Case Study: Do I Pay Down My Mortgage or Invest My Cash?

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If you have cash available, the question of paying down your mortgage versus investing the money will depend on many factors. This article will go through the factors to consider and what assumption are implied in the process.

The situation is that the mortgage is $300,000, with an interest rate of 3%, due in 3 years' time. The current monthly payments are $1500 per month. There is an amount of $200,000 USD which is available to pay down debt or invest. There is no other debt to speak of, and the mortgage is held against a house valued at $700,000 that generates rental income of $20,000 per year. The income of the person holding the mortgage was $80,000 per year and has now been reduced to $40,000 and the income used to be from full-time employment and is now self-employment income. There is assumed to be no other sources of income.

Criterion #1

Is there an aversion to holding debt? If the number one priority is debt reduction or elimination, the cash should be handled conservatively and the debt should be paid off either in lump sum payments where possible or as a large payment at the end of the 3 year period when the mortgage is up for renewal.

Criterion #2

What is the comfort level in taking risk? Another way to say this is: If I lose a large percentage of the money that I have invested, will I panic and lose sleep? Another version of this question is: If I lose a large percentage of my investment, am I willing and able to wait for the investments to recover? How much is a "large percentage"? The typical number I use is 1/3 or 33%. You can insert your worst case scenario figure instead. Where does this worst case figure come from? The number comes from a typical equity market crash scenario or the worst decline in investment value that you can imagine happening. How long does it take for investments to recover? The typical figure is at least 5 years. If you want a lot of certainty in your income, 10 years is more realistic if the drop is long lived. The assumptions here use an equity correction. A real estate correction or a drop in another market can be used as well, but the equities market is the most common exposure.

Criterion #3

How proficient of an investor am I? A related way of phrasing this is: Do I have an alternative way of using my money to generate higher returns? If you are a new or novice investor, paying debt would be preferred because that is likely to be the best outcome. If you would like to learn more about investing or have conviction about how to make money, then you may want to consider alternatives to paying down debt.

Criterion #4

Income generation from the cash can be compared using an equity / fixed income allocation of investments compared to the interest costs of the debt *after fees and taxes.* Why? Interest costs on debt are paid after taxes, whereas income from investments is typically generated before fees and taxes. Looking at criteria #2 and #3, what is the best return I would achieve from my investments? If you feel you can generate some return, use the equation: *Income Return generated less investment fees and taxes* compared to *debt interest rate you are currently paying*.

Let's say that you plan to invest 50% in equities and 50% in fixed income. The dividend yield on the equities is 4% and the interest return on the fixed income is 2%. The average rate of return is 3%. For the taxes, there are a few additional questions. What is my tax rate right now on my income? Do I have any registered accounts that I can park money into that could change my tax rate? The assumptions so far ignore capital gains because these are unpredictable in the short run. Let's say that your tax rate is 20% and you have no registered accounts available. The 3% earned on the investments less management fees of 0.25% per year less taxes of 20% * 2.75% = 0.55%. The net return from your investments after taxes is 3% - 0.25% - 0.55% =2.2%. The debt interest rate is 3%. If you believe that the capital gains on your investments will make this worthwhile, you can assume a return for the capital gains portion of the investment and add it to the return. The tax on the capital gain is generally half of your tax rate – in this case 10%.

Within the investment rate of return in this case is the currency exchange rate from U.S. Dollars (USD) to Canadian Dollars (CAD). This would be another factor to consider as well.

Criterion #5

Will the future interest rate change by the time I renew my mortgage? If the investment return exceeds the mortgage return but the future rate in 3 years will rise to 6%, is the investment still viable? If it is not, paying down the debt looks more promising. Should the interest rate drop when the mortgage is renewed, the investment return looks more promising. This decision involves predicting the future which is not easy to do. If it becomes obvious which way the interest rate will go, the decision will become clearer.

Other criteria

Other criteria could be whether the investment rate of return prospects become better – such as after a market correction. You may have a better conviction on a specific market versus the average which would make investments more enticing. Your income may increase to the point that paying down your mortgage is easier and faster, or vice versa. The equity in your house may go up or down which can also change the decision.

This article is meant to examine the thought process of how to make a decision with many unknowns. As you go through the process, the answer for your situation becomes clearer and more applicable to where you are at a moment in time.