

Centrally Cleared Institutional Tri-Party (CCITTM) Service

Note: This presentation is for informational purposes only. It should not be regarded as a substitute for the FICC/GSD Rules. In all cases, Members should refer to the FICC/GSD Rules for a complete statement of FICC/GSD rules, procedures, obligations, and requirements. Nothing in this presentation shall be deemed to impose any obligations on FICC/GSD that are not set forth in the FICC/GSD Rules, and in the case of any discrepancy between this presentation and the FICC/GSD Rules, the Rules shall govern. The GSD Rules are available via http://www.dtcc.com/legal/rules-and-prodcedures.aspx.

DATE: June 2023

DEPARTMENT: Fixed Income Clearing Corporation (FICC)

Agenda

- 1. FICC Introduction
- 2. Description of Benefits of Tri-Party Repo Clearing at FICC
- 3. Description of GCF Repo® Service (Dealer-to-Dealer Tri-Party Repo)
 - Service Overview
 - Eligible Generic CUSIP List
 - Service Timeline
- 4. Description of CCIT Service (Client-to-Dealer Tri-Party Repo)
 - Service Overview
 - Trade Flow
 - Account Structure
 - Risk Management of Cash Lenders
 - Dealer Default Loss Waterfall
 - Liquidity Facilities
 - Fees



FICC Introduction

Fixed Income Clearing Corporation (FICC), a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (DTCC), is a central counterparty (CCP) and the leading provider of trade comparison, netting and settlement for the U.S. Government securities marketplace.

- FICC's Government Securities Division (GSD) was established in 1986 to provide automated comparison and settlement services, risk-management benefits and operational efficiencies to the Government securities industry.
- GSD clients include the nation's major brokers and dealers, as well as a wide range of entities that trade U.S. Government securities.
- FICC is a clearing agency registered with and under the supervision of the Securities and Exchange Commission (SEC). In light of its designation as a Systemically Important Financial Market Utility (SIFMU), FICC is also subject to oversight by the Federal Reserve.

Benefits of Tri-Party Repo Clearing at FICC

- Reduction of counterparty risk by guaranteeing the completion of settlement in a member default scenario:
 - CCP guarantee may mitigate risk of a large-scale exit by institutional investors in a stress scenario.
 - A centralized liquidation of a failed counterparty by FICC would reduce the risk of "fire sales" that drive down asset prices and spread stress across the financial system.
- Members could be eligible for balance sheet and capital relief.
- Centrally clearing these transactions at FICC could alleviate the constraints on borrowers as it may enable them to:
 - Reduce capital usage via netting, potentially enabling the redeployment of scarce capital to other uses
 - Apply lower risk weights in their risk-based capital ratios
- Lending through FICC offers institutional investors potential growth of their onloan balances and income as borrowers shift their demand to CCP channels.



GCF Repo Service (Dealer-to-Dealer Tri-Party Repo)

- FICC is the only CCP platform in the U.S. that clears tri-party repo and debt transactions. Since 1998, FICC's GCF Repo® Service has seamlessly processed these types of transactions <u>between GSD Dealer Members</u>, making FICC the only infrastructure in the U.S. with battle-tested experience and the proven technology and bandwidth to handle processing of these trades, as evidenced during the Lehman default in 2008.
- GCF Repo Service enables GSD Dealer Members to trade general collateral repos based on rate, term and underlying asset class, throughout the day without requiring intra-day, trade-for-trade settlement on a DVP basis.
- Dealer Members execute GCF Repo® transactions through inter-dealer brokers on a blind basis.
- Standardized GCF Generic CUSIPs representing various asset classes have been established for this service.
- CCP guarantee of settlement attaches upon comparison.
- GCF Repo transactions are netted at the GCF Generic CUSIP level. A GSD Dealer Member is either a net securities borrower (cash lender) or net securities lender (cash borrower) at the generic CUSIP level.



GCF Repo Service (Dealer-to-Dealer Tri-Party Repo)

- Transactions are settled on the Clearing Banks' triparty platforms.
- Principal amount of GCF Repo obligations settles via the Clearing Banks. The repo interest portion of the underlying repo transactions occurs via the Funds Only Settlement process at 10AM each morning.
- ► Trading is from 7:00AM 3:00PM.
- Collateral is pledged in the afternoon and is held until the settlement window of 3:30 pm 4:30 pm the date the trade unwinds (off leg date).
- Collateral is valued at Clearing Bank pricing.
- Obligations are collateralized at 100%.
- Collateral substitutions are permitted intra-day on pledged collateral to GSD.
- Trades can be overnight or up to two years in duration.

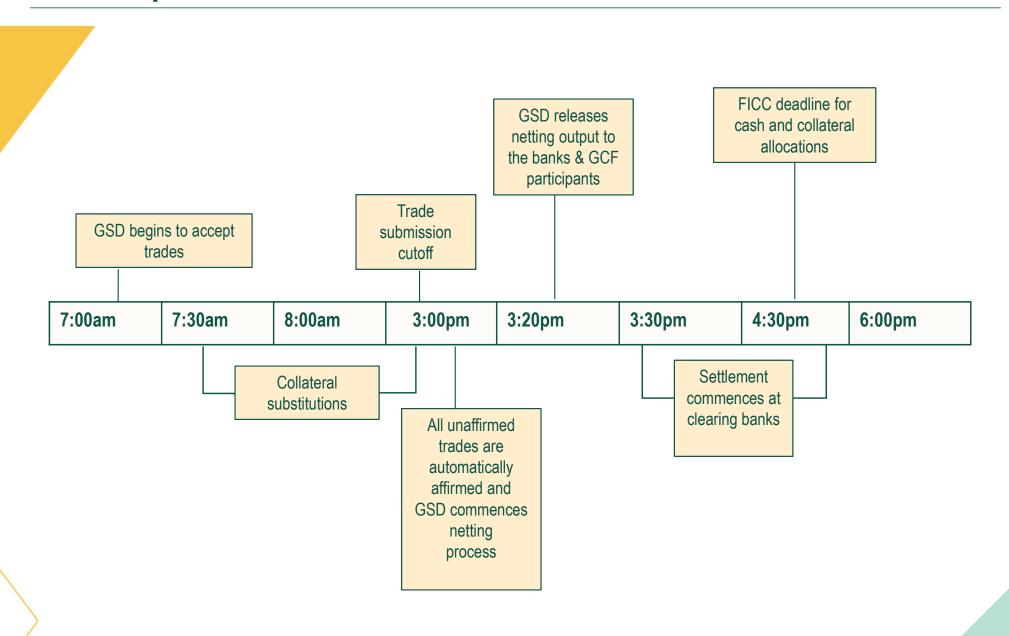


GCF Repo Generic CUSIP List

CUSIP	SHORT PROUCT TYPE	LONG DESCRIPTION
371487AD1	US Treasuries	US TREA < 10yr Maturity
371487AE9	US Treasuries	US TREA < 30yr Maturity
371487AH2	US Agencies	NON MORTGAGE US AGY
371487AL3	Fixed Rate Mortgage Back	FNMA & FMAC FIXED RATE MORTGAGES
371487AQ2	Fixed Rate GNMA	GNMA FIXED RATE
371487AM1	Adjustable Rate Mortgage Back	FNMA & FMAC ADJ RATE MORTGAGES
371487AR0	Adjustable Rate GNMA	GNMA ADJ RATE
371487AG4	US Treasury TIPS	US TREA INFLATION PROTECTION SECS
371487AF6	US Treasury STRIPS	SEPARATE TRADING OF PRIN & INTEREST SECURITIES



GCF Repo Service Timeline



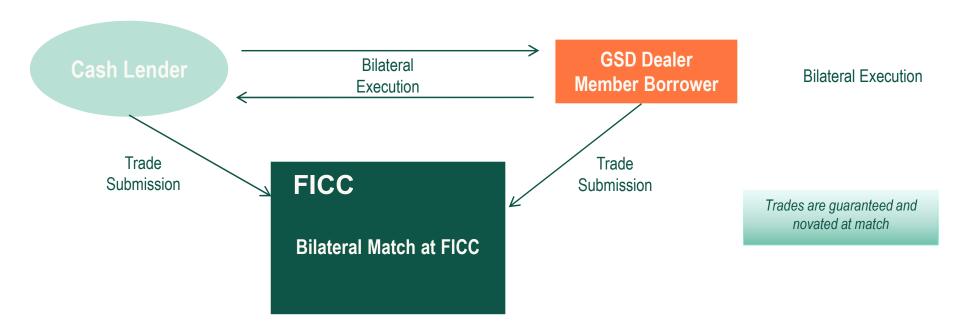
Centrally Cleared Institutional Tri-Party (CCIT™) Service (Client-to-Dealer Tri-Party Repo)

- As an expansion of the GCF Repo Service, the CCIT Service extends FICC's CCP services and guaranty of completion of settlement to tri-party repo transactions between GSD Dealer Members and eligible tri-party cash lenders (referred to as CCIT Transactions).
 - A new limited GSD membership type has been created for tri-party cash lenders with at least \$100M in Net Assets (referred to as CCIT Membership) other than Registered Investment Companies (RICs). (Note: RIC participation in CCIT is pending approval by SEC Division of Investment Management and will require a separate regulatory filing by FICC.)
 - CCP guarantee attaches upon comparison for CCIT Transactions.
 - Collateral eligibility for CCIT Transactions follows the GCF Repo Generic CUSIP schedule (see Slide 7).
 - Consistent with GCF Repo collateralization, obligations for CCIT Transactions are collateralized at 100% (see Slide 6).
 - ► Timeline for trade matching and netting follows the GCF Repo Service timeline (see Slide 8).
 - Existing processes with the clearing banks for tri-party repo settlement are leveraged.



CCIT Service: Trade Flow. Trade Submission

Day 1: Execution and Match



Both sides execute tri-party repo trade on a bilateral basis.

Both sides submit trade information to *FICC* for matching.



CCIT Service: Trade Settlement. Day 1

Settlement Bank Transmission



Based on details of matched trades, FICC transmits Start leg settlement obligations to designated Tri-Party Settling Bank

Day 1: Settlement



Settlement Occurs:

- Step 1: GSD Dealer Member Borrower pledges collateral to FICC.
- Step 2: Clearing Bank validates collateral and value.
- Step 3: FICC onward pledges collateral to Cash Lender.
- Step 4: Clearing Bank debits Cash Lender and credits cash to GSD Dealer Member Borrower via FICC's account.



CCIT Service: Trade Flow. Unwind

During Life of Trade

Dealers can substitute pledged collateral during the day.

Cash Lender FICC Cash Pledged Securities FICC FICC FICC FICC Cash Cash Pledged Securities FICC Pledged Securities

Assuming no other new trade was added, off leg of tri-party trade unwinds:

<u>Step 1</u>: Clearing Bank moves pledged collateral out of Cash Lender's account to FICC's account in exchange for cash - original value (interest paid via Funds Only Settlement).

<u>Step 2</u>: Clearing Bank moves pledged collateral out of FICC's account into GSD Dealer Member Borrower's account in exchange for cash - original value (interest paid via Funds Only Settlement).



CCIT Service: Account Structure

- As principal counterparties to the CCP, individual cash lenders must become CCIT Members at the legal entity level. All individual funds must go through the GSD membership process.
- For trade matching purposes, GSD accounts for cash lenders may be opened at the legal entity level of the fund or at the joint account level. Investment advisers, agent lenders or other authorized agents may submit trades to FICC on behalf of their cash lender clients.
- Each cash lender or joint account (as applicable) will also be required to enter into a specific custody agreement at BNYM for the CCIT Service.

CCIT Service: Risk Management of Cash Lenders

- PICC Lien in Tri-Party Collateral: In lieu of collecting margin (like FICC does with its Dealer Members), cash lenders will instead by rule grant FICC a lien in the collateral posted to them in tri-party, which would be exercisable by FICC only if a cash lender were to default, to protect the CCP from a market risk perspective, i.e., if a cash lender were to default to FICC, FICC would be permitted by rule to instruct the clearing bank to deliver to FICC the securities that the lender is obligated to return to FICC against payment by FICC of the repurchase price of the CCIT Transaction.
 - Legal comfort for FICC will be required, including with respect to:
 - Rights to close-out and net cash lender's cleared positions in the event of cash lender default
 - Rights to liquidate collateral posted to cash lender in tri-party in event of cash lender's default (including protection from clawback risk and automatic stay risk in cash lender's bankruptcy)
- Cash Lender Default Loss Allocation: In light of the fact that cash lenders will only engage in reverse repos in the CCIT Service, and the fact that the lien structure (described above) mitigates market risk if the cash lender defaults, a cash lender will only be subject to potential loss allocation obligations with respect to CCIT Transactions it had open with a defaulted Dealer Member at the time of its default, and not the potential loss mutualization obligations to which Netting Members are subject.



CCIT Service: Dealer Default Loss Waterfall

- Funds available to absorb Dealer Member default losses <u>before</u> any loss allocation to GSD Membership (including CCIT Membership)
 - Defaulted Dealer Member's Clearing Fund deposit
 - Amounts from Cross Margining / Cross Guaranty Arrangements
 - ▶ DTCC Corporate Contribution (The Corporate contribution is equal to 50% of the clearing agency's general business risk capital requirement)
- Loss Allocation Steps
- 1. All assets traded with the defaulted Dealer Member in clearing at GSD are liquidated.
- 2. The net losses (if any) <u>after</u> application of the funds available to absorb Dealer Member default losses (described above) are then proportionally distributed across (i) Netting Members who are subject to <u>default loss mutualization</u> (referred to in GSD Rules as "<u>Tier 1 Members</u>") and (ii) CCIT Members who are subject only to <u>default loss allocation</u> if they had open CCIT Transactions with the defaulted Dealer Member at the time of its default (referred to in GSD Rules as "<u>Tier 2 Members</u>").

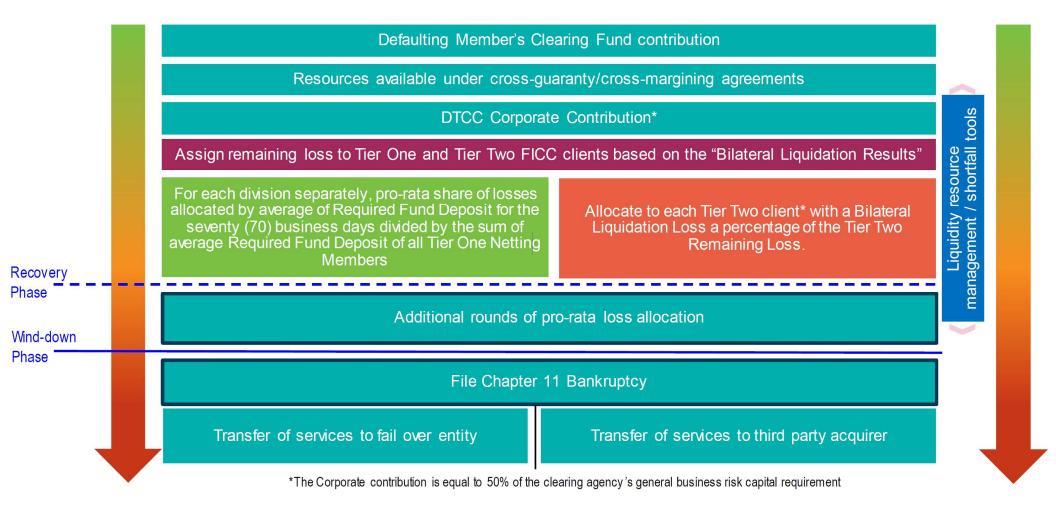


CCIT Service: Dealer Default Loss Waterfall

- Loss Allocation Steps (continued):
 - 3. All losses are summed up and the proportional distribution of those losses between Tier 1 Members and Tier 2 Members is calculated.
 - 4. Proportional Tier 1 Members:
 - For each division separately, pro-rata share of losses allocated by average of Required Fund Deposit for the seventy (70) business days divided by the sum of average Required Fund Deposit of all Tier One Netting Members
 - 5. The total Tier 2 Member losses are pro rata distributed across the Tier 2 Members that incurred losses during the liquidation process. Loss Allocations are distributed based on the loss incurred at the Generic CUSIP level.



CCIT Service: Dealer Default Loss Allocation Waterfall Example





CCIT Service: Liquidity Facilities

- Committed Liquidity Repo: In order to ensure that FICC maintains sufficient liquidity in a GSD Dealer Member default situation, each cash lender will be required (by rule) to provide temporary liquidity to FICC (in the form of a triparty MRA repo with FICC collateralized at 102%) to the extent such liquidity is required by FICC in the event that a GSD Dealer Member with whom the cash lender transacted in clearing defaults to FICC.
 - Liquidity repo commitment is limited to the amount of a cash lender's outstanding cleared activity with the defaulted GSD Dealer Member.
 - Liquidity repo commitment is terminable on demand by FICC, subject to a maximum draw period of 30 days for U.S. Treasuries and Agencies and 60 days for Agency MBS.
- Uncommitted Liquidity Repo: Cash lenders will also (by rule) enter into a uncommitted MRA repo with FICC, whereby a cash lender could choose (but would not be required) to provide liquidity to FICC on demand by FICC in a GSD Dealer Member default situation.



CCIT Service: Fees for CCIT Transactions

Except as noted below, the following FICC fees are applied to both the CCIT Member and Dealer repo counterparty sides to a CCIT Transaction:

- One Time Trade Submission Fee = \$0.07/\$1mm dollar amount (minimum of \$2.50)
- Maintenance Fee on Gross Position (calculated daily) = 0.04bps* per annum x gross dollar amount
- Risk Management Fee on Net Position (calculated daily) = 0.080bps per annum x net dollar amount
- Clearance Pass-Through Fee = 1 bp per annum on dollar amount borrowed from CCIT Members (applicable only to Dealer repo counterparties)

*As a point of clarification 0.04 bps = 0.000004



Thank You



