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Homeownership Financing 102: TBA and MBS Using TBA for Financing Single Family

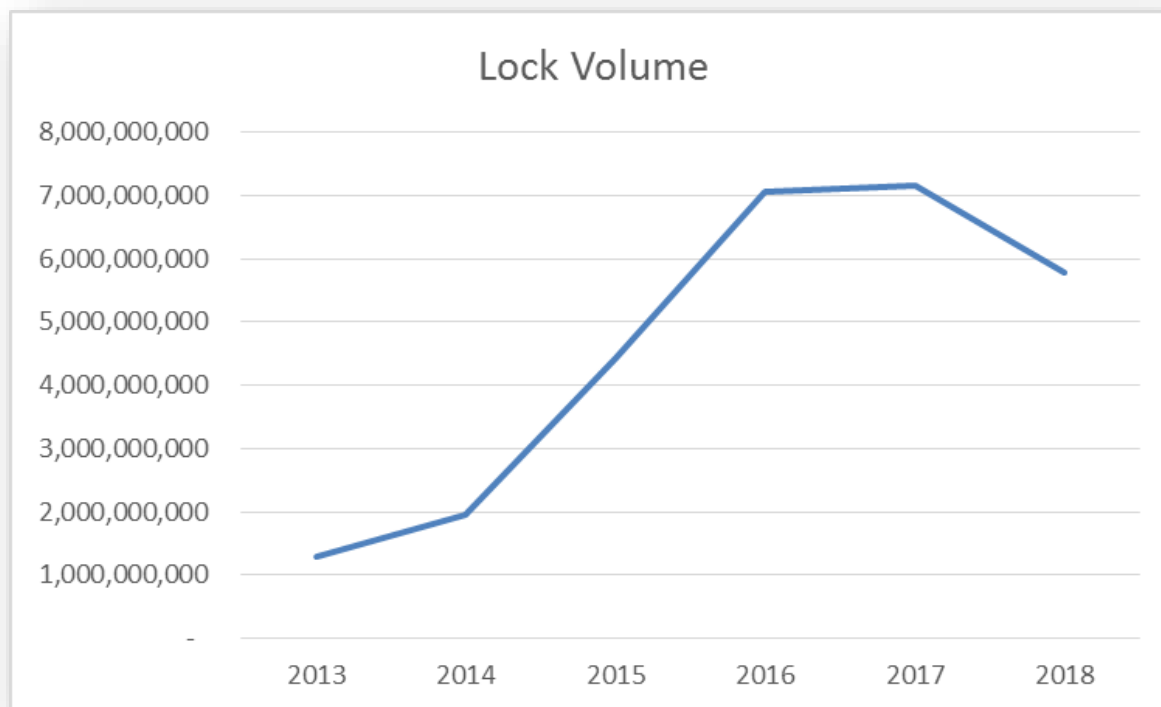
NCSHA 2019 HFA Institute
Washington, DC

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Production Trends

- More than 35 state HFAs use some sort of TBA execution in their programs
- Since July 2012 representing 14 HTS state HFAs and over \$28.8 billion in locks and \$22.5 billion in MBS purchases
- CY 2018 locks of \$6 billion and MBS purchases of over \$4.7 billion



TBA Program Benefits When Compared to MRB

- Provides a no risk forward commitment mortgage program with no costs of issuance, negative arbitrage and legal expenses (outsourced)
- Produces a significantly lower mortgage rate when compared with Pass-Thru and traditional MRB structures
- Eliminates volume cap limitations
- Fund down payment and closing cost assistance without using HFA funds
- Flexibility to adjust rates as the market moves -- no yield implications
- Affords HFAs the option to pay higher lender compensation
- Can be used to provide financing for non-first time homebuyers
- Program is more lender friendly -- less paperwork for the lender
- Can be combined with MCCs thus creating a lower effective mortgage rate
- Gives HFAs the option of offering refinances
- More profitable for HFAs than tradition MRBs and Pass-Thru structures both on present value and ongoing basis
- It can be used as a hedging tool to accumulate MBS for future bond transactions
 - Either “Pass-thru” or “Traditional MRB” structures

TBA (Mortgage-Backed) Securities Market

- Mortgage-backed securities (MBS) -- debt obligations
- The most common form of MBS are pass-through certificates
- MBS are highly liquid -- particularly those backed by agency guarantees
- Most mortgages in the US are securitized through the agency MBS market
- This trading convention significantly improves agency MBS liquidity – leading to lower mortgage rates for households
- The key distinguishing feature of agency MBS is they carry a form of government guarantee – explicit (Ginnie Mae) or implied (Fannie and Freddie)
- Other distinguishing feature is the existence of liquid forward market for trading
- “TBAs” or “To Be Announced” are a form of future contracts

TBA (Mortgage-Backed) Securities Market – continued

- Vast majority of MBS trading (over 90%) occurs in the forward market – TBA Market
- Seller and buyer agree to a sale price without identifying the specific pool numbers
- Six basic characteristics -- issuer, maturity, coupon rate, price, par amount and settlement date are agreed upon
- Pools guaranteed by Ginnie Mae (a federal government agency), Fannie Mae or Freddie Mac (GSEs) can be allocated to TBA transactions
- The goal of the TBA market was to create liquidity
- A hedging tool – with settlement dates up to nine months out -- allows lenders to “lock in” sale prices for loans
 - The use of dollar rolls allows the seller to extend hedges
- Drivers of market activity are broker dealers

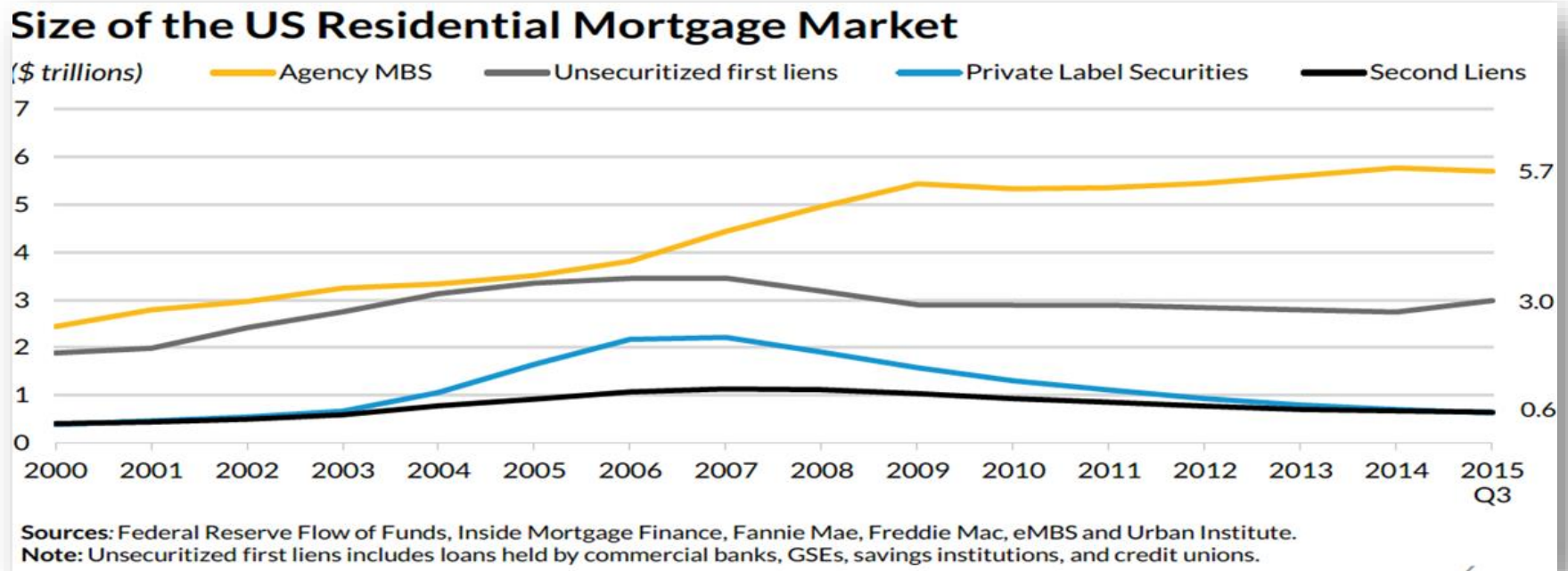
TBA (Mortgage-Backed) Securities Market – continued

- TBA trading occurs electronically on an over-the-counter basis
 - Two platforms, DealerWeb (interdealer trades) and TradeWeb (customer trades)
 - Trades can also take place via telephone, fax or e-mail – not common
- Securities Industry and Financial Markets Association (SIFMA) has specific rules regarding what constitutes TBA eligible deliveries also known as “good delivery”
- Only mortgages meeting certain size and credit quality criteria “conforming mortgages” are eligible for inclusion
- Sheer aggregate size and the homogenous nature of agency MBS contribute significantly to liquidity – compared to corporate bonds or munis
- TBA Market is the largest debt market in the world outside of US Treasuries
- Virtually every primary broker/dealer on the street and in the world makes a market in TBA MBS

TBA (Mortgage-Backed) Securities Market – continued

- TBA Market is made possible largely because agency MBS are exempt from the registration requirement of the Securities Act of 1933
- Although not required, agencies do publicly disclose information about the composition of each pool
- Similar to Treasury futures, TBAs trade on a “cheapest-to-deliver” basis
- On a forty-eight-hour day, the seller selects which MBS in its inventory will be delivered to the buyer at settlement
- In practice, most TBA trades do not ultimately lead to a transfer of physical MBS
 - In most cases the seller will either unwind or “roll” an outstanding trade

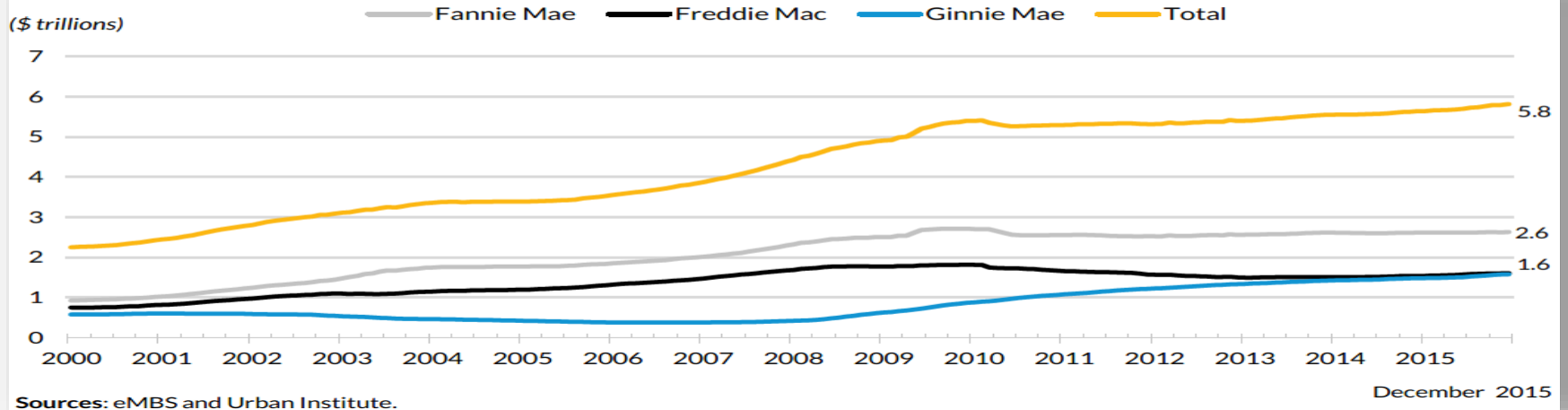
US Residential Mortgage Market



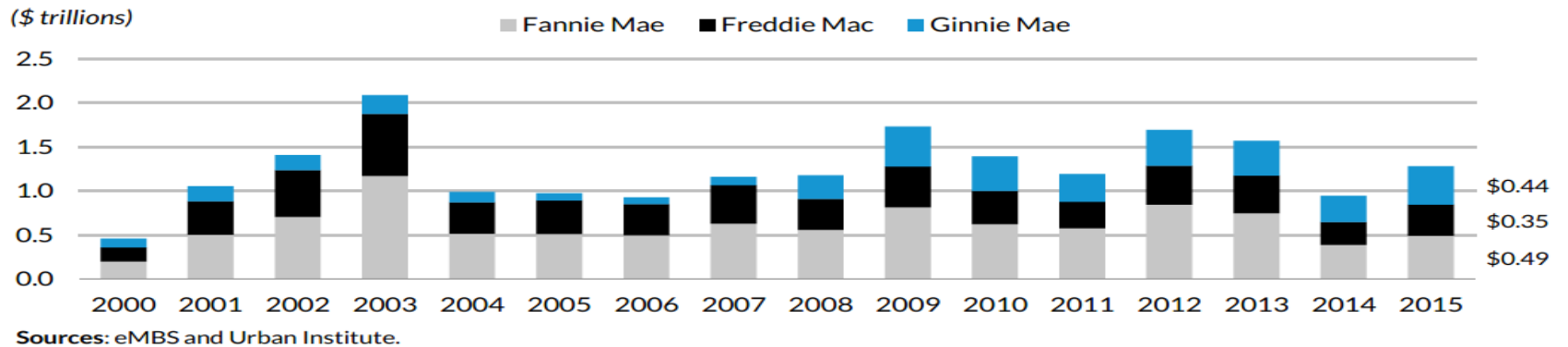
The Mortgage Bankers Association (MBA) estimates the 2019 mortgage originations to total \$1.63 trillion – purchase money mortgages \$1.24 trillion

GSE Share of the Market

Agency Mortgage-Backed Securities

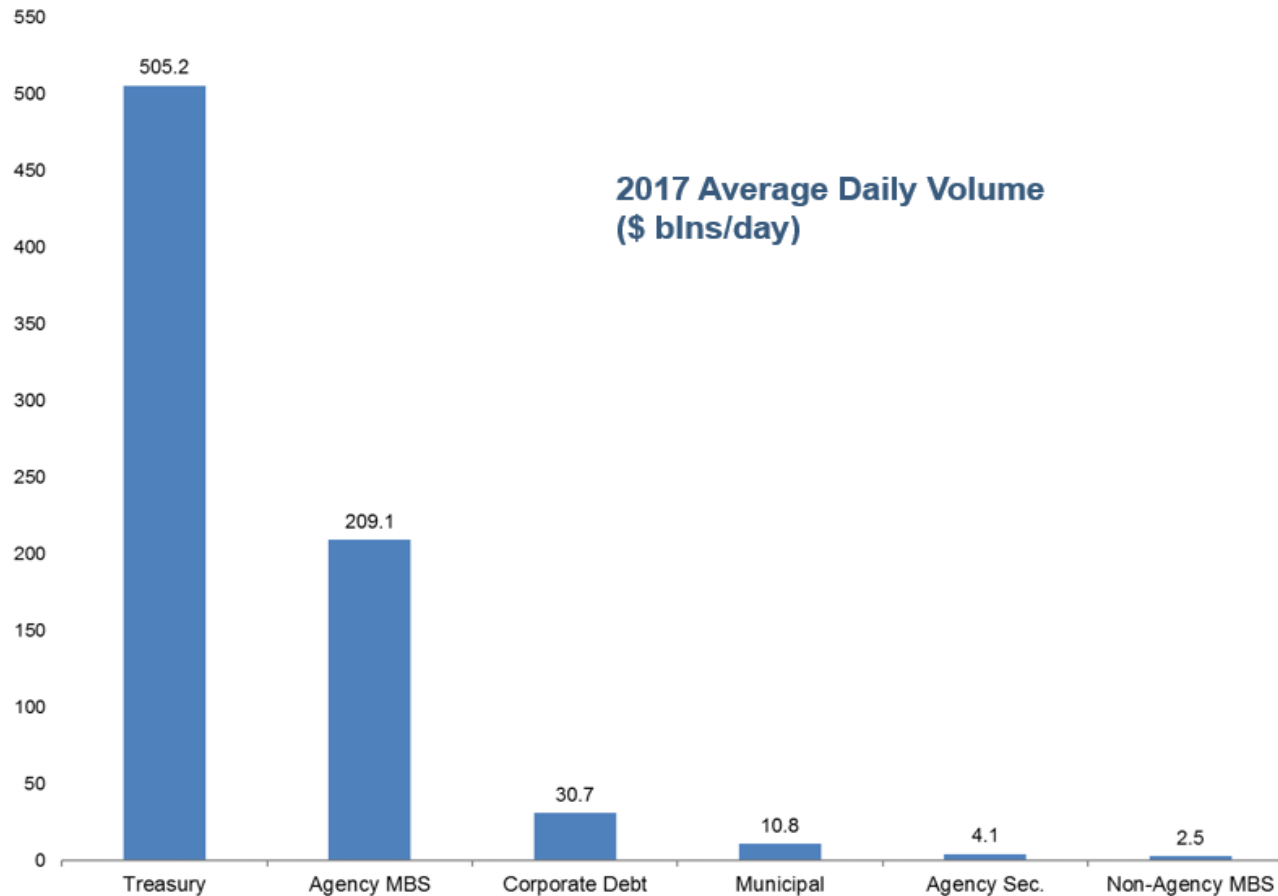


Agency Gross Issuance



US Fixed Income Trading Volume

US Agency MBS products are second only to US Treasuries, accounting for 27% of 2017 ADV



Source: FRBNY and FINRA TRACE data, via SIFMA



MBS TBA Eligibility vs Custom Pools

- SIFMA has specific rules regarding what constitutes TBA eligible deliveries also known as “good delivery”
- Most Fannie and Freddie MBS whether single issuer or Major/Giants securities are TBA eligible if on ½ coupon and \$1 million min.
- Creating TBA eligible securities from Ginnie Mae MBS can be trickier given the distinct difference between GN 1 & 2

| Factors | Ginnie Mae I | Ginnie Mae II Major (Multi-Issuer) |
|----------------------------------|--------------|------------------------------------|
| Mortgage Rate | ½ Coupon | Within 0.25% to 0.75% of PTR |
| Pass-Thru Rate (PTR) | ½ Coupon | ½ Coupon |
| Servicing Fee (Including G-Fee) | 0.50% | 0.25% to 0.75% |
| Guarantee Fee | 0.06% | 0.06% |
| Minimum Pool Size | \$1 Million | 3 Loans / \$250,000 |
| Eligible Collateral for T-E MRBs | Yes | No |

Specified (Custom) Pools – HFA Loan Pay-ups

- A smaller but significant portion of agency MBS trade outside of the TBA market
- Known as “Specified Pool”
 - The identity of the securities to be traded is specified at the time of trading
 - Some of these pools are typically not eligible for TBA trading
 - Backed by loans with more favorable prepayment (convexity) characteristics – allowing them to achieve higher prices
 - Lower loan balances
 - Slower prepayments due to DPA loans behind first mortgage
- Factors impacting pricing for specified pools today
 - Supply demand technicals and the volume of available MBS – GN1/GN2 swap
 - Interest rate environment – less demand in a rising rate market
- CRA buyers and FHLB make up a significant portion of the “specified” pool market

TBA Market Snapshot

| TBA | | 1) Actions | | 3) Settings | | Fixed Income Trading | | | | | |
|------------|---------|----------------------------------|----------------------------------|--------------------------------|----------------------------------|--------------------------------|----------------------------------|--------------------------------|----------------------------------|-------|-------|
| 12:04 | | | | | | | | | | | |
| TBA30 | | TBA15 | | MBS | | Swaps | | Butterflies | | | |
| | | 3.5 | | 4.0 | | 4.5 | | 5.0 | | | |
| FNCL | Feb | 99-27+ | / 28+ | 101-27+ | / 28+ | 103-17 | / 18 | 104-30 | / 31 | | |
| | Mar | 99-25 | / 26 | 101-24+ | / 25+ | 103-13 | / 14 | 104-25 | / 26 | | |
| | Apr | 99-23 | / 24 | 101-22+ | / 23+ | 103-11 | / 12 | 104-22 | / 23 | | |
| | Feb/Mar | 02 ³ / ₈ | / 02 ³ / ₄ | / | / | 03+ | / 03 ³ / ₈ | 04 ⁷ / ₈ | / 05 | | |
| | Mar/Apr | 01 ³ / ₄ | / 01 ⁷ / ₈ | / | / | / | / | 03 | / 03 ³ / ₈ | | |
| FGLMC | Feb | 99-28+ | / 29+ | 101-28+ | / 29+ | 103-18 | / 19 | 104-28 | / 29 | | |
| | Mar | 99-26 | / 27 | 101-25+ | / 26+ | 103-14 | / 15 | 104-23+ | / 24+ | | |
| | Apr | 99-24 | / 25 | 101-23 | / 24 | 103-12 | / 13 | 104-21+ | / 22+ | | |
| | Feb/Mar | 02 ³ / ₈ | / 02 ³ / ₄ | / | / | / | / | 04 | / 04 ¹ / ₈ | | |
| | Mar/Apr | 01 ³ / ₈ | / 01 ³ / ₄ | 02+ | / 02 ³ / ₈ | 02 ³ / ₈ | / 02 ³ / ₄ | 03 | / 03 ³ / ₈ | | |
| G2SF | Jan | 100-23 | / 23+ | 102-14+ | / 15 | 103-15+ | / 16 | 104-07+ | / 08 | | |
| | Feb | 100-21 | / 22 | 102-12+ | / 13+ | 103-12+ | / 13+ | 104-04 | / 05 | | |
| | Mar | 100-18+ | / 19+ | 102-09 | / 10 | 103-09 | / 10 | 104-00 | / 01 | | |
| | Jan/Feb | 01 ³ / ₈ | / 01 ³ / ₄ | 02 ³ / ₈ | / 02+ | 02 ³ / ₈ | / 02 ⁷ / ₈ | 02 ⁷ / ₈ | / 03 | | |
| | Feb/Mar | / | / | 03 ³ / ₈ | / 03+ | 03+ | / 03 ³ / ₈ | 03+ | / 03 ³ / ₈ | | |
| Benchmarks | | | | | | | | | | | |
| Treas 2Y | 99-29 | / 29 ¹ / ₈ | 2.549 | / 547 | - 00 ³ / ₄ | Treas 7Y | 100-00 | / 00+ | 2.625 | / 622 | - 03+ |
| Treas 3Y | 99-28+ | / 28 ³ / ₄ | 2.538 | / 535 | - 02 | Treas 10Y | 103-13 | / 13+ | 2.727 | / 725 | - 04 |
| Treas 5Y | 100-11 | / 11 ¹ / ₄ | 2.551 | / 549 | - 02 ³ / ₄ | Treas 30Y | 105-30+ | / 31 | 3.069 | / 068 | + 03+ |

Fannie Mae TBA Market

| TBA | | 1) Actions | | 3) Settings | | Fixed Income Trading | | | | | | | |
|------------|---|-------------|----------------------------------|----------------|--------------------------------------|--|---------|----------------|---------|----------|--|----------|--|
| 12:06 | | | | | | | | | | | | | |
| 4) TBA30 | | 5) TBA15 | | 6) MBS | | 7) Swaps | | 8) Butterflies | | | | | |
| 2) FN30 | | 22) FN15 | | 23) GD30 | | 24) GD15 | | 25) GN30 | | 26) GN15 | | 27) GNII | |
| | | 3.5 | | 4.0 | | 4.5 | | | | | | | |
| Feb | 99-27 / 28 | 3 - 1 - 02 | 101-27+ / 28+ | 3 - 1 - 01+ | 103-17 / 18 | 2 - 2 - 00+ | | | | | | | |
| Mar | 99-25 / 26 | 1 - 2 - 01+ | 101-25 / 26 | 1 - 2 - 01 | 103-13 / 14 | 2 - 1 - 01 | | | | | | | |
| Apr | 99-23+ / 24+ | 1 - 2 - 01 | 101-22+ / 23+ | 1 - 2 - 01 | 103-11 / 12 | 1 - 1 - 00+ | | | | | | | |
| Feb/Mar | 02 ³ / ₈ / 02 ³ / ₄ | 1 - 1 -- | / | - | 03+ / 03 ³ / ₈ | 1 - 1 - 00 ¹ / ₂ | | | | | | | |
| Mar/Apr | 01 ³ / ₄ / 01 ⁷ / ₈ | 1 - 1 -- | / | - | / | - | | | | | | | |
| | | 5.0 | | 5.5 | | 6.0 | | | | | | | |
| Feb | 104-30 / 31 | 1 - 1 -- | 106-02 / 03 | 1 - 1 - 01 | / | - | | | | | | | |
| Mar | 104-25 / 26 | 2 - 1 - 00+ | 105-29+ / 31+ | 1 - 1 -- | / | - | | | | | | | |
| Apr | 104-22 / 23 | 1 - 1 -- | 105-22+ / 23+ | 1 - 1 - 00+ | / | - | | | | | | | |
| Feb/Mar | 04 ⁷ / ₈ / 05 | 1 - 1 -- | / | - | / | - | | | | | | | |
| Mar/Apr | 03 / 03 ¹ / ₂ | 1 - 1 -- | / | - | / | - | | | | | | | |
| Benchmarks | | | | Roll Analysis- | | | | Feb/Mar | | Rte | | 0 | |
| Treas 2Y | 99-29 / 29 ¹ / ₂ | 2.549 / 547 | - 00 ³ / ₄ | Cpn | CPR | Drp | B/E Drp | B/E Rte | B/E CPR | | | | |
| Treas 3Y | 99-28+ / 28 ³ / ₄ | 2.538 / 535 | - 02 | 3.50 | 6.78 | 2.625 | 9.408 | 2.706 | | | | | |
| Treas 5Y | 100-10 ³ / ₄ / 11 | 2.552 / 551 | - 03 | 4.00 | 7.16 | 10.265 | 10.265 | 7.160 | | | | | |
| Treas 7Y | 100-00 / 00+ | 2.625 / 622 | - 03+ | 4.50 | 8.24 | 3.500 | 11.110 | 2.924 | 59.859 | | | | |
| Treas 10Y | 103-12+ / 13 | 2.729 / 727 | - 04+ | 5.00 | 9.97 | 4.875 | 11.850 | 2.640 | 47.544 | | | | |
| Treas 30Y | 105-29 / 30 | 3.071 / 070 | + 02+ | 5.50 | 11.68 | 10.185 | 10.185 | 11.680 | 11.680 | | | | |

Ginnie Mae II TBA Market

| TBA | | 1) Actions | | 3) Settings | | Fixed Income Trading | | | | | | | |
|------------|---|--|--------------------------------------|--|--------------------------------------|--|---------|---|--|---|--|---|--|
| 12:08 | | | | | | | | | | | | | |
| TBA30 | | TBA15 | | MBS | | Swaps | | Butterflies | | | | | |
| FN30 | | FN15 | | GD30 | | GD15 | | GN30 | | GN15 | | GNII | |
| 3.5 | | | | 4.0 | | | | 4.5 | | | | | |
| Jan | 100-23 / 23+ | 1 - 1 - 01+ | 102-14+ / 15 | 1 - 1 - 01+ | 103-15+ / 16 | 2 - 1 - 00+ | Feb | 100-21 / 22 | 1 - 2 - 02 | 102-12 / 13 | 1 - 1 - 01+ | 103-12+ / 13+ | 1 - 1 - 00+ |
| Mar | 100-18+ / 19+ | 1 - 1 - 02 | 102-09 / 10 | 1 - 2 - 01+ | 103-09 / 10 | 2 - 1 - 01 | Jan/Feb | 01 ³ / ₈ / 01 ³ / ₈ | 1 - 1 + 00 ³ / ₈ | 02 ³ / ₈ / 02+ | 1 - 1 -- | 02 ³ / ₈ / 02 ³ / ₈ | 1 - 1 + 00 ³ / ₈ |
| Feb/Mar | / | - | 03 ³ / ₈ / 03+ | 1 - 1 + 00 ³ / ₈ | 03+ / 03 ³ / ₈ | 1 - 1 + 00 ³ / ₈ | | | | | | | |
| 5.0 | | | | 5.5 | | | | 6.0 | | | | | |
| Jan | 104-07+ / 08 | 1 - 1 + 02 | / | - | / | - | Feb | 104-04 / 05 | 1 - 1 + 01+ | / | - | / | - |
| Mar | 104-00 / 01 | 2 - 1 + 01 | / | - | / | - | Jan/Feb | 02 ³ / ₈ / 03 | 1 - 1 -- | 03 ³ / ₈ / 03 ³ / ₈ | 1 - 1 + 00 ³ / ₈ | / | - |
| Feb/Mar | 03+ / 03 ³ / ₈ | 1 - 1 + 00 ³ / ₈ | / | - | / | - | | | | | | | |
| Benchmarks | | | | Roll Analysis- | | | | Jan/Feb | | Rte | | 0 | |
| Treas 2Y | 99-29 / 29 ³ / ₈ | 2.549 / 547 | - 00 ³ / ₈ | Cpn | CPR | Drp | B/E Drp | B/E Rte | B/E CPR | | | | |
| Treas 3Y | 99-28+ / 28 ³ / ₈ | 2.538 / 535 | - 02 | 3.50 | 9.42 | 1.625 | 8.509 | 2.620 | 97.106 | | | | |
| Treas 5Y | 100-11 / 11 ³ / ₈ | 2.551 / 549 | - 02 ³ / ₈ | 4.00 | 8.62 | 2.375 | 9.279 | 2.585 | 67.672 | | | | |
| Treas 7Y | 100-00 / 00+ | 2.625 / 622 | - 03+ | 4.50 | 7.99 | 2.625 | 10.308 | 2.849 | 59.314 | | | | |
| Treas 10Y | 103-13 / 13+ | 2.727 / 725 | - 04 | 5.00 | 10.07 | 2.875 | 11.106 | 3.024 | 56.188 | | | | |
| Treas 30Y | 105-30 / 30+ | 3.070 / 069 | + 03 | 5.50 | 11.88 | 3.085 | 11.711 | 3.251 | 51.150 | | | | |

Lack of Liquidity in Higher Coupon MBS

- The TBA Market today is very different than it was 3 years ago, especially for higher coupon MBS – lack of liquidity
- Flattening of US Treasury yield curve that we witnessed in 2018 higher coupon TBAs (5.0% and higher) have broadly underperformed
- Little or no trading occurs in these coupons -- with the exception of Fannie 5.5%
- Prices for 5.5s and 6.0s that are seen on the screens, both Bloomberg and Tradeweb, have no practical meaning since they are not tradeable levels
- Significant day-to-day pricing volatility
- HTS clients receive well over TBA prices for their loans given the distribution base that we've been able to develop