



# Basics of Structured Transactions

October 2019

# Basics of Supers and Megas

## Supers

Fannie Mae Supers™ (Supers) are single-class, pass-through, TBA-eligible securities in which the underlying collateral consists of groups of existing UMBS and/or Supers. The securities that back Supers may be issued and guaranteed by either Fannie Mae or Freddie Mac. The cash flows from the underlying UMBS and/or Supers provide the cash flows for the Supers pool. As of June 3, 2019, all Fannie Mae Megas® (Megas) with TBA prefixes, regardless of issue date, are Supers.

Fannie Mae Supers enable investors to accumulate pieces of similar existing mortgage-backed securities to form a larger security with its own unique characteristics. Investors can consolidate small or paid-down pools in a Supers to help reduce administrative costs or form a Supers with certain characteristics, such as enhanced geographical diversity.

## Megas

Fannie Mae Megas are single-class, pass-through, non-TBA-eligible securities in which the underlying collateral are groups of existing Fannie Mae non-TBA MBS and/or Fannie Mae Megas. The securities that back a Megas are issued and guaranteed by Fannie Mae. The cash flows from the underlying MBS and/or Megas provide the cash flows for the Megas pool. Unlike Supers, Megas can only be backed by non-TBA Fannie Mae-only issued collateral. As of June 3, 2019, all Megas with TBA prefixes, regardless of issue date, are Supers.

Similar to Supers, Megas enable investors to accumulate pieces of similar existing mortgage-backed securities to form a larger security with its own unique characteristics. Investors can consolidate small or paid-down pools in a Megas to help reduce administrative costs or form a Megas with certain characteristics.

## **Implementation of Single Security**

Under the direction of our regulator and conservator, the Federal Housing Finance Agency (FHFA), Fannie Mae and Freddie Mac worked together to create TBA-eligible MBS issued and guaranteed by either Fannie Mae or Freddie Mac and backed by 30-, 20-, 15-, and 10-year fixed-rate single-family mortgages. This new MBS is termed Uniform Mortgage-Backed Security, or UMBS™. The Single Security initiative allows Fannie Mae UMBS and Freddie Mac UMBS to be fungible for deliveries into a single TBA market. In this contract, the maturity, coupon, face value, price, and settlement date of an MBS are known, but the issuer (Fannie Mae or Freddie Mac), the actual pool number, and the unique security identifier (CUSIP) are not yet known.

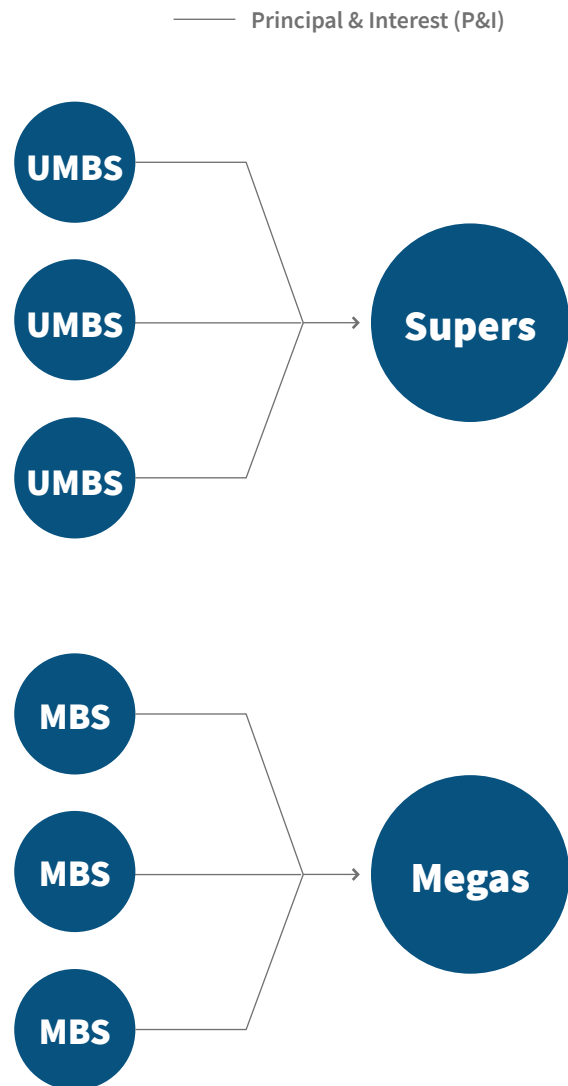
Single-class re-securitizations are called Supers. Supers permit the commingling of Fannie Mae UMBS and Freddie Mac UMBS so the enterprise that issues, or wraps, the re-securitization is the guarantor. The non-TBA-eligible product is referred to as Megas for Fannie Mae and Giants for Freddie Mac. For more information, [visit our single security website](#).

## Benefit to Investors

- Smaller securities are bucketed together in order to build a larger pool and create a more liquid security.
- The larger product size creates operational and accounting efficiencies.
- Investors can create a pool with desired characteristics such as geographic diversity or targeted weighted averages.
- For Supers, collateral can be Freddie Mac UMBS, Fannie Mae UMBS, or both, providing investors with more flexibility.

## Types of Backing Collateral

- Fixed-rate UMBS-backed Supers and MBS-backed Megas require that the underlying securities have the same pool prefix<sup>1</sup> and pass-through rate.
- Supers are backed by UMBS and can be commingled with Freddie- and Fannie-issued UMBS. Both UMBS and previously issued Supers can be delivered into the same Supers.
- Megas are backed by Fannie Mae-issued MBS, Megas previously issued by Fannie Mae, or both. ARM MBS, REMIC, and Multifamily MBS-backed Megas may not be commingled with other types of collateral.
- ARM MBS-backed Megas require that the underlying securities have the same subtype. Some ARM pool prefixes, such as GA, LA, PA, S1, and S2, may not be commingled in a Megas pool.
- Real Estate Mortgage Investment Conduit (REMIC)-backed Megas are formed when pass-through, floater/inverse classes or last cash flow sequential REMIC classes are used as collateral.
- Multifamily MBS-backed Megas require that the underlying securities have the same prefix and that the pass-through rates fit within a certain range.



<sup>1</sup> See “[prefix glossary](#)” under Resources.



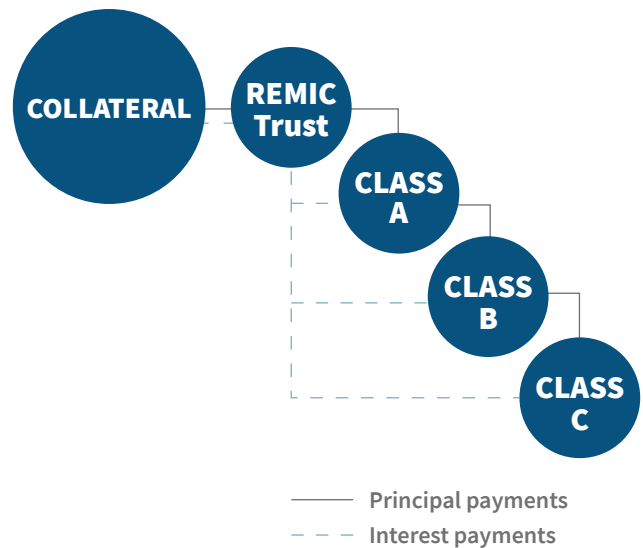
# Basics of REMICs

A Real Estate Mortgage Investment Conduit (REMIC) is a type of multiclass mortgage-related security in which interest and principal payments from mortgages are structured into separately traded securities. REMICs further enhance the mortgage securities market by customizing cash flows for investors and thereby increasing demand for MBS.

Collateral can include:

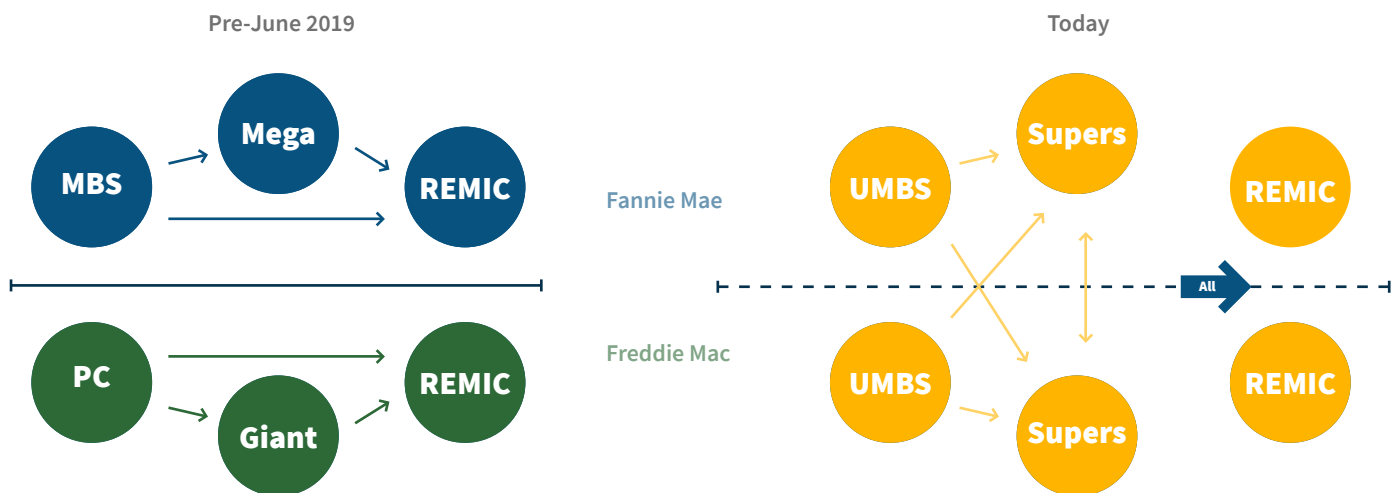
- Single-family or multifamily MBS
- UMBS
- Supers and Megs
- REMIC (for REMIC-backed securities)
- Stripped MBS
- Whole loans

In a REMIC, the cash flow from the underlying mortgage-related collateral is directed to several classes, wherein each class may have a different pass-through rate, average life, prepayment sensitivity, and final maturity from other classes in the same REMIC. Market participants can invest in a class that satisfies their investment and portfolio needs. Classes are distinguished by their sensitivity to the prepayment risk of the underlying collateral.



## UMBS-eligible collateral for REMICs with either enterprise

### How is REMIC composition changing?



## What collateral is eligible to be delivered into a REMIC?

### REMIC collateral

- All 55-day UMBS and Supers:
  - 30-year CL/ZL
  - 20-year CT/ZT
  - 15-year CI/ZI
  - 10-year CN/ZN
- 45-day PCs and Giants that have been exchanged for 55-day UMBS and Supers.
- Unexchanged 45-day UMBS-eligible PCs and Giants.

### Re-REMIC collateral

- All 55-day REMIC classes issued by either agency that at original issuance were 100% backed by UMBS Prefixes.\*
- All 45-day REMIC classes issued by either Agency that at original issuance were 100% backed (at all levels) by 45-day UMBS-eligible PCs and Giants that were UMBS-eligible.\*

\* At all levels for multiple-layer re-REMICs

## Types of Pay Classes

### Sequential Pay Classes (SEQ)

SEQs are the most basic classes within a REMIC structure. The principal on these classes is retired sequentially. That is, one class begins to receive principal payments from the underlying securities only after the principal on any previous class has been completely paid off and retired. While the A-class principal is paying down, B- and C-class holders receive monthly interest payments at the pass-through rate on their UPB. Changes in the average life of the class may affect the yield-to-maturity of the bond. The term “average life” represents the average amount of time that each principal dollar is expected to be outstanding.

#### SEQ: Faster-than-expected prepay speeds

The principal is retired earlier than expected, shortening the average life of the class.

#### SEQ: Slower-than-expected prepay speeds

The principal is retired later than expected, lengthening the average life of the class. Securities purchased at a discount will produce a lower yield-to-maturity than anticipated at pricing.

### Planned Amortization Classes (PACs)

PACs are designed to produce more stable cash flow by directing prepayments from the underlying mortgage-related collateral to other classes, called companion or support classes. The PAC investor is scheduled to receive fixed principal payments (the PAC “schedule”) over a predetermined period of time (the PAC “window”) through a range of prepayment scenarios (the PAC “band”). The schedule will be met only if the underlying mortgage-related collateral prepays at a constant rate within the range assumed for

the structuring of the PAC. The initial or “stated” PAC band, principal payment schedule, and PAC window are set out in the prospectus or prospectus supplement. The underlying mortgage-related collateral is not likely to prepay at a constant rate within the PAC band. The range of prepayment speeds that will, in fact, preserve the principal payment schedule may change from month to month. The range of prepayment speeds that will maintain the principal payment schedule at any given time is the “effective band.” The effective band changes because of the impact of prepayments on the support classes and on the amount of underlying mortgage-related collateral available to produce principal cash flow.

The effective band is more important to investors than the stated band because it gives them an idea of the actual range of prepayment speeds that will protect the schedule. Because PAC classes have less cash flow variability, their average lives and yields-to-maturity are more stable than other REMIC types. They are priced at a lower yield than the less stable REMIC classes but have similar average lives. In addition, all other things being equal, a PAC with a wide band should be priced to yield less than a PAC with a narrower band.

<b>PAC: Faster-than-expected prepay speeds</b>	<b>PAC: Slower-than-expected prepay speeds</b>
<p>Potential for complete elimination of the supporting classes, resulting in a “busted” PAC. A busted PAC exposes the investor to the same yield fluctuations as a SEQ investor.</p>	<p>Possibly insufficient cash flow to meet the PAC’s schedule, resulting in an extension of the average life of the class and a negative effect on the investor’s yield.</p>

## Targeted Amortization Classes (TACs)

TACs pay a “targeted” principal payment schedule at a single, constant prepayment speed. As long as the underlying securities do not prepay at a slow rate, the schedule will be met. TACs may provide protection against increasing prepayments and early retirement of the investment (“call” or “contraction” risk). In contrast, PACs offer investors both call and extension protection. In some cases, if prepayments increase, excess cash flow will be paid to support classes, and the TAC will pay principal according to the schedule given in the prospectus or prospectus supplement. If prepayments are slow, the average life of the TAC will extend, because there will be insufficient funds available to meet the principal payment schedule.

TACs are usually found in REMIC transactions that have PAC classes, and they may act as support classes. The actual behavior of a TAC class depends on the amount and structure of the support classes and whether or not PACs are present. The support classes absorb the cash flow variability redistributed from both the PAC and TAC classes, while the TAC serves to absorb some of the cash flow variability directed away from PAC classes.

TAC investors can expect higher yields than PAC investors because TACs have more cash flow uncertainty and greater extension risk. TACs may be priced to yield less than SEQs because they may have more stable cash flow.

## Accrual Classes (Z)

In an accrual class, or Z class, investors receive no cash flow from the security until certain other classes are paid off. Unlike other classes that pay interest each month, interest that would have been paid to the Z class is added to its principal balance until the applicable prior classes have been paid off. Over time, the balance grows, and the interest earned (but not paid) is calculated on this increasing balance. Once the prior classes have been paid off, the Z class becomes an interest-paying amortizing class that pays down like a sequential pay class. The Z classes are often the last regular interest class in a REMIC transaction and may have long average lives.

## Interest-Only and Principal-Only Classes (IO/PO)

Each class receives a portion of the monthly principal or interest payments from the underlying monthly-related collateral by stripping apart the principal and interest cash flow streams. The underlying mortgage-related collateral's scheduled principal amortization and prepayments go to the principal-only (PO) class. The interest cash flow goes to the interest-only (IO) class.

### IO/PO: Faster-than-expected prepay speeds

Potential negative effect on the yield of an IO class. IO classes will produce cash flow to the investor only if the underlying mortgage-related collateral has principal outstanding on which to base an interest calculation. So in some cases, the investor may receive less cash back than invested, resulting in actual loss.

### IO/PO: Slower-than-expected prepay speeds

Potential negative effect on yield of a PO class.

## Floating-Rate and Inverse Floating-Rate Classes (FLT/INV)

A floating-rate class (also called a “floater”) is structured so that the coupon rate payable to the investor adjusts periodically (usually monthly) by adding a certain amount (the “spread”) to a benchmark index (the “index”), subject to a lifetime maximum coupon (the “cap”). The one-month London Interbank Offered Rate (LIBOR)<sup>2</sup> is a popular index, but other indices can be used.

Inverse floating-rate classes (“inverse floaters”) have coupon rates that periodically adjust in the opposite direction of the index. The coupon payable often is derived by subtracting a calculated amount from a given lifetime cap:

$$\text{coupon lifetime cap} - (\text{multiplier} \times \text{index}) = \text{coupon payable}$$

2. In July 2017, the United Kingdom's Financial Conduct Authority (FCA), which regulates LIBOR, released a statement citing a speech by FCA Chief Executive Andrew Bailey: “[W]hilst significant improvements have been made to LIBOR since April 2013, the absence of active underlying markets means that the future sustainability of LIBOR cannot be guaranteed. The support of the panels for LIBOR is needed until the end of 2021, [at which point] a transition can be made to alternative rates.” As a result, it is uncertain whether LIBOR will continue to be quoted after 2021. Where applicable, Fannie Mae will select a comparable index to be used as a replacement for outstanding ARMs that it holds as trustee for MBS investors.



The yield of any floater or inverse floater is sensitive to the rate of prepayments as well as the level of the applicable index, particularly if the coupon fluctuates as a multiple of the index (so-called “super floaters”). Low levels of the index will reduce the yield of a floating-rate class, and the interest rate cap will limit the investor’s yield when the level of the index is high. Because the rate of interest paid on an inverse floating-rate class often varies inversely with a multiple of the index, any change in the index may have an exaggerated effect on the yield. High levels of the index will significantly lower the yield because its interest rate can fall to 0%.

Moreover, changes in the level of the index may not correlate with changes in prevailing mortgage interest rates. Some indices used for floating-rate and inverse floating-rate classes are more sensitive to fluctuations in short-term rates than others. For example, LIBOR is very sensitive to short-term rates. Mortgage interest rates usually respond to longer-term rate movements. It is possible that lower prevailing interest rates, which might be expected to result in faster prepayments, could occur at the same time as an increase in the level of the index. Under these high-prepayment/high-index situations, investors in inverse floating-rate classes may not recoup their initial investment, resulting in an actual loss on the investment. Any REMIC transaction that contains a floater will also contain an inverse floater tied to the same index.

## Special Types of REMICs

**Multifamily REMICs** are also known in the marketplace as Alternative Credit Enhancement Securities® (ACES®), a type of multiclass mortgage-related security in which interest and principal payments from multifamily mortgages are structured into separately traded securities. The primary source of underlying collateral is Fannie Mae Delegated Underwriting and Servicing® (DUS®) securities. Structures may include straightforward pass-through or sequential structures, with fixed-rate classes and/or floater and inverse floater classes.

**Fannie Mae Guaranteed Multifamily Structures™ (GeMS™) REMICs**, built upon Fannie Mae's successful DUS MBS program, are structured multifamily securities created from multifamily MBS collateral selected by Fannie Mae Multifamily Capital Markets. GeMS REMICs attract additional capital to multifamily finance from larger institutional investors who might not find the characteristics of smaller, single-loan DUS MBS attractive. Structures provide block size, collateral diversity, pricing close to par, and customized cash flows to meet investor demand. GeMS REMICs are distributed to the marketplace through a dealer syndicate and trade regularly in the secondary market.

**Wisconsin Avenue Securities (WAS) REMICs** are Fannie Mae's senior/subordinated REMIC securities in which both cash flows and credit losses are passed through to investors. Collateral may include either whole loan single-family or multifamily mortgages. The senior bonds pass through principal and interest to investors but do not absorb any credit losses, because they are fully guaranteed by Fannie Mae.

The subordinated bonds receive principal and interest payments as well. However, if there is a loss, they will absorb credit losses from the collateral by having their balances reduced when losses are realized. Fannie Mae does not guarantee the subordinated bonds issued as WAS. Therefore, investors in the subordinated bonds bear credit risk.

**Fannie Mae's Benchmark REMICs™** have several characteristics designed to facilitate improved liquidity and price transparency for specific REMIC classes issued through this process. These characteristics include:

- Syndicated dealer distribution for maximum breadth of distribution as well as to encourage active secondary market support in a number of time zones.
- Inclusion in each benchmark REMIC transaction of a large issue size Guaranteed Final Maturity Class (GMC) with a stated final maturity.
- Minimum new issue size of \$1 billion for each GMC to promote liquidity in these securities.
- Enhanced price transparency features represented by live price quotes on Tradeweb™ for the GMCs of each benchmark REMIC transaction.

# Basics of Grantor Trusts

A grantor trust is a pass-through vehicle that, like a REMIC, issues separately traded classes. However, grantor trusts are treated differently than REMICs for federal income tax purposes. Furthermore, unlike a REMIC, the classes cannot have time tranching; each grantor trust class must receive its proportionate share of cash flow from the underlying collateral each month until such collateral is paid off. Each holder of a grantor trust certificate is treated for tax purposes as owning an undivided interest in the underlying collateral. The collateral providing the cash flow for Fannie Mae grantor trusts are mortgage-related assets, which are specifically described in the trust’s disclosure documents.

## Grantor Trust Structure

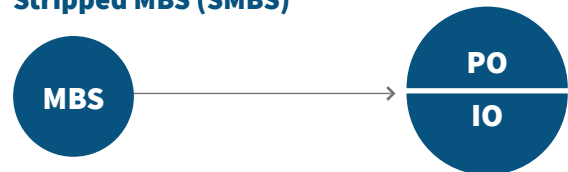
Fannie Mae has issued grantor trusts backed by various types of collateral, including single-family and multifamily MBS, REMIC securities, and whole mortgage loans. Similar to MBS and Megas, the grantor trust securitization vehicle combines the cash flows of the underlying collateral. Fannie Mae grantor trusts are typically issued under the “T” series (for example, 2005-T1).

# Basics of SMBS

Stripped Mortgage-Backed Securities (SMBS) are multiclass, pass-through, grantor trust securities created by “stripping apart” the principal and interest payments from the underlying mortgage-related collateral into two or more classes of securities. By stripping apart the principal and interest of an MBS or UMBS pass-through, the resulting securities address two distinct investment needs. In another type of SMBS transaction, excess servicing is stripped from base servicing on loans backing Fannie Mae MBS and issued solely as interest-only (IO) bonds.

The PO class receives principal cash flow. The IO class receives interest cash flow. Both PO and IO classes can be recombined. Collateral can include MBS, UMBS, SMBS, and excess servicing (interest-only deal) for loans in MBS or UMBS.

### Stripped MBS (SMBS)



SMBS appeal to investors with particular hedging needs or interest rate outlooks. They are extremely sensitive to interest rate changes because of their effect on prepayment speeds. Each investor has different investment needs and a different risk tolerance, so a potential investor in SMBS should consult financial and legal advisors to determine whether it is a suitable investment.

#### SMBS: Faster-than-expected prepay speeds

Positive effect on PO classes, negative effect on IO classes. In a very fast prepayment environment, the interest payable on a rapidly declining balance may, over time, be less than the initial outlay for the investment, resulting in an actual loss of principal.

#### SMBS: Slower-than-expected prepay speeds

Negative effect on the yield and value of PO classes, positive effect on yield and value of IO classes.

# Resources

## Getting Started with Structured Transactions

The easiest way to do business with us is to [contact us](#) via email. You can contact us to begin the approval process, receive operational instructions, and get access to our [Structured Transactions Portal](#) to book Megas and Supers online. The tool allows:



Online Megas creation at any time



Easy settlement review



Submission requests for a booking on your schedule

**[ARM MBS Subtypes](#)** — A listing of certain key features of adjustable-rate mortgages backing Fannie Mae MBS.

**[Capital Markets Website](#)** — Access current news and announcements, applications, and reference documents.

**[DUS Disclose](#)**<sup>®</sup> — Provides multifamily MBS, Megas, and REMIC information, loan information, collateral information, and at-issuance documents (including the Schedule A/Annex A, Base Prospectus, Prospectus Supplement Narrative, and Pool Statistics) for a specific pool or CUSIP.

**[DUS Disclose Glossary](#)** — Provides definitions of the data elements displayed in the DUS Disclose application.

**[MBSenger](#)** — A collection of MBS articles published by Fannie Mae that discuss Fannie Mae mortgage products and programs.

**[PoolTalk](#)**<sup>®</sup> — Provides information about Fannie Mae single-family MBS, UMBS, SMBS, Megas, REMIC, and Grantor Trust securities. PoolTalk includes current and historical factors, CUSIP numbers, original issue balances, interest rates, issue and maturity dates, weighted-average coupons, weighted-average maturities, and other data.

**[PoolTalk](#)**<sup>®</sup> **video** — Overview of Fannie Mae's updated PoolTalk platform, recent enhancements, and disclosure information.

**[Prefix Glossary](#)** — Allows users to access the pool prefixes for each individual issue of Fannie Mae MBS, UMBS, or Megas securities.

**[Single-Family MBS Disclosures Guide](#)** — Provides definitions and calculations for data elements disclosed for our Single-Family securities. This document also provides the disclosure file naming convention, publication timing, and file formats.

**[Structured Transactions Website](#)** — Access the Quick Securities Locator, product information, legal documents, and other structured transactions resources on the Fannie Mae website.

**[2019 Holiday Calendar and Disclosure Schedule](#)** — A list of holidays showing the dates when Fannie Mae at-issuance files will *not* be published.

Be aware that the multifamily MBS prefixes have corresponding Megas equivalents. For those with Bloomberg, look up our information on the Structured Transactions Fannie Mae page and browse our securities by searching MTGE Go.

## Security Identifier Series

### Fannie Mae Megas<sup>3</sup>

070000 – 070999

124000 – 124999

190000 – 190999

303000 – 303999

310000 – 310999

313000 – 313999

323000 – 323999

535000 – 535999

545000 – 545999

555000 – 555999

725000 – 725999

735000 – 735999

745000 – 745999

888000 – 890999

995000 – 955999

AD0000 – AD0999

AE0000 – AE0999

AL0000 – AL9999

BM0000 – BM9999

FN0000 – FN9999

### Fannie Mae Supers<sup>4</sup>

FM0000 – FM9999

### Ginnie Mae Megas<sup>5</sup>

100000 – 100299

458000 – 458999

## Multifamily Megas Prefix Equivalence

Multifamily MBS prefix	Equivalent multifamily Megas prefix
2M	2Y
H2	X2
HA	XA
MB	XB
HI	XI
HL	XL
AM	XM
HN	XN
HR	XR
HS	XS
HT	XT
HX	XX
HY	XY
2X	YB
MG	YG
2I	YH
MI	YI
ML	YL
MN	YN
MS	YS
MT	YT
MX	YX
MY	YY

3. As of June 3, 2019, all Fannie Mae Megas (Megas) with TBA prefixes, regardless of issue date, are Supers.

4. Issued as of June 3, 2019.

5. Previously-issued Ginnie Mae Mega pools. This program has since been discontinued.

## Contact Us

For additional information or assistance, please call the Fannie Mae Investor Marketing Helpline at 1-800-2FANNIE or [email us](#).