

# A Central Counterparty for Mortgage-Backed Securities: Paving the Way



## **1. Executive Summary**

### **Overview of Planned Services**

The Fixed Income Clearing Corporation (FICC), a subsidiary of The Depository Trust & Clearing Corporation (DTCC), is pleased to announce the planned phased introduction of three important new services to the mortgage-backed securities (MBS) marketplace – RTTM Specified Pool Trade Matching, EPN Pool Substitution and CCP Pool Netting with Guaranteed Settlement.

FICC's plans to develop MBS CCP services were first outlined in a white paper entitled "Fixed Income Clearing Corporation as Central Counterparty for Mortgage-Backed Securities," published in 2003.<sup>1</sup> That paper described the ultimate goal of providing full CCP services for MBS to establish a single, streamlined process for the clearance and settlement of MBS transactions, supported by a fully integrated flow of information between FICC and clearing members. Using the services currently in place for Government securities as a model, MBS transaction flows will be reengineered so that the full range of MBS processes – from trade matching through pool settlement – will be supported by the clearing corporation with FICC acting as CCP.

Since the publication of that white paper, FICC management has been in close consultation with MBS clearing members to discuss the various components constituting a full CCP service, and to identify pressing needs in the marketplace. An MBS/CCP Industry Working Group (IWG), composed of market participants with substantial expertise in the allocation, clearance and settlement of MBS, was formulated in 2005 to determine the optimal approach to introducing such services.<sup>2</sup>

Given the sizable scope of this project, and the ramifications to the industry at large, a multi-phased implementation scheme was selected as the most practical and efficient way to deliver tangible benefits to MBS members earlier in the overall CCP implementation process. RTTM Specified Pool Trades Matching, EPN Pool Allocation and CCP Pool Netting with Guaranteed Settlement comprise the majority of functionality that must be implemented to bring full central counterparty (CCP) capabilities to the

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<sup>1</sup>This paper is available on DTCC's corporate website at [www.dtcc.com](http://www.dtcc.com).

<sup>2</sup> Concomitant with working with the industry, FICC has focused on a number of other initiatives that strongly position it for providing MBS CCP services, such as completing certain key Business Continuity Planning (BCP) requirements, migrating to a Web-based front-end (WFE), and obtaining Standard & Poors' (S&P) highest (AAA/A-1+) credit rating.

processing of MBS. The final component of the MBS CCP project will be for FICC to become CCP to TBA Netting and the associated pool allocations. This will integrate all MBS activities into a unified and coordinated flow of processing, from trade matching through pool settlement, providing clearing members with a clean and fully correlated record of their MBS activity as it passes through the processing lifecycle. The rollout of CCP services for TBA Netting and Pool Allocation will constitute the most challenging transition effort for clearing members. It was therefore determined that this last phase could be deferred until later in the overall implementation scheme, while still allowing us to move ahead with the first three critical phases.

Once CCP Pool Netting services are implemented in Phase 3, FICC will concurrently provide its settlement guaranty to TBA and Specified Pool Trades, and will become the CCP for the associated net pool settlement obligations. Because this means that all pool settlements between clearing members will occur versus FICC as CCP, each of the initial project phases has been carefully constructed to provide clearing members with all the tools they will require to ensure the integrity of their MBS trade and pool data upon the execution of netting.

First, the Specified Pool Trade Matching service allows for the appropriate capture of these transactions within RTTM. This will facilitate aggregating all pools into a single net position once CCP Pool Netting services are implemented, whether they arise from TBA net activity, TBA TFTD activity or Specified Pool Trades. Additionally, by incorporating Specified Pool Trades into RTTM, clearing members will discontinue communicating pool numbers and original face amounts for these trades via EPN. This is an important prerequisite to providing CCP Pool Netting in Phase 3, where the integrity of pool data submitted on EPN allocations will be paramount, as each allocation will have to correspond to an open TBA obligation in order to be staged for CCP Pool Netting.

Second, the provision of Pool Substitutions via EPN will provide an essential service to the marketplace while simultaneously moving the industry towards a fully seamless and integrated process supported by centralized pool management via FICC. Once all TBA trades are guaranteed upon matching in Phase 3, it will become imperative for clearing members to allocate them via EPN (post TBA Netting) in order for settlement of the resultant pools to occur versus the FICC as CCP. Providing the Pool Substitution capability will allow clearing members to cancel existing pools that they do not wish to settle and simultaneously submit the correct pools for settlement using a single EPN message.

As previously noted, this paper delineates the first three phases of the overall MBS CCP project: Specified Pool Trade Matching within RTTM, EPN Pool Substitution and CCP

Pool Netting and Guaranteed Settlement.<sup>3</sup> The introduction of the first three phases will permit the industry to realize early benefits from these key new services while best positioning the industry for further expansion into a full “central counterparty” environment for MBS. Each phase is briefly summarized below.

**Phase 1: Specified Pool Trade Matching via RTTM** – Specified Pool Trade Matching will enable MBS clearing members to submit pool-specific trades into RTTM for bilateral matching when all required pool details (such as pool number and original face) are known at time of trade execution. During this first phase, Specified Pool Trades will be risk-managed and settled according to the existing Trade-for-Trade (TFTD) model, whereby settlement takes place directly between original trade counterparties outside the clearing corporation.

**Phase 2: EPN Pool Substitution** – The EPN Pool Substitution service will enable members to simultaneously cancel an existing pool allocation and replace it with a new one using a single EPN message, streamlining substitutions and eliminating the current cumbersome and predominantly manual processes.

**Phase 3: CCP Pool Netting and Guaranteed Settlement<sup>4</sup>** – As noted previously, with the introduction of Phase 3, FICC will guarantee all TBA and Specified Pool Trades upon Pool Matching. Additionally, CCP Pool Netting will provide a multilateral pool netting service, performing a daily net of pool obligations having like terms (whether those pool obligations stem from TBA allocations or Specified Pool Trades). FICC will then become CCP to all pool obligations and the settlement of those obligations will occur versus FICC. CCP Pool Netting will substantially decrease the number of receive and deliver obligations a clearing member must make to effect pool settlement. As the new service will reduce the number of pool settlements, it will result in lower costs, reduced operational risks and decreased fail financing and capital charge expenses for clearing members.

Because all pool settlements will be conducted through the FICC as CCP, the current Notification of Settlement (NOS), whereby clearing members notify FICC

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<sup>3</sup> Replacement of the SBO Netting model for TBAs with FICC as CCP and Pool Allocation versus FICC will be implemented as future phases, with service descriptions for these deliverables being issued closer to their planned implementation dates.

<sup>4</sup> It should be noted that the new CCP Pool Netting service, as implemented in this Phase 3, will not change how existing TBA-associated processes are performed. That is, TBA trades will continue to be matched via the Real-Time Trade Matching (RTTM) service, TBA netting will continue to occur through the Settlement Balance Order (SBO) netting service, and pool allocations will continue to be performed via EPN versus the assigned counterparty. The notable exception to the current process is that FICC’s settlement guaranty will go into effect upon TBA trade matching.

of settlements that take place outside the clearing corporation, will be eliminated, significantly expediting the return of clearing members' margin collateral.

**Service Rollout**

FICC has established the following timeline providing dates when key deliverables will be completed for the first phases of MBS CCP services.

<b>SPECIFIED POOL TRADES</b>	
Detailed Service Description	Q2 2006
Interactive Messaging Specifications	Q3 2006
Participant Testing	Q4 2006
Implementation	Q1 2007
<b>EPN POOL SUBSTITUTIONS</b>	
Detailed Service Description	Q2 2006
EPN Message Specifications	Q3 2006
Participant Testing	Q1 2007
Implementation	Q2 2007
<b>CCP POOL NETTING AND GUARANTEED SETTLEMENT</b>	
Service Timeline	Q3 2006
Detailed Service Description	Q1 2007

As this is an aggressive schedule, FICC will form an MBS CCP Implementation Committee that will convene for the first time in Q2 2006, to review outstanding issues, further delineate Business Requirements critical to the advancement of these projects and assist FICC in defining potential new industry practices and processes that should be adopted in conjunction with the new services.

FICC staff will, of course, be available to answer questions and provide general support for firms in these efforts. Contact information is provided at the end of this paper.

**For additional information, comments or questions, contact:**

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## **2. Phase 1: Specified Pool Trade Matching via RTTM**

### **Overview**

A Specified Pool Trade is a trade in which all required pool data, including the pool number to be delivered on settlement date, are agreed upon at the time of trade execution. As such, Specified Pool Trades differ from MBS trades currently processed by RTTM, which are all submitted using generic “To Be Announced” or “TBA” CUSIPs.<sup>5</sup>

Because RTTM does not currently support the submission of pool number and original face on MBS trade input – two fields that are critical for the accurate processing of Specified Pool Trades – many clearing members submit partial information for Specified Pool Trades into RTTM in order to effect matching. They may subsequently use EPN to communicate the pool number and original face to their counterparties. Given this gap in today’s process, Specified Pool Trades may be “masked” under TBA CUSIPs within RTTM and clearing members are forced to use EPN to communicate additional pool details. Alternatively, some clearing members do not submit their Specified Pool Trades to FICC at all, and therefore do not receive the benefits associated with our automated comparison and risk management processes.

FICC will therefore enhance RTTM to accept and match Specified Pool Trades as Phase 1 of its MBS CCP project rollout. All MBS clearing members will be eligible to participate in this service upon implementation in late 2006. This is an important step that is necessary to preclude the need for clearing members to improperly use EPN for anything other than the allocation of TBA trades, a service feature that will be critical once CCP Pool Netting services are implemented in Phase 3.

### **Specified Pool Trade Submission and Validation**

#### **Submission**

Clearing members will submit their Specified Pool Trades to RTTM via Interactive Messaging, ISO-based batch messaging or MBS RTTM Web. As FICC is in the process of retiring its proprietary batch File Transmission Service (“FTS”), proprietary FTS input will **not** be enhanced to support Specified Pool Trade processing.

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<sup>5</sup> Members submit generic TBA CUSIPs on their trade input because the underlying pool numbers and other pertinent delivery data are not known at the time of trade execution. After the TBA Netting process is run, Trade-for-Trade (TFTD) TBA and Net TBA settlement balance order obligations are established and communicated to members. The members are then responsible for allocating the actual pools to the TBA positions, once known, via EPN in accordance with guidelines promulgated by The Bond Market Association (TBMA).

In addition to field data requirements for TBA Trade Matching (which will also apply to Specified Pool Trade Matching), the following additional information must be submitted on Specified Pool Trade input:

- Pool Number – The unique pool number associated with a particular pool.
- Original Face – The original face amount of the security. (Original face is a requirement for Fedwire delivery.)

### **Validation**

RTTM will validate that the Specified Pool Trade is eligible for MBS Clearing Services (i.e., downstream risk management and settlement processing) or it will be rejected.

Validation will minimally ensure that:

- Both parties to the trade are valid MBS clearing members;
- All required mandatory trade data has been submitted on the record and pass existing edit checks;
- The pool submitted is eligible for MBS services (based on the pool number); and
- The Original Face submitted on input conforms to minimum denomination requirements.

### **Specified Pool Trade Matching**

Specified Pool Trades will be subject to bilateral matching in RTTM. That is, trade data submitted by both the buyer and seller must agree on all required “match” fields in order for the trade to be considered matched, constituting a valid and binding contract. RTTM matches trades in real time and provides clearing members with immediate trade notification and status information, allowing clearing members to identify trade exceptions within seconds of trade execution.

The majority of existing MBS trade match criteria and processing rules established for TBA trades will also apply to Specified Pool Trades. One exception is that all clearing members will be required to submit Specified Pool Trades against their counterparties for bilateral comparison, regardless of whether the member is a dealer or inter-dealer broker. This approach will allow for the ultimate retirement of current logic for handling partially matched ("PMAT") and fully matched ("FMAT") inter-dealer brokered trades.

### **Valid Actions for Specified Pool Trades**

Consistent with MBS RTTM trade matching, actions a clearing member may take for a Specified Pool Trade will be predicated upon the match status of that trade. (It should be

noted that processing rules for Specified Pool Trades mirror those already in place for MBS TBA trades.)

#### **Unmatched Status**

- Either side (seller or buyer) may unilaterally cancel its submission;
- Either side may DK the submission of its counterparty; or
- Either side may Affirm the submission of its counterparty.

#### **Matched Status**

- Either side may modify its reference number; and
- Both sides (seller and buyer) must submit matching Cancel instructions in order to cancel a Matched Trade

#### **Invalid Actions for Specified Pool Trades**

With the implementation of Specified Pool Trade Matching, clearing members will have the ability to submit pool numbers and original face on their RTTM input. Clearing members must therefore discontinue the practice of submitting these trades into RTTM using TBA CUSIPs and communicating pool numbers and original face to their counterparties via EPN.

#### **Settlement Obligation Generation for Specified Pool Trades**

Specified Pool Trade will be settled as existing TFTDs. That is, all clearing members will settle their Specified Pool Trade obligations with their original counterparties at the trade contract value. After the trade settles outside the clearing corporation, clearing members must submit NOS to FICC so that the obligation will be marked as settled and the Participant Fund margin will be reduced accordingly.

#### **Risk Management for Specified Pool Trades**

FICC will continue to perform risk management as it does today when Specified Pool Trade Matching is implemented as Phase 1. FICC will therefore correlate the pool CUSIP submitted on the trade to a TBA-equivalent CUSIP, and risk management calculations will be performed based on the market price of the TBA-equivalent CUSIP. When CCP Pool Netting and Guaranteed Settlement are implemented in Phase 3, FICC will have a new risk management system in place and will therefore be able to risk manage Specified Pool Trades at the pool level. At that time, all Participant Fund calculations will be performed using the current market price for the pool as determined by FICC.

**Next Deliverables**

As noted in the Executive Summary, a detailed service description fully delineating Specified Pool Trade matching functionality and associated processes will be published in Q2 this year, followed by interactive messaging specifications in Q3.

### **3. Phase 2: EPN Pool Substitutions**

As per TBMA guidelines, sellers are required to inform buyers of the specific pools being allocated to satisfy open TBA positions. Currently the seller allocates TBA positions by submitting mortgage pool information via EPN, providing all required trade terms to effect settlement, including the pool intended for delivery on settlement date. If the seller later needs to substitute a pool via EPN, it must first cancel the original allocation and then submit the replacement pool as a new allocation. Because the current system entails submitting two unlinked messages for each substitution, members frequently communicate pool substitution information via telephone or other manual process, rather than through EPN.

The EPN Pool Substitution Service will provide a streamlined, fully automated mechanism for the substitution of pool allocations previously submitted through EPN. Using the new service, EPN members will have the ability to simultaneously communicate cancel and replacement pool information using a single, new EPN message (the Cancel/Correct, or “CC”). In this way, the seller will inform the buyer that it is replacing a previously allocated pool with a new one, and that the new pool will be delivered in satisfaction of the seller’s open obligation on the appropriate delivery date (as determined by TBMA Good Delivery Guidelines).

Working closely with MBS clearing members during the project definition phase, it was determined that this automated substitution capability is not only critical for current processing, but is also a prerequisite for additional MBS CCP development. In the future “full” CCP environment, in which clearing members will allocate all of their pools versus FICC as the CCP, the service will allow FICC to automatically turn pool substitution notifications received from the seller to the appropriate buyer counterparty on a timely basis.

The EPN Pool Substitution Service will be available to all EPN members (both EPN-only members and joint EPN and clearing members). Because the potential exists for members’ pool allocations to be substituted by their counterparties upon service implementation, all EPN members will be required to support the service at the time of the industry rollout.

#### **Member Access to EPN Pool Substitution**

Members will be able to access the EPN Pool Substitution service via the two current communications interfaces – Computer-to-Computer Interface (CTCI) and EaSyPool

(ESP). ESP is a screen-based method members may use to submit, view and query pool information. As part of the rollout of the Pool Substitution service, FICC will be upgrading to a new version of ESP software, which may be easily downloaded from the FICC corporate website (at [www.ficc.com](http://www.ficc.com)).

FICC plans to support only the updated version of ESP, which will be used by CTCI members as a backup mode of receiving and sending data and is used by non-CTCI members as a primary method of receiving and sending data. All EPN members are therefore required to upgrade to the new version upon implementation of EPN Pool Substitution.

If a CTCI member has not been programmed for EPN Pool Substitution messaging upon service implementation, its Pool Substitution messages will be routed to ESP for on-screen review and processing. This approach will ensure CTCI members have maximum flexibility in scheduling when to adopt the new CTCI message type.

### **EPN Pool Substitution Messaging and Associated Processing**

In developing the new Cancel/Correct message to support Pool Substitutions, FICC will leverage existing EPN message formats, modifying them to capture the additional data required to support Pool Substitution functionality. On the message, sellers will be required to concurrently submit mandatory pool details for the original pool – such as pool number, original face, and coupon, among other data elements – together with the corresponding details of the replacement pool.

Pool Substitution messages will be processed in real time, just as other EPN messages are processed today. As soon as EPN Pool Substitutions are received from sellers by FICC, they will be time-stamped and routed to the appropriate buyers. Since a substitution notification essentially constitutes a new allocation, depending upon when the substitution is received, the delivery date for the underlying pool may be changed in accordance with TBMA Good Delivery Guidelines (generally to reflect settlement 48 hours after allocation). The EPN time-stamp is the seller's evidence of its compliance with TBMA Good Delivery Guidelines, and as such should preclude disagreements among firms regarding when substitution notification was provided and what the resultant impact should be on the delivery date for the new pool.

### **Validation**

Standard EPN message validations will continue to be applied. However, additional validation routines unique to the pool substitution process, including enhanced validation of the header records and confirmation that the canceled pools are appropriately linked

to replacement pools, will be implemented. Any messages failing validation will be rejected, and new reason codes will be provided on output informing the submitter why its substitution message was rejected. In addition, as is the case for current EPN processing, up to 250 pools will be accepted in a single substitution message. That is, any aggregate combination of canceled and replacement pools cannot exceed 250 in one substitution message. Combinations may include:

- One canceled pool replaced with one pool
- One canceled pool replaced with multiple pools
- Multiple canceled pools replaced with one pool
- Multiple canceled pools replaced with multiple pools

The full definition of these additional validations and their associated new reject codes will be communicated to members via a New Service Bulletin as well as in updates to the existing EaSy Pool Action Guide and the EPN Implementation Guide.

#### **Impact on Specified Pool Trades**

It should be noted that Specified Pool Trades will not be eligible for the EPN Pool Substitution service. To effect a substitution of a Specified Pool Trade, the parties to the trade would have to bilaterally cancel the original Specified Pool Trade via RTTM, and then enter a new trade.

#### **Next Deliverables**

As noted in the Executive Summary, a detailed service description fully delineating EPN Pool Substitution functionality and associated processes will be published in Q2 this year, followed by EPN message specifications in Q3.

#### **4. Phase 3: Point of Trade Guaranty and CCP Pool Netting**

##### **Overview**

With the implementation of Phase 3, FICC will introduce its settlement guaranty for all TBA and Specified Pool Trades at the point they are matched within RTTM. This means that, for all clearing members, all pool settlements stemming from TBA trades and Specified Pool Trades will occur versus FICC as CCP. For this reason, clearing members must allocate all TBA trades via EPN in order for settlement of the resultant pools to occur versus the clearing corporation, or they must bilaterally cancel the trades within RTTM to remove them from FICC's books. Similarly, all Specified Pool Trades will settle versus FICC unless they are bilaterally canceled.

Phase 3 will also introduce the CCP Pool Netting service, which will allow MBS clearing members to net pools stemming from TBA Netting, TBA Trade-for-Trade (TFTD) activity and Specified Pool Trades to arrive at a single net position in a particular pool. CCP Pool Netting will reduce the number of pool settlements and their associated costs and operational risk.

With the addition of these services, FICC will introduce central counterparty services to the MBS marketplace while continuing to support the existing Settlement Balance Order "SBO" processing model for TBA trades and EPN allocation functionality until such time that FICC implements full CCP services (i.e., until FICC becomes the central counterparty for the TBA Netting and Pool Allocation processes). To pave the way for providing full CCP services consistent with those offered by FICC for Government securities, the design of CCP Pool Netting for MBS will be based on the Government securities model to the greatest extent possible. It will, of course, take into account the nuances of the MBS market (such as factor changes, delays in delivery date as a result of late allocations, pool substitutions, etc.).

The Government securities CCP model, which was developed primarily for the dealer "sell" side, provides for a loss allocation scheme in which FICC can allocate a pro rata assessment of financial losses to all members. This is in contrast to the current MBS loss allocation process, which is predicated on an original contra-side risk model where financial losses are borne only by the original contra-sides to the defaulting party, and no mutualization of losses to other clearing members is performed.

In order to try to accommodate the existing MBS membership upon implementation of CCP Pool Netting and Guaranteed Settlement services, FICC will establish two

membership tiers. The first tier will be analogous to the Government securities division membership as it exists today, where a full settlement guaranty is provided to all of the member's activity. The second tier, which will be introduced to accommodate clearing members that do not meet all of the requirements of Tier 1 membership, will confer the benefits of operational netting, but will provide a limited settlement guaranty. While FICC will make every attempt to accommodate the existing MBS membership under this structure, all MBS members will be required to meet the admission standards established for these two membership tiers for participation in the new services. FICC is currently working on a service transition plan that will enable us to migrate MBS clearing members to the membership categories in the most efficient and prudent manner possible. It should be noted that EPN-only members will not be eligible for CCP Pool Netting.

### **CCP Pool Netting Input**

There will be two input mechanisms for submitting pool data to RTTM for Pool Netting:

- Direct input into RTTM for Specified Pool Trades
- Indirect input into RTTM via EPN for pools associated with TBA TFTD and net TBA positions.

Each input method is outlined briefly in the sections that follow.

### **Direct Input into RTTM for CCP Pool Netting of Specified Pool Trades**

With the implementation of CCP Pool Netting, all Specified Pool Trades will receive FICC's settlement guaranty at the point of trade matching in RTTM and will be staged for Pool Netting.

### **EPN Input to CCP Pool Netting for Net TBA and TFTD Positions**

EPN Pool Allocations associated with guaranteed TBA trades and their resultant net TBA and TFTD positions will be leveraged as the primary input source to RTTM for CCP Pool Netting. As EPN allocation notifications are routed in real time to their buyer counterparties, they will simultaneously be forwarded to RTTM for CCP Pool Netting validation. During this process, RTTM will check each allocation to ensure that a corresponding open TBA TFTD or net TBA position exists on the clearing corporation's books and records.

Clearing members will also be required to submit X-Ref (cross-reference) numbers on their allocations, which will be validated for uniqueness. These X-Ref numbers will facilitate retrieving the allocation for any subsequent actions that may be taken over the life of the pool allocation (such as cancellations, substitutions, etc.).

Once a pool allocation passes RTTM validation, the details contained in the seller's single-sided EPN submission will be used to derive and generate two pool transactions for CCP Pool Netting: a pool sell for the submitter, and a pool buy for the submitter's assigned counterparty. (The pool buy will be an "equal but opposite" version of the pool sell.)

### **Valid Actions Clearing Members May Take on Pools Staged for CCP Pool Netting**

Because all pool settlements will be binding obligations versus FICC as CCP, all processes associated with CCP Pool Netting have been designed so that by the time netting is executed, pool data will be as "clean" and accurate as possible. To that end, FICC will provide clearing members with all the necessary tools they require to ensure the integrity of the pool data staged for netting. Clearing members will have the ability to perform the following actions:

- **Allocation Cancels via EPN**: For allocations submitted via EPN, the seller may submit a Cancel via EPN at any time prior to pool netting (which will occur on the evening of delivery date minus one). The cancellation of an allocation will return the associated TBA position to an unallocated state. The seller would therefore need to reallocate the TBA through EPN to resubmit the pool for pool netting. This is required for pool settlement versus FICC as CCP. If a member does not reallocate the TBA, it will remain open on FICC's books as a guaranteed obligation and continue to be subject to risk management until such allocation and subsequent settlement takes place.

For Specified Pool Trades submitted via RTTM, bilateral cancellation would be required post-matching.

- **DKs of Pool Allocations Submitted via EPN**: Buyers will retain the ability to DK pool allocations submitted against them via EPN up until the point of CCP Pool Netting. As is required today, a valid reason code must be submitted on the DK. Submission of a DK would return the associated TBA position to an unallocated, state. Again, the seller would be required to reallocate a TBA fail in order for pool settlement to occur versus FICC as CCP.
- **EPN Pool Substitutions**: In accordance with TBMA TBA Guidelines, clearing members (as well as EPN-only members) will have the ability to perform pool substitutions. The service will enable members to use a single EPN message to substitute an existing pool and replace it with a new pool.
- **Withholds via RTTM**: Clearing members will have the ability to exempt a pool from being operationally netted in CCP Pool Netting by setting a Withhold indicator on the pool via RTTM. While submitting a Withhold would result in the pool being precluded from operational netting, the clearing member would still be required to settle the resultant receive or deliver obligation established for the pool versus FICC as CCP.

- Non-Economic Trade Data Modifications via RTTM: Both buyers and sellers will have the ability to modify non-economic pool data (such as pool X-Ref numbers or trade identification numbers) in RTTM. Prior to CCP Pool Netting, modifications would be applied at the pool level. Post netting, modifications would be applied to the net pool obligation.
- Optional Submission of Pool Data via RTTM for Automated Reconciliation versus EPN Allocations: To maximize clearing members' reconciliation capabilities and ensure the integrity of pool data being staged for netting, both sellers and buyers will have the ability to submit full pool details into RTTM. These will be automatically matched against corresponding pool data established by EPN input, and output will be generated to identify and resolve discrepancies.

### **CCP Pool Netting**

CCP Pool Netting will be executed each evening to establish a single net position in each pool that is scheduled to settle on the following business day. As such, pools submitted via EPN associated with TBA TFTD and net TBA activity will be netted with Specified Pool Trades in the same pool. Clearing members will be required to settle all deliver and receive obligations stemming from these net pool positions versus FICC as CCP. It should again be stressed that in order to preserve the integrity of pool data going into the net, clearing members must conduct all activity required to reconcile their pool data (e.g., cancels, reallocations, substitutions, modification) through the clearing corporation as described in the previous section. Unallocated TBA trades and fails will remain on the books of the clearing corporation until pools are allocated via EPN and settled versus FICC.

### **Submission Cutoffs**

FICC will establish cut-off times for submitting EPN allocations for CCP Pool Netting, as well as for any subsequent actions entered in EPN or RTTM that target pools pending the net. FICC expects to execute the pool net on delivery date minus one with the cut-off time for submission established shortly before the execution of the net. Execution of CCP Pool Netting as close as possible to the intended delivery date of the underlying pools will maximize the number of pools to be included in the net, thereby conferring the greatest benefit to clearing members.

### **Pools Eligible for CCP Pool Netting**

All active pool allocation instructions (i.e. those that have not been canceled or DK'd) at the prescribed cutoff time will be eligible for CCP Pool Netting. Pool allocation instructions that have been cancelled or DK'd will be purged from FICC's systems at the end of each business day. Pools allocations for which a "Withhold" has been submitted

will bypass operational pool netting but will still result in a deliver or receive obligation that must be settled versus FICC as CCP.

### **Settlement of Net Pool Settlement Obligations**

As stated previously, all settlement obligations stemming from CCP Pool Netting must be satisfied by clearing members through delivery to or receipt from FICC at the clearing bank designated by FICC. Clearing members will be obligated to properly instruct their clearing bank as to the movements to be made to and from FICC. All settlement obligations will be settled versus payment over the Fedwire at the FICC-assigned, uniform settlement value (which represents the current market value of the obligation). The difference between the original contract settlement amounts of pools comprising the net settlement obligation and the uniform value at which the net obligation is settled will be debited or credited to clearing members as a Transaction Adjustment Payment (“TAP”) as part of the clearing members’ daily Funds-Only settlement requirement.

### **Elimination of NOS Processing**

Since all net pool obligations will be settled versus FICC (with FICC acting as CCP), the current Notification of Settlement (NOS) process will be eliminated. This will allow for the timely release of margin collateral associated with settled trades upon actual trade settlement, optimizing clearing members’ capital usage. It will also eliminate clearing members’ operational burden of submitting NOS to the clearing corporation and reconciling any unmatched NOS transactions. Again, because NOS will not be available, it is imperative that clearing members ensure that all required steps are taken to ensure that their net TBA and TFTD obligations are allocated via EPN for the settlement of the associated pools to occur via FICC as CCP.

### **Participant’s Fund Requirement**

FICC will require clearing members to post sufficient collateral to the Participant Fund in satisfaction of their current margin requirement (calculated daily). The Participant Fund is designed to ensure FICC has sufficient assets on deposit for each clearing member to cover any losses that would be incurred by FICC (and ultimately its clearing members) as the result of the default of the clearing member from the last mark-to-market until liquidation. This will be performed using a Value at Risk (VaR) model that will calculate the margin requirement for each clearing member to cover the maximum loss that would be incurred by FICC to liquidate the clearing member’s obligations based on its historical securities activity and funds settlement obligations.

For TBA activity, risk management calculations will be performed based on TBA prices until pools are allocated for the TBA activity. Once pools are allocated, the calculations

will be performed using pool prices. For Specified Pool Trades, all calculations will be performed using pool prices.

### **Mark-to-Market and Fail Tracking**

All outstanding obligations will be marked-to-market on a daily basis. The daily mark-to-market process provides risk protection by re-valuing trades to reflect current market conditions. The original contract amounts for each member's open obligations will be compared to the current market value of the obligations, and the difference will be collected from clearing members that have debit marks and paid through to members that have credit marks. Each day, the previous day's marks will be returned to clearing members and new marks will be calculated. When the obligations settle, funds will be passed to and from members as TAP, balancing the obligation back to its original value. Concurrent with the implementation of CCP Pool Netting, FICC will also implement services comparable to the Fail Tracking function currently performed by the Federal Reserve Bank. Specifically, for failed pool obligations that cross one or more record dates, FICC will collect the principal and interest (P&I) associated with the failed pool settlement obligation from the clearing member failing to deliver (the net short member) and pass it through to the clearing member of record (the net long member) when the fail ultimately settles.

### **Funds-Only Settlement**

Currently, FICC MBS Funds Settlement occurs only on specific days each month, generally corresponding to the four settlement dates associated with the TBA Netting cycle. Just as CCP Pool Netting will be performed on a daily basis to accommodate settlements associated with Specified Pool trades and late allocations and substitutions where the delivery date for an obligation is changed, Funds-Only Settlement will also occur on a daily basis upon implementation of this service. Funds-Only Settlement will include all TAP, mark-to-market, P&I payments for fail obligations and other funds adjustments.

## **5. Output - Messaging and Reporting**

To the extent possible, FICC will leverage the single communications pipeline and the common International Organization for Standardization (ISO) 15022 formats that are in place for most fixed income products today. FICC will also work with existing MBS messaging and reporting streams, which will be modified to capture additional information as required to support the new services.

Reporting and messaging requirements will be more fully defined in conjunction with our membership as we develop the Systems Specifications.

### **Interactive Messaging**

Clearing members will have the ability to receive interactive messages providing real-time information regarding the status of their Specified Pool Trades and pools pending CCP Pool Netting throughout their processing lifecycle. In general, a clearing member submitting an action into the system will receive an Acknowledgment (or a Reject, if the submission fails validation) and the counterparty will receive an Advisory. These messages will be provided in ISO 15022 formats tailored specifically to the MBS business, while leveraging, to the extent possible, the messaging provided for current RTTM processing.

### **Web-Based Screens**

Members will be able to monitor their Specified Pool Trades, Pool Allocations and CCP Pool Netting and Settlement activity in real time by viewing, and performing queries via the RTTM web-based screen interface.

### **Batch Files**

Members will have the ability to obtain batch files of ISO15022 output records and FTS MRO. As previously noted, the only formats supported for new Specified Trade input will be ISO 15022.

### **Print Image Reports**

Members may access expanded print image reports via Report Center.

## **6. Impact of New Services on Existing FICC MBS Processes**

In designing the new services, FICC has sought to provide the required functionality to support the new services while limiting the impact on currently existing processes of MBSD clearing members.

Changes to existing processes are described throughout the document in the appropriate business/functional sections. To facilitate the review process, changes affecting existing functionality have been summarized in the chart below: (Note: Changes are listed according to implementation phase – Phase 1: Specified Pool Trade Matching via RTTM; Phase 2: EPN Pool Substitutions; and Phase 3: CCP Pool Netting.)

<b>Current Functionality</b>	<b>Impact of Specified Pool Trades, Pool Substitutions and/or CCP Pool Netting</b>
Matching via RTTM	<ul style="list-style-type: none"> <li>• Phase 1: Introduction of matching services for Specified Pool Trades with ability to match on pool number and original face.</li> <li>• Phase 3: Implementation of an FICC guaranty for TBA and Specified Pool trades upon trade matching.</li> <li>• Phase 3: Ability to submit Specified Pool Trades for CCP Pool Netting.</li> <li>• Phase 3: The allocation of TBA positions must be performed by all members to allow pool settlement to occur between members and FICC as CCP.</li> <li>• Phase 3: Discontinuance of members submitting Specified Pool Trades under TBA CUSIPs.</li> </ul>
Netting	<ul style="list-style-type: none"> <li>• Phase 3: Introduction of daily CCP Pool Netting with FICC as CCP.</li> </ul>
Pool Settlement	<ul style="list-style-type: none"> <li>• Phase 3: All pool settlement obligations will be settled with FICC as CCP. This include net pool obligations as well as pools withheld from operational netting.</li> </ul>
Funds-Only Settlement	<ul style="list-style-type: none"> <li>• Phase 3: Establishment of a daily Funds-Only settlement process to collect and pass through mark-to-market monies, P&amp;I associated with fails and other cash adjustments associated with CCP Pool Netting (such as TAP on settlement date and other funds adjustments).</li> </ul>

Current Functionality	Impact of Specified Pool Trades, Pool Substitutions and/or CCP Pool Netting
Risk Management (Participants Fund)	<ul style="list-style-type: none"> <li>• Phase 1: FICC will continue to margin TBA positions and will also margin Specified Pool Trades to obtain a comprehensive picture of their entire portfolios.</li> <li>• Phase 3: FICC will base its Risk management calculations according to the results of CCP Pool Netting and reduce margin requirements accordingly.</li> </ul>
Notification of Settlement (NOS)	<ul style="list-style-type: none"> <li>• Phase 3: Eliminated in conjunction with CCP Pool Netting and DVP settlement versus FICC.</li> </ul>
EPN	<ul style="list-style-type: none"> <li>• Phase 2: New messaging will be introduced in conjunction with Pool Substitutions.</li> <li>• Phase 2: All members must, at a minimum, upgrade to the new version of EaSyPool (ESP).</li> <li>• Phase 3: EPN will be used as the primary data source for input into RTTM for CCP Pool Netting.</li> <li>• Phase 3: Clearing members will be able to substitute net pool obligations post-CCP Pool Netting.</li> </ul>

## **7. Future Enhancements**

As noted in the Executive Summary, the central objective of implementing services for Specified Pool Trades, EPN Pool Substitutions and CCP Pool Netting is to ultimately provide for full CCP services. These will allow for a single, seamless transaction processing flow, from trade execution and matching through pool allocation, pool netting and settlement. To that end, FICC expects that ultimately it will close any remaining processing gaps by introducing CCP services for TBA Netting and Allocation processes. These are summarized briefly below.

### **TBA Netting**

When providing full CCP services, FICC will replace the existing Settlement Balance Order processing scheme currently in place with a multilateral netting model similar to that currently employed for Government securities processing. Briefly summarized, matched TBA trades of clearing members will be aggregated to arrive at a single net position per TBA CUSIP, based on a common contractual delivery date. Upon TBA Netting, FICC will generate output providing clearing members with their net TBA and TFTD obligations requiring settlement in conformity with TBMA 48-hour Good Delivery Guidelines. Position novation will occur at this time, and FICC will become CCP to all TBA obligations.

### **Pool Allocation**

As CCP to all netted TBA and TFTD trades, FICC will also be CCP for all pool allocations pending pool netting. That means sellers need only allocate pools to FICC, and, after an allocation is received, FICC will re-allocate the pool to buyers. Interposing FICC as CCP in the Pool Allocation process advances STP by streamlining allocation through the elimination of the numerous separate interactions required when dealing with multiple counterparties today.

It should be noted that the current EPN service will continue to be maintained for use by EPN-only members.

In addition to these two major initiatives, FICC will continue to look to further extend its service offerings to address more industry concerns and to support new opportunities arising in this dynamic marketplace.

FICC will keep members apprised of our progress by publishing new service proposals as we develop business cases and conduct the appropriate market research.

## **8. Next Steps**

The three new services described in this paper – Specified Pool Trade Matching via RTTM, EPN Pool Substitutions and CCP Pool Netting – break new ground for MBS customers, and also reflect the overall mission of DTCC and FICC to develop products that leverage technology to provide greater value for our customers and the industry, while enhancing processing efficiencies and reducing costs for our members.

DTCC and FICC are strongly committed to offering these new services as quickly as possible, as this is in the best interest of the marketplace. MBS clearing members are, therefore, advised to closely follow new service announcements as they are published and to assess the impact for their firms as soon as is practicable.

As noted in the Executive Summary, FICC will be forming an MBS CCP Implementation Committee in the near future to review outstanding issues and to further define and advance the all phases of the MBS/CCP initiative.

## **9. Contacts**

As always, FICC is interested in comments from its MBS clearing members and other industry participants on these new services. Any such comments should be directed to

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