

Adjustable-Rate Mortgages (Part 2)

In the previous blog on adjustable-rate mortgages, we discussed various indexes that are used to determine the interest rate on an adjustable-rate mortgage. But there is also a second piece of information that determines the interest rate on your loan: the margin. If you add the margin to the index rate, that is your mortgage interest rate. A typical margin is about 2.5 percent, though lenders may require a higher margin if your credit rating is poor. (Your credit rating depends on your past history of making payments on time on your loans, the size of your loan balances, your ability to pay, and so on. We'll talk more about credit ratings in a future blog.)

Here is an example of how your interest rate is determined. Suppose your index rate is the one-year constant maturity rate, which is currently 0.5 percent. Suppose you have a margin of 2.5 percent. Then your mortgage interest rate is $0.5\% + 2.5\% = 3.0\%$. A typical adjustable-rate mortgage adjusts your interest rate once each year and your new monthly payment is based on that new rate.

There are some other factors to consider in choosing an adjustable-rate mortgage or a fixed-rate mortgage. First, many lenders will offer you a lower initial interest rate for a year or two on an adjustable-rate mortgage, which is sometimes called a "teaser" rate. Don't be teased! For example, suppose your interest rate based on the formula in the preceding paragraph is 3.0 percent but your bank offers you a three-year teaser rate of 1.5 percent. Should you take it? The 1.5 percent rate for three years can save you a lot of money, but remember that you have another 27 years to pay. So, don't be fooled by the initial low rate. You should figure out whether you can afford the loan based on the regular interest rate of 3.0 percent, as well as considering what might happen if the interest rate rises to an even higher level.

The second additional factor to consider is whether or not there are caps on the interest-rate adjustment. Although the basic formula for your interest rate each year is $\text{interest-rate} = \text{index rate} + \text{margin}$, sometimes interest rates rise (or fall) by 3 or 4 percentage points within a year. This can dramatically change your monthly mortgage payments. To reduce the risk of a very large change in the monthly mortgage payment that a homeowner might find difficult to handle, many loans have a built-in mechanism that: (1) keeps the interest rate from changing too much year to year and (2) keeps the interest rate from changing too much over the life of the loan. For example, a mortgage loan might have an annual cap of 2 percentage points and a lifetime cap of 5 percentage points. Then your rate would rise or fall at most by 2 percentage points each year and could never be more than 5 percentage points higher or lower than the initial interest rate.

Here is the difficult, but interesting part: at what times in the past would you have been better off with a fixed-rate mortgage as compared with an adjustable-rate mortgage? This is a very complicated calculation because each year the adjustable rate changes by an amount that is subject to the annual and lifetime caps. It's also complicated by the fact that you could refinance your mortgage for a fee that usually amounts to one to two percentage points of the value of your mortgage. So, let's just look first at a comparison of the interest-rate on a fixed-rate mortgage each month, compared with an adjustable-rate mortgage on the same date, where we will assume the adjustable rate is determined by the one-year Treasury constant maturity interest rate plus 2.5 percentage points. This will give you an idea of how variable the adjustable rate is compared with a fixed rate. The results are shown in the chart.

The chart shows you that adjustable rates and fixed rates move closely together. The adjustable rates change more from year to year. On average, the difference between the two is

0.4 percentage points—on average, adjustable rates are lower. That is logical because with an adjustable rate, you are bearing some of the risk of a change in market interest rates and the bank bears less risk; so, you are rewarded with a lower interest rate, on average. The other idea that you can get from the chart is that when interest rates are temporarily high, you are better off with an adjustable rate rather than a fixed rate because you will benefit when interest rates decline. When interest rates are temporarily low, you are better off with a fixed rate because you lock in the low rate.

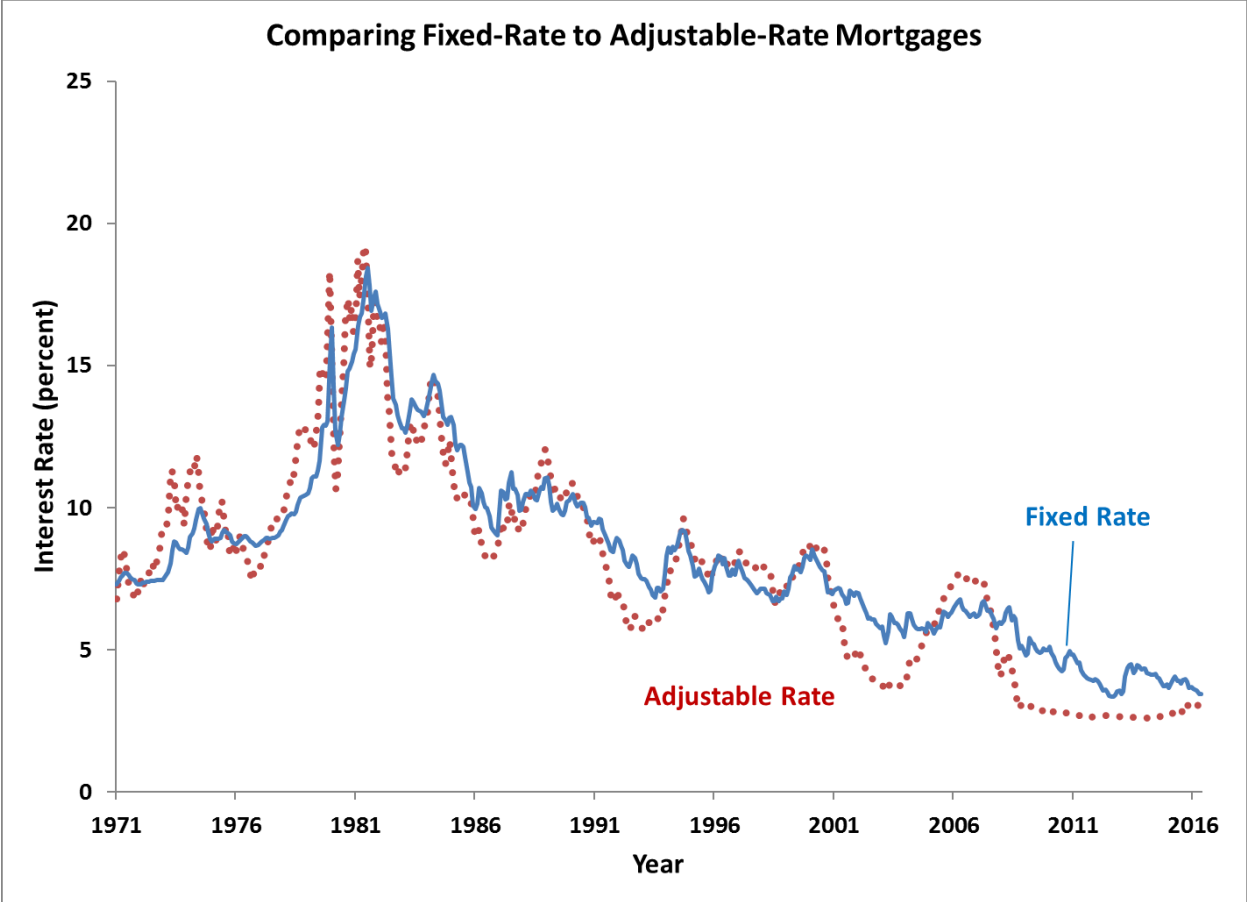


Chart: Comparing Fixed-Rate to Adjustable-Rate Mortgages
Source: Author's calculations, adding 2.5% to Federal Reserve Board data on 1-year constant maturity Treasury interest rate; Federal Reserve Board data on fixed-rate mortgage rate