

# **Basics of Fannie Mae Single-Family MBS**

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#### **Basics of MBS Market & Pool**

In general, mortgage-backed securities are commonly called "MBS" or "Pools" but they can also be called "mortgage pass-through certificates." An investor in a mortgage-backed security -- the certificateholder -- owns an undivided interest in a pool of mortgages that serves as the underlying asset for the security. Interest payments and principal repayments from the individual mortgage loans are grouped and paid out to investors.

The mortgages that back a Fannie Mae MBS are held in a trust on behalf of Fannie Mae MBS investors and are not Fannie Mae assets. As a Fannie Mae MBS investor, the certificateholder receives a pro rata share of the scheduled principal and interest from mortgagors on the loans backing the security. Interest is paid at a specific interest rate. The certificateholder also receives any unscheduled payments of principal.

## **Fannie Mae MBS Prospectuses and Related Documents**

Fannie Mae publishes documents related to each Fannie Mae MBS. For a particular Fannie Mae MBS, the disclosure documents include:

- relevant MBS Prospectus Each MBS Prospectus contains general information about pools issued during its effective period. The information includes the nature of the guaranty, yield considerations, and the mortgage purchase programs. For example, the June 1, 2009 Single-Family MBS Prospectus (PDF) relates to Fannie Mae MBS pools issued on or after June 1, 2009, but before July 1, 2011 (i.e., the date that the next Fannie Mae Single-Family MBS Prospectus was released).
- relevant Prospectus Supplement The Prospectus Supplement contains information about a
  specific issuance, the mortgage loans or other collateral that back that issue, and information about
  the certificates. A pool's prospectus supplement is generally available two business days before the
  settlement date of the Fannie Mae MBS pool. The information in the prospectus supplement may
  be different or more complete than the information in the prospectus because it describes a specific
  issue of certificates.
- the most recent Annual Report on Form 10-K (PDF) The Annual Report on Form 10-K (PDF)
  describes the business and operations of Fannie Mae and our financial condition as of a specified
  date. It contains audited financial information and is filed with the SEC annually, and

• certain other reports filed with the SEC subsequent thereto (including, for example, the quarterly 10-Q reports and 8-K reports filed from time to time).

Fannie Mae also publishes certain trust documents related to its mortgage-backed securities, including:

MBS Trust Indentures (and/or Trust Agreements for pools issued after June 1, 2007) create the trust
holding the assets backing the mortgage-backed security. The Trust Indenture or the Trust Agreement
outlines the rights and responsibilities of Fannie Mae and of the mortgage certificateholders in relation
to a trust.

#### Other Useful MBS Information

Fannie Mae provides additional information related to Fannie Mae MBS, including:

PoolTalk®, an online tool, provides information about Fannie Mae MBS, SMBS, Megas, REMICs, and Grantor Trusts. 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.

The New Issues Pool Statistics page provides access to files containing at-issuance data on all Fannie Mae MBS pools closed on a specific day. These files are available for the previous 30 days and all information relating to these transactions is preliminary and subject to change up to 48 hours prior to the Book-Entry Delivery Date for the securities.

The Single-Family ARM MBS Subtypes files include definitions of the different adjustable-rate mortgage pool characteristics. These files summarize certain key features (otherwise known as "subtypes") of the adjustable-rate mortgages backing Single-Family Fannie Mae MBS.

The Multifamily Securities Locator Service provides a central location for obtaining multifamily MBS disclosure information. Users can locate and download information on multifamily securities, create a portfolio to track specific securities, view reports of loan activity, and choose to receive e-mail updates on changes to pools.

The Pool Prefix Glossary provides access to the pool prefixes for each individual issue of Fannie Mae MBS or Fannie Mega securities. The prefix identifies the type of loans in a pool, the original term of those loans, and other information regarding a pool's characteristics.

For additional information or assistance, please call the Fannie Mae Fixed-Income Investor Helpline at 1-800-237-8627. The Helpline is staffed from 8:30 a.m. to 5:30 p.m., ET, every business day.

#### **MBS Structure**

#### The MBS Market

Fannie Mae has played a vital role in the growth and development of today's expanding secondary mortgage market by introducing innovative products.

Money managers, thrift institutions, commercial banks, trust departments, insurance companies, pension funds, securities dealers, other major corporations, and private investors are all players in this market.

Fannie Mae MBS offer investors high-quality investments with attractive yields to fit their portfolio needs or investment strategies. This section introduces the reader to the Fannie Mae MBS and an array of investor support services we offer. This is a good starting point; however, investors should exercise care to understand fully the value of any mortgage investment. They should have the capability to evaluate the investment, to understand the tax issues involved, and to appreciate -- and be able to bear -- all the risks involved in a particular security. Investors interested in Fannie Mae MBS should always carefully read the applicable disclosure documents and discuss the potential risks versus rewards with their investment advisors.

#### How Fannie Mae MBS Are Constructed

Fannie Mae MBS are sometimes called "mortgage pass-through certificates." This is because the security passes through to investors, at a specific coupon, scheduled principal and interest that mortgagors pay each month on the outstanding balance of the loans backing the security, along with any unscheduled prepayments.

An investor in a Fannie Mae MBS owns an undivided interest in a pool of mortgages that serves as the underlying asset for the security. As a Fannie Mae MBS holder, this investor receives a pro-rata share of the cash flows from the pool of mortgages.

A nationwide network of lenders -- such as mortgage bankers, savings and loan associations, and commercial banks -- originates the loans backing Fannie Mae MBS. Lenders submit groups of similar mortgage loans to Fannie Mae for securitization.

Fannie Mae first ensures that the loans it acquires generally meet its credit quality guidelines and then it securitizes the pool of mortgages. The loans are converted -- or securitized -- into more liquid, flexible instruments. The resulting Fannie Mae MBS carries a guarantee of timely payment of principal and interest to the investor, whether or not there is sufficient cash flow from the underlying group of mortgages. Fannie Mae's obligation under this guaranty is solely Fannie Mae's and is not backed by the full faith and credit of the U.S. government.

Each pool of fixed-rate, single-family mortgages has a pass-through rate, or coupon, which is the interest rate passed on to the investor, usually on the 25th day after the end of the accrual period. The pass-through rate is lower than the interest rate on the underlying mortgages in the pool. This interest differential covers the guaranty fee paid to Fannie Mae, and the fee paid to the servicing institution for collecting payments from

homeowners and performing other servicing functions. The lender that delivers the mortgages for securitization can continue to service the loans after delivery.

When fixed-rate mortgages are pooled together, Fannie Mae generally allows the interest rates on the underlying mortgages to fall within a 200 basis-point range. Information regarding the mortgage loans in a pool is provided with each Fannie Mae MBS issuance. This information includes geographic data, loan-to-value ratio, weighted-average coupon (WAC), weighted-average maturity (WAM), as well as other data. The WAC of each security is the weighted average of the mortgage note rates and is provided to the investor to help evaluate the cash flows of the pool. Further, the WAM is available as an indicator of the remaining terms (in months) of the mortgages underlying the Fannie Mae MBS as of the issue date.

Fannie Mae MBS issued in book-entry form are paid by wire transfer, which is both convenient and safe. Certificates issued in book-entry form initially will represent at least \$1,000 of the unpaid principal amount of the mortgage loans in the pool. Fannie Mae's central paying agent, the Federal Reserve Bank of New York, wires monthly payments to depository institutions on behalf of registered security holders on the 25th of each month, or the first business day after that if the 25th of a month is not a business day. This central paying agent concept simplifies accounting procedures because investors can receive just one payment monthly for all their book-entry Fannie Mae MBS.

#### A Closer Look at the Fannie Mae MBS Structure

The quality of Fannie Mae MBS is enhanced by unique structural features that have made Fannie Mae MBS a competitive conventional mortgage security. These features -- and the liquidity of the instrument -- add up to an investment flexible enough to fit into many portfolio strategies.

## **Value of Calendar-Month Prepayment Factors**

Fannie Mae provides actual calendar-month principal paydown factors. A factor represents the percentage of a Fannie Mae MBS pool's original balance outstanding. Factors are used by Fannie Mae MBS investors to calculate cash flows and principal balances, which reflect both scheduled and unscheduled principal payments. Without these actual factors, investors must contend with a variable prepayment target using estimated factors that must be adjusted from month to month as cash flows fluctuate from the estimates. An investor in Fannie Mae MBS, working with actual factors, avoids these uncertainties. Because the yield of a Fannie Mae MBS can be highly sensitive to prepayments, investors prefer to rely on actual knowledge of prepayments, not just estimates, to value their mortgage security properly.

Many investors also hedge their mortgage-backed securities portfolios for interest rate risk. The calculation of expected prepayments is a key element in the hedging strategy. Because Fannie Mae MBS factors reflect actual prepayment experience and are free of any uncertainties resulting from estimates, they facilitate effective hedging.

## **Updated Data**

Fannie Mae updates certain information for all fixed-rate and adjustable-rate mortgage (ARM) securities periodically. Investors in Fannie Mae MBS have the advantage of being able to assess the value and performance of their securities over time. Updated data is available through Fannie Mae's PoolTalk® and other resources.

## **Geographic Diversity**

Fannie Mae MBS are issued with mortgages acquired from the company's nationwide network of mortgage lenders. When Fannie Mae MBS are backed by loans from several states, investors may have an important degree of geographic diversity that could favorably impact prepayment risk.

Fannie Mae provides geographic disclosure on all loans in a pool. Investors have access to current, accurate information, including a listing of states represented in each pool and the percentage of loans for each state.

## **Fannie Mae MBS Liquidity**

Fannie Mae MBS are recognized for their liquidity.

By bringing to market several new products over the years, Fannie Mae has helped to increase the liquidity of the mortgage-backed securities market. Fannie Mae products include Fannie Majors®, SMBS, Multifamily MBS, REMICs, ARM Flex®, Balloon MBS, and Fannie Megas®. We will continue to bring new products to the market to meet the demands of investors in the future.

# **Understanding Yield**

Yield is generally the rate of return on an investment over a given time, expressed as an annual percentage rate. Yield-to-maturity is generally the annual percentage rate of return on an investment, assuming it is held to maturity. Yield is affected by the price paid for the investment and the timing of the security's cash flow.

An understanding of yield on a typical corporate bond may aid in understanding the yield on mortgage-backed securities. The interest rate, or coupon, of mortgage-backed securities, like the interest rate of a bond, is the annual rate at which interest is paid on the security. Consequently, the effective yearly rate of interest can be raised or lowered by changing the price of the mortgage-backed securities.

The feature that most distinctly differentiates a mortgage investment from a traditional bond is the principal repayment method. Whereas a traditional bond typically repays the entire principal amount at maturity, a mortgage-backed security typically repays principal throughout the life of the investment. The timing and rate at which principal repayment occurs are major factors affecting a mortgage-backed security yield.

An earlier-than-expected return of principal generally increases the yield on securities purchased at a discount. However, when a mortgage-backed security is purchased at a premium, an earlier-than-expected return of

principal reduces yield. Consequently, an analysis of cash flow may be very important to mortgage-backed securities investors.

#### Cash Flow

The cash flow of a mortgage-backed security consists of scheduled principal payments, accrued interest payments, and unscheduled payments of all or part of the outstanding principal (prepayments).

Without prepayments and at prevailing interest rates, a level-payment, fixed-rate mortgage loan with a 30-year amortization schedule would repay one-half of the original principal amount by the 20th to 23rd year. The higher the interest rate, the slower the amortization of principal. Such a loan with a 15-year amortization schedule would, without prepayments and at prevailing interest rates, result in repayment of one-half the original principal amount by the 8th to 10th year.

The mortgage investor faces the possibility that the mortgages backing the mortgage-backed security will prepay more slowly or more quickly than anticipated. Prepayments may occur any time and for any of several reasons, including -- but not limited to -- voluntary prepayments by the mortgagor from refinancing the mortgage or proceeds from the sale of the mortgaged home.

Several models have been developed to calculate cash flow. Each uses expectations of mortgage repayments together with price to determine yield. Fannie Mae does not recommend any particular model and no guaranty can be made that the use of a particular model will be beneficial to an investor. The major difference among these methods is the assumption or methodology used to forecast how quickly principal will be returned. Market analysts and research departments at major investment firms continually monitor mortgage prepayment activity. Extensive prepayment histories are publicly available through these firms. Constant Prepayment Rate (CPR) and Bond Market Association Standard Prepayment Model (PSA curve) are the most popular models used to measure prepayments. CPR represents the annualized constant rate of principal repayment in excess of scheduled principal amortization. The PSA curve is a schedule of prepayments that assumes that prepayments will occur at a rate of 0.2 percent CPR in the first month and will increase an additional 0.2 percent CPR each month until the 30th month and will prepay at a rate of 6 percent CPR thereafter ("100 percent PSA"). PSA prepayment speeds are expressed as a multiple of this base scenario. For example, 200 percent PSA assumes annual prepayment rates will be twice as fast in each of these periods -- 0.4 percent in the first month, 0.8 percent in the second month, reaching 12 percent in month 30 and remaining at 12 percent after that. A zero percent PSA assumes no prepayments.

Yield-to-Maturity for 8 Percent, 30-Year Mortgage-Backed Security

	Price Paid	No Prepayments	100% PSA	300% PSA	500% PSA
Premium	105	7.550	7.302	6.744	6.177
Par	100	8.077	8.051	7.995	7.938
Discount	95	8.640	8.871	9.368	9.868

Whatever the methodology used, there can be no assurance that the rate of repayment applicable to any particular issue of mortgage-backed securities will conform to past experience or traditional assumptions. For example, the likelihood that mortgages will be refinanced will vary with interest rate changes, economic events, and demographic changes, so the prepayment rate will likely vary over the life of the mortgage-backed securities.

# Weighted-Average Life

The length of time before principal is returned is an important consideration in analyzing a potential mortgage-backed securities investment. Because principal is returned throughout the life of the investment, the concept of a weighted-average life (WAL) must be used to measure the length of time until principal is returned. Weighted-average life is simply the weighted-average time at which principal is fully repaid.

The WAL of mortgage-backed securities is an assumption that is useful to compare a potential mortgage-backed securities investment to alternative investments with comparable average lives. The average amount of time that each dollar is actually outstanding is influenced by, among other factors, the actual rate of principal payments on the loans backing the mortgage-backed securities. If a mortgage-backed securities pool with a principal balance of \$1,200,000 was purchased and returned principal over the course of one year in twelve \$100,000 increments, the WAL would be six months. This investment would be priced to yield an amount acceptable to the investor above the six-month U.S. Treasury security (the "spread-to-Treasury").

### **Pricing and Yield**

The price of a mortgage-backed security is determined by several factors:

- the type of mortgage backing the security,
- the level of market interest rates.
- the coupon rate on the security,
- liquidity,
- the prepayment assumptions used, and
- the overall demand for mortgage-backed securities.

Current-production mortgage-backed securities bear a coupon rate close to the prevailing interest rate for similar investments at the time of issue. Therefore, these securities are priced at or close to par (i.e., 100%, or 100 percent of the face amount of the security). For mortgage-backed securities purchased at a price of par, the yield is not significantly affected by prepayments. For these securities, a yield based upon CPR or another standard assumption of prepayments provides a reasonably good indication of the actual yield even if prepayments do not perform as expected.

The chart above shows that if an investor pays a premium (e.g., 105, or 105 percent of the face amount of the security) for a mortgage-backed security, the yield will increase if the pool pays off at a slower rate than assumed at the time the investment was priced. The yield will decrease if the pool pays off at a faster rate than assumed at the time that the security was bought. The reverse is true for a security bought at a discount (e.g.,

95, or 95 percent of the face amount of the security). For such a security, yield increases when the pool pays off faster than assumed and decreases when prepayments are slower.

Mortgage-backed securities may offer certain advantages, such as attractive yields, to investors but it is not possible to forecast with certainty the actual returns over time on most mortgage-backed securities because of the relationship between interest rates and prepayments, which are virtually impossible to predict with certainty.

In general, mortgage-backed securities expose investors to several different types of risk. Some of these risks include prepayment risk, market risk, and credit risk.

- Prepayment (or option) risk is the chance that borrowers prepay their mortgages more quickly or slowly than expected, thereby affecting the investment's average life and perhaps its yield. Most mortgages can be prepaid in whole or in part at any time without penalty and borrowers are most likely to exercise the prepayment option at a time when it is least advantageous to investors.
- Market risk is the risk that the price of the security may fluctuate over time. For mortgage-backed securities, prepayment risk and market risk are closely intertwined. The price of any bond, including mortgage-backed securities, is a function of several factors such as prevailing interest rates, the coupon rate, the length of time the security is expected to be outstanding, and the liquidity of the issue, which can fluctuate with market conditions. Interest rate movements have a greater impact on mortgage-backed securities than traditional fixed-income investments because they affect prepayment rates that, in turn, affect the average life and yield of mortgage-backed securities as well as returns from reinvesting principal.
- Credit Risk is the risk that the investor may not receive all or part of the principal invested because the
  borrower of the underlying mortgage loan defaulted on its financial obligations. Fannie Mae MBS have
  reduced credit risk because they carry a guaranty of timely payment of both principal and interest.
   Fannie Mae's obligations under this guaranty are based on the financial health of the corporation and
  are not backed by the full faith and credit of the U.S. government.

# **Credit Quality**

The quality and value of Fannie Mae MBS hinge on several major considerations:

- Fannie Mae's guaranty to the MBS trust of full and timely payment of both principal and interest,
- the financial strength behind the guaranty,
- · the investment quality of the underlying mortgages, and
- the quality of information provided to investors.

### Guaranty

The Fannie Mae MBS is backed by the company's guaranty to the MBS trust of full and timely payment of both principal and interest. The value of this guaranty is important to investors because it reduces cash-flow risk and increases the marketability of the security. Fannie Mae guarantees to the MBS trust that the trust will have sufficient funds to insure that investors will receive monthly payments of principal and interest, whether or not collected from the borrower.

### What is Behind the Fannie Mae Guaranty?

Fannie Mae guarantees that the holders of its MBS will receive timely payments of interest and principal. Fannie Mae alone (and not the United States government) is responsible for making payments on this guaranty. While Standard & Poor's and Moody's have not rated any of the mortgage-backed securities issued by Fannie Mae, securities issued by others and collateralized by Fannie Mae MBS are rated consistently as "Triple-A" quality. Investments rated "Triple-A" are generally considered the highest credit quality.

## **Investment Quality Mortgages**

A commitment to quality has allowed Fannie Mae to become one of the largest investors in American home mortgages. Fannie Mae and its lender partners have helped to set mortgage market standards for over 50 years -- since the inception of the modern residential mortgage industry. By continually reviewing and modifying its standards to reflect current economic and housing conditions, Fannie Mae has remained both a leader and a pioneer in the mortgage market, lowering the cost of homeownership in America.

Mortgages underlying Fannie Mae MBS must pass several checkpoints before they qualify. Every mortgage loan seller or servicer within Fannie Mae's nationwide network undergoes a careful approval process before they can do business with us. The loans selected for Fannie Mae MBS must adhere to Fannie Mae's strict, nationally published underwriting requirements or approved variances thereto.

# **Selecting a Mortgage-Backed Security Investment**

Fannie Mae MBS may appeal to a wide variety of investors because of their ability to fit unique needs. Fannie Mae has been extremely responsive to the needs of investors and market conditions in developing new securities, thus offering investors a variety of investment opportunities. Before making any investment, prospective investors may wish to consider:

- · cash flow requirements balanced against their liabilities,
- average investment life requirements that fit their asset/liability-matching strategy,
- expectations of the interest rate environment and economic factors that can lead to prepayments, and
- other factors affecting their portfolio hedging strategies.

### Standard Mortgage-Backed Security Products

Fannie Mae MBS are direct pass-through securities. The more common Fannie Mae MBS include:

- Fixed-Rate Mortgage (FRM) MBS
- Long-Term FRM MBS
- Intermediate-Term MBS
- Fannie One®
- Balloon MBS
- Biweekly MBS
- Adjustable-Rate (ARM) Fannie Mae MBS
- Fixed-Period or Hybrid ARM Fannie Mae MBS

### Fixed-Rate Mortgage (FRM) Mortgage-Backed Securities

Each pool of fixed-rate, single-family mortgages has a pass-through rate, or coupon, which is the interest rate passed on to the investor, usually on the 25th day (or next business day if the 25th is not a business day) after the end of the accrual period. The pass-through rate is lower than the interest rate on the underlying mortgages in the pool. This interest differential covers the guaranty fee paid to Fannie Mae and the fee paid to the servicing institution for collecting payments from homeowners and performing other servicing functions. The lender that delivers the mortgages for securitization can continue to service the loans after delivery.

When fixed-rate mortgages are pooled together, Fannie Mae generally allows the interest rates on the underlying mortgages to fall within a 200-basis-point range. The weighted-average coupon (WAC) of each security is the weighted average of the mortgage note rates and is provided to the investor to help evaluate the cash flows of the pool. Further, the weighted-average maturity (WAM) is available as an indicator of the remaining terms (in months) of the mortgages underlying the Fannie Mae MBS as of the issue date. The weighted-average loan age (WALA) and the weighted average loan term at origination (WALT) are also available to help analyze the potential cash flows of the pool.

# **Long-Term FRM Mortgage-Backed Securities**

Long-term FRM MBS are backed by single-family mortgages with original terms from 15 to 30 years, with the majority having 30-year original terms. They are identified by a "CL" or "CP" pool prefix. They are the highest volume issued and are the most liquid Fannie Mae MBS.

## Intermediate Term Fixed-Rate (FRM) Mortgage-Backed Securities

Intermediate term fixed-rate MBS are backed by single-family mortgages with original terms from 7 to 20 years. They are identified by a "CI" or a "CT" pool prefix. "CI" pools contain mortgages with original terms from 84 months to 180 months, while "CT" pools contain mortgages with original terms of 181 to 240 months.

### **Balloon Fannie Mae Mortgage-Backed Securities**

Balloon MBS are backed by pools of fixed-rate balloon mortgages that amortize on a 30-year schedule but generally carry a maximum term of 7 or 10 years. Fannie Mae guarantees the investor full payment of principal at the final maturity date. These MBS offer investors a security that can be expected to perform much like standard 30-year fixed-rate mortgage-backed securities; however, the investment generally has a stated maturity of no more than 7 or 10 years. They are identified by a "CX" or a "CY" pool prefix.

## Adjustable-Rate (ARM) Mortgage-Backed Securities

Fannie Mae ARM MBS are backed by single-family mortgages with floating interest rates that periodically reset, subject to lifetime maximum rates (also known as caps). Some loans may have periodic caps or floors. All the loans in a Fannie Mae ARM MBS pool share a common index to calculate interest rate changes. Therefore, the Fannie Mae ARM MBS coupon moves in the same direction as the rates on the loans underlying the pool.

A variety of indices are used in Fannie Mae's ARM MBS, including:

- One-Year Constant Maturity U.S. Treasury Securities,
- FHLB 11th District Cost-of-Funds Index (COFI),
- Weekly Average Five-Year Treasury Securities,
- Weekly Auction Average Discount Rate on Six-Month U.S. Treasury Bills,
- Six-month London Interbank Offered Rate (LIBOR), and
- National Median Cost-of-Funds Index.

Fannie Mae ARM MBS pools have one of several prefixes and subtypes that indicate the characteristics of the mortgage loans that underlie the pool.

# Fixed-Period or Hybrid ARM Mortgage-Backed Securities

Mortgages that underlie Fixed-Period ARM MBS amortize at a fixed rate for the first 3, 5, 7, or 10 years and adjust annually after that. The adjustments are tied to an index and have periodic and lifetime caps. Some mortgages give borrowers an option to convert to a fixed-rate mortgage after the initial fixed period. These securities may offer investors some prepayment stability during the fixed period and carry the benefits of an annually adjusting ARM Fannie Mae MBS after that. They are identified by one of several prefixes depending on the characteristics of the underlying loans.

## **Biweekly Fannie Mae Mortgage-Backed Securities**

Biweekly MBS are pools of mortgage loans that require borrowers to make principal and interest payments every two weeks, each payment being one-half the amount required to fully amortize the loan with monthly payments. An investor in a biweekly MBS receives one payment per month, which represents the pro-rata

share of the total payments received in one month as well as the interest that accrues during that month. Biweekly MBS have shorter maturities -- about 20 years -- than those with monthly payments based on a 30-year amortization schedule. The mortgage term is reduced for two reasons: (1) principal on the mortgage is reduced every 14 days; and (2) the total annual payments on a biweekly mortgage are greater than the total annual payments on a monthly payment mortgage because the borrower makes three payments in certain months. Biweekly MBS are identified by a "BL" prefix (if the underlying loans amortize over more than 15 years) or "BI" (if they amortize in 15 years or less).

#### Fannie One®

Investors with FHA/VA loans who are looking for an alternative execution may consider putting loans into Fannie One securities.

Fannie One securities are comprised of newly issued FHA/VA mortgages that are not originated on the 1 percent or 1/2 percent gross note rate, but rather on the quarter or eighth gross note rate, (e.g., 6-3/4 percent or 6-7/8 percent).

#### Other MBS Products

Fannie Mae offers investors a wide variety of mortgage-backed securities investment opportunities:

## Fannie Majors®

Fannie Majors are backed by potentially more diversified pools of loans that are generally from multiple lenders and available for groups of fixed-rate (10-, 15-, 20-, and 30-year) mortgages, 7-year balloons, and adjustable-rate mortgages. Each Majors pool is comprised of a single mortgage type typically originated within 12 months of the issue date. Fannie Majors pools usually exceed \$200 million at issuance, and some are larger than \$500 million.

Lenders from all around the country can participate in a single Fannie Majors issue, making it potentially advantageous for investors seeking this type of diversity within Fannie Majors. The large pools generated by the Fannie Majors program may provide investors with the potential for more predictable prepayment patterns.

Fannie Majors pools are identified by the same prefixes assigned to their single-lender pool counterparts.

#### **Basics of Fixed-Rate MBS**

One type of security Fannie Mae offers is the Fannie Mae Fixed-Rate MBS. These securities are backed by pools of mortgages with interest rates that are fixed for the entire term of a mortgage.

Fixed-rate Fannie Mae MBS loan pools may include:

- fixed-rate, equal payment, fully amortizing loans;
- fixed-rate loans with monthly payments of interest only for a specified initial period, followed by fully
  amortizing equal monthly payments of principal and interest for the remaining loan term;
- fixed-rate loans with a balloon payment due at maturity; and
- fixed-rate fully amortizing loans with biweekly payment options.

Each fixed-rate Fannie Mae MBS pool is composed of only one of these types of loans, but may have loans with varying fixed interest rates. The investor will receive interest at the single fixed pass-through rate, which is specified in the related prospectus supplement. Fannie Mae will make distributions to certificateholders on the 25th day of each month, or if the 25th day is not a business day, on the first business day following the 25th day of the month. We refer to this date as a distribution date. We will make the first payment for each issue of certificates on the distribution date in the month following the month in which the certificates are issued. For example, if an issue date occurs on March 1st, the first distribution date for that issuance will be April 25th or the following business day if April 25th is not a business day.

The pass-through rate is lower than the interest rates on the loans. This differential covers the guaranty fee paid to Fannie Mae and the fee paid to the servicing institution for collecting payments from homeowners and performing other servicing functions.

Fixed-rate mortgage pools typically will have an issue date unpaid principal balance of at least \$1 million, unless the related prospectus supplement says otherwise.

Fannie Mae also publishes certain trust documents related to its mortgage-backed securities, including:

MBS Trust Indentures (and/or Trust Agreements for pools issued after June 1, 2007) create the trust
holding the assets backing the mortgage-backed security. The Trust Indenture or the Trust Agreement
outlines the rights and responsibilities of Fannie Mae and of the mortgage certificateholders in relation
to a trust.

# **Basics of Adjustable-Rate MBS**

Fannie Mae's adjustable-rate (ARM) MBS are securities backed by a pool of mortgages having adjustable rates. In an ARM mortgage, the interest rate can change during the life of a loan, with the possibility of both increases and decreases to the interest rate and mortgage payment. ARMs periodically adjust the interest rate on the basis of the movement of a specified index (e.g., LIBOR, CMT).

In this section, the user has access to a wide range of Fannie Mae ARM MBS information.

In ARM Structure, we describe Fannie Mae ARM MBS features.

In Understanding ARM Indices, we detail the interest rates and indices of the ARMs in Fannie Mae MBS pools. A pool of adjustable-rate mortgages that share the same index and other similar contractual features back Fannie Mae ARM MBS. Unless the related prospectus supplement says otherwise, each Fannie Mae MBS pool of ARM loans has a combined unpaid principal balance at issuance of at least \$500,000.

Selecting an ARM Investment provides information on Fannie Mae ARM MBS pooling options, including ARM Flex®, ARM Fannie Megas®, and Fannie Mae 5/1 Hybrid ARM Majors.

#### **ARM Structure**

Fannie Mae Adjustable-Rate Mortgage (ARM) MBS features the following:

- Cash flows to the investor are generally passed through in 25 days.
- The Fannie Mae ARM MBS pass-through rate is reset in response to the interest rate changes on the mortgages in the pool.
- Guaranty of principal and interest: Fannie Mae guarantees timely payment of both principal and interest for all Fannie Mae ARM MBS.
- Variety of products: Fannie Mae offers a variety of adjustable-rate products. These products can be combined to create larger pools with unique investment characteristics.

## **Understanding ARM Indices**

Having knowledge of the characteristics of adjustable-rate mortgages (ARMs) and how they interplay with market conditions, including their indices, is important to understanding the performance of a mortgage-backed security.

#### The Index

- Treasury: A common Treasury-based ARM index is the One-Year CMT (Constant Maturity Treasury) index. The One-Year CMT is the average yield of all treasury securities having one year remaining until maturity. The index is calculated weekly or monthly using market reports by five leading government securities dealers. The weekly index is published each Monday in the Federal Reserve Statistical Release H. 15 (519) and can be found on the various wire services.
- LIBOR: LIBOR is the London Interbank Offered Rate, at which major international banks offer to place
  deposits with one another for maturities from overnight to five years. This rate has become a popular
  index worldwide and is used by U.S. institutions. Index options range from a one-month to one-year
  LIBOR. Fannie Mae offers several index options as well, but the most common securitized Fannie Mae
  ARM MBS are six-month and one-year LIBOR, as published in The Wall Street Journal.
- Cost of Funds: The most common cost of funds index (COFI), 11th District COFI, is determined by the monthly weighted-average cost of savings, borrowings, and advances for member institutions of the 11th District Federal Home Loan Bank (FHLB). This district includes Arizona, California, and Nevada.

The FHLB of San Francisco reports this index on the last business day of the month. Unlike the treasury indices, COFI indices have traditionally reacted more slowly to short-term market rate movements due in part to the varying maturities of the liabilities that make up the index.

### Margin

Two types of margins are applicable to ARM MBS pools, the mortgage margin and the MBS margin. The mortgage margin is the extra portion of interest spread above the ARM index that the borrower pays as part of the ARM loan's mortgage interest rate. The mortgage margin is generally constant over the life of the mortgage loan. The MBS margin is equal to the mortgage margin minus certain fees. For an MBS security, the MBS margin represents an extra yield amount over the ARM index that an MBS investor receives from the security.

#### **Interest Rate**

The interest rate on an underlying ARM loan typically is determined by adding a spread or gross mortgage margin to a specified index. The interest rate is the sum of the index plus the mortgage margin, the "fully indexed" rate, which is then typically rounded to the nearest eighth. However, there are other contractual ARM features, like teasers, caps, and floors that can restrict the interest rate on an ARM and cause the rate to fall short of the fully indexed interest rate on its initial adjustment.

#### **Teaser Rates**

In order to attract borrowers to ARMs and compensate them for future payment uncertainty, lenders often offer ARMs at initial note rates lower than their fixed-rate counterparts. In some cases, the loan is originated at a rate below the "fully indexed" rate (the index plus the margin). The teaser rate lowers the initial note rate of the mortgages backing the security. For example, if the relevant index at origination is 3.75 percent and the loan has a 275-basis-point margin, the fully indexed rate would be 6.5 percent (3.75% + 2.75%), but the initial rate to the borrower may be set at 4.0 percent. This discounted rate is sometimes known as a "teaser" rate.

# **Caps and Floors**

Fannie Mae ARM MBS contain caps and floors that set maximum and minimum adjustments to the interest rate allowable on each adjustment date. Mortgages that have reached their periodic or lifetime caps, at any adjustment date, are considered "capped out." The most common caps are:

- Initial adjustment rate cap: This cap restricts maximum upward and/or downward movement on the interest rate at the first reset date.
- Subsequent adjustment rate cap: This cap restricts the maximum upward and/or downward movement of the interest rate at each subsequent interest rate reset date.
- Lifetime cap: This cap defines the maximum interest rate of an ARM, over the entire life of the loan regardless of any other caps. For example, an ARM with an original 6 percent rate and a 5 percent lifetime cap (sometimes called a "ceiling") can never adjust to a rate above 11 percent over the life of the loan.

• Stated life floors: This floor restricts the interest rate from adjusting below a predetermined level, over the life of the loan.

These caps constitute a "cap structure" of an ARM, and are generally represented in the investor community, in the same order -- initial, subsequent, lifetime cap and stated life floor. For example, the table below identifies some common cap structures for Fannie Mae's most popular ARM MBS.

#### Common Fannie Mae ARM MBS

Common Fannie Mae ARM MBS					
Initial Fixed Interest Rate Period/ Adjustment Frequency	Indices Available	Cap Structure:  % @ Initial Adjustment/ % @ Subsequent Adjustment/ % over Life of Loan			
6 Month (six months/semiannual)	6-Month Wall Street Journal LIBOR	1/1/6			
1/1 (one year/annual)	1-year LIBOR, 1-year (CMT) Treasury	2/2/6			
3/1 (three years/annual)	1-year LIBOR, 1-year (CMT) Treasury	2/2/6			
5/1 (five years/annual)	1-year LIBOR, 1-year (CMT) Treasury	2/2/5, 2/2/6			
7/1 (seven years/annual), 10/1 (10 years/annual)	1-year LIBOR, 1-year (CMT) Treasury	5/2/5			

## **Periodic Payment Caps and Floors**

Some ARM loans have restrictions on how much a borrower's payment can increase at any adjustment. COFI ARMs that feature negative amortization sometimes carry caps and floors on the maximum payment adjustment allowed at each reset date. Restrictions of no more than a 7.5 percent change in the borrower's monthly mortgage payment are typical. More information is available below.

# Fixed-Period (Hybrid) ARMs

An increasingly popular type of ARM product in circulation today is the Fixed-Period (Hybrid) ARM, which features an extended fixed interest rate period ranging from three to 10 years. At the end of the initial fixed period, the ARM adjusts periodically -- typically annually. Fixed-Period ARMs with three- and five-year initial fixed periods are popular short-term investment alternatives to comparable fixed-income investments.

# **Adjustment Frequency**

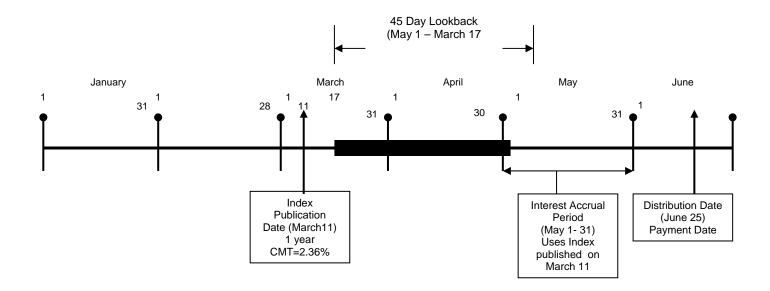
ARMs using a One-Year Treasury index typically have annual adjustment dates. For Fixed-Period ARMs, the annual adjustment frequency occurs after the initial fixed interest rate period, which can range from three to 10 years. COFI ARMs usually fix the initial interest rate for six months. Thereafter, the interest rate resets monthly or semiannually. Fixed-Period ARM mortgage-backed securities generally behave more like balloon mortgage-

backed securities, in that prepayments tend to increase as the initial fixed interest rate approaches expiration.

#### Lookback

The frequency and timing of the rate reset can be crucial in determining the rate of interest paid on an ARM mortgage-backed security. Lookback refers to the number of days prior to the rate reset date; it's required to calculate the correct interest accrual rate for the forthcoming period. Use this number to count backward from the first day of the accrual period to determine the effective index value. The index value plus the margin equals the new interest accrual rate, which typically is then rounded to the nearest eighth. Typical lookbacks are 45 days for most Treasury-indexed ARM mortgage-backed securities.

A sample timeline for identifying the new interest accrual rate with a 45-day lookback is illustrated in the example below, but the concept is the same for all ARM indices.



# Convertibility

Some ARMs have convertibility features that allow borrowers to convert them into fixed-rate loans during specific periods. The exercise of this option represents a prepayment for the security investor. This feature generally is thought to be of little significance when interest rates are stable, declining, or the economics of the transaction are equivalent to a refinancing.

# **Negative Amortization**

Negative amortization is a unique feature of some Fannie Mae COFI ARM MBS. Because the interest rate on the COFI ARM typically is adjusting monthly with the index, it is possible that the current payment amount, which typically is reset annually, will not be sufficient to amortize the loan fully. In addition, annual payment cap limits also could prevent the monthly payment from adjusting to a level sufficient to amortize the loan fully. In these cases, the difference between the interest due on the loan and the actual mortgage payment will be added to the outstanding principal balance, resulting in "negative amortization."

Future accrual is based on this higher loan balance; therefore, the interest shortfall is deferred, not lost. A maximum loan balance increase is set, typically at 110 percent or 125 percent of the original loan amount. If this limit is reached, the borrower's payment is increased, without regard to any payment limitation, to amortize the mortgage fully over the remaining term of the loan. In addition, the borrower's monthly payments are sometimes recasted or adjusted every five years to amortize the loan fully, regardless of payment caps.

### **Prepayments**

In general, prepayment on all or any portion of the principal due on a mortgage loan is at the borrower's option, and it can be influenced by characteristics of the loan and the level of alternative interest rate mortgage options.

## **Selecting an ARM Investment**

Fannie Mae offers adjustable-rate mortgage (ARM) MBS issued through three main structures:

- ARM Flex®
- ARM Fannie Megas®
- Fannie Mae 5/1 Hybrid ARM Majors

#### **ARM Flex**

ARM Flex® Fannie Mae ARM MBS offers pooling across various adjustment dates and two margin options. Securities with a fixed Fannie Mae MBS margin provide investors with a consistent spread over the index, offering a locked-in spread. Securities with a weighted average Fannie Mae MBS margin usually offer higher margins. ARM Flex has a \$500,000 minimum pool size and may be rolled into ARM Fannie Megas.

Generally, loans in an ARM Flex pool will carry margins within a 100-basis point spread. With the weighted average Fannie Mae MBS margin, each loan within the ARM Flex pool is permitted to have a different MBS margin over the index for pass-through to the investor. As loans pay off or prepay, the weighted average MBS margin for the ARM Flex will change accordingly.

With the fixed MBS margin option of the ARM Flex, the security holder receives a fixed MBS margin; however, the portion of the fees received by the servicing institution differs from loan to loan. As loans pay off or prepay, the MBS margin is unaffected.

ARM Flex accepts multiple adjustment dates, note rates, margins, and life caps. Generally, all loans must share the same index, reset frequency, periodic caps and floors, and convertibility features.

Investors also can roll ARM Flex -- in minimum subpools of \$1,000 -- into Megas of \$1 million or more to take advantage of the higher price the market pays for larger securities.

### **ARM Fannie Megas**

ARM Fannie Megas® offer investors a combination of flexibility in structure and the advantage of size. Megas are MBS pass-through securities backed by individual, identifiable MBS or other pooled Mega securities. The ARM Mega has a minimum \$1 million size, consisting of MBS pools with denominations of at least \$1,000. The loans in this pool can have multiple adjustment dates, a range of note rates, margins, and life caps; but must share the same index, fixed-rate period and payment adjustment frequency, periodic caps (rate and payment), and fixed-rate conversion option.

## Fannie Mae 5/1 Hybrid ARM Majors

The Fannie Mae 5/1 Hybrid ARM Majors offers investors a standard ARM MBS pooling option with common pool-level characteristics to promote increased uniformity and support liquidity in the secondary market for ARM securities. One feature of the pooling option is that all 5/1 ARM loans must have the same pass-through rate, which is called a stated pool structure.

The 5/1 ARM also features a 5/2/5 cap structure indexed to the one-year Wall Street Journal London Interbank Offered Rate (LIBOR), meaning that the interest rates cannot increase or decrease by more that five percentage points at the initial adjustment date, no more than two percentage points at any annual adjustment period, and no more than five percentage points over the life of the loan.

## **Valuing MBS**

The characteristics of Fannie Mae ARM MBS programs and products affect the security's performance and price. For additional details, please see Understanding ARM Indices.

#### **Contact Information**

Investors can obtain Single-Family MBS documents from our Web site at <a href="https://www.fanniemae.com">www.fanniemae.com</a> or by calling 1-800-237-8627.