recognition of the importance of margin posting and the management of collateral as both items received significant attention throughout our discussions with participants. Historically, dating back decades, regulators have been concerned about the lack of margin that has been posted versus the risks taken; the way that margin is calculated; the amount of leverage built out by Non-Bank Financial Institutions especially, and the role all those issues combine to take in the risk taking at both banks and investors. In addition, regulators have reflected differing views on efforts for collateral optimization (cross product margining, rehypothecation of collateral, legal support for what is seen as aggressive efforts to net) among other items. Regulators have pointed to specific market upheavals dating back to the late nineties where they have posited that excessive leverage built up in the system—accompanied by insufficient margin to cover those positions—resulted in meaningful counterparty defaults and risks to the system. As with any set of economic turmoil there is truth on both sides, although there is persuasive evidence that over-leverage in the system was a key contributor to the near default of Long-Term Capital Management and the re-capitalization that was provided to salvage that firm and unwind its positions. There is however justifiable scrutiny about assigning the absence of margin and the role that haircuts/margins played in upheavals since 1999. Policymakers point to the 2008 dissolution of Bear Stearns, Lehman, and Merrill Lynch and then the 2014 (Flash Crash), 2019 Repo Crisis, 2020 Covid Liquidity Crisis and most recently 2023 with the default of SVB. Those are not at all comparable events and issues surrounding risks taken by banks and clients vary widely among those specific market disruptions. The SEC among others have pointed to risk taking as being excessive in many of those instances or have suggested other remedies to address those risks including the proposal for Central Clearing.

More specific to the SEC and other regulatory bodies, concerns are frequently expressed that the banking industry has been too liberal with either not requiring a haircut at all on individual Treasury or Repo trades or not requiring sufficient margin. Chairman Gensler has been outspoken at numerous public forums about insufficient margin taken by banks to cover the risk taking by hedge funds and PTF's in specific. The SEC believes that industry-based corrective actions have not been forthcoming and that the prudential oversight that should be lessening this behavior has, in his view, failed. Hence, the broader view is that Central Clearing is the best policy option to address those risks. As articulated in numerous public settings, the SEC's primary rationale behind the clearing proposal is to reduce systemic risk, limit counterparty risk and the risk of defaults in financial markets. Under the proposed Central Clearing framework, and in line with existing FICC access models, margin requirements would apply to each trade. As a result, the FICC would charge margin to the principal institution, typically a bank, involved in the trade to ensure sufficient coverage of the associated risk. A study participant identified the coverage of such risk in a centralized cleared market when they noted, "***In our view you should be posting higher margin for deep off the runs. Most practitioners would be using less leverage with upfront haircuts.***"

There has also been a strong desire to erase some of the opacity of the less or totally unregulated sector, the SEC in particular calls out Proprietary Trading Firms and 'hedge funds,' as primary culprits. Chairman Gensler and the SEC seeks an enhancement of their transparency to their risk taking and their contribution to potential market stability. A study participant described the desire to enhance transparency by requiring the unregulated sector to post haircuts in a centralized clearing market when they commented, "There are no haircuts with the hedge funds and the same with swaps. Central Clearing will force externalization of margin and liquidity costs on the markets. Someone will need to bear those costs."

Chairman Gensler, as readers are aware, has argued that the lack of transparency with unregulated entities known as non-banking financial institutions, has made it far harder for the official sector to understand these entities risk mitigation methods, trading strategies, and governance structures, which in their mind can or has led to increased systemic risk in the market. Moreover, Chairman Gensler has repetitively expressed the need to enhance the efficiency and resiliency of the Treasury markets noting, "the vast Treasury markets can experience significant volatility and lessened liquidity." Most of our study participants have identified that replacing haircuts will "incentivize clients" to reduce margin and allow for cross margining as one participant stated, "Central Clearing is forcing people to overpay for margin. That's the wrong approach. If you think haircut levels are wrong – replace them." The broader themes articulated above were mentioned numerous times in our discussions throughout this project from banks and investors and our exchanges with regulatory bodies. Importantly in our view, the SEC proposal seems to strongly suggest that there has been an absence of appropriate risk oversight by the prudential regulatory sector for banks offering balance sheet, leverage, especially to NBFI's, and the enhancement of 'zero haircuts' to attract business. Our discussions across a series of margin issues attempt to address the underlying concerns expressed by the official sector.

The levered participants in our study and their dealers who have provided them balance sheet noted that there were potentially unintended costs from posting upfront margin given that most of them were paying either reduced spreads or lower haircuts prior to this proposal. A study participant described the cost of posting upfront margin that will be passed on to clients when they stated, "This proposal would require us to crank up wildly different haircuts. The only way this would work is spreads go through the roof and liquidity goes down. It does not better the system if the FICC is making haircut decisions." When speaking about the additional costs with another industry participant, they also noted the increased cost of financing commenting "[the] expectation is that contribution and haircuts is going to drive up costs of financing."

Most Hedge funds and the Dealers have argued that there are mitigants when margin is not posted such as a broader cross product margining agreements that are in place making highly liquid assets to be traded at a low duration resulting in quick settlement times. The concomitant result could be a reduction in liquidity in the market, making it difficult for them to execute trading strategies and compete with other market participants. The same industry participant described the impact on liquidity saying, "we have been speaking to the dealers and discussing those changes and economics because of the potential clearing proposal. We are already seeing hedge funds and PTF's decreasing liquidity. Cost of funding and haircuts has already increased across the board." Moreover, they believe that the current margin requirements are sufficient to protect the clearinghouse from risk.

One of our study participants commented on the effect that additional costs have on hedge funds, PTF's, and the market when they noted, "no one wants to pay fees. Business is not as profitable as before." In addition, other study participants indicated that sponsors would need to absorb the costs to get balance sheet relief leaving clients unhappy at minimum as costs are passed on.

Posting of Initial and Variation Margin

The official sector has often stressed the importance of reducing risk in the system, which is core to this proposal. When discussant noted, "Central Clearing, though it has its costs, also is a risk-reducing mechanism in the markets. Because you put a clearinghouse in the middle and all the various parties of the market then what's called net-down their positions at the clearinghouse." Participants in our study agreed that not posting an upfront margin for certain liquid asset trades was common for liquid instruments and typically for bigger and better rated fund counterparties. When discussing upfront margin with one of our study participants, a minority of those involved in the study shared some concern over that process. One set the table on those policies noting that "Dealers are not collecting margin" for these trades resulting in "uncollateralized margin in the system and no one is bearing the risk." Other study participants have indicated that some of these firms can use significant leverage and clients should improve their risk management practices. They noted that firms with limited cash holdings are mismanaging their portfolio risk, referencing the Liability-Driven Investment (LDI) problems last year, stating, "If you are a long only, like a Pension, and own illiquid assets and own a duration liability you buy Treasuries on leverage and finance them in the repo market. If you are holding little cash – it's problematic and you are mismanaging your portfolio risk. This should not be difficult for you." In addition, a major broker dealer we spoke with concurred with addressing those risks when they noted that "minimum margin requirement is important" to avoid another situation like Silicon Valley Bank (SVB) that resulted in cascading liquidity pressures in the market.

Chairman Gensler's views however were not universally shared as others in the industry have identified vehicles to mitigate risk, beyond Central Clearing. Many of our respondents believed that the issue surrounding zero upfront margins was reduced by risk mitigating efforts including broader netting approaches or collateral optimization employed by many firms as few firms used zero upfront margins for riskier long dated trades. The Office of Financial Research (OFR) study released in May references that nearly three quarters of repo trades had zero haircuts, but nearly 60% of those used cross margining, which would be eliminated or vastly minimized in a Central Clearing model. In addition, one of our study participants described the streets reliance on zero haircuts that can be facilitated by cross product netting. They noted, "For outright, relative value activity, we believe that the street relies on zero haircuts which may not realize the real risk. That can be facilitated by cross product netting or by FI prime brokerage or sponsorship. We hold that capital—we do due diligence and credit checks for all that activity. However, there are additive costs that need to be socialized and we are not sure whether everyone realizes that risk. Credit offsets however are not uniform across the street—and in the end, these are credit decisions."

credit decisions."

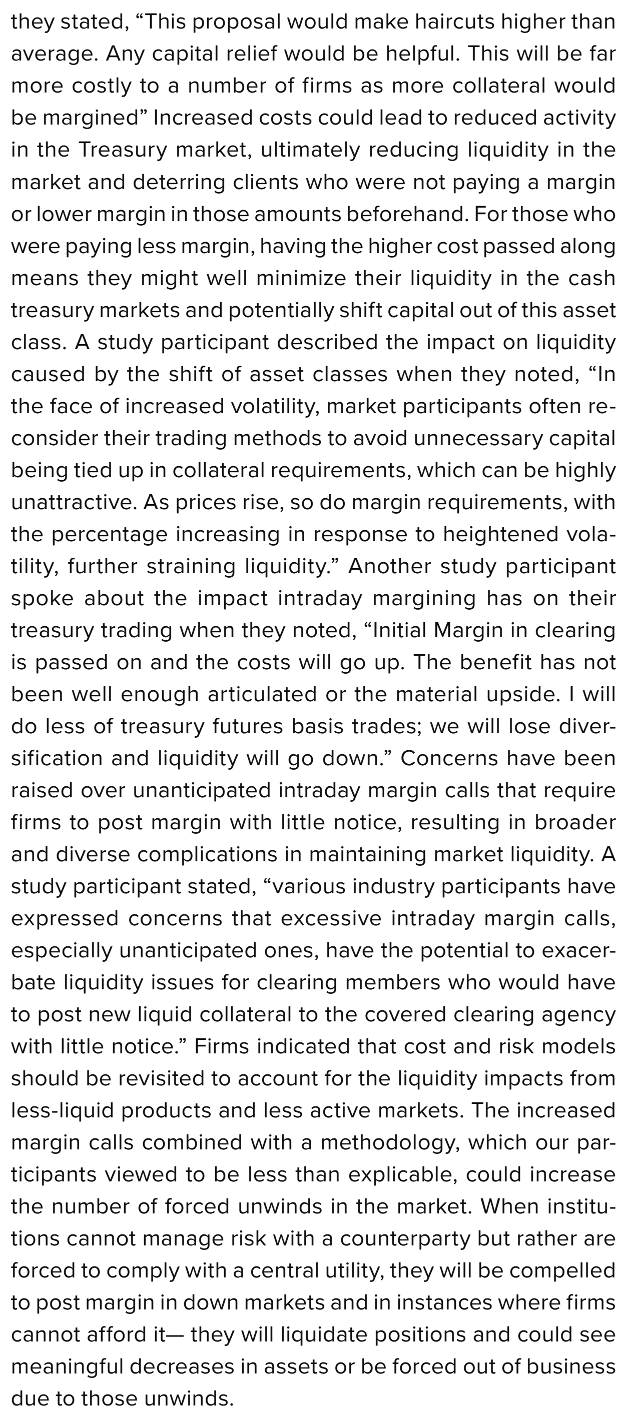
Firms recognized that an additive concern, were this proposal to move forward, would be the inefficient use of capital and collateral, which would now need to be posted in substantially higher amounts. There would be additional costs for technology, systems, governance, and legal agreements would all need to be re-envisioned and re-actualized to conform to haircut requirements, which will be a significant lift for firms in cost and timing. In addition, there are some persuasive economic realities that firms face as they do business with investors. One of our G-SIB's laid out those challenges when they suggested, "Some of these are economic pressures and not surprising that some funds argue for zero upfronts as part of their trade. They recognize that they rely on the street to intermediate capital in a different way than a Hedge Fund's cost of capital and that needs to be reflected in the cost of their trades. Their cost of economic capital is very different than the street's."

To be clear everyone in the study broadly shared the view that properly managing their portfolios was core to their responsibilities or those of their clients. They argued however that the industry can make haircut adjustments to properly reflect risk at their firms and have demonstrated that their risk management capabilities are improving for the necessary oversight. A study participant described the risk management capabilities of haircuts by the industry as, "Haircuts are managed well by the industry. Our clients, which are hedge funds and leveraged players, have mandatory haircuts on at least one side of the trade. Often you do not need a haircut on both the futures and the derivative." Other study participants noted they are in favor of zero haircuts and described haircut levels as reasonable depending on the strategy for that specific trade. They commented, "There is value to allowing for zero haircuts for duration neutral trades and giving relief. It makes sense to allow relief for cash vs derivatives trades that provide arbitrage for different counterparties and for different parts of the banks. Where we get margin offset, we can reasonably justify providing it."

A global technology and system provider also commented that zero haircuts for the market are not risky, and in fact firms mitigate the risk on their positions by liquidating the same as with haircuts on Treasuries. They specifically stated, "Historically hedge funds do not go out of business in a single day unless there is fraud. Zero haircuts on a treasury can be liquidated on a singular day in a treasury market. We do not see haircuts on 1–2-month funding."

Impact of CCP Margin Requirements on Liquidity

As part of the SEC's proposal, banks and larger investment managers would face margin hikes that the study respondents believed would be associated with cost increases for trading U.S. Treasuries that would be passed on to their investor clients. A study participant noted the increased cost of doing business with clients due to Central Clearing when



they stated, "This proposal would make haircuts higher than average. Any capital relief would be helpful. This will be far more costly to a number of firms as more collateral would be margined" Increased costs could lead to reduced activity in the Treasury market, ultimately reducing liquidity in the market and deterring clients who were not paying a margin or lower margin in those amounts beforehand. For those who were paying less margin, having the higher cost passed along means they might well minimize their liquidity in the cash treasury markets and potentially shift capital out of this asset class. A study participant described the impact on liquidity caused by the shift of asset classes when they noted, "In the face of increased volatility, market participants often reconsider their trading methods to avoid unnecessary capital being tied up in collateral requirements, which can be highly unattractive. As prices rise, so do margin requirements, with the percentage increasing in response to heightened volatility, further straining liquidity." Another study participant spoke about the impact intraday margining has on their treasury trading when they noted, "Initial Margin in clearing is passed on and the costs will go up. The benefit has not been well enough articulated or the material upside. I will do less of treasury futures basis trades; we will lose diversification and liquidity will go down." Concerns have been raised over unanticipated intraday margin calls that require firms to post margin with little notice, resulting in broader and diverse complications in maintaining market liquidity. A study participant stated, "various industry participants have expressed concerns that excessive intraday margin calls, especially unanticipated ones, have the potential to exacerbate liquidity issues for clearing members who would have to post new liquid collateral to the covered clearing agency with little notice." Firms indicated that cost and risk models should be revisited to account for the liquidity impacts from less-liquid products and less active markets. The increased margin calls combined with a methodology, which our participants viewed to be less than explicable, could increase the number of forced unwinds in the market. When institutions cannot manage risk with a counterparty but rather are forced to comply with a central utility, they will be compelled to post margin in down markets and in instances where firms cannot afford it— they will liquidate positions and could see meaningful decreases in assets or be forced out of business due to those unwinds.

Industry Identified Challenges of Working with the FICC Margin Approaches

In our first report (March 2023) there was considerable feedback relating to the level of difficulty that the market had working with the FICC's margin calculation model. We reached out to the FICC and held several discussions with them to discuss these concerns before publishing this paper. We also spent considerable time reviewing FICC documentation related to this topic. And of course, having the opportunity to have dozens of additional conversations with participants in the study and representatives of the official sector, we raised this issue again and some of the more nuanced concerns to

garner their feedback. Participants acknowledged that the FICC included substantial details regarding the model in their handbook and have been open to having discussions with member firms to discuss the underlying details associated with their model. The FICC commented on these discussions with members firms when they suggest that they felt that broadly the industry was not well aware of their microsite, and in particular of risk measurement issues and the industry has not been using their VAR calculator. They noted that they have thirty+ pages of detailed formulas in their methodology and it is not a high-level description. The FICC further noted that they are trying to understand why quants cannot replicate the models and what it is they are missing in these models. Commentary from the FICC suggested, are they using for example for data inputs? Are there specific zones of confusion? What are the clients not having communicated so the FICC can address this in the future. Participant views on the challenges they were facing did not change over the summer months in our discussions with them but there was a recognition that finding some common ground was necessary. And in that spirit, we also engaged the FICC to ensure that their viewpoint on available documents and feedback to our findings are included in this section. For background purposes, the Required Clearing Fund Deposits made by Netting Members are driven primarily by a Value-at-Risk (VaR) Charge; other margin charges may be collected when applicable. The components of Netting Members' Required Fund Deposits are described in Rule 4 of the GSD Rulebook. At least twice daily, FICC-GSD calculates and collects a Netting Member's Required Fund Deposits, which vary based on their trading activity.

As noted above, throughout our discussions with Dealers and Investors, firms expressed some challenges in comprehending and working with the margin model calculations and variables, including potential margin posting requirements. Several Dealers expressed on-going concerns related to capital allocation planning, given their lack of clarity surrounding the factors determining margin posting requirements. In addressing firms' uncertainty around the models, a G-SIB participant we spoke with explained their effort of trying to dig deeper into the underlying mechanisms of the models, when they said: "***We have had two quants looking at the FICC model, and we have tried to back in the data and can't do it. The VaR calculator is not adequate. We tried to take the model apart and review their manual and spent a lot of time. What we have tried to do is model each portfolio to the clearing fund deposit to convey how they socialize in the costs. We want to have an informed conversation to be able to 'justify' the [margin] calls and to determine how to pass along the costs. We are struggling to do that with the information available from FICC.***"

Furthermore, firms expressed uncertainty around the ability of a Sponsoring firm to accurately forecast margin postings that will have to be paid twice daily to the FICC. Without this insight, firms were concerned about not being able to provide this information to their clients in a reliable manner and impacting the veracity and speed in which these can be translated to them. An Asset Manager we spoke with, for instance, commented on the impact on client relationships and resulting margin posting complexities, saying, "***This creates inefficiencies, at a minimum, and allows for more market dislocations in the way we trade and the cost of putting on a trade is higher. There are also lots of collateral problems which come about from this model, with for instance not having documentation for segregated collateral and system of loss mutualization. With VaR model opacity and intra-day margin calls from the FICC, the more leverage you have the worse those problems are.***" Another G-SIB provided their take on trying to determine the underlying inputs and mechanics around the margin models, saying, "***[the margin models] are in-***

credibly difficult to calculate. We've had three quants looking at this [with no success in figuring them out]. They further expressed their concerns relating to understanding the margin models for USTs, saying, "***there is no visibility to their models for the treasury market which is a problem.***" In addition, another U.S. G-SIB noted their concern in understanding the model, saying, "***Any clearinghouse model, including the FICC's, lacks predictability, and they are no better or worse than standard models. However, they have not been responsive for better forward projections or back-testing, and if you are asking 100 members all to have their quants put a lot of time into it they could, but ideally the clearinghouse should make that effort.***"

Investors also shared concerns regarding the lack of clarity around margin models, with one Hedge Fund participant saying, "***if margining models are opaque that's a bad thing, and we would want transparency around those.***" Another Asset Management firm spoke on their concerns relating to the FICC's margin models, explaining, "***we see lots of collateral problems with this [margin] model. Also, there is currently no documentation for segregated collateral and no system of loss mutualization. With the VAR model opacity and intra-day margin calls from the FICC, the more leverage you have, the worse those problems are. Our folks in-house have tried to run it every time you just [end up] paying whatever they are charging. We are just taking their word for it; we need to get more color.***"

There was also concern raised around smaller firms having difficulty in understanding the inputs of the margin models and lack of transparency in calculating increased intraday margin requirements. As one of our G-SIB participants noted, "***the liquidity and concentration add-ons need to be transparent to allow the smaller participants to replicate this model because they have not cleared these products before.***" Given that smaller market participants may not have the financial resources or access to the data needed to cover margin calls, the FICC must ensure that smaller participants could review the new margin models and have a thorough and detailed level of transparency to those models in order to participate in a full sponsorship product exchange.

Participants also shared concerns on what they perceive to be a "randomness" surrounding the intraday margin calls and during what period of the day these calls will be made. One of our study participants explained, "***[what is] more troubling to us is the FICC's intra-day margin calls. They are random. They make no sense to us—no idea where we get that money from. Those are the one's that shock the market. Those snap margin calls can trigger default and some players will not have cash on hand to pay.***" The irregular nature of intraday calls can make it difficult for market participants to predict when they will need to post more collateral, forcing firms to liquidate positions at a loss.

Other firms voiced concerns around potentially posting too much margin due to the ambiguity of the models, with one G-SIB saying, "***FICC's models are very conservative, and [in their view] the industry does not understand them." They continued to explain their stance, commenting that "It's difficult to get specifications from them and they do not share what those inputs are. They need to be more transparent, improve clarity, and better communicate as to what the risks and the impacts are. We have dedicated resources to replicating the charge and are unable to consistently model from what we have received.***" Firms explained that in spite of the substantial amount of material provided by the FICC, achieving clarity surrounding margin models was not sufficient. Institutions described that there was often a meaningful inability to predict the margin model underlying premises and a limitation on their ability to forecast payments to the FICC, manage risks, and avoid the potential for accelerated unwinds in times of market stress. One of our G-SIB participants noted the difficulties they experienced in attempting to understand the methodology, explaining their concern that without a clear margin model framework, "***you end up losing control and your margin jumps.***"

The FICC has provided guided feedback on FICC margin models when they commented on the guts of the model and VAR calculator that is available to market, while continuing to explain that the model is not opaque. The FICC also noted that the VaR applies a 10-year look back, or additional time if there are no stress events and the detailed methodology can be found on FICC's website and PFMI. Additionally, a VaR Calculator is provided to their members to actively understand and manage their market risk in an ongoing basis and awareness of related impact. Furthermore, publicly the FICC frequently communicated their intention to provide further documentation to help inform market participants about margin calculation formulas and methodologies.

As the FICC has noted on their microsite, there are multiple inputs which together combine to form FICC's margin calculation. They suggested that the VaR charge is calculated using a risk-based margin methodology that is intended to capture the market price risk associated with the securities in a Netting Member's Margin Portfolio over a designated time-period. VaR Charge is calibrated to cover the projected liquidation losses at a 99% confidence level, assuming a 3-day liquidation/hedging period. Further diving into FICC's methodology, the first of the key variables which goes into the VaR calculation involves Historical Simulation inputs, and inclusive of Risk P&L Model data. The next variable considered centers around Haircut data, inclusive of U.S. Treasury and Agency bonds without sensitivity analytics data, MBS without sensitivity analytics data, U.S. Treasury

FRN Haircut Charges, and Repo Interest Volatility Charges. Lastly, the remaining variables which constitute FICC's methodology in calculating margins focus on VaR Floor & Bid-Ask Spread data.

In addition, the FICC, both in our discussions and in public settings, has emphasized that there are several pieces here that are a work in progress. First, the FICC has started frequent outreaches to the market to ensure that the process of working with them across the spectrum will be pragmatic and effective. They see an early start and continued dialogues that will begin to address some of the concerns. Second, the FICC sees communication as vital to this process. They have noted that in their outreach a number of the mid-smaller sized members are not familiar with the FICC and its approaches for managing collateral and margins. The FICC notes that many of the eligible participants are not aware of their offerings that would educate firms on the availability of information, how to better understand the margin calculator, background to the methodology, and the ability to walk their subject matter experts through it. Fourth, the FICC notes that the results of their own market survey, where data was due by 7/31 and scheduled to be released sometime in September. The FICC commented on this survey when they noted in our exchanges that they have completed their own comprehensive survey which covers awareness, models, resilience, and seeking quantitative information to help with the eventual implementation of the SEC proposal. They felt they were bridging that information gap with the industry slowly but steadily and clarification especially around the differences between the clearing of derivatives and cash and treasuries. The FICC felt that the results from that study would provide both qualitatively and quantitatively valuable material to the market and assist dealers and their clients to enhance communication to better understand the FICC's approach. Finally, the FICC has noted that they do understand the inherent risk associated with having one CCP in comparison to the current non-centralized framework in the market. However, they also explained their effort to successfully implement the elements of the proposed mandate by enhancing their strict due-diligence methods related to cyber issues, operational resiliency, margin models, recovery, and resolution practices.

Standardized & Common Margining

One of the core concerns of the industry in their very initial commentary submitted to the SEC focused on the necessity for building a margin regime which had some levels of standardization and rigor that would mirror some of the efforts undertaken in Dodd Frank and eventually embraced by the derivatives industry which took a while to get in place. During our discussions firms emphasized that there were considerable challenges associated with general randomness of margin postings with the exchanges and wanted to build a level of rigor in the process. As a result, firms expressed a desire for standardizing a margin process across Repo and U.S. Treasuries to build a solid framework around the structure that would be encompassed in the SEC proposal.

Not surprisingly, in speaking with our participants they were inclined to juxtapose the approach taken in Swaps Clearing under Dodd Frank and the issues they were now confronting with the potential for Central Clearing of repos and U.S. Treasuries. Speaking to this issue, a U.S. G-SIB, spoke in favor of margin posting in the swaps space calling it "***more routine with a single form, with initial margin requirements using the standard margin methodology.***" Another G-SIB in our study, further explained their preferences with regards to standardized margin, saying the market is "***better off using a market maker standard, rather than a notional amount standard, and the FICC needs to clarify that in a more standard way.***"

In speaking with another U.S. G-SIB, they also spoke in favor of standardized margin positing instead of implementing a centralized clearing environment when they commented, "***If the regulatory goal is to standardize haircuts and they do not like zeros in the bilateral or cleared world then they should standardize them.***" Participants have agreed that Central Clearing should not involve zero haircuts and that zero haircuts can be done

outside of clearing. One of our study participants explained this when they commented "***Mandating clearing does not result in a standardized haircut across the market. Indeed, the SIFMA letter says it can be done outside of clearing. A sponsor can subsidize the CCP on behalf of the client—and you are not enhancing the credit profile of the client.***" Other participants noted that by standardizing haircuts that are cleared through the CCP, the question becomes who is paying for the additional costs. One of them stated, "***Who is paying for all this? the clients? the dealers? the FICC? for Derivatives FCM's are required by the CTFC have to collect margin. It's mandatory from the client.***" The same study participant noted that a centralized clearing environment will become expensive for their clients and that the sponsors and dealers will need to consider the additional cost. They stated, "***for cash clearing, the SEC would have to drive the cost up and if the FICC would require sponsors or dealers to collect margin there would be no way to enforce or surveil that.***"

To be clear the industry has communicated that built out correctly with necessary input, a common or standardized margin would be desirable. SIFMA also noted in their letter the way that standardized margin could help in closing the gap between market participants when they said:

- *"Requiring counterparties to post margin for non-centrally cleared bilateral Treasury Repos through internationally agreed upon standards could level the playing field for margin requirements in Treasury Repos, whether or not centrally cleared, and, therefore, incentivize market participants to centrally clear Treasury Repos."*

A particular concern of the market in our discussions was building an appropriate standard intraday timeframe for posting. This was explained by a U.S. G-SIB we spoke with, who suggested:

- *"We need a far more consistent approach that also provides clarity than what we had with margins with Dodd Frank. We had huge issues with Swaps Clear that needed clarity. The reporting at the FICC is one of the best—and makes data available once an hour which is not the best but better than most repo clearing for example in the UK. However, the tool does not figure out incremental impact—so we need a standard intraday time frame. Right now, if you post at 2:00 or 3:00 p.m. and hikes trend down they do not return your money until the next morning."*

SIFMA recommended the use of standardized margin to the SEC in their letter, in suggesting:

- *"[The] Commission should consider working with other regulators to develop internationally agreed upon standards to require counterparties to post margin for non-centrally cleared bilateral Treasury Repos, which would help level the playing field between centrally cleared and bilateral Treasury Repos and reduce the incentive to find ways to get around any requirement to centrally clear Treasury Repos."*

Cross Product Margining, Global Netting Agreements & Collateral Offset

In our initial study from the spring, we found a broad interest among our participants to salvage a version of cross product margining/cross product netting/Global Netting if the SEC proposal was adopted. At its base, any of the U.S. Treasury or Repo transactions that would be tied through a netting agreement of any type, and plausibly linked to other master agreements for swaps or other instruments, would need to be re-papered and the transaction unwound in the market. Going forward, firms would be required to post intra-day margin to the FICC utilizing the FICC's methodology. Those dealers/sponsors would be able to continue those netting/margining agreements with their counterparties but would require them to swallow a considerable amount of risk and likely spread on those trades with the client in order to do so. Firms would be able to continue to benefit from the netting processes in place at the FICC and the CME for Repos and Treasury futures but those currently do not include client transactions gutting much of the benefit that firms garner from their bilateral netting processes in place. Firms also face a growing uncomfortable reality where the prudential regulators are proposing to hike capital in copious amounts, including a proposed hike on Derivatives Clearing, while the SEC wants the industry to dis-engage from trades without initial margin. For the major dealers and sponsors and their clients, this would combine to produce what could be a very uncomfortable and unhealthy business environment going forward.

Value of Cross Product Margining to the Markets

The benefits associated with any form of cross product netting and margining to the market were unquestioned throughout the study, including in discussions with the official sector. Indeed, as we note above, the ability of firms to use this tool to reduce margin for clients; tying out the economic reality on the cost of capital with their clients, while also reducing credit risk exposures to those same clients was broadly supported. Netting also allows for minimization of collateral postings and the accompanying operational and legal risks which has served as an incentive for firms to invest heavily in this product. For the firms who offer these products to clients, these investments include risk management and model buildouts---enhancements to their collateral management systems---and heavy scrutiny to their client documentation and enforcement of their netting agreements. A U.S. G-SIB noted their view that, "***It's really important to retain CPM and every firm has different models for using it. It has some benefit if we are facing an accelerated onboarding process or investing in standardized forms, and the ability to CPM needs to [in our view] be preserved.***" This view was also shared on the investor side when an Asset Manager commented, "***Cross Product Margining is very important to us. If we do not get CPM you will reduce [activity in] Swaps and Treasuries.***" Limiting the availability of CPM for firms transacting in the UST and Repo markets could lead to a decrease in overall margin minimization trading activity resulting in lowered levels of market

liquidity. Others noted that these challenges to this expansion when they commented, "***If the FICC haircut is mandatory/pass through the model, then CPM won't work. We don't see how it works without the CME/FICC Cross-Margining offer being expanded. The street cannot absorb the margin difference, it's not possible. [Also,] the dealer community cannot absorb these without passing them on to clients.***"

Current Netting and Margining Agreements: FICC & CME Enhancements

Institutions recognized that one of the foremost undertakings impacted by the potential of Central Clearing would be the efforts required for repapering, re-negotiating, and reviewing all the current netting agreements, the associated master agreements, CSA's, and enforceability agreements related to bankruptcy that could be affected. The documents involved will unquestionably cross cash, futures, and derivative instruments both U.S. and foreign and, involve opening discussions with counterparties that could be a decade or two old. Once that process occurs, firms will be incentivized to start from scratch reflecting the realities of their new business, credit and legal situation which likely has evolved from when the agreements were initially considered. Market and best practices for those provisions as well as discussions with the major trade organizations who have assisted in the drafting of those agreements have also evolved.

The issues of requiring positions to be unwound in the market were given almost no consideration by third parties and the official sector. Understandably the short-term trades would have very limited impact but the trades involving multiple products that are also outside the scope of the proposal but included in the netting agreements would create challenges. One G-SIB we spoke with explained the impact of unwinding and reestablishing positions due to the repapering of Netting Agreements, noting that "***the costs would be exponential to put that trade back on.***"

Over the past month the CME and the FICC have expanded the scope of their netting agreements to include additional products on the CME side but not across asset classes. In addition, the agreement does not include client trades with no change from the present system, which significantly limits the benefits to participating firms. The FICC explained the details of the proposed amendment, noting, "***The proposed Restated Agreement is primarily designed to, among other things, (i) expand the scope of CME Eligible Products; (ii) expand the scope and efficiency of the margin offsets that are available to Cross-Margining Participants, thus allowing for more efficient capital usage; (iii) improve the efficiency and effectiveness of the default management and loss sharing process; and (iv) as a result of such enhancements, further encourage greater utilization of centralized clearing, thereby facilitating systemic risk reduction.***"

The efforts by the CME and FICC are indeed laudatory as they will offer relief for firms who clear their principal positions and receive balance sheet and some capital relief for these efforts. The SEC also noted the potential benefits of the proposed amendment, saying that this "***would enhance the cross-margining arrangement between FICC and CME.***" One of our participants who had reviewed the recommendations noted the exceptions when they commented, "***it's important to note that widening the scope of products as part of the amendment will only increase the number of UST & Repo transactions eligible for CPM. It fails to expand the product classes which could be included in Cross Product Margining transactions.***" A foreign G-SIB provided their view on the amendment's impact on the industry, saying, "***The new FICC/CME agreement does add new futures (UST and***

SOFR) which makes it more reflective and more meaningful going forward for the universe of futures products traded in the rates market. However, it does not add new products and it's only for house accounts and not for clients. " Another U.S. G-SIB shared their view on how expanding product scope impacts the market, saying, "***the recent cross margining proposal does expand the product scope but does not expand eligible counterparties since it is still restricted to direct members and does not include netting for clients.***"

Should the proposal be implemented in its current form, participants in our study were concerned it would tie up valuable balance sheet capacity for institutions across the industry. If firms are unable to net the posting of margin across products, it could constrict balance sheet capacity and could impact on levels of market liquidity. One of our participants noted succinctly, "***if CPM were to go away, liquidity would diminish.***" Various approaches have been used regarding CPM across multiple product classes (i.e., interest rate swaps, credit default swaps, credit indices that are now cleared). Firms noted that overpaying for margin would increase inefficiencies in the use of collateral, something that cross product margining can help promote. One of our U.S. G-SIBs explained, "***By forcing people to overpay for margin, that's the wrong approach. If you think haircut levels are wrong, then [the industry] should replace them. Allowing Cross-Margining incentivizes clients to reduce margin and you want to encourage that type of behavior." An Asset Manager we spoke with noted that netting helps drive down their costs to trade, as they stated, "the cost to trade would be significantly higher without CPM.***"

Firms highlighted the importance of being efficient with collateral by avoiding unnecessary margin posting, as one Asset Manager explained, "***We do have significant derivative volumes that we trade, and we use leverage regularly. [With this in mind,] we think about macro view, and we've spent a pretty large amount of time expressing our views around being collateral efficient.***" This firm continued in noting that higher margin postings, which would be more prevalent without CPM, would yield negative results for the market. They said, "[it] creates inefficiencies, at minimum, and allows for more market dislocations in the way we trade. Also, the cost of putting on a trade is higher."

Netting Across Individual Assets

As we have noted the benefits of netting cash and derivatives instruments and its unquestioned that these agreements would be jeopardized by the SEC proposal. For example, a U.S. G-SIB shared their view, explaining that "***for cross product margining, where we see the benefit is more on the cash vs. swap side. There is meaningful benefit to the client to have it there for derivatives and cash together.***" They concluded by explaining, "***A cash mandate does not bring swaps into the FICC model and if you de-couple the two then you do away with the benefit. On the repo side, bundling the finance side with cash and swaps would also be de-coupled.***" Another U.S. G-SIB commented on the netting benefits for Futures vs. Swaps, explaining that it allows firms to "***trade their listed futures and cleared swaps, while executing with whomever they want and clearing with a clearing broker.***"

Cross Product Margining is also used as a risk mitigation tool to minimize capital commitments as well as enhance their ability to rehypothecate margin. With greater flexibility from a balance sheet perspective, there is less of a risk that firms would have to unnecessarily unwind positions. The netting of derivatives vs. cash products, for example, would enhance clearing efficiency, reduce default risk, and foster a higher level of market activity without necessitating increased capital holdings by members. In addition, the ability to net across assets could help firms mitigate VaR shocks, as netting will help them offset higher and more frequent margin postings. One foreign G-SIB explained some of the damage that can be created, saying, "***There are VAR shocks [associated with] aligning cash and collateral needs [of a firm's business] and the ability to project what margin obligations will be for the next day. A random call and for a random dollar amount is punitive and the smaller [firms] were [notably] paralyzed.***"

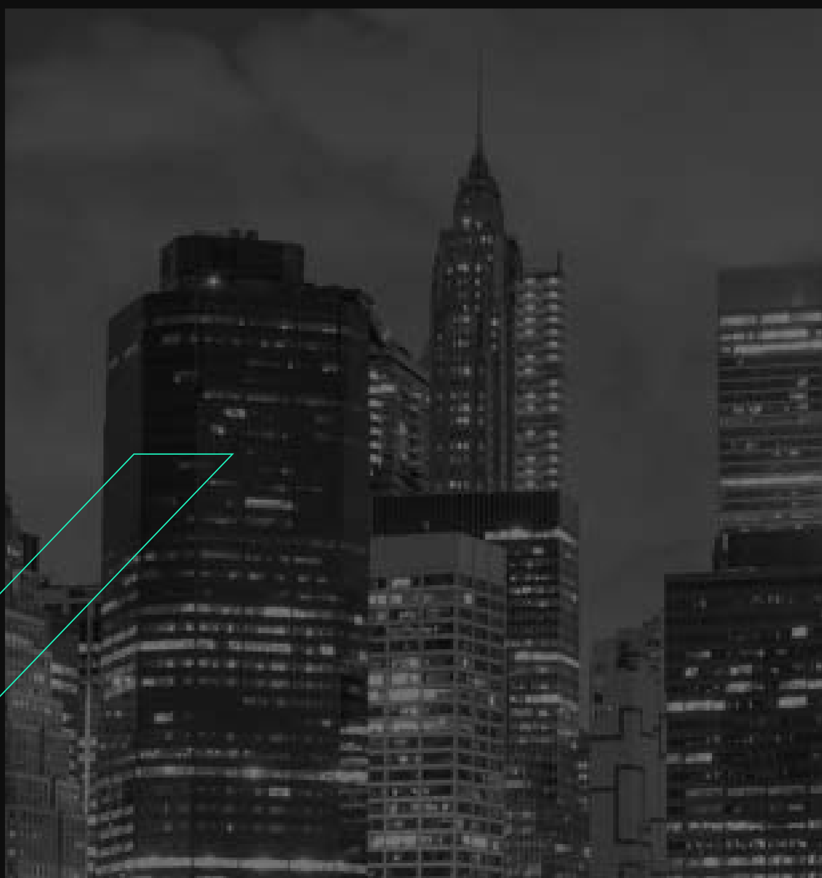
The issues arising in our margining section were complex and among the most challenging for the industry as they considered the implications of the SEC proposal. The industry wants to enhance the current versions of Cross Margining at the CME & the FICC. There is a strong desire to ensure that a healthy dialogue ensues on a standardized/common margin approach. Finally, there are meaningful concerns about the impact of intra-day margining on medium- and smaller-sized clients. All of these will need to be addressed by the industry and the official sector as this proposal gets additional consideration.

04. Operation & Technology Investments

04.Operatins & Technology Investments

Participant Impacts – Large and Small Dealers

It's vital to acknowledge that the impacts of the SEC proposal will vary due to several factors including the wide array of dealers and investors in the industry and the size and makeup of their trades in the U.S. Treasuries market. G-SIBs and larger Broker Dealers are better equipped structurally to bear the costs associated with increasing system capacity, revising trade agreements, enhancing their systems, and updating models. The proposal's impact will include large operational costs and changes that will require expertise, coordination and planning to complete, but will largely be seen as the "cost of doing business" as both dealers and regulators noted in our study. Finally, it is worth noting Institutional investors and banking organizations are facing a torrent of other regulatory and compliance initiatives ranging from T+1, additional capital costs, governance approaches for cryptocurrency and a myriad of other SEC proposals. There are varied time frames for each of these initiatives—some quite short-term requiring immediate investment and others several years out. However, as we were reminded numerous times, it is through that lens that institutions are responding to the Central Clearing proposal and the very meaningful operational investments that will be required for all types of market participants.



One of our larger G-SIBs addressed the impact on their firm and their clients, in saying, "***on the operational side, for SIFI's, Central Clearing benefits us, as our counterparties shrink and our fails shrink, and operational costs go down.***" In estimating the impact on smaller firms, the bank commented in a comparative manner, "***for smaller brokers, however, there are huge operational costs which are going up, and many brokers are looking at the costs of the margin calls.***" They continued in explaining that "***For the end client, this is a very large issue, as [for instance] they don't currently get margin calls, and they literally call their brokers and pay out the trades. They now must flip the counterparties which they are not set up to do these for cleared transactions. [As a result,] costs will go up and they will charge someone for it.***"

The proposal's financial and operational implications for mid-sized and smaller dealers and investors should not be underestimated. The degree of investment required for these smaller brokers to maintain compliant access to the U.S. Treasuries market remains uncertain. Participants expressed that it would be costly and could reduce both participation and liquidity in the Repo and Treasury markets.

Mid-Sized and Small brokers may struggle to manage the operational investments and multiple margins calls

necessary for Central Clearing through the FICC. The challenges could become so onerous that continuing investments in the U.S. Treasury market may become financially impractical and impact both the size and frequency of such investments by firms. One of our participants noted, "***We already exist today with a thin operations layer. We mostly don't get margin calls and trade out to a net position at the end of day. We'll now have to go through all trades, receive the information back, and process all details, and we are not set up to do that.***" Another participant we spoke with regarding their infrastructure and technology capital allocation noted, "***Any access model that we are using today would need a tech build—not just trading and settlement. The obstacles are the amount of legal throughput at one time. The sponsored model cannot do the same scale as the trading business. Firms that do not have the capital, tech, or legal to wind up with other access models. However, with the exception of the sponsorship model, the other access models are not widespread no one else is doing them--does not fit them and they do not work. Each model still has barriers to entry and requires resources to implement. We are not seeing demand beyond sponsorship-- we only had resources for one area and it was sponsored.***"

As highlighted throughout the study, Central Clearing has received, at best, from an operational and investment perspective, mixed reviews among mid-cap Dealers, with some noting that there will be significant hurdles in adopting the system. However, participants are primarily concerned with the cost of establishing the necessary infrastructure, including legal and risk management components, along with the need to align with each institution's new business initiatives. Implementing Central Clearing requires a long-term commitment, which has led some firms to question the benefits of such an endeavor in relation to their investments. Some institutions have highlighted that the costs associated with repo activity through FICC surpass those related to default/CCLF which is impacting their

in the business. An Asset Manager we spoke with noted, "***Our small investors in our funds are probably large, relative to others. Comment letters suggest that the CCLF and default fund could blow out small players – those are not our counterparties for the most part. However, we do want a diverse ecosystem of small participants – especially ensuring that we go beyond ones that grow too large.***"

The inevitable result is that, regardless of trading counterparty size, the costs of implementing and managing U.S. Treasuries will eventually transfer to investors. If costs become too onerous for investors, including the expense of implementing the operational requirements to either attain a sponsor or trade directly with the FICC, our study participants indicated that a decrease in market participation is likely to occur. Such a contraction in U.S. Treasury and Repo participants could lead to reduced liquidity and diversification in the market, ultimately increasing both concentration and liquidity risk.

Participant Impacts – Large and Small Dealers

As highlighted throughout the study, many of our participants shared the view that adopting a phased in approach to roll out clearing requirements is the most effective option for implementing the SEC's proposal. This approach would provide sufficient preparation time for all parties, including the FICC, to enhance their risk, operations, technology, and legal procedures to ensure a more seamless transition. The proposal would impose changes to banks' operational and procedure processes, regulatory oversight, and system enhancements, which will be extensive and challenging. In addition to the policy and procedural changes necessary for those active in the U.S. Treasuries market, a substantial commitment will be required for both capital and human resources to properly execute procedure mapping, design, documentation, training, monitoring, testing, and automation. An in-depth procedure mapping and comprehensive design strategy are instrumental in enhancing process efficiency and effectiveness.

Procedure mapping requires an extensive understanding of current processes and meticulous documentation of each product's flow. Additionally, the use of diagrams that visually represent the process and a recognition of all stakeholders involved would be beneficial. This transformation entails employee training on internal and proprietary systems and requires an understanding of external vendor products, an aspect discussed further in upcoming sections. Monitoring and testing are also integral aspects of this transition, as they ensure the new processes are functioning as intended and help identify any areas that may require further adjustments or improvements.

Effectively managing this transition is critical for the successful implementation of the new processes. This management includes careful planning, control, implementation of changes, and minimization of resistance among stakeholders. Considering these changes will resonate across various sectors within a single firm as it underscores the crucial role a proficient change management teams play.

Sponsorship / Onboarding

The majority of feedback from our participants reflected a preference for a measured level of sponsorship across their existing clients and some enhancements that were consistent with their risk appetite. Participants noted that such a model aligns better with their current business structure and poses fewer operational, legal, and business challenges. However, large institutions have also voiced apprehension about the feasibility of onboarding and managing a surge of clients seeking sponsorship, due to the requirements of substantial added resources, legal challenges, added risk assessments and an assortment of on-boarding requirements to move clients through the approval process.

Major Dealers emphasized that, independent of the FICC, the sponsorship offerings present few compelling incentives. While sponsorship might be provided as a service to clients in order to secure execution business, they suggested that the program offers limited direct benefits. One dealer noted, "***[We] struggle to see how you turn the switch when there is no return on capital for trading repo on screen. Even if you do not lose money, you cannot leverage this business from a capital perspective. This is not a business that stands on its own for capital usage.***"

When discussing the operational build out and budgeting exercises they'll need to consider, another study participant noted, "***A careful analysis of the operational aspects of the onboarding will be critical to a successful implementation. Significant technological and operational work will follow on for some of the smaller market participants, most of whom currently just settle those trades with their settlement bank.***" One G-SIB noted that they are still unsure about how they will structure bringing in additional Sponsored clients when they said, "***Would everyone need an annex, or is there a more efficient mechanism/approach? These annexes are fairly new, but they are getting more efficient at sponsored repo, also the onboarding of more clients. There are other avenues that are out there we are probably less familiar with – i.e., CCIT we actually are familiar with and do a decent amount of volume, but can you provide tweaks to RICC? PB and correspondent don't really solve anything for us as sponsorship or CCIT is more familiar to our business model and what our clients are familiar with.***" In addition to the barriers and costs associated with Sponsorship, the actual process of onboarding new clients will also add strain to banks' operations. Broker Dealer's regulatory compliance programs will need to increase capacity to appropriately understand the nature of their new client's business and meet strict requirements. This topic is addressed further in subsequent sections.

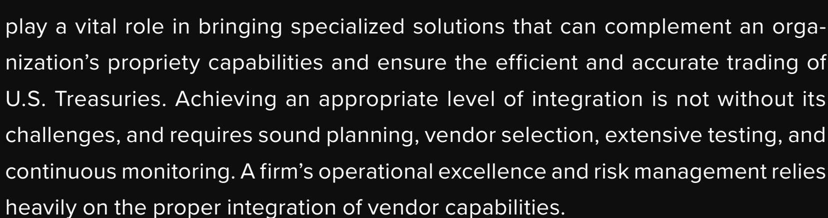
All the hurdles detailed will have an impact on accessibility for smaller CLFs and investors in the U.S. Treasury markets due to Broker Dealers having to pass the costs down to their clients. However, having an asset floor in determining the scope of both investor and potentially brokerage firms, to be included in the mandate, would be a complex carve out to implement but might address some of the topics addressed and challenges of infrastructure build outs and business impacts.

Vendors / Collateral Systems

Should the SEC proceed with the current clearing proposal, participants in the U.S. Treasuries market will need to expand capabilities relatively quickly supplemented with third parties and vendors, something that Sia Partners is quite familiar with from our own proprietary work in the market. As some study participants relayed, the potential advantages of employing vendors in many instances versus the development of proprietary internal systems still present intricate and significant challenges to firms of any size.

For instance, one large Broker Dealer involved in our discussions opted to employ a combination of third-party service providers and consultants to supplement the essential review process involved in onboarding a client for sponsorship. One large money market fund manager explained that they currently outsource their U.S. Treasury trading operations and receive sponsorship from prime brokers to access Central Clearing through FICC for certain trades. As the remainder of their bilateral trades shift to Central Clearing, their costs for sponsorship will likely increase. Should this fund manager become a direct member of the FICC, they must adhere to regulatory and compliance standards on top of the additional, and significant operational build-out efforts.

Beyond these factors, firms should also consider several other key aspects of vendor management and operational build out including establishing Service Level Agreements that set performance standards and evaluating vendors for, information security standards, scalability, financial stability, disaster recovery, and training. Most importantly, firms navigating the landscape of vendor management need to ensure their operations allow for efficient integration of new systems and processes. As bilateral trading of U.S. Treasuries adds a layer of complexity with Central Clearing and regulation increases, so does the need for reliable and integrated processes supported by third-party vendors. These vendors play a vital role in bringing specialized solutions that can complement an organization's propriety capabilities and ensure the efficient and accurate trading of U.S. Treasuries. Achieving an appropriate level of integration is not without its challenges, and requires sound planning, vendor selection, extensive testing, and continuous monitoring. A firm's operational excellence and risk management relies heavily on the proper integration of vendor capabilities.



Regulatory Compliance

As highlighted in the section on client sponsorship and operational expansion, guaranteeing trades for new clients will introduce new regulatory and compliance requirements. These guidelines and obligations include among other items, an adherence to AML/KYC compliance specifications. Banks must uphold rigorous procedures and monitoring measures to fully understand the entities they represent and comply with global sanctions laws through regular transaction review. Furthermore, FICC outlines a range of stipulations and approval processes in their GSD rulebook (rule 3A) for acquiring and maintaining a sponsorship membership. These stipulations include:

- Each Sponsoring Member shall submit the Legal Entity Identifier for each of its Sponsored Member applicants as part of the application of such Sponsored Member applicant. (3A, Section 2, (d))

- Each time that a Sponsoring Member wishes to sponsor a Person into membership, it shall provide the FICC with the Legal Entity Identifier of the Person and the representation referred to in subsection (a)(ii) immediately above, as well as any additional information in such form as may be prescribed by the FICC. The FICC shall approve or disapprove Persons as Sponsored Members. (3A, Section 3, (b))

- Each person to become a Sponsored Member shall sign and deliver to the FICC a Sponsored Member Agreement whereby the Person shall agree to any terms and conditions deemed by the FICC to be necessary to protect itself and its Members. (3A, Section 3, (c))

- Each Member shall maintain or upgrade their network technology, or communications technology or protocols on the systems that connect to the FICC. (3A, Section 2, (e))

- A Sponsoring Member's books and records, insofar as they relate to the Sponsored Member Trades submitted to the FICC (3A, Section 2, (e)), shall be open to the inspection of the duly authorized representatives of the FICC to the same extent provided in Section 10 of Rule 3 for other Members. (3A, Section 2, (f))

- With respect to any of its Sponsored Members, a Sponsoring Member shall also submit to the FICC written notice (i) within 1 business day of becoming aware that a Sponsored Member is no longer in compliance with the requirements of subsection (a) of Section 3 of this Rule 3A. (3A, Section 2, (g))

In line with AML/KYC regulation and adhering to the FICC's GSD requirements, firms should also consider expanding in the following areas: client identification processes, sanctions screenings, client funding source monitoring cyber security readiness, and Documentation and Data Quality Standards. In addition, firms should consider more frequent reputational risk and in-depth monitoring for Sponsored entities they deem to face higher credit risk. It's clear that the anticipated surge in entities seeking sponsorship will put a strain on current resources needed to fulfill these requirements. It is imperative that firms' compliance teams are prepared to meet such demands and consider building out those resources and considering the best pathway to support a transition to Central Clearing.

Competing Regulatory Priorities

We addressed in other sections of our report concerns raised by participants about the steady and meaningful addition to their costs driven by new regulatory requirements. While banks and Broker Dealers have identified significant obstacles over many years, they recognize that these investments are inevitable as additional efforts are made by the vast array of U.S. regulatory bodies. There is also the recognition that the real impact is on their clients and smaller firms without the capital and capacity to build up as required. Smaller brokers, regional banks, and mid-size investors may struggle to handle the required infrastructure build and implementation not just from the proposed Central Clearing initiative but from a myriad of other U.S. regulatory initiatives. Some notable required operational responses by the same firms who will be impacted by Central Clearing:

- The latest SEC rule around T+1 settlement has been of considerable focus by the Broker Dealers. Reducing the settlement period will reduce counterparty risk and increase liquidity with quicker access to funds, but firms have needed to allocate significant resources to manage these process changes and risk model updates.

- As the SEC and crypto industry continue to battle on defining crypto as a security, commodity, currency – Wall Street is in the midst of ramping up crypto transaction capabilities and the impending regulations that will come along with that. If crypto is deemed a commodity, the regulations will come down from the CFTC. However, if deemed a security, the SEC will have jurisdiction. All of these rulings have significant downstream implications on how banks respond to operational changes required to adhere to certain regulatory requirements.

Among the most, if not the most important issue, dealers face are the concerns surrounding capital enhancements. Most recently, regulators announced the framework for the 'Basel III Endgame' for large U.S. banks that would not go into effect for at least several years. The proposal would involve a 2% hike requiring banks to set aside capital well in advance of 2028 to pay for the hikes. The increase costs were highlighted in the Financial Times after the announcement when they noted, "***Agency officials on Thursday said on average capital requirements for the so-called global systemically important banks (G-Sibs) are estimated to rise by 19 per cent. Institutions with $250bn or more in assets could be subject to an increase of 10 per cent, while banks with assets more than $100bn could face a 5 per cent rise.***" The mechanics of how long it will take for banks to generate the fees to offset the capital to pay the capital hikes which will impact operational costs and reduce the size of trading books. A Bloomberg article mentioned the effect this will have on Citigroup's trading when they stated, "**Citigroup Inc. said a slew of new capital requirements that regulators will *propose this week could hinder the bank's ability to trade certain products like exotic derivatives or offer prime brokerage services.***" Expectations are that these capital hikes will only exacerbate the challenges posed by Central clearing will only make the hikes worse for banks because of higher operational costs, additional margin to be posted, fees to pay the FICC, and marginalizing a business which is too tight. This concern is raised in an article by Reuters on July 27th which noted, "***The largest U.S. lenders are expected to see calculations of the risk-weighted assets (RWA) they hold to rise to 20%, above an initial estimate of 12%.***"

In addition, the capital hikes could well stimulate the one thing regulators want to avoid which is having NBFI's expand their own lending that can replace and supplement banks' balance sheet. With a Central Clearing environment, this will make trading and lending more difficult as well as increased costs for these sectors are magnified by the regulatory environment surrounding clearing.

While a full analysis has not been completed, the FIA provided a broad estimate of what type of impact the capital proposal would have on banks when they said, "***the FIA's initial conversations with members suggest that bank capital associated with client derivatives clearing could surge if the Fed's proposal is implemented. One bank has calculated that its required capital would increase by 40 times, from $300 million to $12 billion. "That is a 'put you out of business' kind of capital raising," says Jackie Mesa, Chief Operating Officer of the FIA. "It is huge. It's problematic***"

The "startup" costs of implementing these new and updated Clearing approaches or ramping up existing infrastructure to process a larger volume of clients for those already sponsoring will be burdensome. In a host of conversations study participants noted that they were preparing for, and implementing, the T+1 changes which will overlap the start-up efforts for Central Clearing. One participant in our study emphasized that all of these regulatory directives funnel down to their operational change groups and are being managed centrally. This firm commented, "***many of the same groups utilized to implement existing regulatory changes (i.e., T+1, etc.) are going to be required to implement the Central Clearing mandate changes***." They continued by referencing the associated costs, explaining that "***from a budgeting perspective, we're going to certainly have to increase our headcount, but we may underestimate that budget by not knowing the amount of additional client onboarding we' will need to perform should more funds seek sponsorship through us.***"

Another participant commented on the runway towards implementation post the T+1 go-live, saying, "***From a timeline perspective, it's going to have to be at least six months post T+1. There's just too much of a change in the treasury markets and the entire workforce is focused on T+1. It's the same human capital dedicated to that front. In fact,***

***markets and the entire workforce is focused on T+1. It's the same human capital dedicated to that front. In fact, the T+1 mandate is worse for small firms.*"** Today's banks and Broker Dealers confront a sizable set of operational investments to meet evolving regulatory requirements. Smaller brokers, regional banks, and mid-sized investors face potential hardships in accommodating the infrastructure development and process implementation these changes necessitate. In summary, these regulatory changes and uncertainties bring operational challenges, but also opportunities for institutions to demonstrate their adaptability and resilience. Navigating this regulatory landscape calls for compliance with changing requirements, strategic foresight, agile operations, and a sustained commitment to risk management.

Derivatives Central Clearing Lessons Learned

The global financial crisis revealed significant risks and vulnerabilities in the over the counter (OTC) derivatives markets among a variety of shortcomings across regulatory gaps and oversight and ability to mend markets in a meaningful fashion when required. In response, the G20 leaders agreed in 2009 that all standardized OTC derivatives contracts should be traded on exchanges or electronic trading platforms and cleared through central Counterparties (CCPs). As the CFTC and SEC oversaw the roll out of Dodd-Frank and the impacts of Central Clearing requirements, there are several considerations that were identified in our discussions with participants that could be given consideration as the industry considers the proposed U.S. Treasuries clearing mandate.

- Phased Implementation: as we've previously discussed throughout this document, would allow firms of every size to manage their risk more effectively and ramp up operations.
- Clear Rules and Direction: as with Dodd-Frank, some aspects of the regulation were ambiguous and left banks adjusting their operations in subsequent years in response to the Fed's findings.
- Market Access: Dodd-Frank demonstrated the need for a balance between risk management and market access. Increased regulation and capital requirements will reduce counterparty risk. However, eliminating smaller participants from the market and potentially reducing liquidity could be equally as risky as well as the creation of other risks because of the proposal (discussed in our risk section).
- Technology and Infrastructure Preparedness: allowing firms the proper amount of time to build out their technological enhancements will help minimize years of supervisory findings and reactionary responses to shortcomings such as poor data quality.
- Industry Cooperation: as with the rollout and implementation of any regulatory change, having the industry participants feel they've played an active role in shaping the future of market operations goes a long way in streamlining adoption.

When reflecting on the mandate for the Central Clearing of derivatives, a law firm participant that specializes in capital markets noted, "***Market participants might withdraw—or clearing firms will not provide services to them. In the futures market you have seen a diminution of FCM's post Dodd Frank proves the disincentive—smaller agricultural firms have difficulty in finding clearing for them. There's no reason to believe that CCP brings in more players. We believe it will discourage people going into the market.***" The lessons from the rollout of the Dodd-Frank Act can serve as valuable guidelines for approaching the Central Clearing mandate for U.S. Treasuries & Repo products. By considering these lessons, regulatory bodies and industry participants can work collaboratively to ensure a smooth transition that preserves market liquidity and stability while also enhancing risk management practices.

05.
Legal Hurdles

05. Legal Hurdles

Derivatives Central Clearing Lessons Learned

Should the SEC's Central Clearing mandate be implemented for U.S. Treasury & Repo transactions, participants in the market, from both the buy and sell sides, will face significant challenges in addressing the additional regulatory requirements. Among all the issues we isolated for discussion in our paper, no topic raised as much concern as the strongly perceived lack of industry preparation for this proposed clearing mandate as the challenges associated with enhanced legal and documentation readiness. Institutions identified a series of substantive concerns surrounding the lack of standardized sponsorship templates or documents; massive amounts of re-papering, additional trained resources, and other problems which firms will face in navigating the new cleared environment. This effort is expected to be costly and time-consuming and will require support from multiple trade groups, internal and external lawyers, external vendors, and consulting firms. We sought feedback from participating firms' in-house legal departments regarding the proposal in its current form, including the impact on the market and associated legal obstacles.

Sponsorship Agreements

Throughout our discussions, participants noted that Sponsorship agreements are often tailored to the needs of each client, as firms often negotiate for specific terms to be included in their contracts, resulting in a lengthy negotiation process. In speaking with a U.S. G-SIB's in-house legal team, they expressed the sentiment that was shared by every dealer we spoke with when they explained, "***there is no way to handle all the work and harmonization of documents, and it's bespoke in every case***." This concern was echoed by the investor participants in our study, as they acknowledged the customized nature of the negotiation process for sponsorship, including the substantial amount of legal documentation required. For example, a U.S.-based Asset Management firm explained, "***The documentation process is currently non-standardized, moves at a snail's pace, and requires tons of resources. If the entire repo market had to go down that path, it would be a disaster.***" With the individualized nature of these agreements, completing the documentation process is time-consuming, limiting the number of Sponsorship Agreements that firms can be executed in a given amount of time.

Many other participants we spoke with noted the need for separate terms to be included within Sponsorship agreements to cover credit support annexes. Participants pointed out that many firms would need to identify a pathway for accessing the FICC, which could pose challenges in onboarding this influx of clients. A G-SIB participant noted that "***From a documentation standpoint, any other counterparty onboarded would be a massive lift to the point where we would need guidance. If you have 20-25% that clear, what would you need to do for the other 80-75% that currently don't." They concluded by asking, "would everyone need an annex, or is there a more efficient mechanism/approach?***"

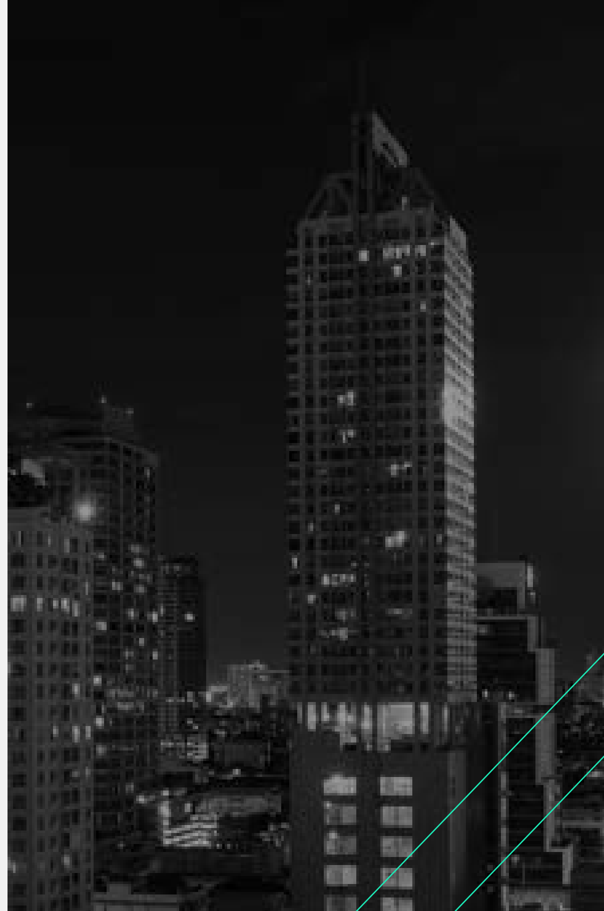
Should the SEC proposal be implemented, firms indicated that documentation requirements would be extensive, referencing prior instances of regulatory changes that necessitated such efforts. Those familiar with the shift from LIBOR noted the challenges they experienced with changes to the documentation process as part of the transition. In speaking with a U.S. G-SIB's legal team, they explained, "***We went through a massive repapering effort with LIBOR, which include one vs. one agreement, which are bespoke. [We] cannot go through this client by client, given the time, resources and effort involved.***"

However, other participants noted that the SEC proposal would require less-extensive efforts than some prior regulatory initiatives. For example, a U.S. G-SIB reiterated this view, commenting, "***[we] agree that this is less of a lift than Dodd-Frank and Volker, which eventually provided the buy side and sell side lots of efficiencies.***" However, those efficiencies included a standardized agreement and standardized/common margin terms neither of which currently exist for US Treasury and Repo Clearing.

Secondary Agreements

The repapering of secondary agreements is another major theme of the legal challenges facing the industry because of the proposal for mandated Central Clearing of UST & Repo products, which has become a key focus for participants in the market. Firms expressed concern with the effort to review and amend master agreements to ensure alignment on the terms and language related to default events and the specific triggers for cross default scenarios. A law firm we spoke with provided their view on the importance around cross default terms, explaining that "***firms are under pressure to get renegotiated terms while making changes with their agreements, notably on cross defaults and cross collateralization.***" Separately, firms should review and negotiate termination issues, including the "very quick trigger» events occurring with the DTCC and FICC. In speaking with an industry association on this point, they noted that "***from a risk management perspective, default provisions will always be a critical and common theme that need to be addressed as options in the document***." While it's critical that such language is included in legal agreements, this detailed effort requires an extensive amount of time and resources to complete in addition to the commitment required for standardization of templates and core documentation.

The repapering process will require firms to review and amend, as needed, all existing Prime Brokerage, Execution, Margining, and Sponsorship agreements. Study participants indicate that this will be an enormous undertaking given the number of agreements that firms have with many of their clients across the panoply of other cash and even derivative and financing agreements. In speaking with a Law Firm on this topic, they explained the significance of this effort and detailed how long the negotiation process generally takes, saying, "***right now, negotiating [a prime brokerage] agreement with a Broker Dealer and a Hedge Fund takes months". They then continued to say, "look at swaps documentation process (during Dodd Frank)– that went on for years.***" Similar comparisons were made by other participants, with one U.S. G-SIB's legal team equating it to the Swaps market, explaining "***the amount of work involved to get them re-papered was significant and it's a massive outreach involving several agreements.***" They continued noting that the timeline to complete this effort is substantial, remarking that from their experience, "***a templated clearing agreement took around 6 months for swaps, and people worked furiously in completing all new papering.***"



Issues Around Navigating Client Onboarding and Market Participation

Firms often noted the limitations they, along with others in the industry, would face onboarding a significant number of clients within a set timeframe, given the existing onboarding landscape and resources available to complete the effort. Firms expressed concern around whether the supply of sponsoring firms would meet the demand for those seeking FICC Sponsored access. One U.S. G-SIB commented on the timeframe required to onboard new clients, explaining, "***some documents can be completed faster while some are much slower [to complete] - some range from 9-12 months whereas others can take years.***" Considering the amount of time it takes to onboard a new Sponsored client, firms don't currently anticipate meeting the demand of clients seeking Sponsorship to the FICC. A G-SIB commented on the constraints they face in completing individualized sponsorship agreements, estimating, "***[we] can bring one or two sponsored entities at a time, which require very bespoke decisions [across the documentation].***"

Key components of onboarding, as well as maintaining sponsorship arrangements, include credit and risk related KYC and AML assessments. Each of these due diligence processes is completed during initial onboarding and must be maintained throughout the duration of the client relationship. Our largest banks in the study noted that the requirements for know your client and AML need maintenance since the guidelines need yearly updates. Once clients are on-boarded their oversight, credit assessments are on-going. The requirement to add clients for the largest sponsors to effectuate the clearing model will drive up costs as they maintain clients which are almost inevitably not producing meaningful revenue.

Firms noted that from a KYC and credit and risk perspective, it can be difficult to justify the upfront and ongoing onboarding costs for smaller or less active clients. For example, a G-SIB commented that they "***have a matrix around their importance [as clients from a revenue standpoint] and there is a score associated with them as a relationship, and, as a result, we reject a lot of clients [for sponsorship].***" Participants also noted that there would be a major hike in the number of firms seeking sponsorship or an equivalent access model. Those firms would be smaller and more boutique and likely present separate credit and due diligence challenges.

Through our discussions, firms were clear that resourcing the documentation effort would be a difficult challenge. In assessing their approach, firms again cited prior experiences, such as Dodd-Frank, as a framework to how they may approach this effort. In speaking with an in-house legal representative of a U.S. G-SIB, they explained, "When **we implemented the clearing mandate for Dodd Frank Reforms, we tended to do a lot more in-house and bring in consulting resources vs. law firms. It does not cost that much for example with regulatory reforms and cheaper using consultants vs. law firms.**" In their assessment, they sought to reduce costs by utilizing in-house resources, where possible, including engaging consultants for non-legal expertise. Another G-SIB took a similar approach in their past re-papering exercises, saying, "***[we] hired internally within the global documentation unit, and had the COO's office handle the work in repapering client agreements. We also used outside legal counsel [for assistance] and brought in contractors to help do some of the work as well***." Firms also hired a select group of skilled consulting and law firms for the work after exhausting internal resources. Another G-SIB expressed a stronger view, explaining that from their perspective, "***[we] cannot just ship this out to a law firm, as there is a lot of lead training time [required] to work within [our] systems.***"

One of the legal challenges frequently raised by the dealer community, and reiterated by several investor firms, is the need for specialized legal resources and the notion that dealers only rely on a limited number of external law firms for conducting their sponsorship business. Firms expect this number to expand as demand for sponsorship-related legal services increases. On this point, a U.S. G-SIB explained, "***to find those [law firms] with the practice background is a challenge", further explaining that "this requires securities law and traditional repo [experience] and you need law firms with exactly right expertise, and it can be challenging to find law firms that understand and have had prior experience with these issues.***"

Further Industry Issues and Considerations

Throughout our discussions with firms on the buy and sell side, participants referenced UK versus U.S. transfer laws highlighting the importance of posting Treasuries as collateral which was mentioned by numerous study participants. A U.S. G-SIB, expressed their view, saying, "***this would be a complete total nightmare if we don't get that carve out for collateral, I don't know how this would work without it and we assume we will get it.***" A legal team of a G-SIB commented on this point, saying, "***the one area I think the FICC would need to clarify is Treasuries posted under a UK Transfer Annex.***" Firms also expressed concern about whether cross entity and jurisdictional issues would arise in the enforcement of the various agreements. Firms also noted possible issues with enforcement on their overseas offices due to the breadth of the potential rulemaking. An industry association we spoke with offered their interpretation of the complexity around pledging under U.S. and UK law, saying, "***[a treasury posted as collateral] would be a pledge under U.S. law but under the [UK] Transfer Annex, ownership changes, and that is a transaction with a member of FICC. This would be picked up the rule and would require clearing.***"

Both Investor and Dealer participants provided considerations to successfully implement elements of the mandate, including developing a timeline to build out collateral management systems, utilizing third-party vendors, master agreement re-papering, and FICC collaboration. Firms also advocated for a phased-in implementation process for the mandate, while learning from the experiences in other markets for enacting a final rule. For example, a U.S. G-SIB, active in the Derivatives market, pointed to some key takeaways for the industry, explaining, "***in Derivatives, some users were exempt and never had to do it, and there was also a long runway – here they have not yet given the same thought.***" They went on to say that this "***should replicate the approach used in derivatives.***"

Firms also expressed the need for industry standardized documents, which could help reduce the negotiation time involved with repapering efforts and help Dealers provide services to an increased number of firms. It's important to note that a standardized document doesn't eliminate the need for negotiation, however, firms recognize that a templated document would benefit the industry by reducing some of the negotiation time for client agreements. One U.S. G-SIB commented that "***while some standardized documents are worthwhile, other clients will want to import their own terms through bespoke documents.***" Firms noted, however, that a standardized form would be especially useful for clients generating lower revenue and don't warrant the in-depth customization of terms that a high revenue client may necessitate. Setting standardized terms within the industry may help to reduce some of the obstacles related to contract terms and language as part of the negotiation process.

Provided that each agreement within the repapering effort would be customized for each client, firms expressed the need to develop a standard template in which the industry could utilize. A standardized template could significantly reduce the time and costs associated with the negotiation process. As one U.S. G-SIB explained, "***getting a streamlined compact agreement that would be ideal and we would encourage trade associations to begin to start soon enough.***" In assessing how to reduce the current negotiating timeframe, another U.S. G-SIB explained that "***a standard template would bring it down a few months.***" Other firms we spoke with estimated that a standardized template could decrease the time to repaper agreements by as much as half. The magnitude of the lift was described by one of our G-SIB's who noted: «***From a legal perspective this is an incredibly large lift—6-9 months at minimum and this is being underestimated. You need resources and an army of lawyers and law firms', and someone will have to pay for it. Will need to be built to scale. Documentation should be standardized.***" Another larger bank in our study noted, "***[a] standardized template would probably bring it down a few months – helpful to a point to have an industry document, especially for some clients.***»

Firms indicated that there is a significant amount of room to restructure the current papering process and include a standardized template to help mitigate the challenges associated with the SEC's Central Clearing mandate. One of those firms noted what could be done when they noted, «***if the move is to standardized documents--more vs. less protective---form could be streamlined and not focus on the least common denominator. You want something for firms who are not large in this space.***» The views of one entity captured the broader challenge when they further commented, "***[the] industry needs to form a standardized agreement lead by a couple of the trade groups since intermediaries do not want to give up their proprietary forms. Needs to be pro-active and hear from the dealers and clients. And this won't get serious until it gets final.***» One of our participants was specific about challenges this process would have when they commented, that «***a standardized contract will filter out some comments that could extend negotiations. Need to tackle an industry standard for general collateral. We would want the lawyers to be given a full range of issues to mark it up and represent a whole set of risks that we will encounter.***»

The broader issues related to managing legal risks were seen by all of our participants, with many Firms noting that finding expertise in this space was challenging and would be notably difficult given the large increase of clients being required to clear. Third parties would be needed to resource these efforts especially as well, since banks are stretched thin on other regulatory issues requiring their legal departments to provide input. This was seen as without question one of the major issues institutions will face when the SEC final rulemaking is set out.

06.
Risk Management

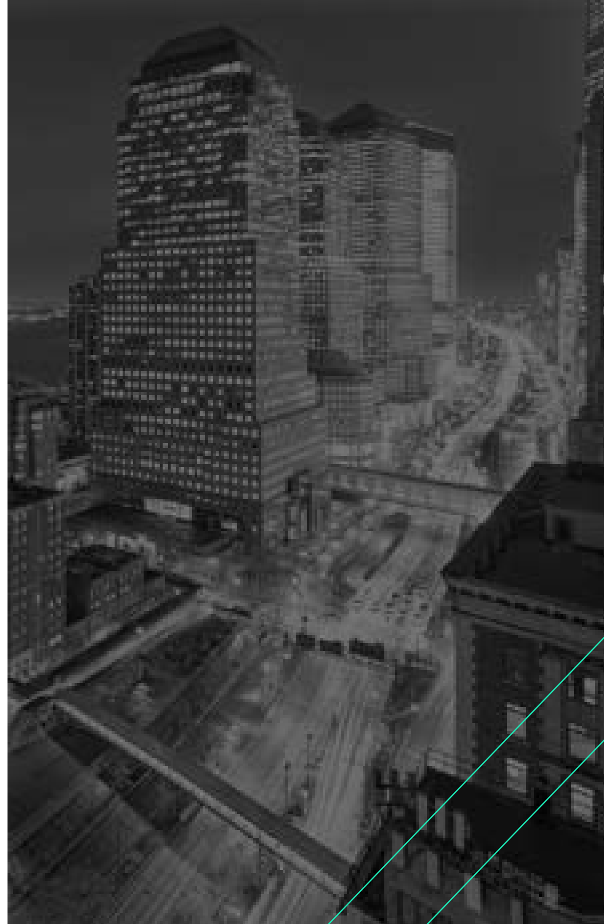
06. Risk Management

Overview

The issues surrounding risk were discussed in numerous admitted overlapping dialogues crossing multiple risk categories. Indeed, we cover them in all the proceeding four sections. Below we set out feedback on Counterparty Risk, Liquidity Risk, Concentration Risk, and how the unwind process could be enhanced at the FICC. We tried to cover some of the salient issues discussed in the Covered Clearing Proposal that were set out earlier this year by the SEC. We encourage the readers to consider this section especially in concert with the issues on risk that we address earlier since they are challenging to separate.

Reduction of Counterparty Risk

Study participants have agreed that the SEC proposal would significantly reduce counterparty risk by mandating that all U.S. Treasury and Repo trades are centrally cleared, including implementing margin posting requirements. The SEC's intended goal is to reduce counterparty risk, enhance transparency around hedge fund activity and, as we have highlighted several times before in the document, eliminate "zero haircuts" for Repos and Treasuries. SEC's Chairman Gensler addressed the reduction of counterparty risk in a statement on the Central Clearing proposal, "***While central clearing does not eliminate all risk, it certainly does lower it. First, clearinghouses do so by sitting in the middle and reducing all the risks amongst and between the counterparties through a means called multi-party netting. This also generally lowers the overall margin (collateral) needed in the system.***" In the same statement, Chairman Gensler and the SEC concluded that Central Clearing would reduce counterparty risk for the clearinghouses as it relates to the collection of margins, "***further, central clearing reduces risks through the robust rules of the clearinghouses themselves, including for the collection of initial and variation margin. All told, clearinghouses have lowered risk for the public and fostered competition in the capital markets since the late 19th century.***»



Many of our study participants agreed that centralized clearing fundamentally changes the structure of a counterparty credit risk and those entities approach to risk mitigation. Both the market and industry participants benefit from properly managed leverage, and evidence suggests that leverage associated risk management; has improved recently due to increased risk oversight, guardrails, internal risk management, and enhanced regulatory oversight. ISDA commented on the benefits of Central Clearing to counterparty risk when they noted, "***this proposal from the SEC means more entities than ever before are subject to margin obligations, which significantly helps to mitigate counterparty credit risk.***" There is a distinction between however making the individual institutions in the CCP safer versus the clearinghouse itself as one of our participants noted, «***the safety of clearing members is not necessarily enhanced by the amount of margin they post. In a CCP world they can double or triple the amount of margin which keeps the CCP considerably safer.***"

Mandated Central Clearing will likely introduce a number of less credit worthy entrants into the model which could result in an increase to a different type of counterparty risk including a default and contagion risk to the banks. While it is valuable to try and reduce counterparty risk, the proposal could exacerbate other related risks, with new weaker credit entrants who do not have the infrastructure to operate in a centralized clearing environment now compelled to clear. Given that smaller firms will be mandated to clear, there are difficulties that could arise as it relates to operations, costs, investments, and documentation that will likely place a strain on the system and make smaller participants more susceptible to defaults. While centralized clearing can reduce counterparty credit risk on an individual transaction level, it brings new risks associated with the individual clearing members themselves and those risks need to be managed.

Study participants noted that this exacerbation of risk could occur because of additional margin demands, particularly during volatile market conditions, only increasing the likelihood of unwinds and additional counterparty defaults. If the FICC's resources are insufficient to cover the losses of a single counterparty, should that counterparty be big enough and the non-defaulting members prove unable to manage the losses, other defaults can be triggered. Study participants are also concerned about the risks that emerge in the system including liquidity risk and increases in liquidity gaps caused by the dependency on the FICC. Extreme market events could lead to losses that exceed the margins and CCLF requested by FICC. In such cases, the loss is shared by the non-defaulting members, leading to potential increases in counterparty credit risk.

Liquidity Risk

Participants were concerned whether Central Clearing, would enhance or decrease liquidity during periods of significant market disruption. Study participants noted with high conviction, that Central Clearing would not enhance market liquidity given the liquidity impacts experienced during previous periods of market volatility. A study participant commented on the drain on liquidity and CCP's management of margin in times of market stress, when they commented, "***In 2020, 50% of margin went to the Fed and sat there. The same thing happened in the GILT market and with Russia and Ukraine exacerbating liquidity risks with more stuff centrally cleared. CCP's are not risk managers. They do not lend it back out but rather put it under the mattress straining liquidity.***" The study participant also referenced the liquidity squeeze during March 2023 and the heightened liquidity risk that a mandated centrally cleared market could have caused. They specifically stated, "***In March 2023 with regional banks going down and treasury events, central clearing would not have done anything for Treasury market liquidity. It is easier for counterparties and trading might not have experienced stress. If a PTF had a fast failure in treasury market, there is no way for someone to manage that.***"

Our participants suggested that with central clearing challenges in the repo and treasury markets would have increased the impact of margin compression, accelerate the unwind process, defaults, and the shrinkage of the execution and finance businesses One study participant noted the increased number of forced unwinds when they said, "***The increased margin calls, especially with a punitive methodology increases the number of forced unwinds in the market. When institutions cannot risk manage with a counterparty but rather with a central entity, they will be compelled to post margin in down markets and there are instances where firms cannot afford it—will liquidate positions and can be forced out business with those unwinds.***"

Examples are 2020 with the CME and 2022 in London with three exchanges in the LDI crisis". The impact of such a unwind on a bank was isolated in a Risk.Net article that referenced the volatility spikes in September 2019 and the following year in March 2020. The article spoke to this issue: «***The worry is that a mass unwinding of the basis trade could breach liquidity from a Treasury market that has already suffered scares in recent years, notably the repo volatility spike in September 2019 and the so-called dash for cash the following March.***" In assessing the impact on the industry, some firms referenced comparisons to unwinding positions in other markets. For instance, an Asset Management firm explained that in 2022, with LDI, "***the Pension market was not all cleared and was the origin of the problem, with the margin requirement being the [first] domino [to fall].***" They continued to note that this was especially prevalent in the Sterling Derivatives market, which they described as being "***a run for cover which created the same domino effect, which was self-re-enforcing and required more fire-sales and more margin.***" A further reflection on the UK was noted in April's Banking & Regulation, "***The UK had a close call in September when the mini-budget triggered intraday volatility in gilts and sterling swaps. The resulting cash calls pressured asset managers to find hundreds of millions of pounds of extra collateral, and exposed pension funds' holdings in risky liability-driven investments.***"

Study participants indicated it's imperative for the safety of financial markets that organizations maintain a deep understanding and management of liquidity risk, particularly during instances of disruptive volatility which can create negative market sentiment, where firms need to be able to efficiently meet financial obligations to mitigate potential losses. Less creditworthy counterparties who might be clearing for the first time will be required to post additional collateral that could decrease overall liquidity in the market, forcing them to exit. Study participants noted that during periods of market stress, clearing firms have hiked margins resulting in greater market volatility despite the concept of spreading the risk.

Study participants have noted that smaller firms could face liquidity squeezes caused by enhanced margin requirements along with the additional time required for those participants to liquidate positions to meet margin requirements. Some firms suggested that this should not be an obstacle to implementing the proposal, with one firm commenting, "***We acknowledge that there might be smaller customers who will have less access to intra-day liquidity. However, prudent risk management of the CCA should not be hindered by less sophisticated players. Participants should ensure they can meet intra-day obligations. Considerations need to be addressed for firms to be provided with additional time to liquidate for intraday margin calls since it is a departure***."

Banks will also need to factor these impacts into their risk models when assessing the overall risk posed by counterparties. The ability for firms to fund margin is critical so they are not faced with a liquidation forced unwind which has a contagion impact within the CCA. A recent report by MillTech FX further explains the impacts from liquidity pressures causing banks to fail noting, "***It is now widely known that a bank's failure can cause serious short-term liquidity issues which can affect vital expenditure such as payroll and supplier invoices.***" A study participant addressed the accompanying issue related to banks' balance sheets and Asset and Liability Management (ALM) approaches in commenting, "***The significance of banks' ALM practices cannot be overstated when it applies to market liquidity as understanding and processing risks in their balance sheet plays a vital role in the market.***"

In recent years there has been an increase in the importance of effective liquidity and balance sheet management for financial institutions, as rising interest rates and financial uncertainty has posed challenges and heightened awareness for liquidity risk. Financial institutions are tasked with addressing liquidity risk and balance sheet management to protect their interests and contribute to the stability of the overall financial markets. To ensure the stability of the Central Clearing mechanism, it is imperative that banks implement processes and strategies to ensure a balanced net interest margin, appropriate risk exposure, and the ability for firms to meet cash flow and collateral needs. Moreover, The Bank of England raised concerns about balance sheet management within the industry, highlighting exposure to volatility in the UK interest rate swaps markets and the impact that liquidity challenges had on a cleared market during the recent 2022 financial upheaval in the UK and provided significant detail on the consequential results.

The Bank of England notes several policy implications, stating, "***Some NBFIs – including LD-PI, asset managers and hedge funds – were exposed to volatility in interest rates, which has implications for financial stability. Depending on their use of short-term funding and liquidity preparedness, this could lead to fire sales in core markets when there are sharp moves in interest rates, such as the 2022 gilt market crisis in the UK.***" While cleared products were mandated in Europe in 2012, the study conducted by the Bank of England identifies the enormous liquidity risks in a Centralized Clearing model, referencing the 2022 gilt market crisis in the UK. Moreover, the funding and liquidity problems in the derivatives and cash markets in the UK highlight the importance of effective balance sheet management in a Centrally Cleared environment.

Concentration Risk

Under a centrally cleared model in the UST and Repo market, participants could become overly reliant on the FICC's support and infrastructure which could impact the market liquidity during periods of volatility. Our study participants identified numerous concerns relating to concentration risk, including the FICC as the sole clearing house, responsible for the proposed clearing initiative and associated risk implications. We've highlighted some of these risks earlier but focusing in this section on some of the broader financial issues that participants raised. A very recent article by Risk.net this year identified the risk of such concentration when they reported, "***Rising concentration risk is a concern for clearing houses and their members, as well as for the wider system. As our recent analysis has shown, the top-five largest clearing members hold a high proportion of initial margin and open positions at most clearing services.***" Due to the concentrated overlap between clearers and execution counterparties in the market, if the FICC were to face credible stability challenges or have members be required to unwind positions, the impact across financial markets could be substantial. The implications of concentrated risks with clearinghouses were illustrated in some of the most recent industry information about margin accumulation by Risk Quantum when they reported, "***Data from the public disclosures of 30 clearing services across 10 CCPs shows the median clearing house having more than half of open positions and 46% of IM attributable to its five largest members.***" One study participant described the risk a CCP faces because of intraday margining fluctuations and their exposures to its participants, when they noted, "***A CCP faces the risk that its exposure to its participants can change rapidly as a result of intraday changes in price, positions, or both, including adverse price movements, as well as participants building larger positions through new trading & settlement.***"

Study Participants noted the contagion impacts with a centralized clearing environment that could spread through portions of the financial system, impacting the stability of the FICC. Participants indicated this is one of a series of risks that the official sector should consider before finalizing the final rulemaking Study participants acknowledged the initial costs involved in operationalizing the proposal which the industry is not prepared to handle. For example, firms identified "loss mutualization fears", except for Tier-Two Netting Membership for RIC's and CCIT loss mutualization exclusions, encouraging the FICC to have an enhanced buildout of safety checks in place to ensure the proper dissemination of risk. Additionally, participants expressed concerns that the augmented costs stemming from the Central Counterparty Liquidity Facility (CCLF) and Default Fund increases could likely impact liquidity. To mitigate some of these risks and avoid placing the burden on the private sector, firms suggested expanding the Fed backstop as a safeguard measure.

One of the most frequently identified concerns related to the FICC being the sole provider of clearing services for this proposal was the increased risk of a Cyber attack. Institutions agreed that this could impact individual members of the FICC and create an additional systemic problem in the UST and Repo markets. Given the lack of diversification in the clearing market for this proposal there is an increase in the possibility that the FICC would become an easier target for cyber-attacks or other efforts that would seek to undermine the efficacy of the Treasury market globally. As one of our study participants notes, "***This proposal strikes us as an enormously risky from a cybersecurity point of view, given the central importance of the U.S. government securities markets to the U.S., and even the world economy, forcing all transaction and repo transactions to go through one central clearinghouse would really centralize risk.***" The same industry participant notes that in a bi-lateral market without a centralized clearing model, institutions would not carry the risk of a breakdown or cyber-attack were to occur in the system. They specifically flagged in their feedback that "***When you have a diverse set of multilateral and tri-party clearing arrangements, if there's a breakdown in the operations of one of those participants, the market can continue. But when everything goes through one clearinghouse, if anything goes wrong with it, it really can have a material impact on the financial system and the economy generally.***" The concerns of a Cyber attack are at the top of the list of policymakers as noted in a piece in Banking & Regulation in August of this year, "***Ransomware continues to pose a significant threat to US critical infrastructure sectors, including finance and banking, Geopolitical events continue to increase the likelihood of cyber attacks on banks." The FDIC reiterated their concerns when they noted, «The banking industry's software infrastructure remains vulnerable to cyber attacks including ransomware attacks and threats against third-party service providers***».

As the industry considers approaches to remedy potential challenges, participants identified the benefits of a comprehensive Business Continuity Plan (BCP), complete with intricate processes and controls, which is a standard feature at most banking institutions. Oversight from banks, investors, the FICC and the SEC is required for several initiatives including the repapering process of trading agreements, documentation of systems lineage for managing collateral and settlements, cyber security, and disaster recovery, to ensure the efficient and accurate transaction of securities. Study participants indicated that having diverse clearing options would be optimal, including the meaningful operational implications that a single provider has on the overall financial system. This lack of diversity could have significant impacts as one of our participants noted, "***There is more downside because of the centralization of one set of pipes [vs. bilateral transactions] that is a central point of failure and not government backed – due diligence has to be much higher – ultimately creating a failure point.***" A recent example of that operational threat was noted by another contributor who commented, "***Around 20% of all CME Group clearing members were affected by the Ion ransomware event an executive at the clearing house has told a public hearing. The outage affected 42 Ion clients, forcing some to process trades manually and delay regulatory reporting. CME has 67 clearing members.***" Such risks could have broader and more profound implications for the overall financial system, warranting careful consideration and comprehensive risk management measures. Disruptions to essential banking functions, stemming from either a natural disaster, system failure or human-induced events, could compromise the efficacy of the U.S. Treasury market as the most secure financial instrument available. One of our dealers summarized the meaningful efforts of such an operation in the shift to clearing without the necessary resilience. They noted, "***The reality is that the operation component is cost heavy and it's a big added lift and you'd have real contagion there because everything is intertwined and it's a time bomb.***"

In addition, Counterparty interconnectedness, coupled with concentration among the largest providers in execution, prime finance, and sponsorship, could present a significant threat to the U.S. Treasury and Repo market. Participants in our study noted that the SEC's Central Clearing proposal could further exacerbate these risks, posing challenges and vulnerabilities to the stability of the market. Key players in the execution, prime finance, and sponsorship sectors wield substantial influence, therefore a default by such industry participants could profoundly disrupt the FICC's stability. Moreover, our discussions point towards an anticipated shrinkage in the diversity of market participants as a result of this mandate. The inherent value of a varied spectrum of firms trading U.S. Treasuries cannot be overstated. Participants have expressed their concern over the creation of a potential point of failure due to the centralization of one set of «pipes» versus bilateral transactions. Such incidents serve as important reminders of the potential fallout from the concentration of systemic risk in a centralized clearing model. Therefore, it is crucial that due diligence is focused, and rigorous measures are put in place to manage concentration risk and safeguard the stability of the U.S. Treasury market amidst the transition to mandatory Central Clearing.

To mitigate the potential risks identified throughout our study, there is a need for clear oversight processes in closing out a dealer under extreme circumstances involving regulatory intervention and consultation to avoid triggering a widespread crisis. Without including third-party cross-default provisions in the repo process, there could be adverse consequences in other industry relationships, resulting in a severe market disruption event with far-reaching consequences.

Study participants have identified specific risks associated with sponsorship default, especially among the very small group of dealers who currently provide the majority of clearing services in the market. If a key sponsor participant were to default, the negative impact on the FICC could be significant. The knock-on implications of a group of firms inclusive of the US and Foreign G'sibs as well as the largest brokerage houses or one of the larger asset managers could contaminate the rest of the clearing facilitation if one of these entities were to default. In addition, due to a significant portion of the market's transactions being executed through a small number of sponsors, there is an additional level of systemic risk associated with the layers of concentration. The Central Clearing model reduces diversification and spreads the risk through very few sponsoring entities, as all participants are required to clear through the FICC. One of our study participants described the highly concentrated sponsorship when they noted, «***The Sponsored Repo market, which currently***

accounts for approximately 30% of all repo transactions, is concentrated among a limited number of broker-dealers, highlighting that a small number of dealers dominate the associated clearing of those assets." Another study participant described the effect that sponsorship concentration has on a Central Clearing model, while commenting on the residual impacts if a dealer were to default. They specifically noted, "***If there was a market move and loss; sponsored clients are posting margin; if you have a dealer blow up the question is whether the collateral and secondary sources of recovery are sufficient. The question is what the sequence of events is – firewalls for each step – FICC protects the CCP, and its members would be a real problem for FICC.***"

Some of the very recent data related to concentration risks across derivatives markets provides an illustration of the potential issues the U.S. could face for U.S. Treasuries and Repo trading. The buildup of such concentration, and reduction in the number of market participants, was identified in a recent article by Risk.net noting, "***The European Securities and Markets Authority was the latest to raise the alarm bells in July as part of its fourth round of CCP stress tests. The regulator highlighted how clearing activity is increasingly concentrated in the hands of a small number of players and how this 'represents … a significant risk for both EU and Tier 2 CCPs***'". While CCPs may decrease counterparty risk, the most recent study by the Bank of England found that after nearly a decade of swaps clearing, the concentration in the hand of only a small number of leveraged counterparties was immense. The study found that "***just five hedge funds, with very large short duration positions (receive floating, pay fixed), account for a very large share of the total derivatives positions of the hedge fund sector. They account for almost all of the variance in the sector's aggregate derivatives notional over time during the sample period.***" The same study conducted by the Bank of England, highlighting the highly concentrated interest rate market among hedge funds, noted, "***the top five hedge funds account for over 80% of sterling swap, options and futures in terms of gross notional.***"

The Bank of England notes that a small number of hedge funds appear to be taking more speculative positions that account for a large share of interest rate exposures. The positions held by hedge funds and asset managers are directional trades and strategies, and under a Centralized Clearing mandate these positions would not be liquidated more efficiently. The Bank of England also commented on the high concentration in the NBFI (Non-Bank Financial Institutions) sectors, which have large interest rate exposure among small participants. The Bank of England notes that "***Interest rate derivatives markets are highly concentrated in the NBFI sectors, which could lead to greater risk of market disruptions. A small number of participants account for a large share of interest rate exposures, which could lead to dealer losses and infrastructure disruptions as they are hit with uninsurable idiosyncratic shocks. We also find evidence that this market concentration could impair the transmission of monetary policy to asset prices, which could also limit the signal that monetary policymakers should infer from these markets about macroeconomic developments and policy expectations.***"

There are significant industry implications related to the concentration of clearing and FICC access, and the mutual dependency of various asset classes that are not cleared. Any disruptions to the FICC, or its members, could contaminate other uncleared asset classes, leading to a domino effect of downside risk. A study participant identified these challenges in discussing the shift to a centrally cleared market when they stated, "***A shift to a centrally cleared model would shift to different risks with the margin sequence by substituting one with a bilateral approach where there are no real risks. The history in the U.S. Treasuries is not a threat. The problem that is created is cascading margin events with volatility increases.***" If Central Clearing were to be consolidated into a single entity that is solely dictating terms to all market participants, the risk of contagion could become substantially more pronounced. A study participant described the impact on other uncleared asset classes, stating, "***You cannot trade Corporate Bonds, Mortgages, Muni's, etc. unless you can trade and hedge them with Treasuries. If there are issues in this market it will show across the financial system.***" Another study participant described the negative pressure on asset prices caused by margin calls during times of market volatility, stating, "***Margin calls during periods of declining asset prices may cause participants to sell assets, putting further negative pressure on asset prices and the market that may spill over into other covered clearing agencies and their markets.***" They also commented on the selling pressure that leads to ripple effects on different markets and asset classes when they stated, "***This stress may be transmitted by participants that are members of more than one covered clearing agency when, for example, a margin call in one market makes a participant sell assets in a different market.***"

Unwinds

The SEC has recently released a separate proposal titled "Covered Clearing Agency Resilience and Recovery and Wind-Down Plans" that requires Covered Clearing Agencies to develop and maintain plans to prepare for potential unwinds. Under the proposal, agencies are required to identify and mitigate risks by developing and maintaining plans related to possible defaults that have the capacity to threaten the overall financial system. Additionally, they must maintain adequate liquidity to meet their obligations and develop plans for transferring assets to another clearing entity in the event of a financial crisis. In summary, this proposal is designed to protect the financial system in the event a clearing entity collapses, and to help reduce the ripple effect that could lead to other failures and instabilities in the market. By providing a framework for clearing entities to recover or properly wind down positions the plans could help to mitigate impacts of a clearing entity failing. These issues are addressed in a detailed proposal from the SEC focusing on "Covered Clearing" with feedback that was submitted to the SEC by late July of this year.

The decision-making process for unwinding at the CCA is important for clearing entities because of their pivotal role in ensuring the financial stability of the market in a centralized clearing environment. Under a centrally cleared model, the FICC's systemic stability on the market is why a well-defined wind-down plan must be in place to protect the broader financial system, should they face severe financial distress or operational challenges. Additional margin calls will likely increase the number of forced wind downs, and in some instances, firms may not be able to afford this. One study participant commented on the impacts of not having a detailed wind down plan and the effects to the broader financial system, stating, "***The question becomes, what is the sequence of events in which this would play out. What would be the firewalls for each step? Would the FICC protect the members of the CCP if a G-SIB were to fail? [If not] this would be a real problem for the FICC in forcing Central Clearing of Repo or Treasury, and no dealer would be compelled to [go down this route].***"

Numerous clearing entities have commented on the SEC's detailed proposal for "Covered Clearing", expressing the importance of a proper resolution plan and that clearing entities must identify what they are building and how this will be implemented correctly, given a potential unwind. Additionally, clearing entities must identify various scenarios including financial stress, operational failures, or a significant loss of participants as part of their risk management framework. Without a detailed plan, CCP's may face severe losses that exceed its resources, as noted by Better Markets when commenting on the "Covered Clearing" Proposal, "***This is why a detailed recovery and wind-down plan is essential. If periods of stress in the markets cause shocks that result in losses to the CCP that exceed its resources, a CCP could fail and be forced into resolution. Such a failure could have system-wide effects: clearing participants might find it difficult to manage positions if a CCP fails, and all clearing participants would have to find alternative ways of closing trades, at a time when there might be heightened uncertainty about the value of the underlying exposures and the associated market and counterparty risk.***"

Additionally, Better Markets noted the repercussions caused by a CCP being unable to recover from their losses, which would spread across multiple assets classes, commenting "***The inability of a CCP to recover from severe losses, or the disorderly wind-down of a CCP, could have significant repercussions not only for the sector in which the CCP operates but for the markets and the economy as a***

a whole. " Transparent orderly wind-down plans should outline how they will manage open positions, collateral, and funds in the event of a failure to help prevent the disorderly liquidation of assets. Moreover, a detailed wind down plan is essential for the critical operations of the CCP's because they are too important to fail for the overall financial system. A detailed plan could help mitigate panic during periods of market stress among industry participants, provided that there is a structured and organized approach to manage any potential disruptions. One of our study participants described the impact this could have on the global economy, when they noted "***The Treasury market is super systemically important not just to the U.S. economy but globally,"*** ***while continuing to explain "if that's all centrally cleared, plans around clearinghouse recovery, resolution, capital, governance, and transparency in terms of the margin framework, are absolutely critical to get right.***"

The Options Clearing Corp supported industry views when they opined on the risks and potential impact of the disorderly unwind on market participants resources and liquidity. They commented, "***The fact of a triggering of a recovery or (in particular) an orderly wind-down process at a CCA may create cascading impacts on clearing members, their customers, and the markets more broadly. Even where a CCA has (or has access to) sufficient resources to affect a full recovery, uncertainty, and prudent risk management on the part of other market participants may lead to liquidity strains or unexpected activity.***"

The issues with risk are heavily linked and intertwined with almost everything we have covered in this document. Our respondents were very concerned about the meaningful impacts that this proposal for Central Clearing would have on the reduction of liquidity risks, enhanced concentration across the Central Clearing landscape with the FICC and the consequential resiliency challenges that concentration would produce.

Considerations & Recommendations

Summary of Findings

Considerations & Recommendations

In summary, our discussions with participants often concluded with a consensus around a group of recommendations that should be considered by the official sector prior to the rule finalization or implementation of the SEC's Proposal on Central Clearing for U.S. Treasuries and Repurchase Agreements. The below covers a summary of some of the core points frequently highlighted by the participants:

- Firms insisted on the need for a cost-benefit analysis prior to the finalized rule and a far higher level of scrutiny to determine who would bear the cost associated with implementing these policies.
- Study participants suggested a phase-in for the current proposal to implement the SEC rulemaking. Specifically, firms encouraged a more incremental approach which would consider ensuring there is sufficient time for firms to build out the necessary operational, legal and business proposal requirements to provide time to procure the necessary skilled resources are available for all the market making community while also ensuring clients have the time to work with them on necessary buildouts with their sponsors.
- Firms and policymakers agreed that developing a standardized or common margin approach would be valuable; This approach would be similar to one undertaken with Dodd Frank for swaps and other derivative instruments.
- Firms and policymakers agreed that there was a need for an industry wide standardized sponsorship agreement to ensure there is a market wide template for the purposes of dealer & client negotiations.
- Participating firms encouraged that the Fed backstop be expanded to support the clearing mandate and mitigate exposure and risk of participating firms.
- Study Participants have identified that resourcing the meaningful repapering exercise required for master agreements, cross margining and netting agreements will be significant. Firms discussed the need to retain both securities litigation experts as well as additional resources to get firms through this exercise.
- Study Participants have begun self-assessments to determine the impact of the clearing proposal on their books of business, investments for operations, vendor system evaluations and legal resources. Institutions should consider beginning those efforts to be prepared for the pending rulemaking, if they have not already done so.

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