

Collateralized mortgage obligations (CMOs)

Fixed-income investments secured by mortgage payments

An overview of CMOs

- The goal of CMOs is to provide reliable income passed from mortgage payments.
 - In general, CMOs are most appropriate for investors that do not need principal back on a particular day.
 - Some CMOs may offer high credit quality because they are generally secured by government-backed mortgages and other potentially top-grade loans.
 - Potential benefits include relatively high credit quality, potentially higher yield due to prepayment and extension risk, and a broad array of cash flows to meet different investment objectives.
 - Investment minimums are usually \$1,000 denomination.
 - Yields on CMOs tend to be higher than Treasuries to compensate investors because of uncertain average life spans of the securities.
 - Changes in interest rates can have an impact on the average life of CMOs. The consumer mortgage rate paid by home owners often moves in step with the overall rate environment. Low mortgage rates provide incentive to home owners to refinance their loans or buy new homes and prepayments can increase. When mortgage prepayments increase principal is given back to the bond holder sooner than expected, thus making the average life of a CMO shorter. High mortgage rate environments can give home owners incentive to pay their outstanding principal balance slowly and prepayments decrease. When mortgage prepayments decrease a bond holder's principal is outstanding longer than expected, thus making the average life of a CMO longer. It is important to remember that these relationships may not hold in every environment.
 - Risks to CMO investors include the possibility that all payments won't be made on time, loss of premium due to prepayments, market risk when interest rates rise, and prepayment and extensions when principal is returned earlier or later than expected.
 - Interest payments, but not principal payments, on CMOs are subject to income tax. Investors should consult their tax advisors when considering adding CMOs to their portfolio.
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CMOs offer investors potential monthly income and yield advantages over other comparable fixed-income securities.

The basics of the CMO market

CMOs first came into the market in 1983 as a new way for investors to get involved in the mortgage market. Shortly afterward, the Tax Reform Act of 1986 created real estate mortgage investment conduits (REMICs). Because most CMOs are now issued in REMIC form to provide tax benefits to the issuer, the terms REMIC and CMO are now used interchangeably.

Investment and Insurance Products are:

- **Not Insured by the FDIC or Any Federal Government Agency**
- **Not a Deposit or Other Obligation of, or Guaranteed by, the Bank or Any Bank Affiliate**
- **Subject to Investment Risks, Including Possible Loss of the Principal Amount Invested**

This piece will explain the basics of the CMO marketplace, potential benefits for investment portfolios, the various CMO structures available, the risks of CMOs and their tax implications.

How is a CMO created?

The story of a CMO begins when a bank, mortgage company, or savings and loan finances a real-estate purchase with a mortgage loan. The homeowner or business pays down the loan by making monthly payments that combine interest and principal. Typically, those payments contain more interest in the early years of the loan and more principal as the loan gets older. Meanwhile, in order to make more funds available for loans, lenders “pool” mortgages with similar characteristics to create mortgage-backed securities and sell them in the secondary market. Normally, these pools of loans are packaged into mortgage-backed pass-through securities.

A pass-through refers to direct ownership interest in the pool of mortgage loans. As homeowners pay the principal and interest on the mortgages, the payments pass through to the holder of the security.

CMOs were created to offer a wider variety of average lives and different types of cash flows than were available from pass-through securities. The issuer of a CMO will assemble some traditional mortgage-backed pass-through securities or actual mortgage loans and use the package as collateral.

What are CMO tranches?

CMOs are multi-class securities, and each of the classes in a CMO is called a “tranche.” Tranche is the French word for “slice,” and a tranche is just that — a slice of the security offered to investors. The CMO structure lets issuers decide beforehand how the principal and interest paid by the underlying mortgage securities go into the different tranches. This estimated payment schedule is explained in the prospectus on all new issues.

The cash flow from the underlying mortgage-backed securities in a CMO can be handled in several ways. Typically, the cash flow is directed to first pay off the interest obligations of all the tranches. Principal repayments, both scheduled payments and those from homeowners who prepay their mortgage loans, are then distributed according to a complex schedule, as spelled out in the prospectus.

Active tranches are the ones receiving principal repayments, and sometimes more than one tranche in a CMO is paying principal. Every tranche in a CMO has estimated payment dates when investors can expect their first and last principal payments. The period of time when a tranche is not yet receiving principal is known as the “lockout” or “interest only” period. The period during which investors can expect principal repayments is known as the “principal payment window.” It is important to understand that the window assumptions are just estimates and can vary significantly from actual principal repayments that are made on the underlying mortgage loans.

How are average lives of CMOs estimated?

When structuring a CMO, the issuer will estimate the rate, or speed, at which the underlying collateral will prepay. The actual prepayment rate of the collateral will determine the average life of each class. For example, if the underlying mortgages prepay faster than expected, the average life of the CMO will likely shorten. Mortgages can prepay when interest rates are falling and homeowners take advantage of lower rates to refinance their mortgages. There will always be some homeowners who sell their homes, which will cause prepayments on the CMO to increase and, as a result, shorten the life of the security. On the other hand, if the prepayments slow, the average life of the CMO will generally lengthen. Prepayments will normally slow down when interest rates are rising because homeowners are holding on to their lower mortgage rates.

CMO issuers widely use a prepayment model created by the Public Securities Association (PSA). The PSA model is based on the Constant Prepayment Rate (CPR), which annualizes the amount of outstanding principal paid in any given month. The base model is known as “100% PSA.” The model assumes that the mortgages prepay slowly at issuance and gradually rise to an annual prepayment rate of 6% after 2.5 years. Issuers express their projections as a percentage of the model’s rate.

How a CMO is made

1. A bank extends a real-estate loan.
 2. Lenders package mortgages of similar qualities and sell them as mortgage-backed pass-through securities in the secondary market.
 3. A CMO issuer assembles packages of pass-through mortgage-backed securities and uses them as collateral for the CMO.
 4. The new CMO is sold only by prospectus, which explains the complex schedule when investors can expect to receive payments.
 5. The speed at which the underlying mortgages are expected to be prepaid is based on a prepayment model widely used in the industry and estimated in the prospectus. The yield offered by the CMO is based on the coupon rate, the price paid for the security, and the amount of time the issuer thinks the principal will remain outstanding.
 6. The underlying mortgages are divided into tranches (the French word for “slice”) based on the loans’ payment schedules. Bonds are issued for each tranche with average lives that typically range from two to 20 years.
 7. Principal from the underlying mortgage-backed securities is paid into the tranches according to the schedule described in the prospectus. Changes in interest rates will affect the cash flow and prepayment rate.
 8. If an investor sells the CMO before maturity or the final principal payment, the security might be worth more or less than the original purchase price or face value.
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What are the interest rates and yields on CMOs?

The interest rate or coupon paid on a CMO is usually lower than the interest rate paid on the underlying mortgages. That’s because the issuer retains a small percentage of the interest paid as a servicing fee. The yields on CMOs still tend to be higher than yields on comparable Treasury securities because homeowners pay higher interest on mortgages than the federal government pays on its outstanding debt. In addition, CMOs pay higher interest to compensate investors for the uncertainty of when the principal is returned.

The yields offered by CMOs, like those on other types of fixed-income securities, reflect the price paid for the security, the stated interest or coupon rate, and the length of time the principal is expected to remain outstanding. The estimated yield and average life are based on the assumed prepayment rates for the underlying mortgage loans. The estimated yield is affected when prepayment rates increase or decrease. For example, if the CMO is bought at a discount to its face value, faster prepayment rates will tend to increase the yield, while slower prepayment rates will tend to decrease it. On the other hand, if the security is bought at a premium, faster prepayments will reduce the yield while slower prepayment rates will increase it. Investors should be aware that, while most fixed-income securities pay interest twice a year, CMOs generally pay interest monthly.

How do interest-rate movements affect CMOs?

Interest-rate movements affect the prices and prepayment rates of outstanding CMOs. As with all fixed-income securities, when interest rates are rising, the market price of the CMO typically falls in proportion to the time remaining to the estimated average life. Likewise, the market value of outstanding CMOs will normally rise if interest rates are falling.

Interest-rate movements affect CMOs more than most types of fixed-income securities. Changes in interest rates can affect prepayments of the underlying mortgages, which in turn change the average life and yield of the CMO.

Who invests in CMOs?

CMOs appeal to investors seeking current income potential. Pension funds, insurance companies, commercial banks, credit unions, savings banks, and other financial institutions also buy CMOs.

What are the settlement and payment dates?

New CMOs can take up to a full month after trade date to settle. A good deal of time is needed to assemble the collateral, deposit it with the trustee and complete the legal and reporting requirements. However, if investors buy a CMO in the secondary market, it will usually settle within the normal three business days.

Most CMOs have a payment delay. A payment delay is the period of time between the closure of a CMOs accrual period and the date the CMO pays principal and interest for that accrual period. Payment dates are defined in the prospectus. This delay is factored into the yield quoted at the time of purchase.

What is the minimum investment, and how are CMOs sold?

Most CMO tranches require a minimum investment of \$1,000, although this amount can vary. The CMO market is an “over the counter” market; CMO dealers nationwide trade and make a market in CMO securities. The securities are bought and sold between dealers and investors just like other fixed-income securities. While the CMO market offers a sizable and active secondary market, some CMOs are easier to buy and sell than others. Investors should be aware that if any CMO is sold before maturity or the delivery of the final principal payment, the security might be worth more or less than the original purchase price or face value.

Potential benefits

- **Credit quality.** Many CMOs are issued by agencies of the U.S. government, such as the Government National Mortgage Association (GNMA, known as Ginnie Mae). These are the only mortgage-backed securities that enjoy the full faith and credit of the United States government. (This backing applies to the face value of the CMO and not to any premium paid.) They are also issued by government-sponsored enterprises like the Federal National Mortgage Association (Fannie Mae). These do not carry the backing of the U.S. government. Other CMOs are issued by private issuers and also do not carry the backing of the government.
- **Potentially higher yields.** Because of the prepayment or extension risk of CMOs, they normally offer higher yields than other securities of comparable credit quality — like U.S. Treasury or agency bonds — to compensate the investor for this risk. Investors who are willing to accept the extension risk of a CMO could be rewarded with higher yields.
- **Flexibility.** The wide variety of CMO structures offers investors flexibility in choosing yield and average life.

Risks of CMOs

- **Credit risk.** This is the possibility that an issuer will not be able to make all income and principal payments as scheduled. Investors should remember that some, but not all, CMOs are issued by agencies of the U.S. government and, therefore, will not pose any real credit risk to the investor.
- **Principal risk.** When a CMO is bought at a premium and then pays off faster than anticipated, the investor can lose the premium.
- **Market risk.** All fixed-income securities are subject to market risk. When interest rates rise, the market value of CMOs will normally fall (except in the case of interest-only [IO] securities, whose market value will normally rise). If an investor needs to sell an investment before maturity or the final principal payment, it could be worth more or less than the original purchase price or face value.
- **Prepayment or extension risk.** This is the risk most commonly associated with mortgage-backed securities. It's possible that the principal will be returned either earlier or later than expected. Remember that when interest rates fall, homeowners are more likely to refinance and prepay existing mortgages in order to get a better rate. If these prepayments accelerate beyond what was originally anticipated, the principal will be returned earlier than expected. Investors who receive their principal back when interest rates are lower may have to reinvest that

principal at lower rates. Conversely, when interest rates are rising, prepayments may slow down, and the average life of CMOs could become longer.

Types of CMO structures

Issuers can design CMOs to meet different average life requirements and distribute income from prepayments among different tranches. Today, some CMOs have over 50 tranches, each with unique characteristics.

- **Sequential-pay CMO.** This is the most basic type of CMO structure, also known as a “plain vanilla” CMO. Its tranches pay on a fixed schedule and receive regular interest payments. Principal payments are only applied to the first tranche until it is retired, then to the second tranche, and so on until the last tranche is retired. The first tranche might have an average life of two to three years, the second tranche five to seven years, the third tranche 10 to 12 years, etc.
- **Planned Amortization Class (PAC).** The tranches in a PAC CMO are more likely to offer stability in yield, average life and lockout payments than some other CMOs. A PAC tranche uses something like a sinking fund in a fixed principal-payment schedule that directs cash-flow irregularities caused by varying prepayments away from the PAC tranche and toward a “companion” or “support” tranche. PAC payment schedules are protected by priorities, which assure investors that PAC payments are first in line to be met as principal payments are made on the underlying mortgage loans. Any principal payment in excess of the scheduled payments is diverted to non-PAC tranches that support the schedule. At any time, there are at least two active tranches — a PAC and a companion. If prepayments are slow, the PAC will receive principal first and the companion will wait. If prepayments are fast, the PAC will get only what is scheduled, and the companion class will absorb the rest. The yields may be lower on PAC tranches than on other classes because of the increased certainty of cash flow. Higher yields on other classes compensate investors for uncertain cash flows.
- **Companion tranche.** Unlike the PAC, the companions absorb the variability of prepayments to hold the PAC steady. Once the principal is paid on the active PAC tranche, any excess or shortfall is directed to the active companion tranche, so the average life of a companion tranche can fluctuate significantly. To compensate for this uncertainty, companion tranches normally offer higher yields to investors. Investors who are willing to risk having their principal returned sooner or later than expected in exchange for a higher yield often buy companion tranches.
- **Targeted Amortization Class (TAC).** TAC tranches provide more cash-flow certainty and a fixed principal-payment schedule based on a mechanism similar to the sinking fund. In a TAC, there is only one prepayment rate rather than a range of them. If the prepayments are higher or lower than the defined rate, TAC tranche holders may receive more or less principal than scheduled. The performance of these tranches actually depends on their priority in the CMO structure and whether there are also PAC tranches present. If a PAC is also present, there will be less certainty in the cash flow on the TAC. If there is not a PAC present, the TAC will provide the investor with some protection against early principal returns. TAC tranches typically yield more than PAC tranches but less than companion tranches.
- **Z-tranches (also known as accretion bonds or accrual bonds).** Z-tranches are structured to pay no interest until the lockout period ends, when they begin to pay principal and interest. The Z-tranche is credited with accrued interest, which increases the face amount of the tranche at the stated coupon rate on each payment date. During the accrual period, the outstanding principal increases at a compounded rate, and the investor does not face the risk of reinvesting at lower rates if the market yield declines. A Z-tranche can be structured as the last tranche in a series of sequential or PAC and companion tranches and many times has a longer average life, but a Z-tranche can be structured with an intermediate-term average life as well. As with traditional zero-coupon bonds, the prices of Z-tranches can fluctuate significantly — as can their average lives. Investors must pay taxes on the interest credited in a Z-tranche even though it has not yet been received. This is known as “phantom income” and is one of the reasons why Z-tranches are often suggested for tax-deferred retirement accounts.

- **Principal-only securities.** Certain securities are created to give investors principal-only payments generated by the underlying collateral. These are known as principal-only, or PO, securities. A PO can be created from a mortgage-backed pass-through security or as a tranche in a CMO. Investors buy at a deep discount from the face value and ultimately receive the face value through the scheduled payments and prepayments on the underlying collateral. The market values of these securities can fluctuate significantly with changing prepayment rates.
- **Interest-only securities.** When a PO mortgage-backed security is created, an interest-only, or IO security is also created. Like the PO securities, IO securities are sold at a deep discount to their notional principal amount — that is, the principal balance that is used to calculate the amount of interest due. These IO securities have no face or par value. As the principal on the underlying security is prepaid, the cash flow on the IO will decline. The market value of IO securities reverses the pattern of PO securities and the rest of the fixed-income world. When interest rates are rising, the market value of IO securities may also rise. Therefore, IO securities are often used to hedge existing portfolios. It is important for investors to understand that if prepayments are fast, it is possible for an investor to receive less cash back than was initially invested. Both PO and IO investments have increased risk for fluctuations in market value and average life, so these securities are not appropriate for many individual investors.

Tax implications

The interest payments on CMOs are subject to federal, state, and local income taxes. The principal payments are not subject to income tax, however, since they are not income. Investors who sell their securities before maturity will be subject to capital-gains taxes on any profit. Selling these securities could generate a tax loss. There are more complex rules for securities that are bought at a discount when issued (original-issue discount, or OID) or in the secondary market.

As required by federal income-tax laws, CMO issuers must provide information so that certain entities can properly calculate the taxable income that is attributed to CMOs. Those same entities are required to supply this information to investors. This information does not have to be furnished to investors until March 15 of each calendar year. In addition, for CMOs held in brokerage accounts, the broker-dealer is required to report the interest earned and OID accrued during any given calendar year. If interest is earned in one calendar year but is not reported until the following year, it still must be reported and may be fully taxable.

Investors should always consult their tax advisors before investing in a CMO to determine how it might affect individual income-tax obligations. Wells Fargo Advisors does not provide tax or legal advice.

Summary

CMOs can be a valuable addition to your fixed-income portfolio.

Your financial advisor can help you determine whether a CMO will fit your investment objectives and risk tolerance, when to buy and which types or structures may best suit your investment needs. For more information about CMOs and your portfolio, consult your financial advisor today.

Questions you should ask before investing in CMOs

Before investing in a CMO, you should be able to answer the following questions with the help of your financial advisor.

1. Is the CMO agency-issued, or private label? If it is a private-label CMO, what is its credit rating?
2. Is there a prospectus, prospectus supplement, or offering circular available for this CMO? If not, can I obtain it from the broker-dealer, or from the issuer?
3. Am I buying this CMO at original issue, or in the secondary market?

4. If it is trading in the secondary market, how have the prepayments compared to the assumptions?
 - a. Faster
 - b. Slower
 - c. In line with assumptions
5. If it is trading in the secondary market, how much of the underlying principal remains?
6. What is the tranche's:
 - a. Estimated average life? _____ years
 - b. Estimated final maturity? _____ (date)
 - c. Estimated yield? _____ %
7. How do the estimated average life and estimated final payment date compare to my investment time frames?
8. How does the estimated yield compare to comparable Treasury securities, adjusted for state and local income taxes?
 - a. Treasury yield _____ %
 - b. CMO after-tax yield _____ %
9. What is the estimated first principal payment date?
10. Is the tranche a:
 - a. Sequential pay,
 - b. PAC,
 - c. TAC, or
 - d. Companion tranche?
11. What prepayment assumptions are the estimated principal payments based on?
12. When can I expect my principal to be returned if the prepayment assumptions are:
 - a. Faster than expected?
 - b. On target?
 - c. Slower than expected?
13. How will the estimated yield and average life of this CMO change if interest rates move up (or down) by 100, 200, or 300 basis points (100 basis points = 1%)?
 - a. If interest rates rise:
 - I. Yield
 - II. Average life
 - b. If interest rates fall:
 - I. Yield
 - II. Average life

14. Am I paying a price that reflects
 - a. A premium over face value?
 - b. A discount from face value?
 - c. Par value?
15. What is my first expected payment date?

Glossary

Accretion bond: See “Z-tranche.”

Accrual bond: See “Z-tranche.”

Accrued interest: Interest deemed to be earned on a security but not yet paid to the investor.

Active tranche: A REMIC tranche currently making principal payments to investors.

Amortization: Liquidation of a debt through installment payments.

Average life: On a mortgage security, the average time to receipt of principal, weighted by the amount of each principal payment and based on prepayment assumptions.

Basis point: One one-hundredth (1/100, or .01) of one percent. Yield differences among bonds are stated in basis points.

Beneficial owner: One who benefits from owning a security, even if the security’s title of ownership is in the name of a broker or bank (“street name”).

Bid: The price at which a buyer is willing to buy a security.

Bond equivalent yield: A calculation for restating semiannual, quarterly, or monthly discount bonds or notes yields into an annual yield.

Book entry: A method of recording and transferring ownership of securities electronically, eliminating the need for physical certificates.

Call risk: The risk that declining interest rates may accelerate mortgage loan prepayments, causing an investor’s principal to be returned sooner than expected. As a consequence, investors may have to reinvest their principal at a lower rate of interest.

Cap: The upper limit for the interest rate on an adjustable-rate loan or security.

Clean REMIC: See “Sequential-pay REMIC.”

CMO (Collateralized Mortgage Obligation): A multiclass bond backed by a pool of mortgage pass-through securities or mortgage loans. See “REMIC.”

CMT (Constant Maturity Treasury): A series of indexes of various maturities (one, three, five, seven, or 10 years) published by the Federal Reserve Board and based on the average yield of a range of Treasury securities adjusted to a constant maturity corresponding to that of the index.

COFI (Cost of Funds Index): A bank index reflecting the weighted average interest rate paid by savings institutions on their sources of funds. There are national and regional COFI indexes.

Collateral: Securities or property pledged by a borrower to secure payment of a loan. If the borrower fails to repay the loan, the lender may take ownership of the collateral. Collateral for CMOs consists primarily of mortgage pass-through securities or mortgage loans, although it may also include letters of credit, insurance policies, or other credit enhancements.

Companion tranche: A CMO class that absorbs more collateral prepayment variability in order to stabilize the principal-payment schedule for a PAC or TAC tranche in the same offering.

Confirmation: A document used by securities dealers and banks to state in writing the terms and execution of a verbal arrangement to buy or sell a security.

Conventional mortgage loan: A mortgage loan granted by a bank or thrift institution that is based solely on real estate as security and is not insured or guaranteed by a government agency.

CPR (Constant Prepayment Rate): The percentage of outstanding mortgage-loan principal that prepays in one year, based on annualizing the single monthly mortality (SMM), which reflects the outstanding mortgage-loan principal that prepays in one month.

Current face: The current remaining principal balance on a mortgage security. Current face is computed by multiplying the original face value of the security by the current principal balance factor.

CUSIP number: A unique nine-digit identification permanently assigned by the Committee on Uniform Securities Identification Procedures to each publicly traded security at the time of issuance. If the security is in physical form, the CUSIP number is printed on its face.

Extension risk: The risk that rising interest rates may slow prepayment, causing investors to find their principal committed longer than they expected. As a consequence, they may miss the opportunity to earn a higher rate of interest on their money.

Face value: The par value of a security, as distinct from its market value.

Factor: A decimal value reflecting the proportion of the outstanding principal balance of a mortgage security, which changes over time in relation to its original principal value.

Floating-rate REMIC: A CMO that pays an adjustable rate of interest tied to a representative interest-rate index, such as the London Interbank Offered Rate (LIBOR), the Constant Maturity Treasury (CMT), or the Cost of Funds Index (COFI).

Floor: The lower limit for the interest rate on an adjustable-rate loan or security.

Hedge: A commitment or investment made with the intention of minimizing the effect of adverse movements in interest rates or securities prices and offsetting potential losses.

Inverse floater: A CMO tranche that pays an adjustable rate of interest that moves in the opposite direction from movements in a representative interest-rate index, such as the London Interbank Offered Rate (LIBOR), the Constant Maturity Treasury (CMT), or the Cost of Funds Index (COFI).

IO (interest-only) security: In the case of a CMO, an IO tranche is created deliberately to pay investors only interest and not principal. IO securities are priced at a deep discount to the “notional” amount of principal used to calculate the amount of interest due.

Issue date: The date on which a security is issued or originated.

Issuer: An entity that issues securities and is obligated to pay amounts due on them.

LIBOR (London Interbank Offered Rate): Index representing the interest rates banks charge each other for short-term Eurodollar loans ranging from overnight to five years in maturity.

Lockout: The period of time before a REMIC investor will begin receiving principal payments.

Maturity date: The date on which the principal amount of a security is due and payable.

Mortgage: A legal instrument that creates a lien upon real estate to secure the payment of a specific debt.

Mortgage pass-through security: A security representing a direct interest in a pool of mortgage loans. The pass-through issuer or servicer collects the payments on the loans in the pool and passes the principal and interest through to the security holders on a pro-rata basis. Mortgage pass-through securities are also known as mortgage-backed securities (MBS) and participation certificates (PC).

Negative convexity: When the bond's yield curve is concave. The rate of change of its duration measured as the second derivative of price with respect to yield. Mortgage Backed Securities often display negative convexity. Their prices have a limited upside due to call risk.

Offer: The price at which a seller will sell a security.

Original face: The face value or original principal amount of a security on its issue date.

PAC (planned amortization class) tranche: A CMO tranche that uses a mechanism similar to a sinking fund to determine a fixed principal payment schedule that will apply over a range of prepayment assumptions. Some of the prepayment variability that is removed from a PAC bond is transferred to a companion tranche.

Par: A price equal to the original face amount of a security, as distinct from its market value. On a debt security, the par or face value is the amount the investor is to receive from the issuer at maturity.

Payment date: The date when principal and interest are paid to the record owner of a security.

P&I (principal and interest): Refers to scheduled payments or prepayments of combined principal and interest on mortgage securities.

Plain-vanilla REMIC: See "Sequential-pay REMIC."

PO (principal-only) security: In the case of a REMIC, a PO tranche is created deliberately to pay investors principal only and not interest. PO securities are priced at a deep discount from their face value.

Pool: A collection of mortgage loans assembled by an originator or master servicer as the basis for a security. In the case of Ginnie Mae or Freddie Mac mortgage pass-through securities, pools are identified by a number assigned by the issuing agency.

Prepayment: The unscheduled partial or complete payment of the principal amount outstanding on a mortgage loan or other debt before it is due.

Price: The dollar amount to be paid for a security, which (in the case of debt securities) may also be stated as a percentage of its face value or par.

Principal: With mortgage securities, the amount of debt outstanding on the underlying mortgage loans.

Private label: The term used to describe a mortgage security whose issuer is an entity other than a U.S. government agency or U.S. government-sponsored enterprise.

PSA Standard Prepayment Model: A model based on historical mortgage prepayment rates that is used to estimate prepayment rates on mortgage securities. The PSA model is based on the constant prepayment rate (CPR), which annualizes the single monthly mortality (SMM), or the amount of outstanding principal that is prepaid in a month. Projected and historical prepayment rates are often expressed as a percentage of PSA. A prepayment rate of 100% PSA implies annualized prepayment rates of 0.2% CPR in the first month, 0.4% CPR in the second month and 0.2% increases in every month thereafter until the rate reaches 6% after 30 months. From then until the mortgage loan reaches maturity, 100% PSA equals 6% CPR.

Ratings: Designations used by investors' services as a general indicator of credit quality.

Record date: The date for determining the owner entitled to the next scheduled payment of principal and/or interest on a mortgage security.

REMIC (real estate mortgage investment conduit): As a result of a change in the 1986 Tax Reform Act, most CMOs are issued in REMIC form to create certain tax advantages for the issuer. The terms REMIC and CMO are used interchangeably.

Residual: In a REMIC, the tranche that collects any cash flow from the collateral that remains after obligations to the other tranches have been met.

Scenario analysis: Examining the likely performance of an investment under a wide range of possible interest-rate environments.

Sequential-pay CMO: The most basic type of CMO, in which all tranches receive regular interest payments, although principal payments are initially directed only to the first tranche. Once the first tranche is retired, the principal payments are applied to the second tranche until it is retired and so on.

Servicing: Collection and pooling of principal, interest, and escrow payments on mortgage pools, as well as certain operational procedures, such as accounting, bookkeeping, insurance, tax records, and loan analysis. The party providing the servicing receives a servicing fee.

Servicing fee: The amount retained by the mortgage servicer from monthly interest payments made on a mortgage loan.

Settlement date: The date agreed upon by the parties to a transaction for the delivery of securities and payment of funds.

Sinking fund: Money set aside on a regular basis, sometimes from current earnings, for the specific purpose of redeeming debt.

SMM (single monthly mortality): The percentage of outstanding mortgage loan principal that prepays in one month.

Superfloater: A floating-rate REMIC tranche whose rate is based on a formulaic relationship to a representative interest-rate index.

Support tranche: See “Companion tranche.”

TAC tranche (targeted amortization class tranche): A TAC tranche that uses a mechanism similar to a sinking fund to determine a fixed principal payment schedule based on an assumed prepayment rate. The prepayment variability that is removed from the TAC tranche is transferred to a companion tranche.

Tranche: Within a REMIC offering, a class of bonds that share the same characteristics. Tranche is the French word for slice.

Transfer agent: A party appointed to maintain records of securities owners, to cancel and issue certificates and to address issues arising from lost, destroyed, or stolen certificates.

Trustee: An individual or institution that holds assets for the benefit of another.

Weighted average coupon (WAC): The average interest rate of the underlying mortgage loans or pools that serve as collateral for a security, weighted by the size of the principal loan balances.

Weighted average loan age (WALA): The average number of months since the date of the loan origination of the mortgages in a mortgage-backed pass-through security pool, weighted by the size of the principal loan balances.

Weighted average maturity (WAM): The average number of months to the final payment of each loan backing a mortgage security, weighted by the size of the principal loan balances.**Window:** The period between the expected first payment of principal and the expected last payment of principal.

Yield: The annual percentage rate of return earned on a security as computed in accordance with standard industry practices. Yield is a function of a security’s purchase price and interest rate.

Z-tranche: Often the last tranche in a CMO deal, the Z-tranche receives no cash payments for an extended period of time until the previous tranches are retired. While the other tranches are outstanding, the Z-tranche receives credit for periodic interest payments that increase its face value but are not paid out. When the other tranches are retired, the Z-tranche begins to receive cash payments that include both principal and continuing interest.