

Adjustable Rate Mortgages

A User's Guide For Financial Advisors



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A mortgage is an instrument to manage the leverage on a capital asset. Each mortgage option should be evaluated in light of its impact on after-tax cash flow and contribution to net worth. Consideration of various mortgage options, properly undertaken, proceeds from this perspective.

With the commoditization of mortgage money, a growing array of mortgage financing options is available to financial advisors as planning tools. Each has unique features which makes it useful in particular situations. None is appropriate for all circumstances. The adjustable rate mortgage (ARM) is one such mortgage structure.

Adjustable rate mortgage disclosures often contain terminology that has meaning specific to ARMs. Here are some commonly used terms and their meaning.

Glossary

Anniversary is the sequential time increment for interest rate adjustment and reamortization. Loan disclosures spell out the frequency of the anniversaries. This source of information is vital in order to avoid hasty and erroneous conclusions. For example, on a 5/1 ARM, after the five year fixed rate period, the interest rate would be subject to anniversary adjustments every year, approximately one year from the original date of the loan. On a 5/6 ARM the interest rate would be subject to anniversary adjustments every six months. On a 3/3 ARM the rate would be subject to anniversary adjustments every three years.

Cap is a limit on the amount an interest rate can change at a given adjustment period. Caps are often expressed as a series of numbers, e.g., 5/2/5. This represents initial cap/anniversary cap/lifetime cap. Initial caps apply to the first adjustment. Anniversary adjustment caps apply to all periodic adjustments after the initial adjustment. Lifetime caps apply to cumulative adjustments over the life of the loan. Caps apply to both upward and downward movements in the periodic rate.

Deferred interest is generated on loans with optional payment structures calling for payments in amounts less than simple interest on the outstanding loan balance. This unpaid interest accrues as part of the outstanding balance on the loan, but not as part of the principal balance. Generally, loans with deferred interest options have a cap on the amount of allowable deferred interest. For example, a loan disclosure may state that deferred interest and the outstanding principal balance may not exceed 115% of the original loan amount. On a \$100,000 loan, with an outstanding principal balance of \$90,000, deferred interest could accrue to \$25,000, or 25% of the original loan amount.

Deferred interest can be paid in full or in part at any time after accrual, in most cases. It is usually reported on the borrower's Form 1098 in the year paid. It is sometimes used as a tax planning mechanism, since the borrower can adjust the amount of accrued interest to pay in a given year to offset other taxable income.

Fully indexed rate is the loan's periodic index rate plus the program margin. For example, a 1 Year Treasury index of 2.77 plus a margin of 2.75, rounded to the nearest eighth would produce a rate of 5.5%.

Index is the underlying rate used in determining the periodic interest rate. Common indexes include the 1 Year Treasury adjusted to a constant maturity, the 1 Year monthly Treasury average, a rolling average of the 1 Year Treasury yield over the previous 12 months, 1,6 and 12 month LIBOR indexes, prime rate, the 11th District Cost of Funds (COFI) index and the Certificate of Deposit index (CODI).

Margin is the spread added to the index to determine the periodic, fully indexed rate. The fully indexed rate, subject to loan program caps, is used to calculate the periodic payment.

Negative amortization, often erroneously substituted for deferred interest, is the mathematical calculation of the interest cost and periodic loan balance generated by adding the amount of interest by which the periodic simple interest exceeds the program payment for each payment period to the prior period's outstanding loan balance.

Periodic rate is the rate charged during each interval between adjustments. This rate is derived by adding the loan program margin to the applicable index in a window of time (typically 45-60 days prior to the loan anniversary) to produce the fully indexed rate. If the spread between the current rate and the new fully indexed rate is less than the periodic cap, the new fully indexed rate becomes the new periodic rate. If the spread is greater than the periodic cap, the current rate plus or minus the periodic cap, depending on the direction of the spread, becomes the new periodic rate. The new periodic rate is always constrained by the current periodic rate.

Reamortization (or Recasting) is the recalculation of the required payment generated by a change in interest rate generated on an anniversary. The new rate is applied to the outstanding principal balance and the remaining term on the loan to generate the new payment. On ARMs the payment is affected by adjustments in the outstanding balance due resulting from scheduled payments of principal, prepayments of principal, or accrued deferred interest; the loan term remains constant. For fixed rate loans, on the other hand, the initial program payment remains constant; adjustments in the remaining term result from prepayment of principal.

Indexes

ARMs are structured using a variety of underlying indexes. Each index has unique characteristics that impact the movement of loan rates, and therefore the time-adjusted costs, over time. Here are some of the more common indexes.

1-Year Constant Maturity Treasury index (1 Yr CMT):

This is the most widely used index. Roughly half of all ARMs are based on this index. It's used on ARMs with annual rate adjustments

The CMT index moves with the market. It reflects the state of the economy, and responds quickly to economic changes. This index reacts more quickly than the COFI index or the MTA index.

LIBOR Indexes:

London Inter Bank Offering Rate (LIBOR) is an average of the interest rate on dollar-denominated deposits, also known as Eurodollars, traded between banks in London.

1 month / 6 month / 1 Year LIBOR Indexes are used with ARMs with monthly, semi-annual or annual rate adjustments. The 1 Year LIBOR Index tracks the 1 Year Treasury Index closely over time, and displays approximately the same range of volatility. The shorter term indexes are used with loans with shorter anniversary (adjustment) time frames.

COFI: 11th District Cost of Funds Index

This index reflects the weighted-average interest rate paid by 11th Federal Home Loan Bank District savings institutions for savings and checking accounts, advances from the FHLB, and other sources of funds. The 11th District represents the savings institutions (savings & loan associations and savings banks) headquartered in Arizona, California and Nevada.

Since the largest part of the Cost Of Funds index is interest paid on savings accounts, this index lags market interest rates in both uptrend and downtrend movements. As a result, ARMs tied to this index rise (and fall) more slowly than rates in general, which is good for you if rates are rising but not good for you if rates are falling.

The 11th District Cost Of Funds Index is the slowest moving and most stable of all ARM indexes, and smoothes out a lot of the volatility of the market. Because this index generally reacts slowly in fluctuating markets, adjustments in your ARM interest rate will lag behind another market indicators.

CODI: Certificate of Deposit Index

The Certificate of Deposit Index (CODI) is the 12 month average of the monthly average yields on the nationally published 3-Month Certificate of Deposit rates.

Because this index is an annual average, it is more steady than CMT indexes which are very volatile and generally considered to react quickly to change in the market. The CODI and MTA indexes generally fluctuate slightly more than the 11th District COFI, although their movements track each other very closely. The MTA, COFI and CODI-indexed ARMs work much the same way.

Prime Rate Index:

The Prime rate is often used to structure home equity line of credit (HELOC) loans. As this rate is adjusted by the major money center banks the rate on HELOCs adjusts accordingly. Changes in this index occur the least frequently of all the indexes.

MTA: Monthly Treasury Average Index:

The Monthly Treasury Average, also known as 12-Month Moving Average Treasury index (MAT), is the 12 month average of the monthly average yields of U.S. Treasury securities adjusted to a constant maturity of one year. It is calculated by averaging the previous 12 monthly values of the 1-Year CMT. Because this index is an annual average, it is more steady than the 1-Year CMT index. The MTA and CODI indexes generally fluctuate slightly more than the 11th District COFI, although all three tend to follow the same pattern over time.

ARMs can be classified in several categories. Here are some of the more popular ones:

Annual Hybrid ARMs: These loans begin with a fixed interest term followed by scheduled periodic adjustments for the remainder of the loan term. Some examples are:

- 3/1 Initial 36 months @ fixed rate, adjusts annually after fixed period
- 5/1 Initial 60 months @ fixed rate, adjusts annually after fixed period
- 7/1 Initial 84 months @ fixed rate, adjusts annually after fixed period
- 10/1 Initial 120 months @ fixed rate, adjusts annually after fixed period

As a general rule, the longer the fixed period the higher the initial rate. This rate affects the loan costs during the fixed period, and the life-of-the-loan maximum interest rate.

Shorter Term Hybrid ARMs: These loans begin with a fixed interest term followed by scheduled periodic adjustments that occur more frequently than annually. Some examples are:

- 1 mo./ 6 mo. One or six months @ fixed rate, adjusts every 1 or 6 months following fixed period.
- 3/6 Initial 36 months @ fixed rate, adjusts every six months after fixed period.
- 5/6 Initial 60 months @ fixed rate, adjusts every six months after fixed period.
- PayOption Initial 1 or 3 months @ fixed rate, adjusts monthly after fixed period.

Borrower has choice of 5 payment options:

1. Minimum payment
2. Interest-Only payment
3. 30-year Amortizing payment
4. 15-year Amortizing payment
5. Random principal payment

Longer Term Hybrid ARMs: These loans combine an initial fixed interest period with periodic anniversaries occurring less frequently than annually: One example is:

3/3 ARM with the initial 36 months @ fixed rate, adjusts every 36 months thereafter.

Special Features

Some ARMs include features that alter the standard amortizing payment during the initial period. Two such features that are increasingly available are:

- **Interest-Only Payment:** This entitles the borrower to make a monthly payment that covers only the interest on the loan, for the duration of the fixed period. The entire loan balance is then amortized over the remaining term. The borrower may make principal payments in any amount and at any time during the interest only period. Payment of principal results in less interest being collected during the fixed rate period.
- **Deferred Interest Option:** Required payment includes no principal reduction, and includes only a portion of the periodic interest. The unpaid portion of the interest is then deferred. It can usually be paid in whole or in part at any point in the future.

Objections to Using ARMs

The major objection to utilizing ARM financing is fear of runaway rate increases and payment increases. When assessing volatility the appropriate approach is to look at movement in the index

from anniversary to anniversary. Interim fluctuations are relevant only as indicators of a trend. For a loan that adjusts annually, the adjustments should be calculated from January to January, February to February, etc.

The 1 year treasury index—a popular index—is used here to illustrate. Over the 25 year period from January 1980 through December 2004 there were 288 adjustment periods (12 months x 24 years of adjustments, assuming the first 12 months established a baseline). Over that time period the index rose on 114 anniversaries, or 39.6% of the time. It decreased on 174 anniversaries, or 60.4% of the time. The average increase was 1.39% as an annual increase. The average decrease was 1.61%. The durable average movement, both up and down, over the entire 25 year history was .47% annually.

A second objection is the possibility of significant rate volatility. The possibility of both short term and long term volatility can dissuade clients from considering adjustable rate mortgages as part of their planning strategy.

Virtually all ARMs have adjustment caps that limit the amount of interest rate adjustment that a borrower must absorb. The most common configuration is a 2% per annum limit on rate changes, either up or down, and a 5-6 % cumulative adjustment cap over the entire life of the loan.

On the 1 year treasury index, discussed above, the annual cap was only needed 23 times, or 8% of the time, to protect the borrower from excessive increases. Interestingly, the cap provided protection to the lender 53 times, or 18.4% of the time. Volatility is an important consideration. But given the built-in protections, it is not the formidable risk it is often portrayed as being.

ARMs offer real risks and real benefits. A realistic assessment of their historical behavior is the first step in considering whether they are appropriate for a particular client.

ARMs As Planning Tools

General Guidelines:

- Mortgages, whether fixed or adjustable, are best understood as current, interim structures. The overwhelming majority of all mortgages are paid off within 12 years.
- When rates are projected to increase over the long term, market conditions may favor fixed rate mortgages, unless the anticipated holding period for the mortgage roughly coincides with the fixed period of the adjustable mortgage. Under those circumstances an ARM may produce better results.
- When rates have reached a high plateau and are anticipated to fall over the long term, market conditions may favor adjustable mortgages, particularly those with short fixed rate periods. As rates fall periodic adjustments to the ARM rate provide the benefits of refinancing without the cost.
- An important consideration is how frequently given clients either sell their home and purchase a new one, or refinance the existing mortgage. This may influence the kind of ARM options considered.

Planning Applications:

- **Cash Flow Management:** Where cash flow considerations are a major issue in planning decisions an ARM may provide needed flexibility. For example, a \$350,000 fixed rate loan generates a payment of \$2,042.51. A 5/1 ARM would generate a payment of \$1,878.88. If an Interest Only option were elected, the payment would drop to \$1,531.25. Further cash flow savings could be achieved by opting for a 3/1 Interest Only structure. This would produce a payment of \$1,276.04. At a three-year cash flow saving of approximately \$27,600, exposure to the potential for an interest rate increase may be an acceptable contingent risk.

- **Tax Planning:** By opting for and managing deferred interest, both cash flow and tax planning can be enhanced. By tactically pairing deferred interest payments with taxable income exposed to a higher marginal tax bracket, efficiencies may be achieved.
- **Asset Accumulation Planning:** Clients may have investment opportunities that offer the potential for greater returns than the after-tax cost of mortgage financing. By utilizing an ARM instead of a fixed rate loan, greater investment gain can be achieved because more money becomes available for periodic investment. This strategy carries additional interest rate risk in the out years; this risk should be accounted for by the excess gain on the investments over the anticipated time horizon.
- **Principal Reduction/Equity Maximization Planning:** Often clients have retirement of their mortgage debt as an important goal. Those seeking to do so aggressively may find that an intermediate term ARM gives their efforts an extra boost. In this scenario a higher interest rate in the out years may still produce a lower payment than would be available with a fixed rate structure due to the excess accelerated principal reduction.

Integrating Mortgage Analysis into the Planning Process

When assessing client needs, consider the following protocols:

1. From a planning perspective, mortgage structuring is primarily an exercise in the management of leverage on a capital asset and its impact on after-tax cash flow. Develop a mortgage financing strategy that extends for the length of your client's anticipated property holding period. Include contingency plans similar to those you develop for risk management and asset management.
2. Determine your client's historical pattern of property ownership and mortgage holding period.
3. Note the current status of secular trends in interest rates for both long term and intermediate term debt instruments.
4. Evaluate various mortgage options based on realistic projections of how they will behave as a reflection of anticipated secular trends in debt instrument rates.
5. Utilize present value calculations when analyzing various mortgages with a variety of structures, in order to develop a meaningful comparison of costs and benefits.
6. Evaluate your client's cash flow patterns in light of life goals and alternative asset accumulation opportunities.
7. Nominal interest rates are an important consideration, but only in light of their impact on the ability to achieve overall goals. Calculate the impact of various mortgage structures on the client's cash flow, and the impact this may have on asset accumulation and the achievement of other goals.
8. Recommend the mortgage structure(s) that correlates best with the achievement of client goals over the anticipated holding period for the mortgage structure(s) under consideration.

Primus Mortgage Advisors has extensive expertise in analyzing and developing loan programs to enhance financial plan design and implementation. For questions, or to arrange a consultation on your client's needs, call us: 877-659-0013