



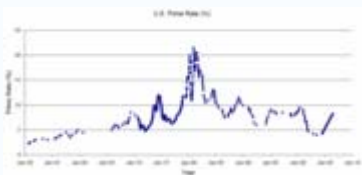
## PURCHASE MORTGAGE

### **Mortgage loan types**

There are many types of mortgages used worldwide, but several factors broadly define the characteristics of the mortgage. All of these may be subject to local regulation and legal requirements.

- **Interest:** interest may be fixed for the life of the loan or variable, and change at certain pre-defined periods; the interest rate can also, of course, be higher or lower.
- **Term:** mortgage loans generally have a maximum term, that is, the number of years after which an amortizing loan will be repaid. Some mortgage loans may have no amortization, or require full repayment of any remaining balance at a certain date, or even negative amortization.
- **Payment amount and frequency:** the amount paid per period and the frequency of payments; in some cases, the amount paid per period may change or the borrower may have the option to increase or decrease the amount paid.
- **Prepayment:** some types of mortgages may limit or restrict prepayment of all or a portion of the loan, or require payment of a penalty to the lender for prepayment.

The two basic types of amortized loans are the fixed rate mortgage (FRM) and adjustable rate mortgage (ARM) (also known as a floating rate or variable rate mortgage). In many countries, floating rate mortgages are the norm and will simply be referred to as mortgages; in the United States, fixed rate mortgages are typically considered "standard." Combinations of fixed and floating rate are also common, whereby a mortgage loan will have a fixed rate for some period, and vary after the end of that period.



### Historical U.S. Prime Rates

In a fixed rate mortgage, the interest rate, and hence periodic payment, remains fixed for the life (or term) of the loan. In the U.S., the term is usually up to 30 years (15 and 30 being the most common), although longer terms may be offered in certain circumstances. For a fixed rate mortgage, payments for principal and interest should not change over the life of the loan, although ancillary costs (such as property taxes and insurance) can and do change.

In an adjustable rate mortgage, the interest rate is generally fixed for a period of time, after which it will periodically (for example, annually or monthly) adjust up or down to some market index. Common indices in the U.S. include the Prime Rate, the London Interbank Offered Rate (LIBOR), and the Treasury Index ("T-Bill"); other indices are in use but are less popular.

Adjustable rates transfer part of the interest rate risk from the lender to the borrower, and thus are widely used where fixed rate funding is difficult to obtain or prohibitively expensive. Since the risk is transferred to the borrower, the initial interest rate may be from 0.5% to 2% lower than the average 30-year fixed rate; the size of the price differential will be related to debt market conditions, including the yield curve.

Additionally, lenders in many markets rely on credit reports and credit scores derived from them. The higher the score, the more creditworthy the borrower is assumed to be. Favorable interest rates are offered to buyers with high scores. Lower scores indicate higher risk for the lender, and higher rates will generally be charged to reflect the (expected) higher default rates.

A partial amortization or balloon loan is one where the amount of monthly payments due are calculated (amortized) over a certain term, but the outstanding principal balance is due at some point short of that term. This payment is sometimes referred to as a "balloon payment" or bullet payment. The interest rate for a balloon loan can be either fixed or floating. The most common way of describing a *balloon loan* uses the terminology X due in Y, where X is the number of years over which the loan is amortized, and Y is the year in which the principal balance is due.

## **Loan to value and downpayments**

Upon making a mortgage loan for purchase of a property, lenders usually require that the borrower make a downpayment, that is, contribute a portion of the cost of the property. This downpayment may be expressed as a portion of the value of the property (see below for a definition of this term). The loan to value ratio (or LTV) is the size of the loan against the value of the property. Therefore, a mortgage loan where the purchaser has made a downpayment of 20% has a loan to value ratio of 80%. For loans made against properties that the borrower already owns, the loan to value ratio will be imputed against the estimated value of the property.

The loan to value ratio is considered an important indicator of the riskiness of a mortgage loan: the higher the LTV, the higher the risk that the value of the property (in case of foreclosure) will be insufficient to cover the remaining principal of the loan.

## **Value: appraised, estimated, and actual**

Since the value of the property is an important factor in understanding the risk of the loan, determining the value is a key factor in mortgage lending. The value may be determined in various ways, but the most common are:

1. Actual or transaction value: this is usually taken to be the purchase price of the property. If the property is not being purchased at the time of borrowing, this information may not be available.
2. Appraised or surveyed value: in most jurisdictions, some form of appraisal of the value by a licensed professional is common. There is often a requirement for the lender to obtain an official appraisal.
3. Estimated value: lenders or other parties may use their own internal estimates, particularly in jurisdictions where no official appraisal procedure exists, but also in some other circumstances.

## **Equity or homeowner's equity**

The concept of equity in a property refers to the value of the property minus the outstanding debt, subject to the definition of the value of the property. Therefore, a borrower who owns a property whose estimated value is \$400,000 but with outstanding mortgage loans of \$300,000 is said to have homeowner's equity of \$100,000.

## **Payment and debt ratios**

In most countries, a number of more or less standard measures of creditworthiness may be used. Common measures include payment to income (mortgage payments as a percentage of gross or net income); debt to income (all debt payments, including mortgage payments, as a percentage of income); and various net worth measures. In many countries, credit scores are used in lieu of or to supplement these measures. There will also be requirements for documentation of the creditworthiness, such as income tax returns, pay stubs, etc; the specifics will vary from location to location. Many countries have lower requirements for certain borrowers, or "no-doc" / "low-doc" lending standards that may be acceptable in certain circumstances.

## Standard or conforming mortgages

Many countries have a notion of standard or conforming mortgages that define a perceived acceptable level of risk, which may be formal or informal, and may be reinforced by laws, government intervention, or market practice. For example, a standard mortgage may be considered to be one with no more than 70-80% LTV and no more than one-third of gross income going to mortgage debt.

A standard or conforming mortgage is a key concept as it often defines whether or not the mortgage can be easily sold or securitized, or, if non-standard, may affect the price at which it may be sold. In the United States, a conforming mortgage is one which meets the established rules and procedures of the two major government sponsored entities in the housing finance market (including some legal requirements). In contrast, lenders who decide to make nonconforming loans are exercising a higher risk tolerance and do so knowing that they face more challenge in reselling the loan. Many countries have similar concepts or agencies that define what are "standard" mortgages. Regulated lenders (such as banks) may be subject to limits or higher risk weightings for non-standard mortgages. For example, banks in Canada face restrictions on lending more than 75% of the property value; beyond this level, mortgage insurance is generally required (as of April 2007, there is a proposal to raise this limit to 80%).

## Capital & interest

The most common way to repay a loan is to make regular payments of the capital (also called principal) and interest over a set term. This is commonly referred to as (self) **amortization** in the U.S. and as a **repayment mortgage** in the UK. A mortgage is a form of annuity (from the perspective of the lender), and the calculation of the periodic payments is based on the time value of money formulas. Certain details may be specific to different locations: interest may be calculated on the basis of a 360-day year, for example; interest may be compounded daily, yearly, or semi-annually; prepayment penalties may apply; and other factors. There may be legal restrictions on certain matters, and consumer protection laws may specify or prohibit certain practices.

Depending on the size of the loan and the prevailing practice in the country the term may be short (10 years) or long (50 years plus). In the UK and U.S., 25 to 30 years is the usual maximum term (although shorter periods, such as 15-year mortgage loans, are common). Mortgage payments, which are typically made monthly, contain a capital (repayment of the principal) and an interest element. The amount of capital included in each payment varies throughout the term of the mortgage. In the early years the repayments are largely interest and a small part capital. Towards the end of the mortgage the payments are mostly capital and a smaller portion interest. In this way the payment amount determined at outset is calculated to ensure the loan is repaid at a specified date in the future. This gives borrowers assurance that by maintaining repayment the loan will be cleared at a specified date, if the interest rate does not change.

## Interest only

The main alternative to capital and interest mortgage is an *interest only* mortgage, where the capital is not repaid throughout the term. This type of mortgage is common in the UK, especially when associated with a regular investment plan. With this arrangement regular contributions are made to a separate investment plan designed to build up a lump sum to repay the mortgage at maturity. This type of arrangement is called an *investment-backed mortgage* or is often related to the type of plan used: endowment mortgage if an endowment policy is used, similarly a Personal Equity Plan (PEP) mortgage, Individual Savings Account (ISA) mortgage or pension mortgage. Historically, investment-backed mortgages offered various tax advantages over repayment mortgages, although this is no longer the case in the UK. Investment-backed mortgages are seen as higher risk as they are dependent on the investment making sufficient return to clear the debt. It is not uncommon for interest only mortgages to be arranged without a repayment vehicle, with the borrower gambling that the property market will rise sufficiently for the loan to be repaid by trading down at retirement (or when rent on the property and inflation combine to surpass the interest rate).

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# Refinancing

**Refinancing** refers to applying for a secured loan intended to replace an existing loan secured by the same assets. The most common consumer refinancing is for a home mortgage.

## Advantages

Refinancing may be undertaken to reduce interest costs (by refinancing at a lower rate), to pay off other debts, to reduce one's periodic payment obligations (sometimes by taking a longer-term loan), to reduce risk (such as by refinancing from a variable-rate to a fixed-rate loan), and/or to liquidate some or all of the equity that has accumulated in real property during the tenure of ownership.

In essence, refinancing a mortgage or other type of loan can lower the monthly payments owed on the loan either by changing the loan to a lower interest rate, or by extending the period of loan, so as to spread the re-payment out over a long period of time. The money saved can be used to pay down the principal of the loan, thus further reducing payments. Alternately, refinancing can be used to transform available equity in one's house into ready cash, available for other purposes or expenses.

Another use of refinancing is to reduce the risk associated with an existing loan. Interest rates on adjustable-rate loans and mortgages shift up and down based on the movements of the various prime rates used to calculate them. By refinancing an adjustable-rate mortgage into a fixed-rate one, the risk of interest rates increasing dramatically is removed, thus ensuring a steady interest rate over time.

Refinancing a loan or a series of debts can assist in paying off high-interest debt such as credit card debt, with lower-interest debt such as that of a fixed-rate home mortgage. The net savings between the two interest rates can then be applied either towards further paying down the debt, or other purposes. In addition, non-tax deductible debt, such as credit card or car loan debt, can be transformed into tax-deductible debt such as home mortgage debt, potentially lowering one's taxes or shifting one into a more advantageous tax bracket. This type of arrangement is often associated with a *Cash-Out Refinance*.

## Risks

Certain types of loans contain penalty clauses triggered by an early payment of the loan, either in its entirety or a specified portion. In addition, there are also closing and transaction fees typically associated with refinancing a loan or mortgage. In some cases, these fees may outweigh any savings generated through refinancing the loan itself. Typically, one should only consider refinancing if one stands to save a substantial amount of money from doing so, either in the short or long-term, or if there is a need to extend the loan in order to pay for unexpected costs such as medical expenses.

In addition some refinanced loans, while having lower initial payments, may result in larger total interest costs over the life of the loan, or expose the borrower to greater risks than the existing loan, depending on the type of loan used to refinance the existing debt. Calculating the up-front, ongoing, and potentially variable costs of refinancing is an important part of the decision on whether or not to refinance.

# Points

Refinancing lenders often require an upfront payment of a certain percentage of the total loan amount as part of the process of refinancing debt. Typically, this amount is expressed in "points" (also sometimes called "premiums"), with each "point" being equivalent to 1% of the total loan amount. Therefore, if the refinance option selected involves paying three points, then the borrower will need to pay 3% of the total loan amount upfront. Most refinancing lenders offer a variety of combinations points and interest rates. Paying more points typically allows one to get a lower interest rate than one would be capable of getting if one paid fewer or no points. Alternately, some lenders will offer to finance parts of the loan themselves, thus generating so-called "Negative points" (also called discounts).

The decision of whether or not to pay points, and how many points to pay, should be taken in consideration of the fact that with points, one tends to trade a higher upfront cost in exchange for a lower monthly premium later on. Points can be paid out of the cash saved by refinancing the loan in the first place.

## Types

**No-Closing Cost refinances:** This refinance option reduces greatly upfront fees. You will pay few upfront fees to get your new mortgage loan. In fact as long as the prevailing market rate is lower than your existing rate by 1.5 percentage point or more, it is financially beneficial to refinance because there is little or no cost in doing so.

**Cash-Out Refinance:** This type refinance may not help you lower the monthly payment or shorter your mortgage periods. It can be used for home improvement, credit card and other debt consolidation if you qualify with your current home equity; you can refinance with a loan amount larger than your current mortgage and keep the cash difference.