



Calculating the True Savings of Re-Financing a Home Loan

As home mortgage rates have dropped and lenders have begun to lend again, many are considering refinancing old mortgages. Some are trying to lower the monthly payment, while others are trying to pay off the loan faster. Unfortunately, when most people face this issue, they don't give it enough thought.

To show the difference this decision may have on someone's long-term finances, different lengths of time for a new mortgage were tested. The following assumptions were used:

Current Loan Assumptions

- The loan in question had an original balance of \$200,000 and was a 30-year, fixed rate loan at 6.5%.
- The loan is two years old (28 years remain).
- The loan's current balance is \$195,173.

Assumptions for New Loan

- A new loan would have an interest rate of 5.25 percent.
- The new loan would add 2 points and have closing costs of \$1,500, all of which are added to the existing balance. In other words, the new loans would have a balance of \$200,576.
- The difference between the current payment of \$1,264 per month and the example loan's payment is invested at an annual rate of 8 percent.
- When a loan is paid off, the full \$1,264 is deposited into the same investment account for the rest of the 30 years.

How Sample Loan Lengths Were Chosen

At first glance, the lengths of the loans may seem random. The first loan in the list is simply the existing loan with its remaining 28 years. The next loan in the list with a length of 22.75 years (22 years, 9 months) was chosen in order to show a loan that keeps the same monthly payment of \$1,264. In order to do that, the loan's length must be adjusted, and even then there is a difference of \$4 per month.

The loan for 25 years was chosen because 25 years is a length often used in home mortgages. The second to last loan in the table has 28 years in order to show how the new, lower interest rate affects the payment while keeping the length of the loan the same.

The final loan in the table shows how a loan for another 30 years from now will affect the payment and the eventual investment account balance.



Explanation of Columns in Table

Current Balance: This is the balance on the loan today.

Length of Loan: This is the number of years remaining for each loan.

Interest Rate: This is the interest rate of the loan.

Monthly Payment: This is the monthly payment of the loan.

Total Interest Remaining: This is how much a borrower would pay in interest between now and when the loan is paid off.

Investment Account in 30 Years: If a homeowner had \$1,264 each month to split between mortgage payments and investing in a retirement account, this is what they would have in the investment account 30 years from now. While the loan is being paid off, less money goes into the investment account. After the loan is paid off, the full \$1,264 would be invested in the investment account.

Current Balance	Length of Loan	Interest Rate	Monthly Payment	Total Interest Remaining	Investment Account in 30 Years
\$195,173	28 [†]	6.5	\$1,264	\$229,128	\$32,783
\$200,576*	22.75	5.25	\$1,260	\$143,467	\$153,296
\$200,576*	25	5.25	\$1,202	\$160,008	\$176,426
\$200,576*	28	5.25	\$1,141	\$182,673	\$210,456
\$200,576*	30	5.25	\$1,108	\$198,156	\$233,308

**Includes points and loan fees*

Summary

The effect of compounding returns (an initial investment growing, then the growth on the investment growing as well) is clear. Although many people rush to pay off a home loan because of the savings in interest, they may be missing something much more important: earnings on their investments.

No one can deny the importance of calculating how much interest will be saved by paying off a loan early, but equally important is knowing how not saving will affect someone's financial outlook.