To Be Announced: The Future of TBAs

In November of 2012, The Treasury Market Practices Group of the Federal Reserve (the “TMPG”) put forth a recommendation to margin non-cleared, forward-settling agency mortgage-backed security trades. The intention was to reduce risk by bringing the To Be Announced (TBA) “bilateral” trading market in line with other bilateral markets, such as non-cleared derivatives and bilateral repo.

Executive Summary

• While the margin process can be modeled after other bilateral margin functions, the TBA market poses some challenges due to the nuances of and history in the market.

• Although the TMPG’s recommendation is nonbinding, the Financial Industry Regulatory Authority (“FINRA”) will likely adopt similar regulations, mandating participants to comply.

• Regulation of TBA margining would require many participants to significantly add to their operational support, or align themselves with partners with sophisticated margin operations.
Background
Post-financial crisis, regulators and market participants alike have sought ways to increase transparency and reduce systemic risk. Consistent with this thinking, in November 2012, the TMPG issued a recommendation to margin forward-settling agency mortgage trades that were not cleared through the Fixed Income Clearing Corp (FICC). The original TMPG expectation was that the margin process would be implemented in the market by mid-2013, but they later pushed the implementation date out to December 31, 2013.

With the lingering effects of the financial crisis and regulatory activity in the global market focusing on exposure management, the TMPG sought to address the open risk in the To Be Announced (TBA) market. It appears that the TMPG is seeking to aid market efficiency and financial stability by reducing counterparty exposure through a broader use of margining for non-cleared agency mortgage-backed securities (MBS) transactions.

The TMPG has quoted the market as having $5 trillion in outstanding Agency MBS, with roughly $750 billion to $1.5 trillion in gross unsettled and unmargined dealer to customer transactions.1

The Trade
The TBA market was created in the 1970’s to facilitate the forward-trading of mortgage-backed securities issued by Fannie Mae, Freddie Mac and Ginnie Mae.

Outside of derivatives, Mortgage-Backed Security “To Be Announced” (TBA) trades and similar forward-settling mortgage pool trades are some of the more complex trades in the US market. Recent reports by the Federal Reserve indicate that more than 90% of Agency MBS trading occurs in the TBA forward market.2

In effect, TBA trades are ‘placeholders’ for the purchase or sale of mortgage pools. TBA trades generally trade three months forward, with most of the liquidity in the front month.

A buyer or seller of securities agrees that they will exchange a certain number of securities (usually a significant transaction value) at an agreed upon market price. The unique feature of these transaction types is that neither the buyer nor the seller knows the specific securities included for final delivery. However, the parties agree on the following six specific terms on trade date:

- • Issuer
- • Maturity
- • Coupon
- • Price
- • Par Amount
- • Settlement Date

Two days prior to the settlement date, the seller notifies the buyer of the pool of securities. This is known as the Notification Date.

The value of the trade is not based on the identification of the specific securities in the pool, but on the premise that the seller will deliver securities that are ‘cheapest to deliver’ and which meet the parameters of the trade. As this is the common assumption in the market, participants consider all pools interchangeable, which creates liquidity in the market.

Trade settlement can occur in two ways:
1. The exchange of mortgage pools/securities
2. Pairing off with an offsetting trade for cash settlement

Trading in the TBA market allows mortgage lenders to hedge and/or fund their origination process by locking in prices for mortgages.

By doing this, lenders can experience cost savings due to market efficiencies, which can then be passed onto their borrowers by offering lower rates.

Risks
Trading in the non-cleared TBA market comes with inherent risks for the participants. Both parties in the forward-settling transaction have counterparty credit risk in that the other party may be unable (or unwilling) to meet the financial obligations agreed under the trade. If one party cannot execute on the trade, the non-defaulting counterparty may experience a loss if it is forced to replace the trade at current market price.

1“Margining in Agency MBS Trading” - Nov 2012 - TMPG
http://www.newyorkfed.org/tmpg/margining_tmpg_11142012.pdf
Situations where multiple parties are simultaneously unable to settle trades can result in more system-wide risk affecting the broader market. Interdependencies across participants using the market as a source of liquidity result in multiple failures in that market. Trade failures and subsequent defaults can widely impact pricing and availability. This can in turn significantly impact liquidity in the market.

The TBA market has traditionally addressed this risk by using a platform at the Mortgage-Backed Securities Division (MBSD) of the FICC for clearing and settling trades. The use of a central counterparty and the posting of collateral helps to mitigate risk and improve liquidity in the market. However, participation in the MBSD is somewhat limited. There is still a segment of the market that chooses to execute trades bilaterally. There may be a few reasons for this:

- **Cost** — The membership fees and transaction fees of the FICC can potentially increase a firm’s cost of doing business in this market and may be deemed significant by small- to mid-sized firms.

- **Loss Sharing** — By virtue of being a clearinghouse, ultimately, the members share the risk of losses in the event available margin does not cover losses from a member default. For this reason, insurance companies and some asset manager mandates prevent them from participating.

- **Operational processing** — Some firms may find that it is easier to handle their level of trade volume manually, rather than trade through the central clearing facility.

- **Tradeoffs** — Lastly, firms may think the benefit of not margining (up to now) is greater than the counterparty risk they experience in the non-margined, bilateral process.

While the majority of trading is done through a central clearer, the amount of exposure generated through bilateral trading is significant, as mentioned previously.

**TMPG Recommendation**

The perceived intention of the TMPG recommendation is to bring the TBA “bilateral” trading market in line with other bilateral markets, such as non-cleared derivatives and bilateral repo. Conceptually, the purpose is to mitigate the counterparty risk present in the bilateral TBA market which has largely remained unmargined. As mentioned above, an event where multiple TBA market participants default could result in broader losses affecting participants across the market.

Arguments against margining state that these risks are mitigated by standard market practices currently employed by mortgage originators. The Mortgage Banker Association has documented comments stating that implementing a collateralization process could represent a significant increase in costs to mortgage bankers because of the need to support the margin process (such as operational processing and wire fees). This could also result in a capital drain that could affect lending.\(^2\)

While these arguments have been heard by the TMPG, the basics of the initial recommendation have not been altered.

**The Process**

The TMPG recommendation is largely modeled after other similar bilateral margin functions, namely the non-cleared derivative market and the bilateral repo market. The “checks and balances” nature of these margin processes look for both parties to take an active role in the evaluation of counterparty exposure management.

In these markets, trades are captured and valued on a daily basis. Portfolio values (also considered counterparty exposures) are compared to pledged and held collateral balances to identify margin excesses and deficits between the two parties. “Free of Payment” cash and security transactions are agreed between the parties to provide adequate security, taking into account thresholds, minimum transfer amounts and eligible collateral criteria. Best practices in these markets also allow for processing of collateral substitutions and regular portfolio reconciliations. These best practices not only improve operational and market efficiencies but also act to reduce the number of margin disputes that occur.

The primary difference in the TBA margin model is in the calculation of exposure. For example, in the derivative market, the entire value of the trade is included in the counterparty exposure and is subject to margining. With the TMPG recommendation, gross exposure is calculated as the difference between the current value of the trade and the original value of the trade. This is considered Variation Margin.

A second major difference to the derivatives market is the concept of Initial Margin. The derivative trading collateral model includes posting of Initial Margin, which is a separate collateral amount required at the inception of a trade. Initial Margin is intended to act as protection to the secured party against uncollateralized value fluctuations caused by inherent timing issues in the margin process. The concept of Initial Margin is NOT included in the TMPG recommendation, but is one of the topics under consideration by FINRA, which will be discussed later in this document.

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\(^2\) Letter to TMPG on TBA Margin Recommendation · Mortgage Banker Association · July 11, 2013

Lastly, the TMPG recommends that fails be included in the exposure to be margined. This is based on the documented best practices on treatment of failed settlements. Fail management became a priority in 2009 after the financial turmoil in the market. Fails, which represent intraday risk, can adversely impact the market.

The Agreement
The governing agreement for trading and margining of forward-settling agency mortgages is the Master Securities Forward Transaction Agreement (MSFTA).

The TMPG margin recommendation issued in November 2012 includes the following example:

<table>
<thead>
<tr>
<th></th>
<th>T</th>
<th>T+1</th>
<th>T+2</th>
<th>T+3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Trade value</td>
<td>$100.00</td>
<td>$101.00</td>
<td>$99.00</td>
<td>$97.50</td>
</tr>
<tr>
<td>Original Trade value</td>
<td>-$100.00</td>
<td>-$100.00</td>
<td>-$100.00</td>
<td>-$100.00</td>
</tr>
<tr>
<td>Gross Exposure</td>
<td>$0.00</td>
<td>$1.00</td>
<td>($1.00)</td>
<td>($2.50)</td>
</tr>
<tr>
<td>Less: Collateral Balance</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$1.00</td>
<td>($1.00)</td>
</tr>
<tr>
<td>Net margin call</td>
<td>$0.00</td>
<td>$1.00</td>
<td>($2.00)</td>
<td>($1.50)</td>
</tr>
</tbody>
</table>

1. On day T, there is a $100.0 million trade amount (face value x price) with no existing collateral. No variation margin is required because there is no forward exposure.

2. On day T+1, the value has gone up one point by end of day, resulting in a forward exposure for the counterparty of $1.0 million. The total margin required of the dealer is now $1.0 million, representing variation margin, so the call is $1.0 million.

3. On day T+2, the closing market value drops to $99.0 million, resulting in a forward exposure of $1.0 million for the dealer. $1.0 million in collateral was previously posted by the dealer, so an excess margin of $2.0 million is returned by the counterparty.

4. On day T+3, the closing market value drops further, to $97.5 million, resulting in a forward exposure for the dealer of $2.5 million. The total margin required of the counterparty is $2.5 million, of which $1.0 million in collateral was posted previously, so only $1.5 million in additional collateral is required.

Lastly, the TMPG recommends that fails be included in the exposure to be margined. This is based on the documented best practices on treatment of failed settlements. Fail management became a priority in 2009 after the financial turmoil in the market. Fails, which represent intraday risk, can adversely impact the market.

The agreement sets guidelines and definitions to control the execution, settlement and margining of trading in the TBA market. It also sets provisions in the event of default to allow for the efficient termination of the trading relationship.

Annex I of the agreement provides supplemental terms and conditions defining the basic 'rules' for margining. These rules include terms defining eligible assets to be used as collateral, as well as threshold and minimum transfer amounts for both parties to the agreement.

4 “Margining in Agency MBS Trading” - Nov 2012 - TMPG
http://www.newyorkfed.org/tmpg/margining_tmpg_11142012.pdf
• **Eligible Collateral** – This section describes the specific types of assets that both parties deem to be acceptable as collateral. This is usually limited to cash, treasuries and high-quality assets, but could include anything agreed by both parties.

• **Threshold Amount** – This is effectively an uncollateralized limit accepted by each party. Exposures above this level are subject to margining. A haircut, or margin percentage, is applied to each asset and is used to adjust the applicable market value of each collateral asset. The haircut adjusts the value to address the risk of any valuation fluctuation in the collateral.

• **Minimum Transfer Amount** – In order to eliminate negligible margin calls and reduce the overall number of margin calls exchanged between the parties, a minimum transfer amount is agreed to set a lower limit at which margin calls will be issued.

### Challenges

Those participants in the TBA market who have not already been margining will face new challenges in adhering to the TMPG recommendation. Some of these challenges are listed and explained below:

• **Agreement execution** – In many cases, MSFTA agreements will require re-negotiation. These new agreements will need to incorporate the Securities Industry and Financial Markets Association (SIFMA) revision released in November 2012. Many provisions in the new agreement were updated, providing for reciprocal rights and obligations for all parties. The most significant of these is that the new agreement exclusively provides for two-way margining. While the re-documenting of these agreements will take time and require legal resources, using the new agreements will be necessary in order to participate in this market and follow the recommendation.

• **Evaluation of trading/execution concepts** – Before margining, the drivers for executing a trading agreement as well as individual trade execution largely revolved around liquidity and price execution. In many cases, this resulted in parties executing a large number of agreements, many of which would see little or no trading activity. Under the new process, trading will require collateralization, and parties will look for the benefit of netting trading positions to reduce collateral requirements. Consolidation of trading volumes among a smaller number of counterparties will require additional credit evaluation to ensure each party’s risk profile is acceptable. The concept of best execution will need to include margin impact.

• **Operational support** – This is probably the most complicated of the challenges. While some do, many buy-side participants do not have sophisticated margin operations. The “checks and balances” nature of the recommended TBA margin process will require participants to expand their margin operations to support the new volume. Margin teams will need to gain an understanding of the new product, including the trade life cycle, how exposure is calculated, and how the margin process needs to be managed.

Along with this expansion comes the need for technology to manage the margining of these new products. In addition to this, the need for enterprise-wide exposure reporting and collateral optimization (or efficient use of collateral assets across multiple margin requirements) will be increasingly important.

Complicating things further is the impact of trade assignments on margin calls. As positions are bought and sold, counterparty exposures and margin requirements change. Any delay or error in booking trade assignments will result in incorrect counterparty positions and incorrect margin calls. This will lead to a greater number of disputes and delays in proper collateralization of counterparty exposure.

A sound trade capture and data management infrastructure is needed to support an efficient margin process. A best practices margin support function would ideally consolidate the exposure calculation and margin management processes across all relevant products, including TBA, OTC and Cleared Derivatives, Repo and Exchange Traded Futures. The asset inventory used to support margin across these product lines will likely be shared, making the coordination of multiple margin processes with trading execution very important.

The complexity and cost of implementing the technology, staff and processes to properly manage a robust collateral program without adversely impacting trading strategies can be significant.
SIFMA Update
On Tuesday, January 14, SIFMA hosted a session in New York City to provide a status update regarding the implementation of the TMPG recommendation. The session was well attended in person as well as on a conference call by both buy- and sell-side participants.

Below are some of the key points raised during the session.

Overall, the TMPG has reported that the implementation of the margining initiative is going well. While the process has not been as widely accepted at this time as some might have hoped, the general sense was that the uptake in the market was good and would improve as time went on.

SIFMA compared the TBA margin effort to the initiative to margin bilateral repo in the 1990s. Bilateral repo margining took a few years to fully implement. They explained that the TMPG recommendation, originally released in 2012, was intentionally meant not to be too specific or too broad. The hope was that there would be room for negotiation and development of best practices.

The SIFMA representatives did not predict that there would be active compliance management implemented as a function of the recommendation. They expect that the market will effectively ‘police’ itself, where those choosing not to margin will effectively receive punitive treatment, as other market players will make it more expensive to trade without collateral.

One of the reasons for the slower than expected uptake of margining among buy-side clients could be due to the unique needs of ‘40 Act Funds. Such funds may require bespoke handling and the use of segregated third-party custodian accounts (ACAs) as well as special allocation and netting provisions.

There was also a wider discussion on using ACA custody concepts (outside of ‘40 Acts) as a part of TBA margining. The general belief was that this would be a massive undertaking and would result in a significant ongoing operational undertaking. The current manual nature of the tri-party account process and the potentially large number of individual accounts could prove more than current operations teams could support. There was a call for greater transparency from Custodians with respect to ACA arrangements as the process is largely manual and needs to be streamlined.

FINRA has proposed a rule regarding the margining of TBA trading, for which the public comment period has just ended. The rules are based on the TMPG recommendation and provide greater detail regarding provisions around Thresholds, Maintenance and Variation Margin, Minimum Transfer Amounts and Collateral Eligibility. It is expected that the rules will be finalized later this year.

Future
The widespread trend in the market is to reduce risk and protect liquidity through more stringent collateralization for bilateral trading. This has been seen in the derivative market as a function of the Dodd-Frank Act in the US and European Market Infrastructure Regulation (EMIR) in Europe.

Centralized clearing of commoditized trades and more thorough collateralization of non-cleared trades is becoming the norm rather than the exception.

The TBA market is not immune to this market evolution as it is one of the more important fixed income markets in the US. As collateralization becomes more common and more broadly accepted, brokers will likely penalize those clients who choose not to margin by applying credit charges to transactions, thus making it more expensive to trade in the market.

While TMPG recommendations are not legally binding, it is likely that this process will eventually be mandated through regulation. FINRA is proposing an expansion of Rule 4210 to incorporate rules for the margining of forward-settling Mortgage-Backed Securities.

With the expectation that FINRA will turn the recommendation into regulation, the ability to steer clear of the costs of collateralization may be unavoidable. Even without the regulation, the risk of punitive pricing should drive most, if not all, participants to adopt margining.

The impact of this evolution may force firms to re-evaluate their trading agreements and strategies. Collateral impact will have to be considered when making execution decisions and subsequently, firms may pare down the number of actively traded agreements. While this will reduce the number of marginable agreements, it doesn’t eliminate the need to address the operational and technology demands of installing a new margin process.

Expanding a current, possibly manual, operations process can be difficult and expensive. The collateral team will need subject matter experts to be able to address the nuances of the new process. Technology systems will need to be adapted to support the new trades. Implementing a procedure modeled after the OTC Derivative process will help, but there are some basic differences that need to be addressed.
The new margin process also brings more advanced topics such as “enterprise-wide collateral management” and “collateral optimization” into the conversation.

A firm’s overall margin operations model may need to be reevaluated. Fragmented processes can result in duplication of work across groups. If it can be achieved, instituting a consolidated, streamlined process covering multiple products can result in cost savings and efficiency gains across technology and operations.

Another point to consider is collateral optimization. The new TBA margin process introduces an additional demand on firm assets being used as collateral. This, along with the increased requirements already experienced with derivative clearing, will be further complicated by new obligations for non-cleared derivative margining starting in 2015. The need to efficiently manage available cash and securities in order to avoid shortages has never been more important.

There are many issues to consider for any firm trading in this market. A solid collateral management program is no longer merely optional for market participants. Impact to operations resources, automation requirements, cash and securities inventory management and changing trade execution decisions makes this a very complex process to navigate. Automation and streamlined coordination among multiple groups across the firm will be imperative to success. While there has been some resistance in the market, it seems obvious that margining is the way of the future.

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