

DTCC

Securing Today. Shaping Tomorrow.®

MAY 2019

CENTRAL CLEARING IN THE U.S. TREASURY CASH MARKET

Risk Mitigation Benefits and Initiatives for Promoting Further Adoption



TABLE OF CONTENTS

INTRODUCTION	1
BILATERAL CLEARING: KEY RISK AND RESILIENCY ISSUES	2
CENTRAL CLEARING: RISK MITIGATION BENEFITS.....	3
INITIATIVES TO PROMOTE GROWTH IN CENTRAL CLEARING.....	5
LOOKING AHEAD.....	7
CONCLUSION.....	9
BIBLIOGRAPHY	10

INTRODUCTION

The U.S. Treasury securities market continues to be a critical component for the functioning and stability of the global financial system. Over the last couple of decades the U.S. Treasury cash market in particular has experienced marked changes. These changes largely stem from advancements in technology which have fostered an exponential growth in the use of electronic and automated trading in the U.S. Treasury cash market. Alongside these advancements, new participants have become active in the market and many of these participants have focused extensively on the use of electronic and automated trading.

In addition to the structural impact from these changes, another consequence is that an increasing percentage of trades in the U.S. Treasury market have shifted away from clearing through a central counterparty (CCP) to bilateral clearing. This has particularly impacted the interdealer market segment of the U.S. Treasury market, as the trading activity of these new participants (typically referred to as principal trading firms (PTFs)) is often conducted through the platforms of interdealer brokers (IDBs). Most PTFs are not clearing members of CCPs and instead clear through either prime brokers or correspondent clearers. When trading in the interdealer market segment is combined with the dealer-to-client market segment, a large percentage of trades in the U.S. Treasury market are now cleared and settled bilaterally.

This shift was highlighted in the U.S. Department of the Treasury's 2017 Report, *A Financial System That Creates Economic Opportunities: Capital Markets* (the "Treasury Report"), as well as in the analysis of The Treasury Market Practices Group (TMPG) in its 2018 *White Paper on Clearing and Settlement in the Secondary Market for U.S. Treasury Securities* (the "TMPG White Paper"). The TMPG White Paper specifically notes that "a majority of trades in the secondary Treasury market now clear bilaterally, a trend that is contrary to the direction of recent regulatory requirements in other markets (i.e., swaps) that for some products mandate clearing and for others encourage it through higher margin requirements on bilaterally cleared transactions."

In addition to providing a breakdown of the current structure in the secondary Treasury market, the TMPG White Paper also identified a number of potential risk and resiliency issues for consideration. This paper identifies some of those key risk and resiliency issues with respect to bilateral clearing, highlights the risk mitigation benefits of central clearing, and describes initiatives (both implemented and planned) of DTCC's Fixed Income Clearing Corporation's (FICC) Government Securities Division (GSD)¹ as solutions for promoting greater utilization of central clearing in the U.S. Treasury cash market moving forward.

¹ FICC's GSD provides CCP services to its clients with respect to the U.S. government securities cash market.

BILATERAL CLEARING: KEY RISK AND RESILIENCY ISSUES

This section identifies some of the key risk and resiliency issues with respect to bilateral clearing in the U.S. Treasury cash market, which have taken on increased relevance given the noted shift to bilateral clearing:

Credit risk associated with bilaterally cleared trades remains with the original counterparties to the trade throughout the lifecycle of the trade.

- As noted in the TMPG White Paper, the associated credit risk (both intraday and overnight) remains with the original counterparties, including IDBs.

Risk mitigation for bilaterally cleared trades may be less standardized and less transparent than for centrally cleared trades.

- The 2015 *Joint Staff Report: The U.S. Treasury Market on October 15, 2014* noted that “the significance of trading volume of firms outside the [CCP] membership...raises the question of whether trades cleared for non-CCP members are processed as prudently as those for firms inside the CCP. Trades cleared outside the CCP may not be subject to the same level of settlement risk mitigation techniques such as margin collection, disciplined clearing fund balance requirements, and pre-defined loss sharing arrangements.”

Netting benefits associated with bilaterally cleared trades are likely reduced when compared to centrally cleared trades.

- The Treasury Report stated that a consequence of the shift away from central clearing is that “there is less netting down of settlements than there would be if all interdealer market participants were [CCP] members.”

Funding for bilaterally cleared activity is often sourced from uncommitted arrangements.

- Market participants have varying business models, trading strategies, and financial resources that influence whether they hold positions for seconds, minutes, hours, or longer. Given their smaller balance sheets, many bilateral counterparties only have access to liquidity sources on an uncommitted basis, which could prove to be inadequate in the event of a counterparty concern or market stress scenario.

Under bilateral clearing, potential “fire sale” risk may be unable to be mitigated in the event of a failed counterparty, wherein asset prices are driven down and contagion/stress could spread across the financial system.

CENTRAL CLEARING: RISK MITIGATION BENEFITS

This section highlights the risk mitigation benefits of central clearing through a CCP in the U.S. Treasury cash market:

Credit risk associated with centrally cleared trades is transferred to the CCP rather than remaining with the original counterparties to the trade.

- The CCP guarantees the settlement of, and novates, netting-eligible trades at the time of comparison of such trades.

Netting benefits under central clearing include reduced settlement and operational risks.

- Through netting, the CCP establishes a single net long or short position for each participant's daily trading activity in a given security, including all cash buy/sell, repo/reverse and U.S. Treasury auction purchases. The participant's net position is the difference between all long and all short positions in a given security, therefore reducing the need for individual bilateral settlements.

Risk mitigation for centrally cleared trades is standardized by the CCP.

- Trades cleared through the CCP are subject to independent risk management by the CCP, including a minimum of twice daily margin collection, margin or clearing fund requirements, pre-arranged contingent or emergency liquidity arrangements, and pre-defined loss sharing arrangements.

Clearance and settlement of securities transactions through a CCP would help to safeguard the U.S. financial market in the event of a failed counterparty or stress scenario.

- The CCP guaranty of completion of settlement of centrally cleared securities transactions would mitigate the potential risk of a large-scale exit by institutional investors in a stress scenario, and therefore lower the risk of a liquidity drain in such a scenario.
- A centralized liquidation of a failed counterparty by the CCP would reduce the risk of "fire sales" that drive down asset prices and spread contagion/stress across the financial system. The hedging and liquidity of a failed counterparty's portfolio would be centrally managed and controlled by the CCP in an orderly manner, which would help to avoid potential "fire sale" conditions.

CCP members could optimize their capital usage.

- Centrally clearing these securities transactions could enable members to reduce capital usage via balance sheet netting opportunities, potentially fostering additional capacity in the market. It may also enable members to apply lower risk weights in their risk-based capital ratios.

CENTRAL CLEARING IN THE U.S. TREASURY CASH MARKET

While these are key benefits that strengthen financial stability, it should also be recognized that central clearing can concentrate risk within a single entity. This, in turn, requires CCPs to strictly enforce a rigorous and comprehensive risk management framework to help ensure their own resilience in the most extreme circumstances. This disciplined approach, while beneficial from a systemic risk perspective, may create significant margin and liquidity obligations for individual member firms. Additionally, a CCP structure typically includes a loss waterfall mechanism. In extremely adverse market conditions, this mechanism could mutualize tail losses incurred by the liquidation of an insolvent firm among solvent members. CCP members should have a clear understanding of these obligations and the associated exposures.

INITIATIVES TO PROMOTE GROWTH IN CENTRAL CLEARING

Over the last several years, DTCC's FICC subsidiary has executed initiatives that have focused on broadening the accessibility of central clearing for participants in the U.S. Treasury cash market.

This section identifies current FICC (GSD) initiatives which help to promote the use of central clearing moving forward:

Creation of FICC (GSD) Sponsored Membership Program

- The Sponsored Membership program began in 2005 with its inaugural sponsor, State Street Bank & Trust Company, using the program as a means to facilitate investment of cash by its Registered Investment Company (RIC) clients in a capital-efficient manner. Since the financial crisis, the focus on capital efficiency continues to intensify. As a result, in 2017 FICC expanded the range of firms that could participate in the program, from RICs to Qualified Institutional Buyers (QIBs). This not only expanded the number of cash providers eligible for the program, but it also opened the door for collateral providers as well.
- Sponsoring Members enable their Sponsored Members to access the central clearing benefits provided by GSD by having them join FICC as limited purpose members and by acting as processing agent on their Sponsored Members' behalf for performing all operational functions, including trade submission, settlement and risk management with GSD. The Sponsoring Member also provides a guarantee to FICC of their Sponsored Members' activity.
- In March 2019, the U.S. Securities and Exchange Commission (SEC) approved a rule filing by FICC (GSD) which further extended central clearing capabilities to the institutional market. This filing expanded the Sponsored Membership program by allowing a broader group of GSD Netting Members to participate as Sponsoring Members. As a result of this change, applicants to be Sponsoring Members could include, for example, Dealer Netting Members, Futures Commission Merchant Netting Members, and Foreign Netting Members.
- This filing also expanded the definition of eligible trades for Sponsored Members to include trades between a Sponsored Member and any other GSD Netting Member (different from their specific Sponsoring Member). This change could increase the number of potential counterparties a Sponsored Member could have in clearing.
- The potential value of the Sponsored Membership program is evidenced, for example, through the Office of Financial Research's U.S. Money Market Fund Monitor (the "Monitor") which shows U.S. Money Market Funds (MMFs) activity in the repurchase agreement (repo) market. The Monitor shows that, as of December 31, 2018, FICC was the largest repo counterparty to U.S. MMFs in their capacity as Spon-

sored Members, representing a total of \$137.1 billion in treasury repo.² Whereas, the Monitor reports that MMFs had \$0 of treasury repo activity with FICC as of May 31, 2017.³ This exponential growth in MMF participation in FICC through the Sponsored Membership program proves the value of the program to the MMFs in terms of their ability to increase their lending capacity and, in turn, their income. FICC believes the recent changes to the Sponsored Membership program would allow for further trading volume to be centrally cleared through FICC.

Creation of Centrally Cleared Institutional Triparty (CCIT™) Service

- FICC's GCF Repo® Service has enabled its dealer members to trade FICC-cleared general collateral repos with each other based on rate, term and underlying product through the day without requiring intra-day, trade-for-trade settlement on a Delivery-versus-Payment (DVP) basis. In 2017, FICC (GSD) expanded the GCF Repo® Service by extending its CCP services and guaranty of completion of eligible trades to tri-party type repo transactions between its GSD Netting Members and eligible institutional money lenders. This extension of the service is referred to as the Centrally Cleared Institutional Triparty (CCIT™) Service.
- The CCIT™ Service further strengthens financial stability by helping to mitigate fire sale risk by bringing more tri-party type activity into central clearing.

Implementation of FICC (GSD) Fee Structure Changes

- In 2018, FICC (GSD) amended its Fee Structure to reduce pricing complexity and better align its pricing with the costs of services provided by GSD. One of the key changes was the shifting of the GSD Fee Structure regarding the delivery-versus-payment service (the "DVP Service") away from a volume-driven approach to a value-driven approach. In addition to enhancing price transparency for its members, FICC believes these changes may result in making central clearing more accessible to additional market participants and may eliminate perceived pricing barriers to entry.

² The total treasury repo activity as of December 31, 2018 was updated by the Office of Financial Research's Monitor on February 15, 2019 (utilizing data through January 31, 2019).

³ Office of Financial Research, U.S. MMFs' investments in the repo market available at <https://www.financialresearch.gov/money-market-funds/us-mmfs-investments-in-the-repo-market/>

LOOKING AHEAD

This section identifies future initiatives planned by FICC that, among other benefits, will support growth in central clearing activity:

Proposal for FICC (GSD) Start Leg Repo Initiative

- FICC (GSD) is proposing to expand the scope of its central clearing capabilities to include compared same-day starting repo transactions in eligible netting securities in the risk management, novation, guarantee and settlement in the DVP Service. Along with the expansion of GSD's central clearing services, GSD proposes to pair-down Netting Members' failed Receive Obligations and failed Deliver Obligations through an automated Pair-Off Service that will run just after the Fedwire® close.

Locked-in Trade Sources for FICC

- FICC is looking into the expansion of its current capabilities for designating qualified institutions as "Locked-in Trade Sources" for FICC. This designation would provide the opportunity for an institution to submit trades directly to FICC on behalf of two FICC members on opposite sides of a trade and would effectively eliminate the requirement for the institution to act as the settlement intermediary in the trade. Instead, the institution would be submitting the trade directly to FICC on the members' behalf. This capability is currently developed only for buy/sell activity, but FICC is currently contemplating broadening the scope to include financing transactions.
- FICC believes that expanding the scope of trading activity applicable for Locked-in Trade Sources, in concert with the expansion of the Sponsored Membership program, would allow for additional trading volume to be centrally cleared through FICC.

Proposal for FICC (GSD) – CME Cross-Margining Enhancements

- FICC (GSD) currently has in place a cross-margining arrangement with the Chicago Mercantile Exchange (CME) through a written agreement. Under the FICC-CME arrangement, each holds and manages its own positions and collateral, and independently determines the amount of margin that it will make available for cross-margining. FICC and the CME may reduce the amount of collateral that they each collect to reflect the offsets between the cross-margining participant's positions at FICC and its positions at the CME, and thereby reduce potential unnecessary collateral demands on participants.
- FICC and the CME are currently working on a joint proposal, subject to regulatory approval, to enhance the FICC-CME arrangement. This may include additional products and process changes in order to create greater efficiencies within the current arrangement. As a longer-term enhancement, the joint proposal could also include the creation of a one-pot margin that would seek to optimize margins,

streamline margin collections, and coordinate default management practices across FICC and the CME.

Proposal for FICC Common Margining

- Currently, FICC calculates separate Clearing Fund (i.e., margin) requirements for members of each FICC Division (GSD and MBSD⁴). Subject to regulatory approval, the FICC Common Margining Proposal will create one Clearing Fund for all GSD Netting Members and MBSD Clearing Members. Firms that are both GSD Netting Members and MBSD Clearing Members (collectively, “Common Members”) will have the option to net their GSD positions with their MBSD positions into a single margin portfolio. Common Members may realize margin requirement reductions based on offsetting activity across GSD and MBSD.

⁴ FICC's Mortgage-Backed Securities Division (MBSD) provides CCP services to its clients with respect to the U.S. mortgage-backed securities market.

CONCLUSION

Analyses conducted over the last few years, including those in the Treasury Report and the TMPG White Paper, have documented that an increasing percentage of trades in the U.S. Treasury cash market have shifted away from central clearing to bilateral clearing.

This shift has generated increasing concerns around the potential key risk and resiliency issues with respect to bilateral clearing.

We hope this paper helps contribute to a better understanding of the importance and risk mitigation benefits of central clearing in the U.S. Treasury cash market.

In that spirit, this paper has outlined a series of initiatives (both implemented and planned) that provide options for market participants to increase their centrally cleared activity in the U.S. Treasury cash market, thus mitigating many of the risks realized with bilateral clearing. As we have done in the past, we intend to use this paper to engage with clients, regulators and other stakeholders to discuss these topics which should remain a focus area for the industry.

We actively encourage you to share your thoughts and participate in the ongoing dialogue that we are looking to foster.

Input can be provided to:

Murray Pozmanter

Managing Director,
DTCC Head of Clearing Agency Services
mpozmanter@dtcc.com
001-212-855-7522

Andrew Gray

Managing Director,
DTCC Group Chief Risk Officer
agray@dtcc.com
001-212-855-1100

James Hraska

Managing Director,
General Manager of DTCC's Fixed Income
Clearing Corporation
jhraska@dtcc.com
001-212-855-5224

Timothy Cuddihy

Managing Director, DTCC Head of Market and
Liquidity Risk Management
tcuddihy@dtcc.com
001-212-855-5237

Michael Leibrock

Managing Director, DTCC Chief Systemic Risk
Officer and Head of Counterparty Credit Risk
mleibrock@dtcc.com
001-212-855-3243

BIBLIOGRAPHY

Barclays' Interest Rates Research team. (2019, January 3). *Closing the window and widening spreads*.

Barclays' Interest Rates Research team. (2019, January 24). *SOFR and repo netting*.

DTCC. (2017). *Extending Repo Clearing Capabilities to the Institutional Market*.

DTCC. (2018, September). *The Next Crisis Will Be Different*.

DTCC. (2018, December 31). *Fixed Income Clearing Corporation Disclosure Framework for Covered Clearing Agencies and Financial Market Infrastructures*.

J.P. Morgan's North America Fixed Income Strategy team. (2019, January 22). *A primer on sponsored repo*.

McCormick, L. (2018, July 13). Treasury Market Group Warns of Clearing Risks in Benchmark Debt. Bloomberg.

Office of Financial Research (OFR). *U.S. Money Market Fund Monitor – U.S. MMFs' investments in the repo market*.

The Treasury Market Practices Group (TMPG). (2018). *White Paper on Clearing and Settlement in the Secondary Market for U.S. Treasury Securities*.

U.S. Department of the Treasury. (2017, October). Report to President Donald J. Trump: Executive Order 13772 on Core Principles for Regulating the United States Financial System. *A Financial System That Creates Economic Opportunities: Capital Markets*.

U.S. Department of the Treasury. Board of Governors of the Federal Reserve System. Federal Reserve Bank of New York. U.S. Securities and Exchange Commission (SEC). U.S. Commodity Futures Trading Commission (CFTC). (2015, July 13). *Joint Staff Report: The U.S. Treasury Market on October 15, 2014*.

