According to the Mortgage Banker’s Association’s (MBA) analysis of the Federal Reserve Board Flow of Funds data for Q4 2017, the multifamily portion of mortgage debt outstanding (MDO) accounted for approximately 8.7 percent of the $14.9 trillion total MDO, or $1.3 trillion. Figure 1 displays the growth of multifamily MDO since 1979.

**Figure 1: Multifamily MDO from 1979 to 2017**

*D Includes debt and commercial mortgage-backed securities.

Fannie Mae, the largest government-sponsored enterprise provider of financing for the multifamily market, supports affordable multifamily housing by providing financing for acquisition or refinance of individual properties or groups of properties. Furthermore, Fannie Mae provides this financing through a nationwide network of Delegated Underwriting and Servicing (DUS) lenders. Through the DUS lenders, Fannie Mae either finances or guarantees the financing of several types of multifamily properties including apartment buildings, manufactured housing communities, seniors housing, dedicated student housing, affordable housing, and cooperatives with five or more individual units. The loans are then securitized into MBS that carry Fannie

**APRIL 2018**

DUS MBS offer Fannie Mae’s guaranty of timely payment of principal and interest, lower spread volatility relative to many other products, liquidity enhanced by the large number of dealers engaged in market-making, stable cash flows that are easy to model, and superior call protection.
Mae’s guaranty of timely payment of principal and interest which can be sold to investors and traded in the secondary market.

Thirty years ago in 1988, Fannie Mae began purchasing multifamily loans through its DUS program and holding these loans in portfolio. In August 1994, the company began securitizing DUS loans and created DUS Mortgage-Backed Securities (DUS MBS). DUS MBS offer Fannie Mae’s guaranty of timely payment of principal and interest, lower spread volatility relative to many comparable products, liquidity enhanced by the large number of dealers engaged in market making, stable cash flows that are easy to model, and superior call protection. In 2017, Fannie Mae multifamily MBS issuance volume was approximately $65.4 billion.

This edition of MBSenger details the growth and development of Fannie Mae’s DUS program over the years. Specifically, we review the notable characteristics of Fannie Mae’s DUS program, highlighting the DUS MBS product and exploring the performance features of these securities that fixed-income investors may find beneficial. We also examine the key aspects of other types of Fannie Mae Multifamily securities.

The DUS Program

Initiated in 1988, the DUS program grants approved lenders the ability to underwrite, close, and sell loans on multifamily properties to Fannie Mae without prior Fannie Mae review. These DUS lenders must abide by rigorous credit and underwriting criteria and their firms are continuously subject to ongoing credit review and monitoring. Additionally, DUS lenders usually retain a risk position in the loans that they sell to Fannie Mae. Under the DUS program, approved lenders can originate fixed-rate, adjustable-rate, balloon, fully-amortizing, and partial-and full-term interest-only multifamily mortgage loans. These DUS loans can be financed through MBS or Bond Credit Enhancement. Table 1 identifies the types of multifamily properties used as collateral for loans that may be securitized into DUS MBS.

The most common final balloon maturities for fixed-rate multifamily loans are 5, 7, 10, 12, and 15 years, while adjustable-rate mortgage loans usually have final balloon maturities of 5, 7, or 10 years. The most common DUS MBS is a 10/9.5 fixed-rate (a 10-year balloon with 9.5 years of yield maintenance), followed by the 7/6.5 fixed-rate (a 7-year balloon with 6.5 years of yield maintenance). Since mid-2011, our ARM 7-6™, which provides variable-rate financing with an embedded cap and an option to convert to a fixed-rate mortgage loan, has become a popular product as well.

Table 1: Types of Multifamily Mortgaged Properties Eligible for DUS MBS

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Conventional Multifamily</td>
<td>A multifamily loan secured by a residential property composed of five or more dwelling units and in which generally no more than 20 percent of the net rentable area is rented to, or to be rented to non-residential tenants.</td>
</tr>
<tr>
<td>Multifamily Affordable Housing and Low-Income Housing Tax Credit</td>
<td>A multifamily loan on a mortgaged property encumbered by a regulatory agreement or recorded restriction that limits rents, imposes income restrictions on tenants or places other restrictions on the use of the property.</td>
</tr>
<tr>
<td>Seniors Housing</td>
<td>A multifamily loan secured by a mortgaged property that is intended to be used for elderly residents for whom the owner or operator provides special services that are typically associated with either “independent living” or “assisted living.” Some Alzheimer’s and skilled nursing capabilities are permitted.</td>
</tr>
<tr>
<td>Manufactured Housing Community</td>
<td>A multifamily loan secured by a residential development that consists of sites for manufactured homes and includes utilities, roads and other infrastructure. In some cases, landscaping and various other amenities such as a clubhouse, swimming pool, and tennis and/or sports courts are also included.</td>
</tr>
<tr>
<td>Cooperative Blanket</td>
<td>A multifamily loan made to a cooperative housing corporation and secured by a first or subordinate lien on a cooperative multifamily housing project that contains five or more units.</td>
</tr>
<tr>
<td>Dedicated Student Housing</td>
<td>Multifamily loans secured by multifamily properties in which college or graduate students make up at least 80% of the tenants.</td>
</tr>
</tbody>
</table>

To review specific details of each multifamily mortgaged property type, please refer to our Multifamily MBS Prospectus, which can be found under Prospectus & Related Documents on our website.

1. Our Bond Credit Enhancement product provides credit enhancement for tax-exempt bonds issued by state and local housing finance agencies and is often used to finance Low Income Housing Tax Credit (LIHTC) properties and preserve older HUD-assisted properties.
DUS Lenders
As of February 28, 2018, Fannie Mae had 25 DUS lenders, which are listed in Table 2.

Table 2: List of DUS Lenders

<table>
<thead>
<tr>
<th>Arbor Commercial Funding LLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barings Multifamily Capital LLC</td>
</tr>
<tr>
<td>Bellweather Enterprise Real Estate Capital LLC</td>
</tr>
<tr>
<td>Berkadia Commercial Mortgage</td>
</tr>
<tr>
<td>Berkeley Point Capital LLC</td>
</tr>
<tr>
<td>Capital One Multifamily Finance LLC</td>
</tr>
<tr>
<td>Citi Community Capital</td>
</tr>
<tr>
<td>Doughterty Mortgage LLC</td>
</tr>
<tr>
<td>Grandbridge Real Estate Capital LLC</td>
</tr>
<tr>
<td>Greystone Servicing Corporation Inc</td>
</tr>
<tr>
<td>HomeStreet Capital Corporation</td>
</tr>
<tr>
<td>Hunt Mortgage Group</td>
</tr>
<tr>
<td>Jones Lange LaSalle Multifamily LLC</td>
</tr>
<tr>
<td>JP Morgan Chase and Co.</td>
</tr>
<tr>
<td>KeyBank National Association</td>
</tr>
<tr>
<td>M&amp;T Realty Capital Corporation</td>
</tr>
<tr>
<td>NorthMarq Capital</td>
</tr>
<tr>
<td>PGIM Real Estate Finance</td>
</tr>
<tr>
<td>Pillar Multifamily, a division of SunTrust Bank</td>
</tr>
<tr>
<td>PNC Real Estate</td>
</tr>
<tr>
<td>Red Capital Group LLC</td>
</tr>
<tr>
<td>Regions</td>
</tr>
<tr>
<td>Walker &amp; Dunlop LLC</td>
</tr>
<tr>
<td>Wells Fargo Multifamily Capital</td>
</tr>
</tbody>
</table>

There are stringent qualifications for consideration to be a DUS lender. Each lender must maintain acceptable levels of capital and liquidity in relation to its Fannie Mae obligations. Generally, each lender must demonstrate real growth in its net worth and improvement in its liquidity as the size of its Fannie Mae servicing portfolio and its exposure relating to any other business activities increase. Lenders must also:

- Maintain an established business of originating and servicing multifamily mortgage loans;
- Hold a license or other authority to do business in each jurisdiction where required, and the license or other authority must not be suspended or revoked by any governmental body or regulatory entity;
- Employ qualified underwriting, originating, and servicing personnel as it is the Lender’s responsibility to underwrite and service the mortgage loans it sells to Fannie Mae;
- Continue adequate internal audit and management control systems to evaluate and monitor the overall quality of its multifamily loan production and servicing activities;
- Possess a financial condition acceptable to Fannie Mae; and,
- Maintain fidelity/surety bonds with errors and omissions insurance in amounts acceptable to Fannie Mae.

Furthermore, DUS lenders are subject to quarterly and/or annual reviews to ensure that they continue to meet Fannie Mae’s DUS lender eligibility requirements.

Credit Quality of DUS Mortgage Loans
Eligible multifamily properties must be income-producing multifamily rental properties or cooperatives with a minimum of five individual units. These multifamily properties must be existing, recently completed, or in need of moderate rehabilitation. A DUS mortgage loan tends to range in size from $1 million to $50 million and is generally 'non-recourse'\(^2\) to the borrower. Additionally, DUS loans generally are assumable after a review of the proposed transferee, although a one-percent transfer fee payable to Fannie Mae is commonly charged, which is not passed on to the MBS investor.

Each mortgage is underwritten to a three-tier credit structure based on debt service coverage ratio (DSCR) and loan-to-value ratio (LTV). Table 3 summarizes the LTV and DSCR values for each tier for standard conventional multifamily loans. DSCR and LTV requirements are subject to change based on market conditions. If a DSCR or LTV value rises above any tier level, investors should refer to Fannie Mae disclosure of the DSCR and LTV for each MBS to determine the

\(^2\) Non-recourse: In the event of default, the lender agrees to take the pledged property as satisfaction for the debt and to have no claim on any other assets of the borrower.
credit performance of the loans backing the security. Stricter underwriting standards apply to other asset classes such as seniors housing, student housing, and manufactured housing. Various asset classes are described in the associated Multifamily MBS Prospectus.

Table 3: Tier Level Credit Characteristics

<table>
<thead>
<tr>
<th>Rating</th>
<th>Minimum DSCR</th>
<th>Maximum LTV Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 2</td>
<td>Generally no lower than 1.25</td>
<td>Generally no higher than 80%</td>
</tr>
<tr>
<td>Tier 3</td>
<td>Usually falling within a range of 1.35 - 1.55</td>
<td>Usually falling within a range of 65% - 55%</td>
</tr>
<tr>
<td>Tier 4</td>
<td>Usually in excess of 1.55</td>
<td>Usually below 55%</td>
</tr>
</tbody>
</table>

* These figures are not an indication of the DSCR or LTV characteristics that will apply to any given MBS, regardless of Tier. The DSCR, LTV and Tier for each MBS are disclosed in the offering documents for that MBS.

In addition to tier assignments, each property underlying the multifamily MBS is subject to three assessments.

1. An appraisal of the property is performed by a licensed appraiser selected by the DUS lender. Appraisals must conform to Uniform Standards of Professional Appraisal Practice (USPAP) standards. Fannie Mae does not approve specific appraisers. The DUS lender is responsible for selecting the appraiser and is solely accountable for their performance.

2. Either an environmental assessment or an American Society for Testing and Materials (ASTM) screen is required and an ongoing operations and maintenance plan may also be required to ensure the property is operated in an environmentally sound manner.

3. A physical needs assessment must be completed by a qualified evaluator designated by the DUS lender. If tenant safety, marketability, or property conditions are compromised by unacceptable circumstances, repairs may be ordered. Generally, if the repairs are not completed by the time of closing, a reserve fund for payment of the repairs may be established. DSCR and Net Operating Income (NOI), is collected by Fannie Mae and disclosed on an annual basis. It is important to note that the underwriting guidelines in the DUS Guide are guidelines and not rigid requirements. A waiver or exception may be granted if it is deemed by Fannie Mae to be prudent given the applicable circumstances.

DUS Loss Sharing Arrangements

Fannie Mae delegates the responsibility for underwriting and servicing DUS loans to the DUS lenders. Lenders enter into loss sharing agreements with Fannie Mae that specify the method of sharing any losses on the loans that they deliver and/or service. These arrangements vary among transactions, ranging from the DUS lender bearing a specified first loss percentage for a transaction to the DUS lender having no loss sharing obligation for a transaction. The most common loss sharing of DUS loans is pari-passu, in which the lender bears one-third of the losses and Fannie Mae is responsible for the remaining two-thirds.

This loss-sharing element is an incentive for DUS lenders to monitor and manage credit exposure on an active basis. As seen in Figure 2, the Fannie Mae multifamily serious delinquency rate reflects the company’s rigorous standards with rates at 0.11 percent as of December 31st, 2017.

Figure 2: Serious Delinquency Rates
DUS MBS Securities

DUS MBS securities carry Fannie Mae’s guaranty of timely payment of principal and interest. Principal and interest payments are paid on the MBS monthly on the 25th calendar day (if the 25th calendar day is not a business day, then the next business day). Upon maturity, the entire outstanding unpaid principal balance is paid to the investor on the 25th of the month of maturity.

The Fannie Mae guaranty on DUS MBS mirrors that provided for single-family Fannie Mae MBS. Fannie Mae has never missed a scheduled payment of principal and interest on any of its mortgage-backed securities, single-family or multifamily. It is important to note that Fannie Mae DUS MBS are not guaranteed by the United States and do not constitute a debt or obligation of the United States or any of its agencies or instrumentalities other than Fannie Mae. Fannie Mae alone is responsible for making payments under its guaranty.

DUS MBS are classified by a multifamily prefix to identify the type of multifamily mortgage loans that are included in a specific pool. Table 4 lists the top three most commonly assigned multifamily pool prefixes from 2013–2017.

DUS MBS pools are not restricted to a minimum or maximum unpaid principal balance nor is there a restriction on the number of loans allowed into a single DUS MBS pool at issuance. Typically, each DUS MBS pool contains one DUS loan, but can incorporate multiple DUS loans made by the same lender to the same or affiliated borrowers.

Multifamily Megas

Fannie Mae introduced the DUS MBS Mega program in August 1996 to provide the ability to combine DUS MBS pools into a single, larger pool, which facilitates additional geographic and borrower diversity as well as ease of operational administration. In a DUS MBS Mega, fixed rate DUS MBS securities with the same prefix are pooled together. The combination of Fannie Mae MBS coupons typically will be restricted to an inclusive 100 basis point range from the highest to lowest Fannie Mae MBS coupon.

Fannie Mae GeMS Program

Fannie Mae Guaranteed Multifamily Structures (Fannie Mae GeMS) are structured multifamily securities created from multifamily MBS collateral selected by Fannie Mae’s Multifamily Capital Markets Desk. The program was launched in 2011 and includes Multifamily Megas and REMICs. The program attracts additional capital to multifamily finance from larger institutional investors who might not find the characteristics of smaller, single-loan DUS MBS attractive. GeMS provide par-priced, block size, structured securities with collateral diversity and customized cash flows to meet investor demand. In 2013, Fannie Mae issued $10.2 billion in GeMS, a record year of total issuance.

Day Count Conventions for Payment of Interest

The day count describes the method in which accrued interest and coupon payments are calculated. DUS MBS have one of two day count conventions: 1) count the actual days per month and use a 360-day calendar year, Actual/360; or 2) count 30 days for each month and use 360 days per year, 30/360. The difference between the two methods is that the amount of each monthly payment that is allocated to interest will be

Table 4: Top Three Fannie Mae MBS/DUS Pool Prefixes Assigned from 2011 – 2017

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Definition</th>
<th>At-Issuance UPB $</th>
<th>% of Total MBS/DUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HY</td>
<td>Conventional, Balloon, Actual/360 interest day basis calculation; Multifamily; maturing in greater than seven years.</td>
<td>$114.7</td>
<td>64%</td>
</tr>
<tr>
<td>HX</td>
<td>Conventional Adjustable-Rate, Actual/360 interest day basis calculation; Multifamily; maturity dates vary.</td>
<td>$37.3</td>
<td>21%</td>
</tr>
<tr>
<td>HA</td>
<td>Conventional Short-Term, Balloon, Level-Payment Mortgages; Actual/360 interest day basis calculation; Multifamily; maturing or due in seven years or less.</td>
<td>$18.2</td>
<td>10%</td>
</tr>
</tbody>
</table>
based on 30 days in a month for the 30/360 method and on the actual number of calendar days during the month for the Actual/360 method. In a 31-day month, more of the monthly payment amount will be allocated toward interest using the Actual/360 method than will be allocated toward interest using the 30/360 method. Because there are actually 365 or 366 days in a year, loans using the Actual/360 method amortize more slowly and generate more interest than loans at the same note rate using the 30/360 method. As a result, a fully amortizing loan accruing interest on the Actual/360 basis is likely to have an outstanding principal balance on the stated maturity date of the loan.

Consult the Multifamily Schedule of Loan Information, a part of the related Prospectus Supplement, to see if the related loan has an interest basis of Actual/360 or 30/360 and to ascertain the interest accrual method. For both day count convention methods, the investor is paid principal and interest on the 25th calendar day of each month. If the 25th calendar is not a business day, the payment is made on the next business day.

**Prepayment Protection**

As part of the DUS program, each DUS loan generally has voluntary prepayment protection provisions. For fixed-rate loans, the prepayment premium is usually a yield maintenance premium or a declining percentage of the unpaid principal balance. For adjustable-rate loans, the prepayment premium may be a declining percentage or a fixed percentage of the unpaid principal balance. Other methods for calculating prepayment premiums are also possible. The prospectus will specify whether the loans in an MBS pool have prepayment premiums and, if so, will specify the method for calculating the prepayment premiums. The prospectus will also state whether certificate holders share in any prepayment premiums collected on prepaid loans in the pool and, if so, will describe the method of allocation.

I. **Yield maintenance**, the most common form of prepayment protection, allows for full prepayments along with a yield maintenance prepayment premium payable by the borrower. The yield maintenance prepayment premium for each mortgage loan is payable during a period of time, the yield maintenance period. If a borrower voluntarily prepays a mortgage loan during the yield maintenance period, the yield maintenance prepayment premium is based on a standard calculation. Please refer to page 8 for calculation details and examples.

It is important to note that Fannie Mae calculates the share of the prepayment premium to be retained by the company and the share of prepayment premium to be passed on to the investor. Fannie Mae will pass the yield maintenance prepayment premium to the investor only to the extent that collected premiums remain after the company has deducted its full portion. Fannie Mae does not guarantee payment of any prepayment premiums and Fannie Mae will only pass through the MBS investor’s portion of a yield maintenance payment to the extent it is collected. If a borrower prepays a mortgage loan on or after the yield maintenance end date, Fannie Mae will not pay any portion of the prepayment premium to the investor.

The Treasury reference note used to compute the yield maintenance prepayment premium effectively increases this premium by the present value of the spread differential between a DUS MBS and U.S. Treasury securities.

If the borrower prepays during the three months after the end of the yield maintenance period, the borrower may be charged a one percent prepayment premium based on the amount of prepaid principal. Prepayment premiums paid in connection with prepayments occurring after the yield maintenance end date are not passed through to MBS investors. Fannie Mae publishes monthly yield maintenance information, which investors can use to calculate their share of yield maintenance for those MBS paying yield maintenance in the current month. The report is described in greater detail in the appendix of this document.
Illustration of the Yield Maintenance Fee Calculation for a 10-year DUS loan with 9.5 years of Yield Maintenance

Characteristics of Multifamily Loan to be Voluntarily Prepaid:
- Fannie Mae multifamily mortgage loan note rate = 4.35%.
- MBS Pass Through Rate = 3.00%.
- $1,118,222.29 of principal prepaid voluntarily on April 25, 2012.
- Yield Maintenance end date = October 25, 2018.
- Remaining term of Yield Maintenance = 6.5 years.

Constant Maturity Treasury (CMT) Rate Calculation:
The CMT rate date for this example is March 21, 2012, which is the 25th business day prior to the payoff date of April 25, 2012. The rate is calculated for the remaining term of yield maintenance by interpolating between two CMT rates. In this example, interpolating a 6.5 year period between the 5-year CMT rate and the 7-year CMT rate.

CMT rate data is sourced from the U.S. Treasury Statistical Release H.15 (Selected Interest Rates) which can be found at the following link: http://www.federalreserve.gov/releases/h15/data.htm/
If publication of the Fed Release is discontinued by the Federal Reserve Board, Fannie Mae will determine the yield rate from another source selected by Fannie Mae.

CMT Interpolation Equation and Calculation:
Where: \[\frac{aa - bb}{(xx - yy) + (zz - yy) + bb}\]
a = yield for the longer U.S. Treasury constant maturity
b = yield for the shorter U.S. Treasury constant maturity
x = term for the longer U.S. Treasury constant maturity
y = term for the shorter U.S. Treasury constant maturity
z = number of years remaining until the Yield Maintenance End Date (months divided by 12)

Example:
a = 1.71%, the yield for the 7-year U.S. Treasury constant maturity on March 21, 2012.
b = 1.15%, the yield for the 5-year U.S. Treasury constant maturity on March 21, 2012.
x = 7, the term for the longer U.S. Treasury constant maturity.
y = 5, the term for the shorter U.S. Treasury constant maturity.
z = 6.5 (or 78/12), the number of years remaining until the Yield Maintenance End Date (months divided by 12).

Yield Rate = \[\left(\frac{1.78 - 1.47}{5 - 3}\right) \times (3.9 - 3) + 1.47 = 1.661166\]

Yield Maintenance Example Using Interpolated CMT Rate:
Since the borrower voluntarily prepays during the yield maintenance period, the yield maintenance prepayment fee equals the greater of:

(a) 1% of the amount of principal being prepaid:
= 1% x $6,784,163.32 = $67,841.63
OR

(b) the product obtained by multiplying
= $6,784,163.32 by

(1) the amount of principal being repaid
= $1,118,222.29

(2) the result of
a.the interest rate on the mortgage loan minus the yield rate (interpolated CMT)
= 4.5% – 1.612% = 2.88%
b.the present value factor calculated by using the present value formula.

where \( r = \text{yield rate on the interpolated CMT} \)
where \( n = \text{number of months remaining between (A) the date of prepayment and (B) the prepayment end date} \)

= \[\frac{1-(1+1.612\%)^{-\frac{49}{12}}}{1.612\%} = 3.766249\]
Total = $6,784,163.32 x 2.88% x 3.766249
= $737,887.12

The total yield maintenance prepayment fee paid by the borrower is $737,887.12.

Investor Portion of Yield Maintenance:
Incorporating variables above, the investor’s share of the yield maintenance prepayment premium will equal the following:

(1) the amount of principal being repaid (UPB at the date of prepayment), times

(2) the difference between (A) the MBS Pass Through Rate and (B) the Yield on the applicable U.S. Treasury constant maturity (as calculated previously), times

(3) the present value factor (as calculated previously)

= $6,784,163.32 x (2.83% – 1.612%) x 3.766249
= $311,188

In this example, the investor receives $311,188 as compensation for prepayment.
Defeasance is an alternative prepayment option selected at the time of origination that allows a property to be released from the mortgage lien prior to maturity in exchange for Fannie Mae or U.S. Treasury securities.

Defeasance reduces the risk of reinvesting prepayment proceeds in an uncertain interest rate environment, since the property release does not interrupt the original expected cash flow to investors in securities backed by loans with defeasance.

II. The prepayment premium option is a variable premium schedule known as a declining premium or a fixed premium. The declining premium is based on a percentage of the current unpaid principal balance and the percentage declines with the passage of time.

III. Prepayment lock-outs prohibit the borrower from voluntarily prepaying a loan for any reason, except for payments resulting from casualty or condemnation.

The various prepayment protection methods on DUS loans provide considerable compensation to investors and reduce the incentive for a DUS loan to be repaid before the prepayment end date (curtailment). Voluntary partial prepayments generally are prohibited on DUS loans. Involuntary prepayments such as condemnation awards or insurance proceeds may occur. Investors can determine the prepayment premium or yield maintenance formula that applies to the loan underlying a particular MBS by reading the Prospectus Supplement for that MBS type.

**DUS MBS Investor Benefits**

A wide range of investors, including insurance companies, money managers, commercial banks, credit unions, and state and local governments find Fannie Mae DUS MBS an attractive investment.

DUS MBS offer Fannie Mae’s guaranty of timely payment of principal and interest, lower spread volatility relative to many other comparable fixed income products, liquidity enhanced by the large number of dealers engaged in market making, stable cash flows that are easy to model, and prepayment protection.

**Other Fannie Mae Multifamily MBS**

In addition to the types of DUS MBS already described, Fannie Mae issues the following types of Multifamily MBS.

**Multifamily DUS Structured Transactions**

Commonly executed with large REIT customers, multifamily credit facilities provide both long-term and short-term flexible financing for a single pool of cross-collateralized and cross-defaulted multifamily mortgage loans. The properties securing the mortgage loans within the pool may be substituted, added, or released based on certain criteria, and additional borrowing on existing properties may be permitted if certain conditions are met. Structured Transactions are typically $50 million and over in size, have a minimum term of five years, and may consist of both a fixed-rate portion and/or an adjustable-rate portion.

**Multifamily Green Financing**

In addition to Fannie Mae DUS MBS, Fannie Mae also issues DMBS. DMBS are short-term securities typically issued with maturities of one month, three months, six months, or nine months. Investors purchase these securities at a discount and are repaid at par upon maturity. These securities carry no prepayment risk as they are locked out for the full term. The effective interest rate is the amount of the discount, which is determined at issuance of the initial DMBS through a competitive capital markets bid process. These securities allow borrowers to obtain a loan that mimics variable-rate financing. Standard DUS loans and specialty products including senior housing, student housing, manufactured housing communities, and others can be collateral for DMBS, and both single-asset structures (backed by loans collateralized by one property) or multiple-asset structures (backed by loans collateralized by more than one property) are available. Upon maturity, multifamily borrowers may pay off the DMBS for cash, roll the DMBS over into a new DMBS, or convert to a fixed-rate MBS loan.
Appendix

Multifamily MBS Disclosures
This document describes many of the general characteristics of Fannie Mae Multifamily MBS; before investing in any Fannie Mae MBS (or DMBS), one should read and be sure to understand the disclosure documents published at issuance. These disclosure documents provide at-issuance information that allows potential investors to evaluate the risks and benefits of investing in Fannie Mae multifamily MBS. Fannie Mae also provides ongoing disclosure about the performance of the loans that underlie the MBS. Disclosure documentation and other online resources are available on the company’s website, www.fanniemae.com.

Multifamily Master Trust Agreement and Multifamily MBS Prospectus
All Fannie Mae fixed-rate and adjustable-rate multifamily MBS are issued under our 2010 Multifamily Master Trust Agreement.

The Master Trust Agreement, together with its exhibits and supplements, is the principal authority that defines the rights and responsibilities of Fannie Mae and of the MBS certificate holders in relation to each MBS trust created under that particular master document. In general, the Trust Agreement sets forth the terms related to the MBS issuance, the loans or participation interests in the MBS pool, and the payment terms for the MBS certificates.

All Multifamily MBS are offered pursuant to our Multifamily MBS Prospectus, which describes the general terms of the Multifamily MBS program, the general characteristics of the Multifamily MBS, the policies for purchasing delinquent loans out of MBS trusts, and other important aspects of our Multifamily MBS program. Additionally, the related prospectus supplement narratives and schedules and other Fannie Mae disclosure documents are accessible online.

DUS Disclose
In December 2017, we replaced Multifamily Securities Locator Service (MFSLS) with DUS Disclose. DUS Disclose is our new disclosure website where investors can obtain comprehensive information about multifamily securities including the performance of the loans backing multifamily MBS and related delinquency statistics and financial information.

DUS Disclose provides the following features:
- Increased at-issuance and ongoing disclosure to align with the industry;
- Enhanced information for Credit Facility and Bulk Delivery transactions;
- More detailed property financial statement disclosure to align with the industry;
- Additional security, loan, and property information in a downloadable format; and,
- Improved web experience, including a more user-friendly interface.

Training materials, including videos and job aids, are located on the Learning Center page in DUS Disclose.

By entering the multifamily pool number or CUSIP an investor can quickly obtain at-issuance disclosure documents for a specific security. The advanced search feature allows investors to customize a downloadable search result, which will include extensive pool information, such as factors, loan details, and weighted-average statistics are also available. You can also search terminated pools using the advanced search functionality.

The following example shows the new screen for Security Details and Loan Information backing the multifamily DUS MBS 10/9.5 pool AN6077 in DUS Disclose.
# Fixed Pool Example—AN6077

## Security Timeline

<table>
<thead>
<tr>
<th>Issue</th>
<th>Settlement</th>
<th>First Payment</th>
<th>Resecuritized</th>
<th>Next Distribution</th>
<th>Maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/01/2017</td>
<td>07/19/2017</td>
<td>09/28/2017</td>
<td>10/01/2017 E8</td>
<td>04/25/2016</td>
<td>07/01/2027</td>
</tr>
</tbody>
</table>

## Security Details

- **UPB**: $3,463,986.57
- **Factor**: $0.98036468
- **Paying PTR**: 2.900% (2.900%)
- **WA Acquiring Note Rate**: 4.450% (4.450%)

## Issuance

- **WA Loan Term**: 120 months
- **WA Amount**: 360 months
- **WA Orig. I/O Term**: 0 months
- **WA LTV**: 75.00%

## Current DSCR & Terms

- **WA NCF DSCR**: 1.37x
- **WA Remaining Term**: 111 months

## Loan Timeline

<table>
<thead>
<tr>
<th>Note Date</th>
<th>First Payment</th>
<th>Maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/22/2017</td>
<td>08/01/2017</td>
<td>07/01/2027</td>
</tr>
</tbody>
</table>

## Loan Terms

- **Fixed Rate Paying Note Rate**: 4.450% (4.450%)
- **Paying PTR**: 2.900% (2.900%)
- **Accrued Method**: Actual/360

## Term

<table>
<thead>
<tr>
<th>Original</th>
<th>Remaining</th>
<th>Amortization</th>
<th>Original I/O Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 months</td>
<td>112 months</td>
<td>360 months</td>
<td>N/A</td>
</tr>
</tbody>
</table>

## Prepayment Protection

<table>
<thead>
<tr>
<th>Prepayment Type</th>
<th>Term</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield Maintenance</td>
<td>114</td>
<td>12/31/2028</td>
</tr>
<tr>
<td>1% Fixed Prepayment</td>
<td>3</td>
<td>06/30/2027</td>
</tr>
<tr>
<td>No Prepayment (Open)</td>
<td>3</td>
<td>07/01/2027</td>
</tr>
</tbody>
</table>
Daily/Monthly New Issuance File
The New Issuance file contains security, loan, property, and Credit Facility deal-level information on newly issued Fannie Mae Multifamily Mortgage-Backed Securities (MBS), as well as security and collateral level information for newly issued Fannie Mae Mega and Real Estate Mortgage Investment Conduits (REMIC) securities. The daily file is a cumulative file of all the securities published that day. The monthly file is a cumulative file of all securities published for the month.

Daily/Monthly Corrections File
The daily New Issuance Corrections file is a file created to communicate corrections to securities made within the first 90 days of issuance. The file contains security, loan, property, and Credit Facility deal-level information on newly issued Fannie Mae Multifamily Mortgage-Backed Securities (MBS). The daily file is a cumulative file of all securities that had a correction for that day. The monthly file is a cumulative file of all securities that had a correction during the month.

Monthly Ongoing File
The monthly Ongoing file is a collection of current security, loan, and property information to users. The file will be available on or around the 23rd calendar day of each month.

Ongoing Supplemental File
The Ongoing Supplemental file contains additional security, Credit Facility Deal, Loan, and Property information that Fannie Mae would like to provide to users but are not available in any of the CREFC ongoing files.

Multifamily DUS Prepayment History Report
This report includes a view of prepayment activity by original balance and loan count presented in several different data categories. The report shows active loans and liquidated loans acquired from January 2000 to the stated calendar quarter for each given category. It also includes the type of prepayment, including voluntary and involuntary prepayment, as well as loans that have paid at maturity.

The data categories in the reports are as follows:
- Origination Vintage
- Loan Term at Origination
- Loan Size at Origination
- Original Loan-to-Value
- Geographic Region – Midwest, Northeast, Southeast, Southwest, and West
- Multifamily Asset Class – Conventional/Coop/Affordable, Seniors, Dedicated Student, and Manufactured Housing Communities

Investors, researchers, and other market participants can use this information to analyze the performance of Multifamily MBS and whole loans including prepayment behavior, credit performance, and other multifamily market trends. This provides investors insight into the credit performance of the Multifamily DUS fixed-rate loan business and may help in analyzing the risks associated with an investment in Multifamily MBS.

GeMS Collateral Performance Analysis Report
The Fannie Mae GeMS™ Collateral Performance Analysis Report facilitates analysis of the prepayment behavior of Fannie Mae GeMS by compiling certain Fannie Mae disclosures related to prepayments in a single report. The Fannie Mae GeMS report is published once a month as a text-formatted file (.txt), and provides the following data attributes for each MBS pool backing specific GeMS REMICS and GeMS Megas:
- Fannie Mae GeMS Deal
- MBS Pool Number
- CUSIP
- Current Mortgage Factor
- Yield Maintenance Factor
- Paydown Record Date
- Whether or not the pool contains a delinquent loan and if so, how many days delinquent the loan is reported to be
Monthly Yield Maintenance Factor Report
Investors can obtain monthly factor information for use in calculating the amount of yield maintenance that will be passed through to the investor for those DUS MBS that paid yield maintenance in the current month. To calculate yield maintenance, an investor should multiply the factor published in the Monthly Yield Maintenance Factor Report by the original unpaid principal balance of the MBS that they hold in order to determine their portion of the yield maintenance prepayment premium. This information is published on or around the fifth business day each month and contains the record date, payment date, CUSIP, pool prefix, pool number, and yield maintenance factor for each applicable multifamily MBS.

MBS Loan Level Delinquency 60-Plus Days Report
Investors can obtain a list of multifamily loans backing MBS that are at least 60 days delinquent in payment of monthly principal and interest, as reported by the servicer. The MBS Loan Level Delinquency report is published around the sixth business day of the month and reports data as of the prior month. This report reflects delinquency information within one month of Fannie Mae being notified by the servicer that a loan is 60-days delinquent.

For example, a current month report dated December 2011 would be posted on or around January 10, 2012 and would display delinquency data with a November 1, 2011 “as of date.” If the borrower made a monthly principal and interest payment on September 1, 2011, but failed to make monthly principal and interest payments due on October 1 and November 1, the report would list the loan as being 60 days delinquent in December 2011.

Multifamily Loan Level Detail Information
Fannie Mae provides a loan level detail report on a monthly basis, which contains data related to certain loans backing specified currently outstanding multifamily Fannie Mae MBS. For each loan backing Fannie Mae multifamily MBS, this report provides the loan number; pool number; city, state, and zip code of the properties’ address; the current unpaid principal balance and the initial interest rate. This report is generally made available during the first to fifth business day of the following month and can be found on our website.

Fannie Mae Quarterly Credit Supplement
Fannie Mae publishes a Quarterly Credit Supplement as part of our 10-Q and 10-K. This Supplement provides investors detailed information about the credit performance of multifamily securities and other aspects of Fannie Mae’s business.

Other Multifamily MBS Resources for Market Participants
Information about Fannie Mae multifamily MBS is easily obtainable from a number of other sources as well:

On the Web: www.fanniemae.com

By email at: fixedincome_marketing@fanniemae.com

By Investor Helpline: 1-800-237-8627

By fax: 202-75-4624

By mail: Fannie Mae
c/o Fixed-Income Securities Marketing,
Mailstop 2H-3S/17
3900 Wisconsin Avenue, NW
Washington, DC 20016-2892
Top Fannie Mae Multifamily Disclosure Website Links

**DUS Disclose**
Provides pool information, loan information, collateral information, and at-issuance documents (including the Schedule A, Base Prospectus, Prospectus Supplement Narrative, and Pool Statistics) for a specific pool or CUSIP.

https://mfdusdisclose.fanniemae.com/#/home

**Daily/Monthly New Issuance File**
The New Issuance file contains security, loan, property, Credit Facility deal level information on newly issued Fannie Mae Multifamily MBS, as well as security and collateral level information for newly issued Fannie Mae Mega and REMIC securities.

https://mfdusdisclose.fanniemae.com/#/resources/datacollections

**Monthly Ongoing File**
The monthly ongoing file is a collection of Commercial Real Estate Financial Council (CREFC) defined files with the purpose of communicating current security, loan, and property information to users.

https://mfdusdisclose.fanniemae.com/#/resources/datacollections

**DUS Prepayment History Report**
Provides a view of prepayment activity by original balance and loan count presented in several different data categories.

http://www.fanniemae.com/portal/funding-the-market/mbs/multifamily/dusprepayment-history.html

**Yield Maintenance Factor File**
Provides monthly factor information for use in calculating the amount of yield maintenance that will be passed through to investors in the current month.

http://www.fanniemae.com/portal/jsp/mbs/data/multifamily/yieldmaintenance.html

**MBS Loan Level Delinquency 60-Plus Days Report**
Provides a list of multifamily loans backing an MBS that are at least 60 days delinquent in payment of monthly principal and interest.

http://www.fanniemae.com/portal/jsp/mbs/data/multifamily/delinquencyreport.html

**Multifamily Master Trust Agreements and Trust Indentures**
Provides a link to the Trust Agreements and Trust Indentures for Fannie Mae MBS, both single-family and multifamily.


**Multifamily Prospectuses**
Provides a link to all Fannie Mae MBS Prospectuses, both single-family and multifamily.


**Fannie Mae GeMS Archives**
This page provides links for News Releases and Term Sheets for GeMS deals beginning from January 2011.

http://www.fanniemae.com/mbs/mbsmultifamily/gems_archive.jhtml

**GeMS Collateral Performance Analysis Report**
Provides a list of collateral for each Fannie Mae GeMS deal since January 2011. The report includes the current factor and whether or not the pool contains a delinquent loan, and if so, the number of days delinquent.


**Fannie Mae Credit Supplement**
Fannie Mae publishes the Credit Supplement quarterly as part of the 10-Q and 10-K. This provides detailed information about the credit performance of multifamily securities.

TIPS: Bloomberg and Fannie Mae MBS/DUS

1. To view security level information for a DUS pool on Bloomberg, type in the following: **FN (pool number) <MTGE> <GO>** and then type in **<DES>** for data including coupon, maturity date, current amount, and factor.

2. To view the Schedule A for a DUS pool, perform Step 1 above and then select “**Notes.**” The Schedule A (Schedule of Loan Information) includes notable at-issuance data such as:

- Property Type;
- U.S. Treasury Yield Rate;
- Prepayment Premium Term;
- Interest Day Basis;
- Annual Net Operating Income;
- Loan-to-Value Percent;
- Debt Service Coverage Ratio:
- Tier; and,
- Property Characteristics:
  i. Property City/State/Zip Code,
  ii. Total Number of Units,
  iii. Appraised Value,
  iv. Occupancy Percent and
  v. Year Built.
3. To run simple cash flow analysis, perform Step 1 above and then type in `<QY> <GO>`. This Bloomberg screen defaults to the appropriate delay and seasoning for the loan and provides simple price yield analysis to maturity. To price the security to call, Bloomberg allows you to shorten the balloon date to the end of the yield maintenance period.

The Cash Flow Table `<CFT>` is a new screen Bloomberg implemented to provide users a different approach to model cash flows over the `<QY>` screen.

**Disclaimer**

This article is not an offer to sell any security or instrument or a solicitation of an offer to buy or sell any security or instrument. The information in this article is current as of the date hereof, but is subject to change, modification or amendment from time to time without prior notice. The information in this article is intended to provide an introduction to Fannie Mae’s Multifamily MBS and related securities and its DUS program. It does not include all or even most of the information that is included in the prospectus and prospectus supplement relating to any issuance of Fannie Mae Multifamily securities. Not all Fannie Mae Multifamily securities will have the characteristics discussed in this article and some may have characteristics not mentioned in this article. Fannie Mae MultifamilyMBS and DMBS are complex instruments intended for sale only to sophisticated investors who understand and assume the risks involved with the purchase thereof. Before investing in any Fannie Mae issued security, you should read the prospectus and prospectus supplement pursuant to which such security is offered. You should also determine, in consultation with your own investment, legal, tax, regulatory and accounting advisors, the economic risks and merits, as well as the legal, tax, regulatory and accounting characteristics and consequences, of investing in any such security. In addition, you should read our most current Annual Report on Form 10-K and our reports on Form 10-Q and Form 8-K filed with the U.S. Securities and Exchange Commission (“SEC”) available on the Investors page of our Web site at www.fanniemae.com and on the SEC’s Web site at www.sec.gov.

Fannie Mae exists to expand affordable housing and bring global capital to local communities in order to serve the U.S. housing market. Fannie Mae has a federal charter and operates in America’s secondary mortgage market to enhance the liquidity of the mortgage market by providing funds to mortgage bankers and other lenders so that they may lend to home buyers. Our job is to help those who house America.