

# How to know if you are really saving money with a refinance.

By Craig R. Miller

Believe it or not, thousands of people refinance their home every year but ultimately waste hundreds, and, in many cases, thousands of dollars because they fail to do two very simple calculations to see if the loan truly makes sense or will result in significant savings. The following are two calculations that EVERY homeowner should perform before going forward with a refinance transaction:

1) The Break Even Period Formula. The first thing you need to know is what your current monthly interest expense is. This information can usually be found on your monthly mortgage statement. Please note, this is not the principal and interest portion of your payment, you are looking for just the interest itself. If you know your rate and current balance on the loan, you can calculate the monthly interest yourself. Simply take the interest rate (expressed in decimal format. For example 6% would be expressed as .0600) divided by 12 then multiply this by the principal balance. Here is a working example:

Bob has a 6% interest rate on his current loan and he thinking of refinancing to a lower rate. He needs to know what his monthly interest expense is in order to compare the savings with a new lower rate. He has a current principal balance of \$150,000. Bob will take .0600 and divide that number by 12 which equals .0050. Then Bob multiplies .0050 X \$150,000 and he will get a monthly interest expense of \$750.

The new loan that Bob has been offered has an interest rate of 5%. The monthly interest expense on the new loan is \$641.67. The new loan has an amount of \$154,000 because of the closing costs, fees and escrow account being rolled into the new loan. The actual costs and fees apart from the escrow items are \$3,000.

To factor the "Break Even Period", Bob needs to take the \$3,000 expense and divide it by the \$108.33 monthly interest savings (\$750 minus \$641.67).  $\$3,000 \div \$108.33 = 27.69$  months. This means that it will take just under 28 months before Bob will actually realize any savings from the refinance. If Bob knows he will be selling his home within 2 years, refinancing his loan would have actually cost him money rather than save him money even though the rate was lowered by a full point.

So in a nut shell, the "Break Even Period" is the total cost to refinance divided by the actual monthly interest savings.

2) The Total Term Savings Formula. This is a very simple calculation that will allow you to realize what the TOTAL long term savings of a refinance will be over the term of the loan. To calculate the "Total Term Savings" you will need to look at how many remaining payments you have on your current loan. Take a look at the Principal AND Interest portion of your payment (excluding escrow). Multiply the amount of your current principal and interest payment by the number of remaining payments. This will give you the total it will take to pay your loan back over the remaining term.

Next you will want to look at the amount of principal and interest for the new refinanced loan (again, exclude tax and insurance escrow from the calculation). Multiply the principal and interest by the new loan term. Here is a working example:

Bob wants to refinance to save money on his mortgage. He has a current principal and interest payment of \$1,109.17. He did a 30 year mortgage (360 months) 6 years ago and now has 288 payments left.  $\$1,109.17 \times 288 = \$319,440.96$  remaining payments.

The proposed refinance loan will have a principal and interest payment of \$923.33 and is a new 30 year mortgage.  $\$923.33 \times 360 = \$332,399.95$ .

As you can see from the calculation above, Bob would actually spend \$12,958.99 MORE in mortgage payments over the term of the loan even though he would have lowered his payment by \$185.84.

BOTH of these calculations must be applied to every refinance transaction. Although there may be other reasons Bob may have gone through with these scenarios (investments, cash flow needs, etc.), Bob would not have not necessarily benefited by refinancing according to these examples.