

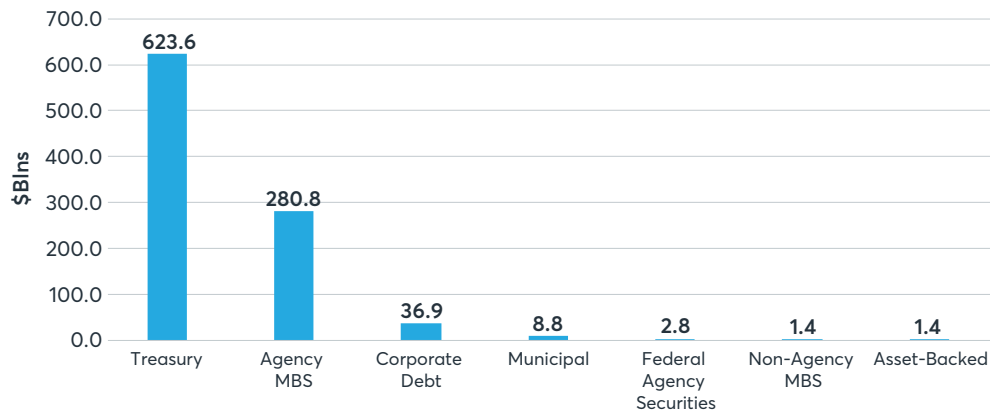
Understanding 30-Year UMBS TBA Futures and Its Delivery Process

SEPTEMBER 2022

Overview and background

The Agency mortgage-backed security ("MBS") market is second only to U.S. Treasuries in scale, with daily trading volume of \$281 billion in 2021. To-Be-Announced (TBA) trading accounts for more than 90% of all Agency MBS with transaction volume (\$252.8 bln). In 2021, the UMBS TBA (Fannie + Freddie) market had daily volume of \$203.9 billion, representing 81% of the overall Agency MBS volumes.

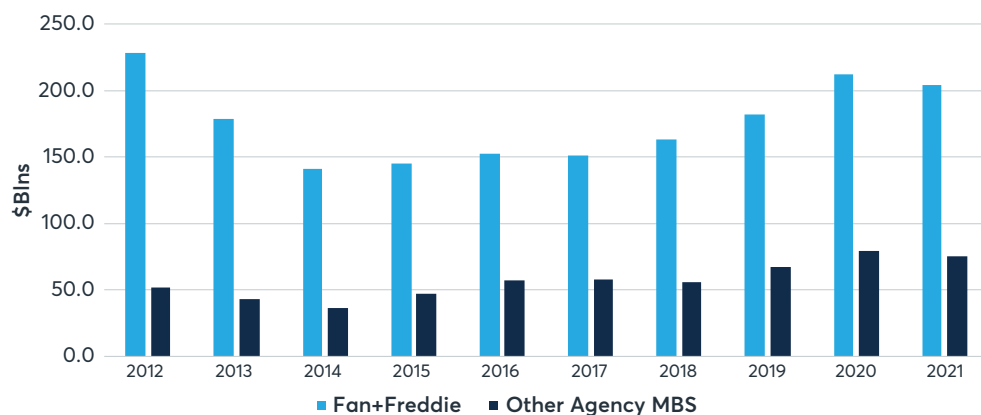
Figure 1 - Daily Volumes of U.S. Fixed Income Markets, 2021



Sources: Federal Reserve Bank of New York, FINRA TRACE, Municipal Securities Reulmaking Board

Established in the 1970s with the creation of pass-through securities at Ginnie Mae, the TBA market facilitates the forward trading of MBS issued by the GSEs (Fannie Mae (FNMA) and Freddie Mac (FHLMC)) and Ginnie Mae (GNMA).¹ The TBA forward market is highly standardized, and functions similarly to a futures market. Liquidity in the TBA market is highly concentrated in 30-year UMBS TBAs with seven mortgage coupons currently accounting for 92.8% of monthly settles at DTCC's MBSD in 2021: 2%, 2.5%, 3%, 3.5%, 4.0%, 4.5%, and 5.0% (in increments of 50bps).

Figure 2 - Daily Volumes of UMBS TBAs and All Other Agency MBS Markets, 2012-2021



Sources: FINRA TRACE, NY Fed

¹ The TBA Market Fact Sheet, SIFMA, 2015, <https://www.sifma.org/wp-content/uploads/2011/03/SIFMA-TBA-Fact-Sheet.pdf>

Fixed-rate To-Be-Announced ("TBA") structure and trading

In the secondary mortgage market, fixed-rate MBS can trade on either a TBA or a specified pool basis. Dealers provide dollar-price quotes for TBA MBS on trading platforms such as Tradeweb or Bloomberg typically as far as three (3) months forward. An investor who trades TBA MBS is given limited information about the security at the time of the trade. The issuer, maturity, coupon, face value, price, and settlement date are known, but the actual pool number and unique security identifier (i.e., the Committee on Uniform Security Identification Procedures, or CUSIP number) are not known until two (2) business days before the settlement date (called 48-hour day), the seller of the TBA must provide CUSIP information to the purchaser of the TBA contract. Pools must meet specific settlement requirements, but the collateral delivered at settlement is at the discretion of the seller and is typically adversely selected to fulfill the "cheapest to deliver" obligation at the executed TBA price.

The TBA mortgage market is highly liquid and transparent, and it plays a vital role in serving different purposes for a variety of market participants. Lenders use TBAs to hedge their mortgage pipelines, various trading desks use TBAs to hedge their pool investments, and money managers use TBAs to express their views on prepayment speeds and to finance alternative short-term investments. The TBA market is one of the most dynamic and liquid markets of all fixed-rate products.²

CME Group is launching 30-Year UMBS TBA futures for trading on the CME Globex platform on October 3, 2022, pending certification of terms and conditions with the Commodity Futures Trading Commission and completion of all regulatory review periods. Based on significant client feedback, the 30-Year UMBS TBA futures will offer the following features to further benefit the well-established TBA market. Each of these points will be covered in detail.

1. Transparent all-to-all market with broad mix of global customers.
2. Futures give access to customers with limited or no access to the TBA market.
3. Spread trading with Treasury futures.
4. Smaller contract size enables hedging less than \$1 million.
5. Counterparty risk reduction with multi-lateral netting.
6. Transparent margins set by the clearing house.
7. Margin offsets, particularly with other IR products.

² Basics of Fannie Mae Single-Family MBS, Fannie Mae, Nov. 2021, <https://capitalmarkets.fanniemae.com/media/4271/display>

SIFMA TBA market governance

The Contracts will adhere to the well-established TBA market practices in the good delivery guidelines of Securities Industry and Financial Markets Association (SIFMA) Uniform Practices for the Clearance and Settlement of Mortgage-Backed Securities and Other Related Securities.

The following information is sourced from SIFMA.

<https://www.sifma.org/resources/general/tba-market-governance/>

Mortgage loan criteria

Provided below are the current mortgage loan criteria for both 15-year and 30-year fixed-rate single-family TBA-eligible MBS pools. The 30-year pools will be applicable to 30-year UMBS TBAs.

The following list represents important characteristics of mortgage loans eligible for unlimited inclusion in TBA-deliverable pools (standard loans). For complete details of characteristics of loans in various pools, please refer to the appropriate offering documentation available from the issuer.

- 30-year pools: 15 years < Term ≤ 30 years
- Fixed interest rate
- First lien
- Level payments
- Fully amortizing
- Servicing fee greater than or equal to 25 bps per loan
- Loan does not include prepayment penalty at time of MBS pool assembly
- No extended buydown provisions (i.e., no more than 2 pct buydown of rate, and no buydown period longer than two years)
- Cannot be a cooperative share loan
- May be a participation interest in a loan
- Cannot be a relocation loan
- Cannot be a bi-weekly loan³

3 SIFMA Uniform Practices 12. General Characteristics of Standard Loans for 15yr and 30yr Fixed-Rate Single-Family TBA-eligible Pools pg 8-9

Key TBA trade processing dates

For each TBA Class, SIFMA sets one notification day/settlement day pair for each month. At any given time, SIFMA publishes notification day/settlement day calendar for each of approximately 12 months in advance.

The contracts will adhere to the notification date and settlement date for 30-Year UMBS TBAs, Class A.

1. Trade date -- Buyer and seller agree forward purchase/sale on the basis of six MBS characteristics: issuing agency (FNMA, FHLMC, or GNMA), maturity, coupon, face value, price, and SIFMA TBA settlement day.
2. Settlement day – Set solely by SIFMA. TBA buyer pays TBA seller upon delivery by seller of MBS pools specified by seller on SIFMA TBA notification day.
3. Notification day (48-hour day) – Set solely by SIFMA. Two Exchange business days before TBA settlement day, seller informs buyer of details of MBS pools to be delivered in fulfillment of TBA.
4. Netting day (72-hour day) – Set solely by Fixed Income Clearing - MBS Division of DTCC (MBSD). Within any given TBA Class, MBSD nets – both within and across counterparties -- all trades that have been (a) designated for TBA netting (i.e., submitted as Settlement Balance Order Destined (SBOD)) and (b) fully matched.⁴

SIFMA currently publishes notification and settlement dates through December 2023:

<https://www.sifma.org/resources/general/mbs-notification-and-settlement-dates/>

Mortgage-Backed Securities Division (MBSD) of Fixed Income Clearing Corporation (FICC) of Depository Trust & Clearing Corporation (DTCC)

DTCC provides clearance and settlement services for equities, corporate and municipal bonds, government bonds, mortgage-backed securities, over the counter credit derivatives, and emerging market debt. DTCC is a holding company owned by the financial services industry with operating facilities in the U.S. and abroad. Its four primary subsidiaries include the Depository Trust Company (DTC) and three clearing corporations: the National Securities Clearing Corporation (NSCC), the Fixed Income Clearing Corporation (FICC) and the Emerging Markets Clearing Corporation (EMCC), each of which serves a different segment of the market.

FICC history

The FICC was established in January 2003 with the merger of the Government Securities Clearing Corporation (GSCC) and the MBS Clearing Corporation (MBSCC). Its purpose is to ensure orderly settlement in the fixed income securities markets by providing clearing services to support government, corporate, and municipal bond and mortgage-backed securities transactions. The FICC, through its MBSD, offers products and services specific to the mortgage-backed marketplace including real-time trade comparison, confirmation, netting, and risk management. In addition, MBSD offers Electronic Pool Notification (EPN) services, which allow customers to transmit/retrieve mortgage-backed securities pool information using real-time standardized message formats.

⁴ SIFMA Uniform Practices, Chapter 12, Notification and Settlement Dates

Mortgage-backed securities bought and sold in the over-the-counter cash, forward, and options markets are backed by Ginnie Mae, Freddie Mac, and Fannie Mae. The MBSD of FICC processes several hundred billion dollars in MBS trades each day. In the mortgage-backed securities markets, the period between trade date and settlement date is generally much longer than it is in other markets. This lengthy settlement period presents unique challenges and risks to market participants, including an increased likelihood of pre-settlement price fluctuation and the resulting settlement exposure. To provide protection to market participants, the MBSD's services are designed to: a) reduce operational risk through automation; b) mitigate execution risk through real-time trade comparisons; and c) reduce credit exposure through multi-lateral netting and comprehensive risk management procedures.

Given the high value of the MBS transactions that are completed daily and the long settlement cycle, this industry faces great operational risk and financial exposure in the event of a major system outage or market disruption. Thus, the MBSD's business continuity plan is another critical component of its risk mitigation program. The FICC maintains multiple redundant data facilities and business centers throughout the U.S. to make certain that securities processing is not interrupted by a major event or regional situation. In addition, to ensure continuous connectivity to those data centers, FICC supports access to its facilities via DTCC's Securely Managed and Reliable Technology (SMART) Network and SIAC's Secure Financial Transaction Infrastructure (SFTI), with interconnectivity established between these two high-capacity, fault-tolerant networks.

Clearing services

MBSD Clearing Services are intended for all MBS trading participants including brokers, dealers, inter-dealer brokers, banks and bank Section 20s, GSEs, mortgage originators, insurance companies, investment companies, investment managers/advisors, mutual funds, trust companies, pension funds, and any other organization, domestic or international, active in the MBS market. Each MBSD applicant is evaluated for acceptance as a participant on the basis of capital adequacy, operational soundness, financial resources, regulatory oversight, and business recovery.

1. **Trade comparison/confirmation** - All MBS trades processed in the FICC's MBSD Clearing Services are compared and matched within the FICC's Real-Time Trade Matching (RTTM) system. RTTM compares trade submissions throughout the day as trades are executed. Submitted trades become binding obligations upon matching.

The MBSD offers two types of trade submission designed to electronically compare, match, and confirm MBS trades. The first is the MBSD's two-sided trade-comparison system, which allows any two trading principals to submit trades for comparison and confirmation. The other type of submission is the MBSD's broker give-up comparison system, which allows for the submission of trades executed on behalf of two trading principals through an interdealer broker, which results in a three-way comparison. Contra-side identity for compared and matched broker give-up trades are "given up" to the trading principals automatically in accordance with the instructions supplied by the matching inter-dealer broker. The MBSD produces a Purchase and Sale Report that serves as legally binding confirmation for compared trades and a 10b-10 compliant trade confirmation. The Purchase and Sale Report eliminates the need for exchange of trade confirmations and commitment letters.

2. **Risk management** - The MBSD's risk reduction methodologies are based on revaluing all outstanding trades daily by marking them from contract value to current market value. This procedure ensures that each participant maintains collateral in the Participants Fund at a level sufficient to meet margin requirements.

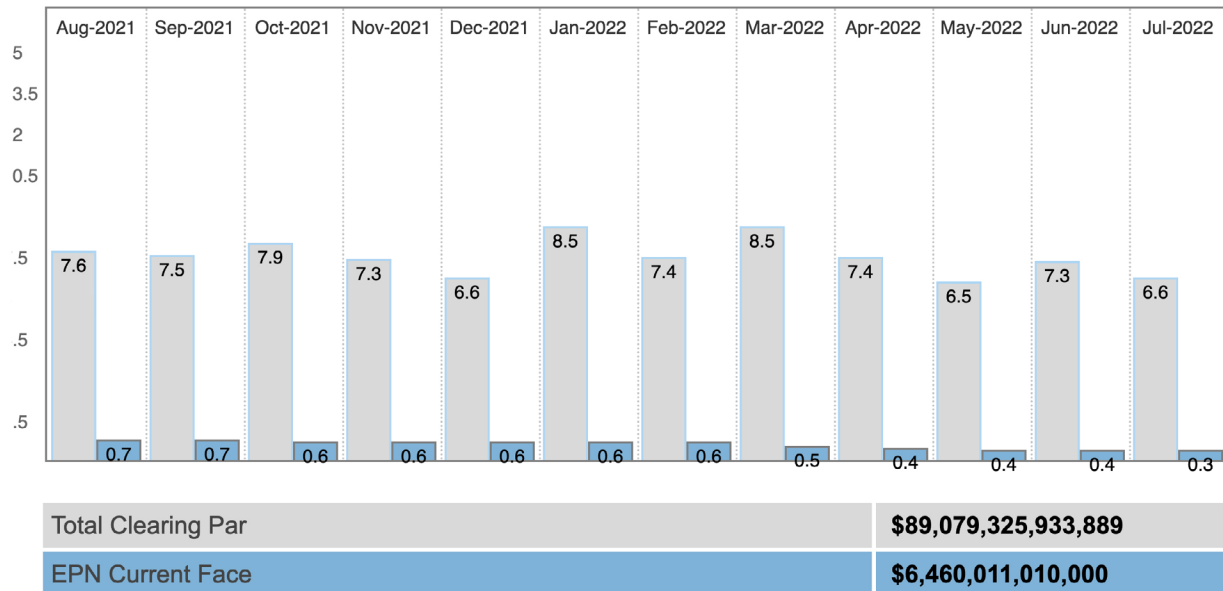
After positions have been marked, participants with "net losses" are required to post additional margin collateral. Deposits to the Participants Fund are made in approved forms of collateral including cash, securities, and Letters of Credit. This balance represents each participant's net exposure and may be drawn on in the event of that participant's insolvency. Each participant's margin deposit is available exclusively to offset its own liabilities, never to fulfill the obligations of another participant. Since margin deposits maintained in the participant fund are not mutualized, the MBSD supports ongoing inter-participant credit evaluations.

3. **Trade netting and settlement services** - The MBSD's Netting and Settlement Services reduces a participant's overall settlement obligations by pairing off trades, regardless of contra-side identity; this greatly reduces the number of trades that require actual settlement. To achieve this, the MBSD offers Settlement Balance Order Destined (SBOD) services for organizations that wish to net TBA trades. The SBOD system automatically performs the netting process for trades within the same MBS product, coupon rate, maturity, and settlement date on a multilateral basis. The FICC's MBSD SBOD process typically eliminates the need to settle more than 90 percent of all trades submitted for netting. The resulting net buy and sell obligations require allocation and settlement.
4. **Trade-for-Trade services** - For organizations that choose not to participate in SBOD processing, and for trades that are not SBOD-eligible or other trade executions that the contra-sides choose not to net, the MBSD offers Trade-for-Trade (TFTD) Services. TFTD transactions are submitted for matching within RTTM, but not for TBA netting. TFTD transactions receive the benefits of Trade Comparison and Risk Management but require individual settlement of the compared trade as originally executed.⁵

5 *The Securities Industry and Financial Markets Association-Uniform Practices
Ch. 4, Clearance and Settlement Infrastructure*

Figure 3- Previous 12-Months Clearing Volume of Mortgage-Backed Securities for DTCC's MBSD (through Jul-2022)

12-Month Volume Data (U.S. Dollars in Trillions)



Source: <https://www.dtcc.com/charts/previous-12-months-volume-for-mbs>

In the chart above, the Total Clearing Par represents the cumulative face value of cleared volumes for all mortgage products for the prior twelve months (Aug-21-Jul-22). The Electronic Payment Network (EPN) Current Face shows how much was settled. MBSD had clearing volume of more than \$89 trillion and EPN settlement volumes of \$6.46 trillion. Therefore, the settlement volumes have been about one-fourteenth (7.25%) the size of their daily cleared volumes.

30-Year UMBS settlements at MBSD

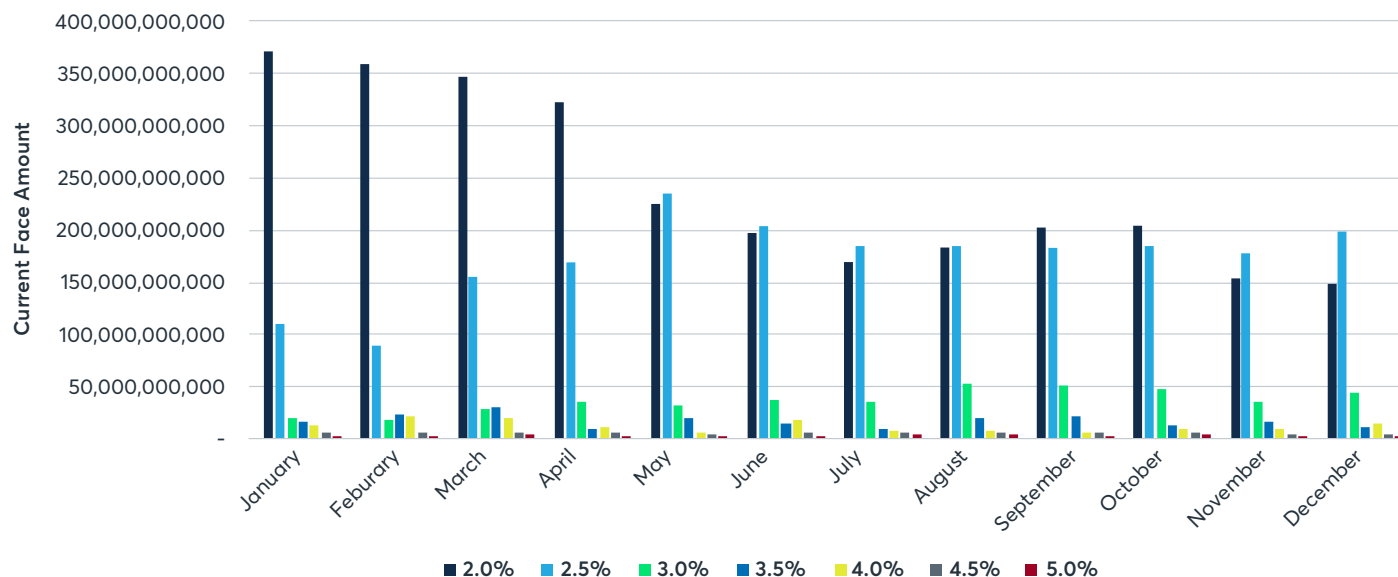
Deliveries of 30-Year UMBS TBA futures will be fulfilled by MBSD-cleared TBA forwards. MBSD provides clearing and settlement of MBS. DTCC's MBSD facilitates settlement of TBA CUSIPS into eligible mortgage-backed securities including 30-Year UMBS. Currently, as of Sep-22, MBSD supports 30-Year UMBS TBA CUSIPS for coupons ranging from 1.5% to 8.5%. Please refer to FICC's MBSD [webpage](#) for complete and current list.

MBSD 30-Year UMBS settlements-2021

In 2021, MBSD facilitated cumulative settlement of \$6.18 trillion face value of 30-Year UMBS across all coupon rates. The seven coupon rates proposed (2.0% to 5.0%) accounted for 92.7% (\$5.73 trillion) of the monthly TBA settlements of the Contracts.

In 2021, these seven coupon rates produced average monthly settlements ranging from \$1.78 billion to \$238.9 billion and had minimum monthly settlements ranging \$907.3 million to \$146.7 billion. During the first four months (Jan-21 through Apr-21), the 2.0% coupon rate was clearly the most active in terms of MBSD settlements, giving it current coupon status. For the remainder of the year (May-21 through Dec-21), the 2.0% and 2.5% coupon rates were competing for current coupon status.

Figure 4 - Monthly TBA Settlements for 30-Year 2021 UMBS Coupons (2.0% - 5.0%)



Source: DTCC's MBSD

30-Year UMBS TBA futures from CME Group

CME Group has designed the contracts as complements to the Exchange's extant Treasury Note and Bond futures contracts.

The contracts will have a \$100,000 notional contract size, a minimum price fluctuation of one-quarter of one thirty-second of one price point (\$7.8125), and three monthly contracts. In addition, the contracts shall be eligible for block and exchange-for-related-product (EFRP) transactions.⁶ The contracts will also be eligible for matching as inter-commodity spreads (ICS) with related Treasury futures.

The contracts will be fulfilled by delivery of MBSD-cleared 30-Year UMBS TBA forwards at a given coupon rate. Each contract will represent \$100,000 face value of an MBSD-cleared TBA forward. Deliveries must be in increments of 10 contracts with combined deliveries of \$1 million face value of MBSD-cleared 30-Year UMBS TBA forwards. The contracts will be monthly contracts with coupon rates in increments of fifty basis points. At launch, the Exchange will list seven active coupon rates (2.0%, 2.5%, 3.0%, 3.5%, 4.0%, 4.5% and 5.0%) for the three active contract months in the TBA market. Currently, those seven coupon rates represent more than 90% of the activity. The Exchange intends to add new coupon rates as the market transitions away from the initially listed coupon rates.

Deliverable-grade coupon Rates

The Exchange will make available a limited number of current production coupon rates for Class A MBS as defined in the SIFMA TBA Market Governance. For a given delivery month, contracts will be listed for coupon rates ranging from 2.0% to 5.0%. Each coupon rate will be listed as a separate product with a unique commodity code.

⁶ Please refer to the links to the Market Regulation Advisory Notices for Block Trades ([Rule 526](#)) and Exchange for Related Positions ([Rule 538](#)) for the latest versions of these regulatory notices.

Trading schedule

Last trading day of the futures delivery month in an expiring contract is the 3rd Exchange business day before SIFMA TBA notification day for Class A MBS. Physical delivery occurs on the next Exchange Business Day.

Futures contract size

Each futures contract represents \$100,000 face-value of MBSD-cleared 30-year UMBS TBA forward at a given coupon rate. Deliveries must be made in 10 contract increments with combined physical delivery of \$1 million face value of MBSD-cleared 30-year UMBS TBA forward at a given coupon rate. At delivery, the open long (short) position holder is assigned to be TBA buyer (seller) of an MBSD-cleared TBA forward.

Restrictions on making or taking physical delivery

Participation in the futures physical delivery process is limited to market participants who meet two criteria. First, they must be an Eligible Contract Participant (ECP), as that term is defined in Section 1a(18) of the Commodity Exchange Act (CEA or the Act). Second, an account that is assigned to deliver or accept delivery on an expiring contract must be a "full" FICC MBSD clearing member, or capable of fulfilling delivery through a full member.

Schedule for physical delivery on expiring contracts

Typically, termination of trading in expiring TBA futures will occur at 2:00 p.m. Central Prevailing Time (CPT) three Exchange business days before SIFMA's Notification Day for Class A TBAs. To establish intent to take a futures contract position to delivery, a market participant has only to hold the position through termination of trading in the contract. Later that day, the CME Clearing House assigns the TBAs that are to be delivered the next Exchange business day, which is one day prior to MBSD netting day.

Integrity of the delivery process

Several features of the physical delivery process warrant remark. First, on the last day of trading, long and short Clearing Members must submit to CME Clearing intentions for delivery on a form prescribed by CME Clearing. The notice of intention for delivery shall include quantity, delivery method and EPN Member Pool ID and any other information as may be required by the Exchange. Second, the CME Clearing shall allocate Notices of Intention to Clearing Members on a pro rata basis within the same delivery method in increments of 10 open long futures positions as TBA buyer, and 10 open short positions as TBA seller, of the contract-grade TBA. Any delivery positions in increments less than 10 contracts will be cash settled. Third, the delivery process of the contracts will be consistent with the MBSD clearing and settlement process, which will continue as it does today. All deliveries of the contracts will be processed outside of MBSD. Fourth, the expiring futures contract is at all times margined and subject to Exchange rules.

Margins

At launch, 30-Yr UMBS TBA futures are projected to have margin requirements that are about 2% of the notional value. These margins are consistent with our well-established Treasury futures. 30-Yr UMBS TBA futures will have spread credits with Treasury futures as high as 70%.

Delivery process and timing for 30-Year UMBS TBA futures

As a reminder Clearing Members, that are subject to [Chapter 7](#) rules agree to guarantee and assume complete responsibility for a delivery and to ensure prior to the last trading day of the contracts their accounts with open positions can make or take delivery.

The significance of physical delivery

Physical delivery creates a stronger relationship between the futures contract and its underlying market, insofar as it insures convergence to OTC market pricing. Physical delivery at expiration also affords futures position holders the flexibility to replace expiring futures exposures with MBSD-cleared TBA exposures, which they may prefer from a cash-flow perspective.

Who participates in physical delivery?

Participation in the TBA physical delivery process is restricted to market participants who meet two criteria. First, they must be Eligible Contract Participants (ECPs), as defined in the U.S. Code of Federal Regulations (17 CFR 1.3(m)) and the U.S. Commodity Exchange Act, as amended (Section 1a(18)). Second, an account assigned to deliver or accept delivery on an expiring futures contract must be a "Full" FICC MBSD clearing member, or capable of fulfilling delivery through a Full member. If the entity is not a Full member, it must establish a prime services agreement with a Full clearing member that is willing and able to clear and fulfill the TBA delivery obligations on their behalf.

The role of the clearing firms

A clearing member is permitted to maintain TBA positions for customers regardless of whether it is affiliated with a FICC MBSD clearing member. However, to participate in the process of making or taking delivery of MBSD-cleared TBAs in connection with expiring futures an account holder at any clearing firm must be capable of fulfilling its delivery obligations through a "Full" FICC MBSD clearing member that may be either affiliated or unaffiliated with the clearing member. Therefore, any customer who anticipates making or taking delivery on an expiring TBA contract must work with its CME Group futures clearing member to ensure that the customer's FICC MBSD clearing member is notified and prepared to guarantee goodness of delivery.

The timetable for delivery

Futures clearing members-obligations

The delivery process for TBAs becomes effective during the last three trading days of the expiring contracts. During each of the three trading days, CME Group futures clearing members are required to provide CME Clearing an inventory of the long and short TBA positions being maintained by them intending to go to delivery. This daily reporting is provided to CME Clearing by an intent submission in Deliveries Plus.

Futures clearing firms must demonstrate the futures account owner intending to make or accept delivery meets the two requirements of ECP and FICC MBSD clearing member. Futures clearing firms are required to provide the CME Clearing deliveries notification of open positions that it does anticipate resulting in delivery of TBAs. Furthermore, Futures clearing firms must ensure that the account owner intending to participate in delivery can maintain a position in the TBA contract grade, and they must get acknowledgment from the designated FICC MBSD clearing member(s) that they will guarantee and assume complete responsibility for the performance of all delivery requirements of the expiring futures.

In Access Manager, customer accounts must be permissioned by their futures clearing firms to trade expiring TBA futures during the three business days prior to the last trading day. This risk management tool prevents futures accounts from trading TBAs during the delivery process without the explicit approval of their futures clearing firms.

Notification of FICC MBSD clearing members in delivery

Not later than 4:00 p.m. on the last day of trading, long and short clearing members must submit to the CME Clearing intentions for delivery on a form prescribed by CME Clearing. The notice of intention for delivery shall include quantity, delivery method, and EPN Member Pool ID and any other information as may be required by the Exchange.

CME Clearing shall allocate Notices of Intention to clearing members on a pro rata basis within the same delivery method in increments of 10 open long futures positions as buyer, and 10 open short positions as seller, of contract-grade TBA.

Positions of less than 10 contracts will be cash-settled based on the final settlement price. Positions of 10 contract increments may be cash-settled if matched with non-deliverable positions of less than 10 contracts during the delivery process.

The Clearing House shall provide delivery notices to Clearing Members after 5:00 p.m. on the last trading day in the expiring futures contract notifying each MBSD clearing member carrying one or more MBSD Accounts that are required to make or accept delivery in fulfillment of such expiring futures.

FICC MBSD clearing member obligations in delivery

Every 10 futures contracts that are delivered shall be a MBSD cleared TBA that matches the "good-delivery millions" threshold. To fulfill the delivery obligation for a long futures position of 10 contracts, the TBA confirmation must demonstrate that one MBSD cleared TBA buyer has been established for the same contract grade (fixed rate, delivery month). To fulfill the delivery obligation for a short futures position of 10 contracts, the TBA confirmation must demonstrate that one MBSD cleared TBA Seller has been established for the same contract grade (fixed rate, delivery month).

The TBA confirmation must include the following details: product (issuer, coupon, term), trade date, quantity, price, direction (buy/sell), and settlement date of the TBA trade.

TBA buyers and TBA sellers are required to provide confirmation of TBA transfer by 3:00 p.m. on the delivery day or as may be prescribed by CME Clearing.

In the event that an MBSD clearing member disputes such notification of delivery on expiring futures as it may receive from CME Clearing, such MBSD clearing member shall promptly notify CME Clearing, and the dispute must be settled prior to 4:00 p.m. on the delivery date in fulfillment of such expiring futures.

The following table provides the timetable for CME Clearing and clearing members during the TBA delivery process (all times are U.S. Central Time unless otherwise noted):

Delivery Timetable For TBA Futures *(All times listed in Central Time unless otherwise noted)*

	FUTURES CLEARING MEMBERS	CME CLEARING DELIVERIES
EACH OF EXPIRING CONTRACTS LAST 3 TRADING DAYS	By 8 p.m. , report to CME Clearing Delivery Team TBA details of all account holdings of open interest in expiring futures	
LAST TRADING DAY (LTD) (3 BUSINESS DAYS PRIOR TO TBA NOTIFICATION DAY)	Trading in an expiring contract ceases at 2 p.m. Clearing Members are required to report intentions by 4 p.m.	Trading in an expiring contract ceases at 2 p.m. By 5 p.m. , CME Clearing Deliveries makes delivery assignment information available On the LTD, CME Clearing Deliveries will: <ul style="list-style-type: none"> • Assign 10 open long futures positions as buyer, and 10 open short positions as seller, of an expiring contract-grade TBA • Notify each clearing member firm carrying open positions in expiring futures of accounts assigned to become TBA buyers (sellers) versus short (long) positions in expiring contracts held in accounts carried by the clearing member firm • Any deliveries not in an increment of 10 contracts will be cash settled to the final settlement price.
DELIVERY DAY (NEXT BUSINESS DAY)	By 3 p.m. , Clearing Members are required to provide CME Clearing Delivery Team TBA final confirmation details Clearing Member ensures that accounts participating in the delivery process make and receive TBA confirmations Clearing Members must report nonreceipt within one hour after the delivery deadline	CME Clearing Delivery Team will remove delivery margin.
Delivery process complete from Exchange perspective, TBA Forward process begins according to the below schedule		
MBSD NETTING DAY (72-HOUR DAY)	By 3 p.m. , MBSD nets eligible TBA trades to establish net settlement obligations versus FICC	
SIFMA TBA NOTIFICATION DAY (48-HOUR DAY)	By 2 p.m. , buyer is informed of specific identity of pools to be delivered	
SIFMA TBA SETTLEMENT DAY	Pools are delivered and funds exchanged	

Appendix: Contract specifications for 30-Year UMBS TBA futures from CME Group

The TBA futures contracts will be fulfilled by delivery of MBSD-cleared 30-Year UMBS TBA forwards at a given coupon rate. Each contract will represent \$100,000 face value of a MBSD-cleared TBA. Deliveries must be in increments of 10 contracts with combined deliveries of \$1 million face value of MBSD-cleared 30-Year UMBS TBAs. TBAs are monthly contracts with coupons in increments of 50 basis points. At launch, seven active coupons (2.0%, 2.5%, 3.0%, 3.5%, 4.0%, 4.5%, and 5.0%) will be listed for the three active contract months in the TBA market. Currently, those seven coupons represent more than 90% of the activity. Our scope includes coupons ranging from 1.5% to 6.0%. New coupons will be added as the market transitions away from these coupons.

30-Year UMBS TBA futures shall trade on and according to the rules of CBOT, pending certification of contract terms with the CFTC and completion of all regulatory review periods. All times of day are Central Prevailing Time (CPT) unless otherwise noted.

30-YEAR UMBS TBA FUTURES	
COMMODITY CODE	20U, 25U, 30U, 35U, 40U, 45U, 50U
TRADING AND CLEARING HOURS	CME Globex: Sunday - Friday 5:00 p.m. - 4:00 p.m. CT with a 60-minute break each day beginning at 4:00 p.m. CT CME Globex Preopen: Sunday 4:00 p.m. - 5:00 p.m. CT, Monday - Thursday 4:45 p.m. - 5:00 p.m. CT CME ClearPort: Sunday 5:00 p.m. - Friday 5:45 p.m. CT with no reporting Monday - Thursday from 5:45 p.m. - 6:00 p.m. CT
SETTLEMENT METHOD	Physical
CONTRACT SIZE	100,000
PRODUCT UNIT OF MEASURE	Index Points
CURRENCY	USD
PRICE QUOTATION	Points and fractions of points with par on the basis of 100 points
MINIMUM PRICE FLUCTUATION	1/4 of 1/32nd of 1 point (0.0078125) = \$7.8125 1/8th of 1/32nd of 1 point for intra-market calendar spreads (0.00390625) = \$3.90625 per calendar spread, with block trades eligible for 1/16th of 1/32nd of one point (0.001953125) = \$1.953125
MINIMUM DAILY SETTLEMENT INCREMENT AND FINAL SETTLEMENT INCREMENT	1/4 of 1/32 of 1 point (0.0078125)
LISTING SCHEDULE	Nearest three) consecutive calendar months
INITIAL LISTING SCHEDULE	November 2022, December 2022, January 2023
TERMINATION OF TRADING	For a given delivery month, three Exchange business days before SIFMA TBA notification day. Expiring contract ceases trading at 2:00 p.m. CT
DELIVERABLE GRADE ISSUERS	Fannie Mae and Freddie Mac
DELIVERABLE MORTGAGE TERM	30-Year
DELIVERABLE GRADE COUPONS	For a given Delivery Month, futures are listed by the Exchange for delivery of specified active (current-production) mortgage coupon rates (eg, 2.0%, 2.5%, 3.0%, 3.5%, 4.0%, 4.5%, 5.0%). Each Coupon Rate will be listed as separate product with a unique product code.
DELIVERABLE GRADE AND SIZE	\$100,000 face value of MBSD-cleared 30-year UMBS TBA at a given coupon rate. Deliveries must be made in 10 contract increments with combined deliveries of \$1 mln face value of MBSD-cleared 30-year UMBS TBA at a given coupon rate. Non-deliverable positions of less than 10 contracts will be cash-settled at expiration.
QUALIFICATION FOR PHYSICAL DELIVERY	Deliverable in increments of 10 contracts increments
DELIVERY DAY	Exchange business day immediately following last trading day
BLOCK TRADE MINIMUM THRESHOLD	RTH-100; ETH-50; ATH-25
REPORTING WINDOW	RTH/ETH/ATH - 15 minutes
CME GLOBEX MATCHING ALGORITHM	F-FIFO 100%



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