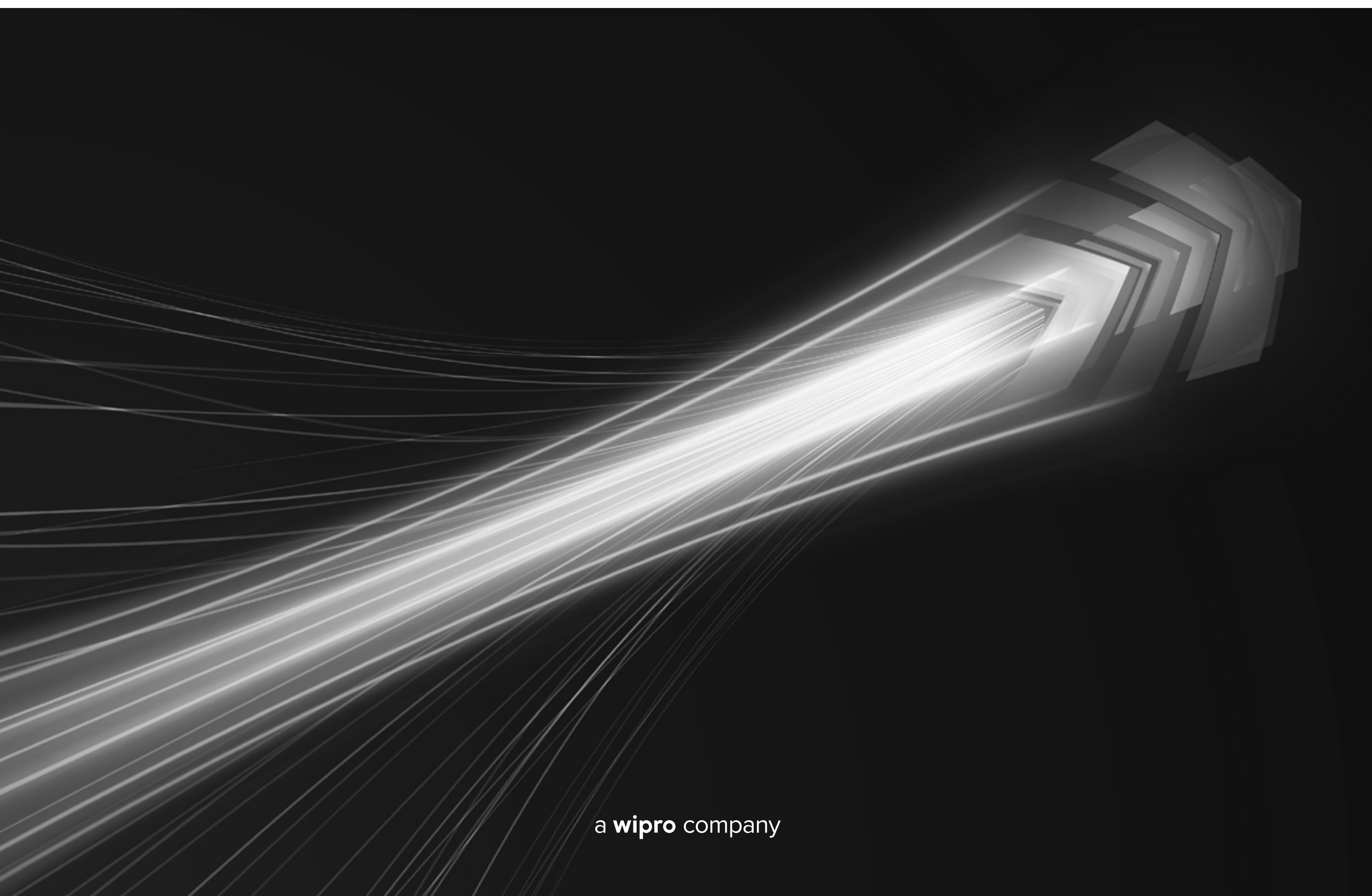
UNDER STRESS

US TREASURY MARKET REFORM ACCELERATES



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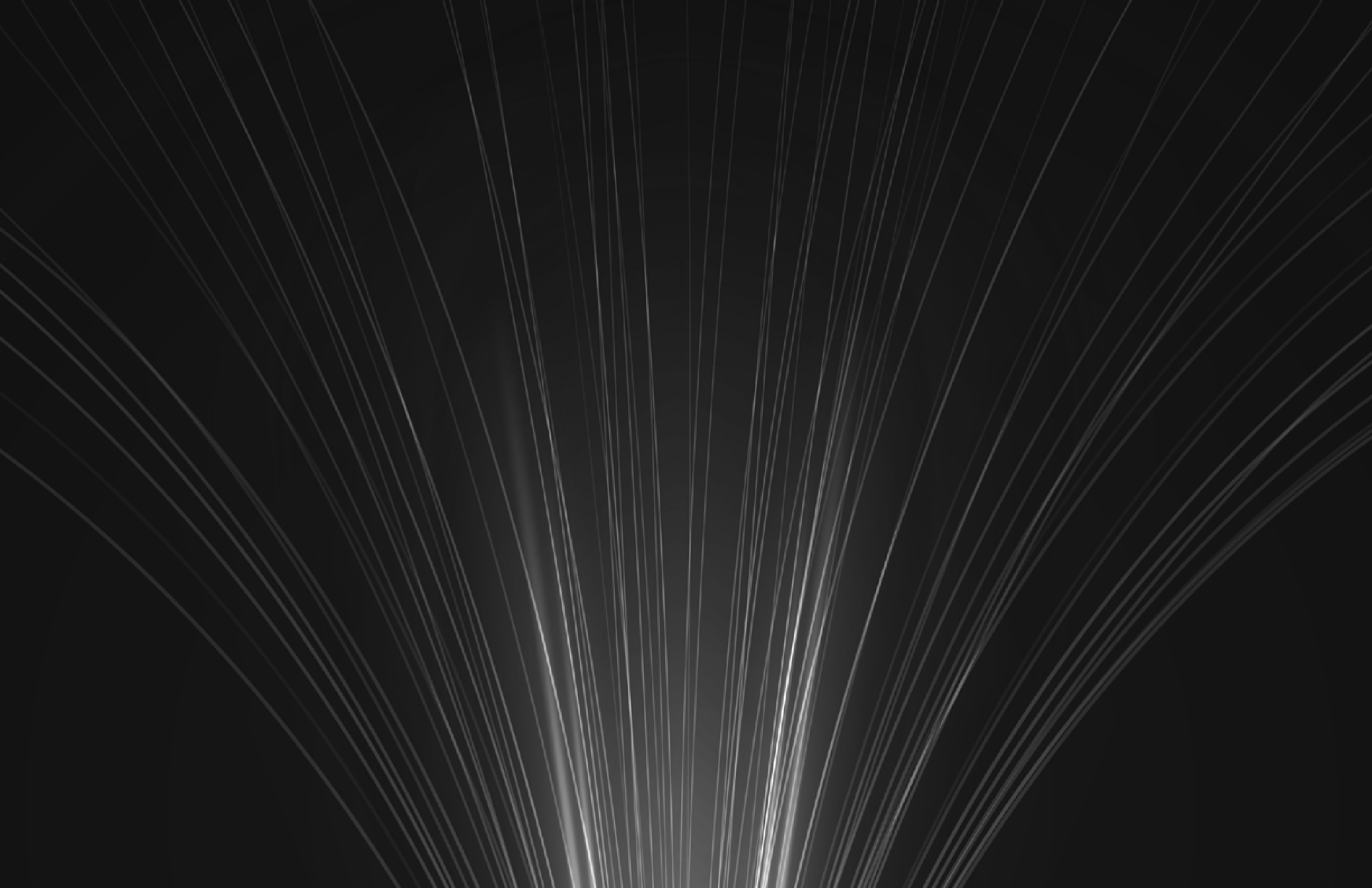


INTRODUCTION

The $26 trillion US Treasury market is the most important financial market in the world – but it is not immune from episodes of dysfunction. Cracks first surfaced as far back as a decade ago. More recently, Treasury market turbulence in late 2019 and during the COVID pandemic forced the Federal Reserve to intervene with emergency injections of liquidity. Since then, the public and private sectors have been highly focused on identifying and implementing market reforms.

Electronic trading and post-financial crisis regulatory reforms have fundamentally altered the trading dynamics of the US Treasury market. Bank-owned broker/dealer intermediation in US Treasuries and the wider money markets has stagnated, while high frequency trading firms have become an important source of liquidity provision. Treasury repo rates (SOFR) have replaced LIBOR as the industry standard benchmark rate. This changing landscape, coupled with significant financial and operational stresses, has highlighted the need for market reform.

Policy makers, regulators, industry participants, and observers have identified a series of structural reforms to make the Treasury market function more smoothly in normal times and significantly more resilient to stressed conditions. The stakes are high, as a loss in market confidence would severely hamper the Federal Reserve's ability to enact monetary policy and could significantly increase the US government's borrowing costs.

Below we provide a brief background on the Treasury market structure and the recent episodes of turbulence that have been a catalyst for reform. We then explore two recent Securities and Exchange (SEC) Final Rules – one that requires central clearing for most Treasury activity and another that expands the definition of 'dealer', capturing more firms active in this space. Finally, we discuss the implications for market participants and the relevant actions that should be taken.

US TREASURY MARKET BACKGROUND

The largest sovereign bond market in the world, US Treasuries are the benchmark for risk-free interest rates, a key reserve asset for central banks globally, and serve as an important source of liquidity for banks and institutional investors. The US Department of the Treasury issues new securities via regular auctions in the primary market, predominately through a fixed set of primary dealers. This piece focuses on secondary trading and financing markets, which have been the target of recent reform efforts.

Secondary trading (e.g. cash trading) is generally categorized into two segments: interdealer trading and dealer-to-client trading. The interdealer market primarily consists of trading activity amongst dealers and between dealers and principal trading firms (PTFs). This activity is mostly executed electronically and anonymously through interdealer broker platforms (IDBs), though dealers do also execute trades directly on a bilateral basis with each other. Both dealers and PTFs employ high frequency market making strategies while dealers also access the interdealer market to hedge their customer flows.

Trading in the interdealer market tends to focus on the more liquid on-the-run issues. Trading between dealers is centrally cleared via the Fixed Income Clearing Corporation (FICC) while trading conducted by PTFs typically is not, unless the trading is executed by a broker/dealer subsidiary that is also a FICC netting member.

It is important to recognize the ascension of PTFs as an important source of liquidity provision in the US Treasury trading market. US debt outstanding has expanded significantly over the past 15 years while the intermediation capacity of bank-owned broker/dealers has remained stagnant, primarily due to post-crisis leverage restrictions. PTFs have stepped in to fill the void, leveraging advances in technology.

Dealer-to-client trading represents trading between sell-side dealers and their buy-side clients, such as pension funds, hedge funds, mutual funds, and insurance companies. It also includes trading between dealers and other clients such as corporations and foreign central banks. Execution occurs using a variety of electronic and voice methods. These trades are typically cleared and settled bilaterally.

The repo and futures markets also play an important role in Treasury trading, as these markets are explicitly linked through arbitrage opportunities. High leverage strategies, such as the Treasury futures basis trade, have been highly profitable trading strategies for levered funds for the majority of the past few years. These strategies and their potential impact on markets during stressed periods have been top of mind for bank risk managers and regulators for some time.

Treasury repo can be split into bilateral and tri-party repo. Bilateral repos are arranged, cleared, and settled directly between a dealer and its client. If the bilateral repo is between two FICC members, however (either a direct member or sponsored member), then it must be centrally cleared. Tri-party repo comes in two flavors depending on whether the transaction is between two FICC members or between a dealer and its client (e.g. a money market fund). Non-centrally cleared tri-party repo is arranged bilaterally and cleared and settled at a custody bank. Centrally cleared tri-party repo are generally executed anonymously, are centrally cleared by FICC, and settled at the Bank of New York Mellon.

Treasury futures are executed electronically and are centrally cleared, predominately through the Chicago Mercantile Exchange (CME). We mention futures here for completeness, but the futures market is not the target of recent Treasury market reform. However, usage of cross-margining arrangements between FICC and CME is expected to increase in the future and will be discussed further below.

CATALYSTS FOR MARKET REFORM

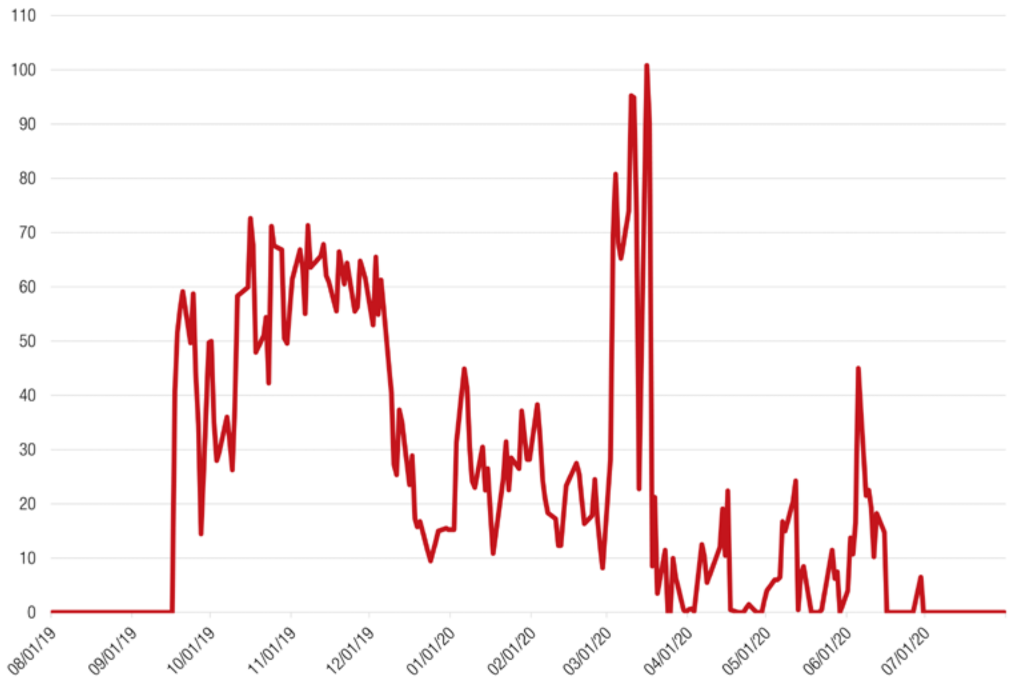
Two specific recent stress episodes in the Treasury repo/money markets and Treasury cash markets have been catalysts for current market initiatives.

The first event occurred in September 2019, when significant stress hit the Treasury repo and money markets, causing SOFR and Fed Funds rates to increase dramatically for several days. The primary cause has been attributed to quarterly corporate tax payments and mid-month Treasury coupon auction settlements. Economists from the Federal Reserve have also attributed the impact to low levels of reserve balances causing cash imbalances in the repo market and a pullback from sponsored repo lenders that increased intermediation costs for US G-SIBs.[1]

The Federal Reserve intervened by conducting overnight and longer-term repo operations and subsequently conducting outright Treasury purchases. The market returned to normal quickly because of these operations and the Federal Reserve's commitment to continue them into 2020.

The second, more intense episode, occurred in March 2020 at the advent of the COVID pandemic. As the crisis unfolded, foreign and domestic investors, including highly levered funds, sold large amounts of Treasuries. The demand to liquidate Treasuries far exceeded the capacity of dealers to intermediate the market. The Treasury market became extremely volatile, market depth vanished, settlement fails increased, and repo financing rates spiked. The Treasury market, meant to be a safe haven, became dysfunctional until the Federal Reserve again stepped in to support the market.

Figure 1: Overnight Repurchase Agreements: Treasury Securities Purchased by the Federal Reserve in the Temporary Open Market Operations (USDbn)



Source: Federal Reserve Bank of New York, St. Louis FRED database

The massive response from the Federal Reserve included large outright Treasury purchases, an offer of unlimited repo financing for dealers, and a relaxation of supplementary leverage requirements (SLR) for banks.[2] The Federal Reserve also reduced reserve requirements to zero and implemented several other temporary policy tools, such as the Primary Dealer Credit Facility and the Money Market Mutual Fund Liquidity Facility. The combined effect of these monetary and regulatory tools eventually calmed the market, but it remained unusually choppy for over a month.

Given the exogenous, low-frequency/high-impact nature of the initial COVID shock in 2020, one might question whether such an event should warrant significant market reform. However, since 2020, US debt outstanding has exploded, reaching USD26 trillion as of year-end 2023 and is projected to grow by approximately 75% to $46 trillion over the next 10 years to finance large and growing fiscal deficits. This growth projection of 6% per annum is almost certainly an underestimate, based on actual experience over the past 20 years.

In the longer run, the Congressional Budget Office projects Debt-to-GDP to reach 172% with total debt held by the public reaching $146tn.[3] The growth in debt has occurred at a time when foreign purchasers have pulled back, peaking at 49% of total federal debt held by the public 2008 to less than 30% as of July 2023.[4] Domestically, the largest buyer of US debt, the Federal Reserve, has reduced the size of its balance sheet beginning in 2022 as part of its quantitative tightening cycle.

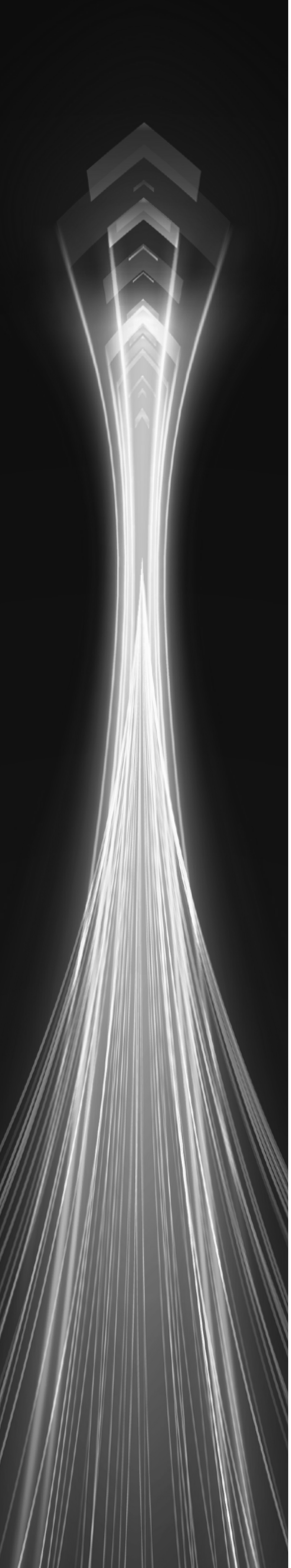
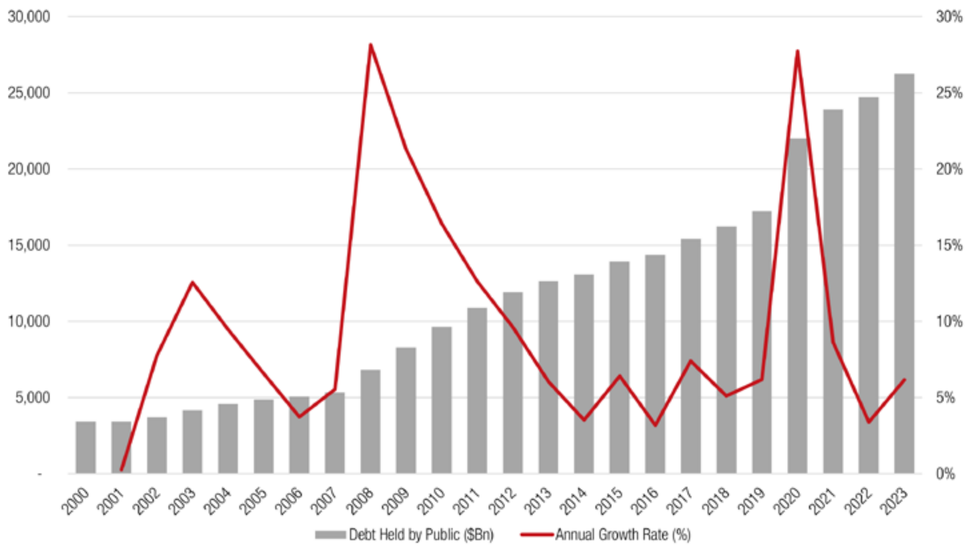
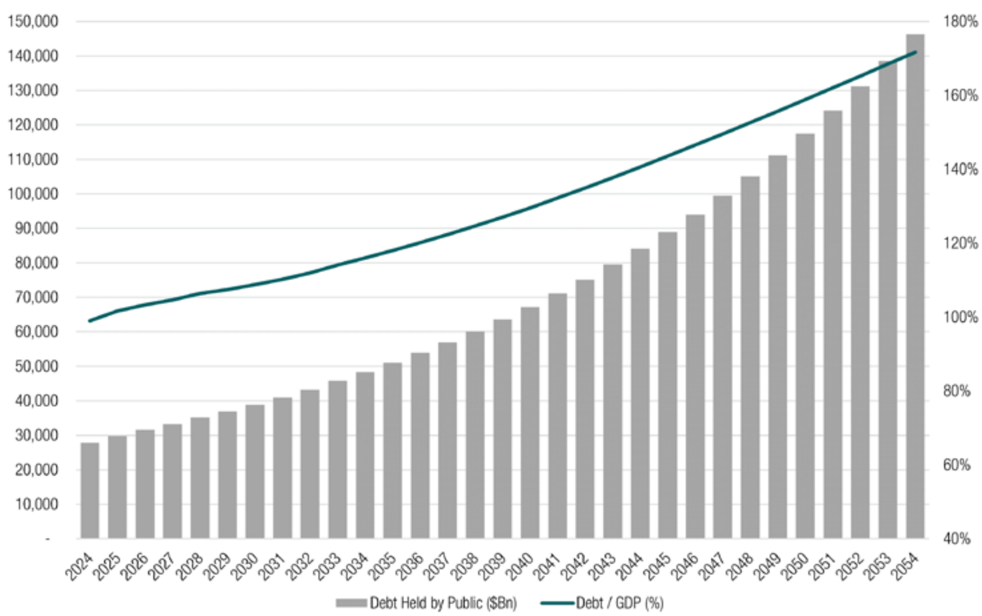


Figure 2: US Federal Debt Held by the Public



Source: Federal Reserve Economic Data, St. Louis FRED database; Capco calculations

Figure 3: US Federal Debt Held by Public, Debt to GDP Long-Term Projections



Source: Congressional Budget Office, February 2024 Long-Term Forecasts

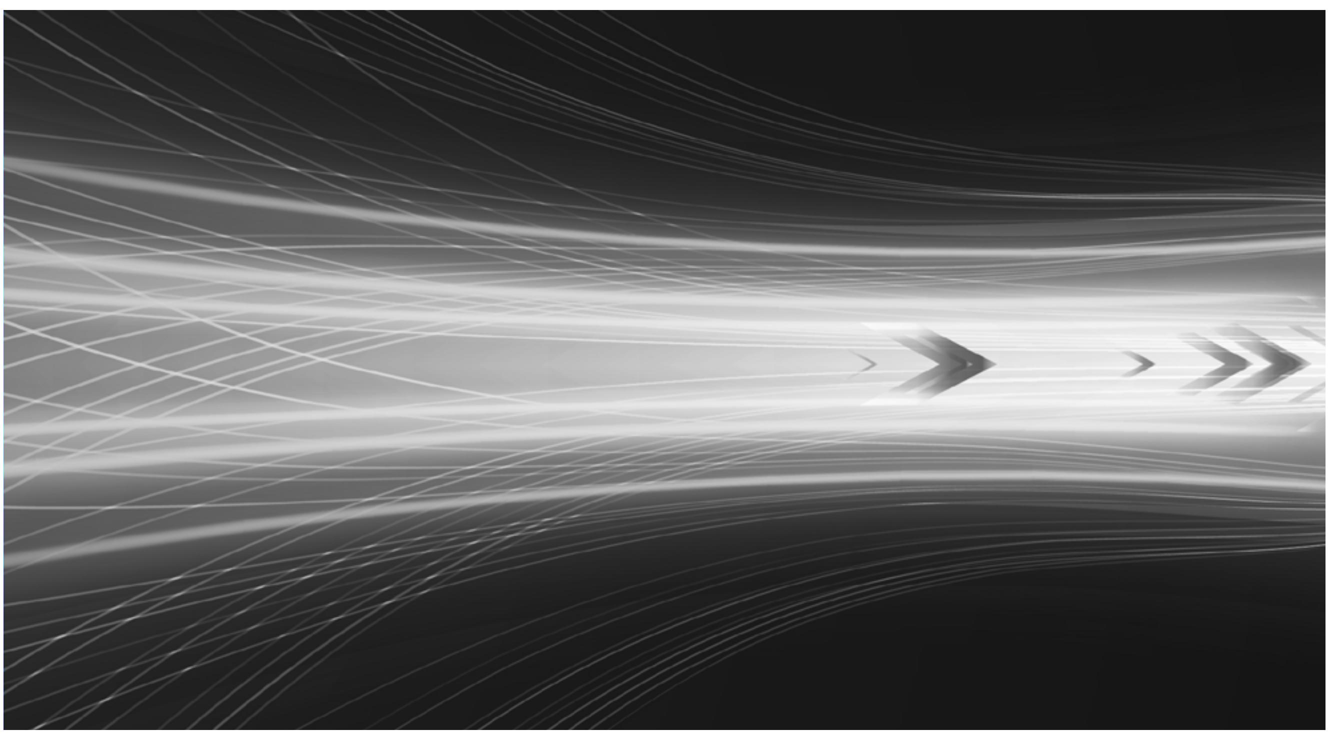
SUMMARY OF KEY REFORMS

Key themes of Treasury market reform include enhancing the market's resiliency to stressed conditions, ensuring that regulation for banks and non-bank participants facilitates this objective, and adding additional transparency both to supervisors and market participants.

Regulatory and supervisory authorities have implemented and/or proposed several changes, including – but not limited – to the following:

- The Federal Reserve established a domestic Standing Repo Facility (SRF) and international Standing Repo Facility (FIMA) in 2021
- The Department of the Treasury announced plans to restart a regular Treasury buyback program to support market liquidity, particularly in less liquid off-the-run securities
- The SEC amended Rule 15b9–1 to narrow the exemption for certain trading firms that will require them to join FINRA and report their transactions accordingly
- The Financial Industry Regulatory Authority (FINRA) amended rule 6730, which expanded Treasury trading reporting requirements to its Trade Reporting and Compliance Engine (TRACE).

However, perhaps the most important initiative, and certainly the most operationally intensive, is the SEC's Final Rule requiring that the majority of US Treasury trading activity be centrally cleared.



CENTRAL CLEARING & DEALER REGISTRATION REQUIREMENTS

Central Clearing Rule

More and more financial activity has moved to a central clearing model (CCP), either organically by the industry or due to regulatory requirements. In this model, the CCP intermediates transactions between buyers and sellers, becoming the ultimate counterparty to each. The most prominent example of regulatory-imposed clearing is the Dodd-Frank Rule that requires central clearing for the majority of interest rate swaps trading.

On December 13, 2023, the SEC adopted its Final Rule to “enhance risk management practices for central counterparties in the US Treasury market and facilitate additional clearing of US Treasury transactions”.[5] The single, established central counterparty for US Treasury transactions is the Fixed Income Clearing Corp (FICC).

The rule is organized by the SEC into three pillars, summarized as follows:
A. Covered clearing agencies (CCA) must adopt policies and procedures requiring its members to submit “eligible secondary market transactions” for central clearing.

Eligible secondary market transactions include:

- All Treasury repo activity involving a direct participant (FICC netting member)
- All secondary Treasury trades by direct participants acting as interdealer brokers
- All secondary Treasury trades between a direct participant and a registered broker-dealer and a government securities dealer or broker.

Eligible secondary market transactions do not include:

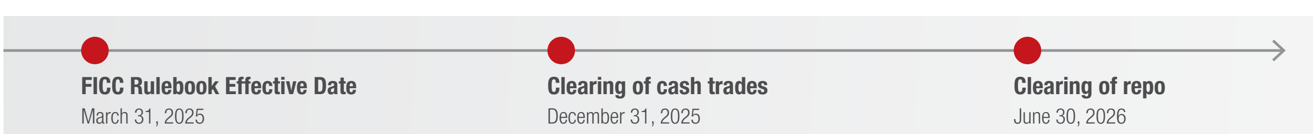
- Treasury repo activity with central banks, sovereign entities, international financial institutions, or a natural person
- Secondary Treasury trades between a direct participant and either a state or local government or another clearing organization
- Direct participants’ inter-affiliate Treasury transactions.

B. Additional Requirements.

- CCAs must have policies and procedures to calculate and collect margin separately for members’ proprietary trades (house) and indirect participants’ trades (clients)
- CCAs must have policies and procedures to ensure “appropriate means” to facilitate clearing and settlement of all eligible transactions, including those from indirect participants.

C. Amendment of 15c3-3 (customer reserve formula) to permit margin required to be a debit in the formula, which will allow dealers to use their clients’ collateral rather than their own to meet FICC margin requirements.

Figure 4: Key Milestones in the Central Clearing Rule



Dealer Registration

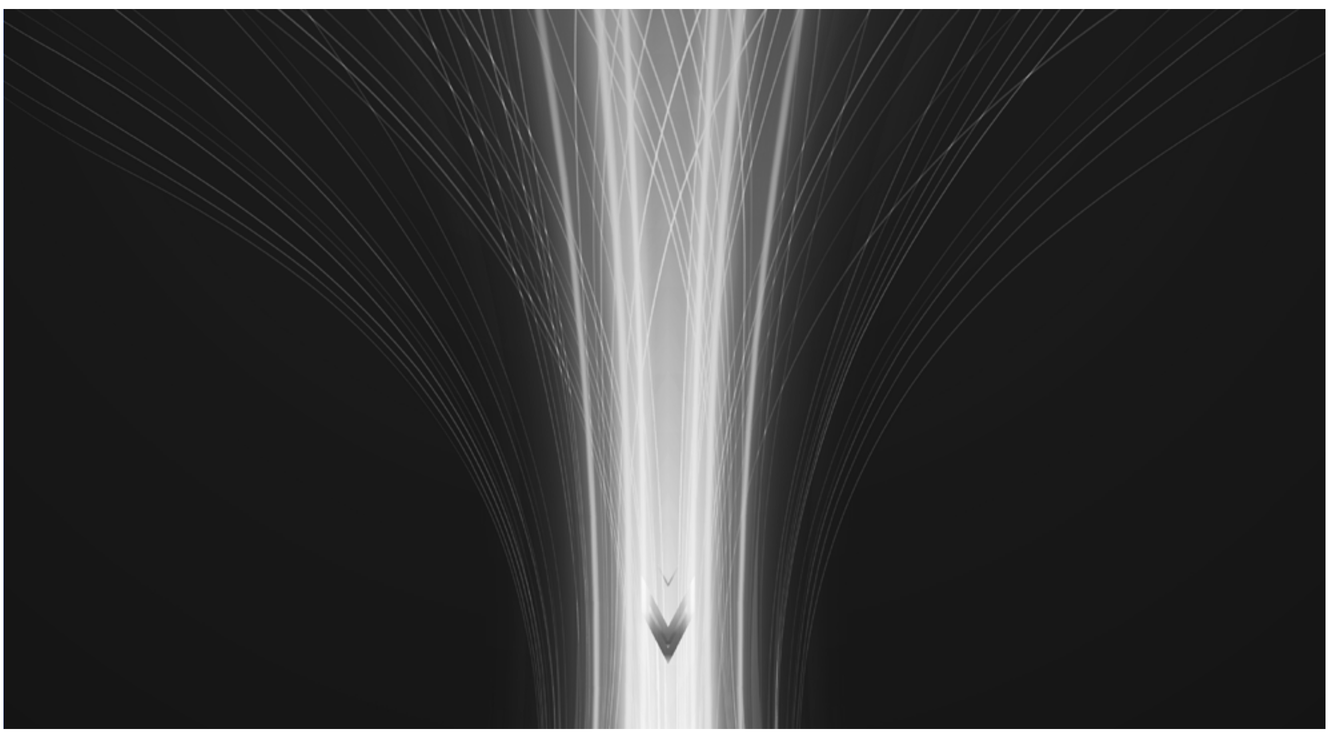
In a separate but related rule, on February 6, 2024 the SEC adopted its Final Rules that require market participants that take on significant liquidity-providing roles to register as a 'dealer' or 'government securities dealer' with the SEC and become members of a self-regulatory organization.[6] Two separate rule changes were made to amend the definition of 'as a part of a regular business' in Sections 3(a)(5) and 3(a)(44) of the Exchange Act to capture a wider range of market participants.

The Final Rules target Principal Trading Firms and others employing similar algorithmic trading strategies that the SEC views as de facto market makers. They amend the definition of regular business to include:

- Regularly expressing trading interest that is at or near the best available prices on both sides of the market for the same security and that is communicated and represented in a way that makes it accessible to other market participants; or
- Earning revenue primarily from capturing bid-ask spreads, by buying at the bid and selling at the offer, or from capturing any incentives offered by trading venues to liquidity supplying trading interest.

Certain market participants argued that this rule blurs the lines between professional traders and dealers, since PTFs trade with their own capital and do not have external clients. However, the SEC disagrees with this argument and nevertheless finalized the rule. The Final Rule did, however, remove one of the qualitative factors and the proposed bright-line test that market participants feared would unintentionally capture a wide set of institutional investors.

This rule change, in conjunction with the central clearing mandate above, effectively requires that PTF liquidity provisioning in US Treasury cash markets be centrally cleared through FICC.



KEY IMPACTS AND CONSIDERATIONS

The shift to central clearing presents a series of legal, operational, and risk management challenges for principal trading firms, sell-side dealers, and buy-side participants. It will also be a significant operational challenge for FICC itself. BNY Mellon estimates that the rule will impact approximately USD3trn in daily trading volume across cash trades and repo transactions.[7]

FICC Netting Members

For FICC netting members, all Treasury repo activity and secondary trading in the interdealer market will need to be centrally cleared. While the legal and operational capabilities to centrally clear exist, they will need to be scaled and adapted to fit this larger group of cleared trades.

Sell-side dealers will need to stand up a structured change management program to facilitate internal and external coordination efforts. A large set of clients will need help and partnership to determine the appropriate access path for them. A methodical approach to outreach will be important given the relatively limited time allowed.

From a competitive standpoint, FICC netting member dealers need to be cognizant that the rule does not mandate central clearing of all trades, but rather central clearing of trades by FICC Netting Members. Certain clients may seek to avoid trading with FICC Netting Members as a result.

An appropriately structured change management program will help assess:

- Target operating models for Treasury cash trading and repo businesses, including execution versus clearing strategy
- Client engagement strategy to educate and understand their access needs
- Legal agreement negotiations and drafting (with FICC and clients)
- Operational capabilities to receive and post margin, including intraday posting and cross-margining arrangements between FICC and CME
- Technology upgrades required to facilitate new and expanded flows
- Methodologies for setting sponsored client margin requirements
- Implications on internal credit risk limits
- Impact on contingent liquidity requirements (CCLF) and default fund with FICC from increased activity
- Impact on balance sheet, risk-based capital, and leverage requirements
- Customer segregation rule impact and methodology adjustments.

The largest interdealer broker platforms (IDBs) in the US treasury market are FICC netting members. The rules require that all IDB transactions be cleared, regardless of the counterparty. This will have the effect of eliminating 'hybrid' clearing in which one leg of the transaction (between an IDB and a FICC netting member) is cleared but the other leg of the transaction (between an IDB and a PTF, for example) is not. Smaller or upstart IDBs need to determine whether to meet the rule requirements or pull back from the market.

Institutional Investors

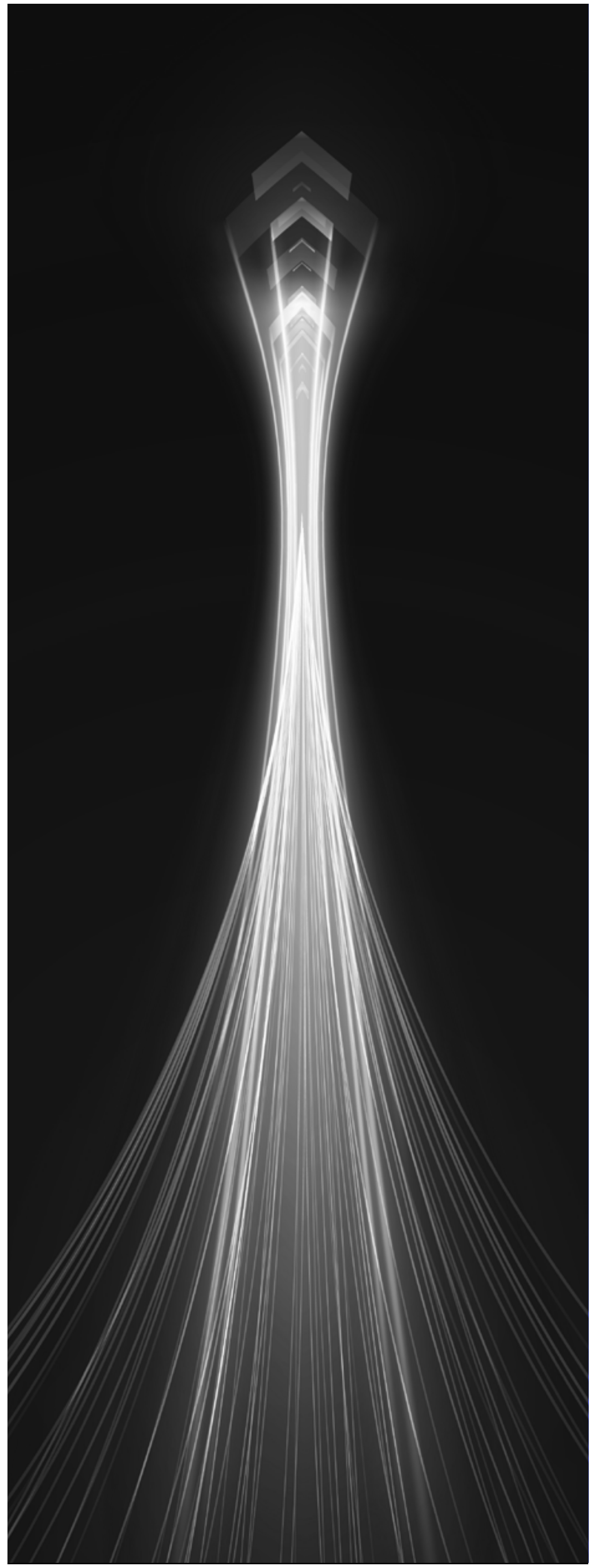
The requirement to centrally clear Treasury activity will impact a wide range of institutional investors. Firms will need to assess their activity in Treasury repo and secondary trading to determine if they will be impacted by the rules. For those activities that are impacted, investors will need to determine the appropriate FICC access model for their needs, engaging directly with FICC and/or their existing or potential sponsors.

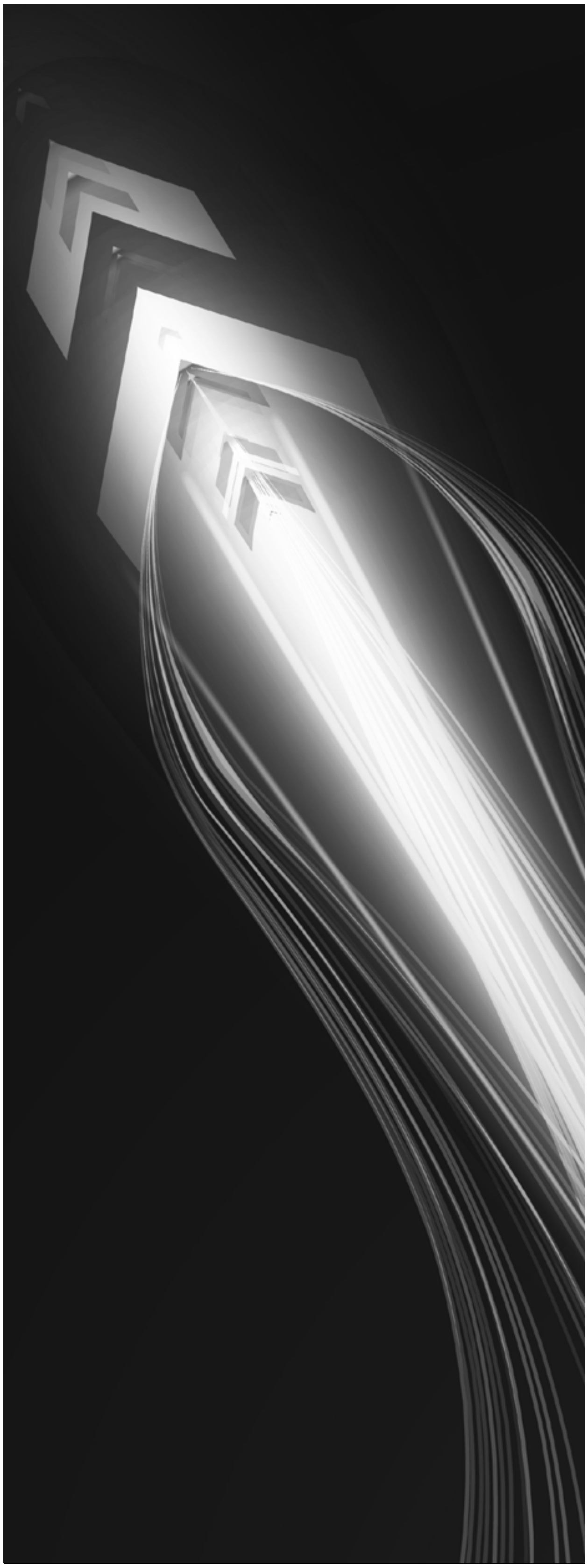
Importantly, investors will need determine their optimal number of sponsoring relationships, which may be impacted by industry dynamics for ‘done away’ trades. Investors will be paying attention to the forthcoming updates to the FICC rulebook to see if there are any changes in membership requirements, access models, and treatment of specific issues like done-away trades and mixed bag financing transactions.

Institutional investors active in the Treasury repo market will likely need to post a significant amount of additional margin under the new requirements. The need to post margin will have cost, liquidity, and operational impacts, and will increase the cost of transacting in the US Treasury market. According to a recent FICC survey and analysis, the rule changes could result in USD26.6bn in new margin requirements for indirect participants.[8]

Certain investors may require systems upgrades to meet operational requirements, such as ability to send/receive intraday margin. Operational capability to implement cross margining across FICC-CME for investors active in futures is another consideration.

Investors new to Treasury clearing will need to negotiate new legal agreements with their sponsoring member or prime broker clearing member and with the FICC itself (in the case of sponsored membership).





Principal Trading Firms

Principal trading firms have stepped in to become an important liquidity provider in secondary trading as traditional broker-dealer intermediation has remained stagnant. Regulators have highlighted the importance of the role that PTFs play in the market, but they nonetheless want to bring them further into the regulatory perimeter.

As a result of the registration requirement, some PTFs will need to register as dealers or government securities dealers. The legal and operational requirements to stand up and run a dealer are non-trivial. Some considerations include:

- Registering with the SEC
- Joining a Self-Regulatory Organization (i.e. FINRA)
- Drafting comprehensive policies and procedures
- Developing robust processes and controls
- Maintaining minimum capital requirements
- Complying with various external reporting requirements
- Being subject to recurring supervisory examinations.

Certain PTFs, particularly those that operate high frequency equity trading strategies, already have registered broker-dealer subsidiaries. They may still be impacted from an operating model and legal documentation perspective. As FINRA members, PTFs will be required to abide by FINRA Treasury reporting requirements, which will be new for most PTFs.

PTFs will also need to determine their access strategy with FICC. PTFs may access FICC through one or more prime brokerage arrangements or another access model. PTFs may need to develop the necessary infrastructure to centrally clear transactions with FICC or leverage their prime brokers for this purpose.

Smaller market players or those for which US Treasury trading is a non-core strategy may choose to exit the activity altogether.

FICC

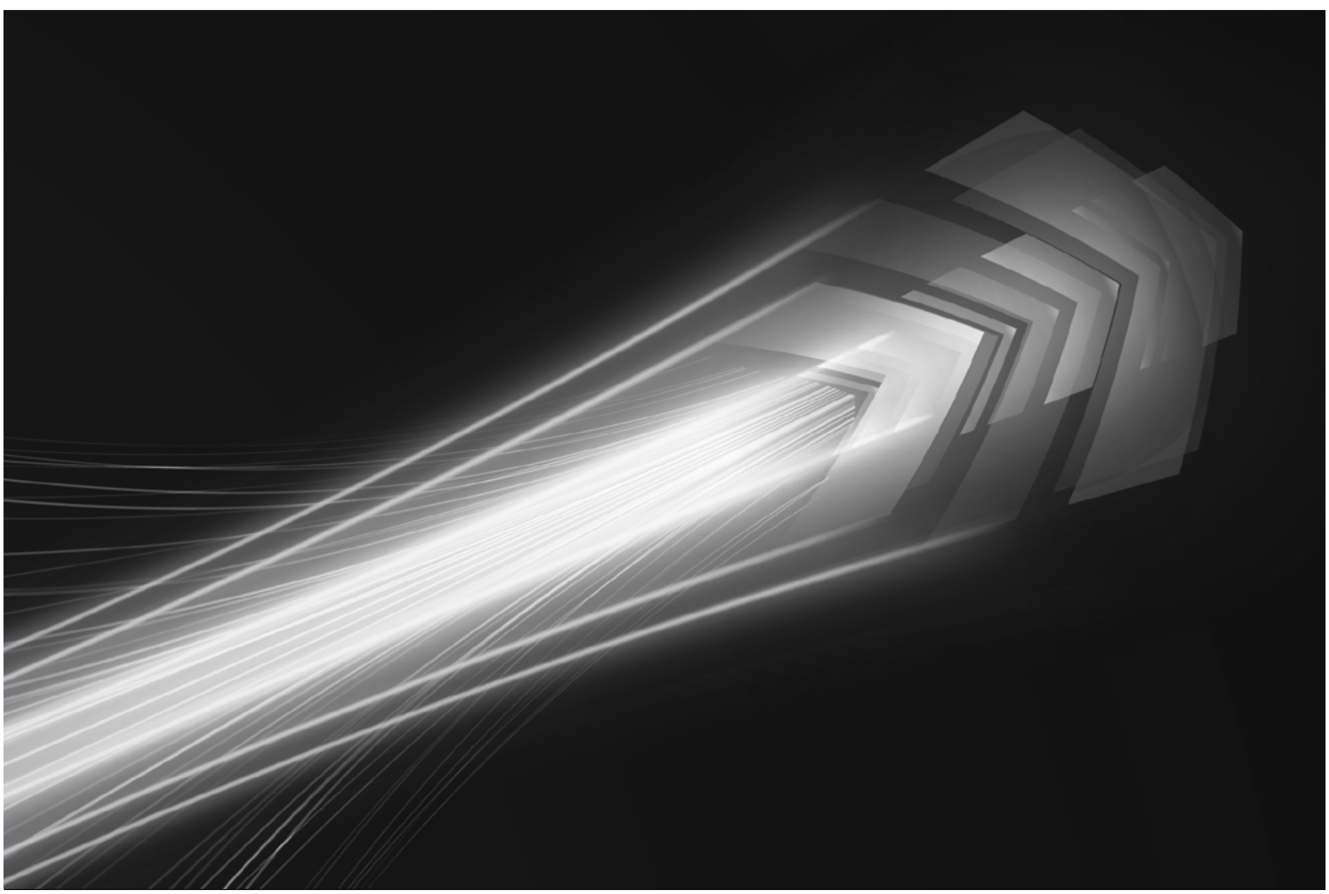
As the single central counterparty, FICC will be in the spotlight from both industry participants and supervisors. FICC will need to ensure it has the operational capacity to handle the significant increase in transaction and margin flows that will result as part of its expanded mandate. These flows will significantly increase the quantum of FICC's liquidity, credit, and operational risks.

A significant portion of the SEC's Final Rule specifically outlines standards that FICC will need to meet if it doesn't already, including the following:

- Policies and procedures to calculate, collect, and hold margin in distinct direct and indirect participant accounts
- Policies and procedures to facilitate clearing access to for all eligible secondary market transactions in US Treasury securities, including those of indirect participants.

As a systemically important financial market utility, FICC is subject to heightened supervision from its primary regulatory, the SEC, in consultation with the Federal Reserve. Due to the critical importance of the US Treasury market (hence the need for reform), FICC's financial and non-financial risk management frameworks and processes will be under intense supervisory focus.

One key focus area, amongst many, will be its operational resilience, which has been an area of interest for supervisors generally. The recent ransomware attack on Industrial and Commercial Bank of China (ICBC), which disrupted the Treasury market, was an acute reminder of the constant attacks that banks and financial infrastructure providers endure.



CLOSING THOUGHTS

This is not the first time that mandatory clearing has been thrust upon the industry. Industry participants involved in standing up interest rate swaps central clearing, for example, understand the complex legal, operational, and organizational challenges associated with such an effort.

The next piece of the puzzle will become clear when FICC publishes its proposed updates to its rule book. The proposed updates will articulate how FICC plans to operationalize its expanded mandate.

Industry participants should continue to educate themselves on the rules and assess which of their trading activities are impacted. Sell-side dealers should begin to mobilize a program around this long-tail effort, which will require internal coordination amongst many areas of the firm and extensive client engagement. Buy-side firms, in particular PTFs or others employing similar strategies, should perform an assessment of their activity to determine the appropriate strategic path forward, which may include registering as a dealer.

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