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Financial Planning & Wealth Management

Ruminations on Paying Off the Mortgage

What is the optimal mortgage an investor should have on his home? Should investments be liquidated to reduce the mortgage? Or, should the mortgage kept or even increased in order to increase the investment portfolio?

Though these are common straightforward questions, the answers provided are often simplistic and incorrect. I would like to discuss this in four parts. First, I will clarify the questions and address some common misconceptions. Second, I will address the analytical and rational analyses needed. Third, I will examine some emotional and behavioral constraints. Fourth, I'll attempt to summarize, and make a few other observations.

Clarifying the Question. Whether considering immediately paying off a million-dollar mortgage from a portfolio or simply adding an extra $100 per month to the mortgage payment, the issue is the same. In both cases, the funds could either be invested or be used to reduce the mortgage, in effect "earning" the applicable interest rate. The easy answer here is, "Keep your mortgage…you'll get a higher return on a larger portfolio." Is the easy answer, however, the best for the investor? Each situation should be analyzed individually to determine the best solution.

(Note that we are not addressing real estate exposure. The actual exposure to real estate is identical in both cases, and this decision merely affects the financing. To clarify, imagine that instead of having a mortgage, you have a debt identical in every way but unsecured – the real estate exposure is unchanged.)

Analyzing the Payoff. At its root, the question involves the asset allocation. Reducing the mortgage is effectively the same as purchasing bonds (technically it is a reduction in a short bond position). Conversely, taking out or increasing a mortgage is, in effect, issuing bonds. If the overall asset allocation already includes exposure to fixed income (as almost every portfolio does), what is the optimal way to determine that allocation?

Suppose an individual has a portfolio of $1 million allocated 60/40 to stocks and bonds, along with a $200,000 mortgage. He thus has $600,000 exposed to equities. But while he is $400,000 long in fixed income, he is also $200,000 short in fixed income via the mortgage, for a net of $200,000. So, although the investment portfolio has a 60/40 mix, the allocation is actually 75/25 when looked at from a broader perspective.

Worse, people are typically paying on the spread. The long rate (bonds) is lower than the short rate (mortgage). When most people pay off the mortgage, what they really do is adopt a more conservative asset allocation.

When determining whether to pay off the mortgage, it's important to keep the desired aggregate asset allocation unchanged. The asset allocation should have been determined earlier in the planning process using a Monte Carlo simulation or similar analysis. In addition, the comparison should be with the rate of return on Treasury bonds with similar duration.

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This calculation may seem strange at first. But remember that a mortgage, although risky to the issuer, is actually a risk-free opportunity for the investor. If the investor pays off his mortgage, he is guaranteed to save the interest that he would have paid. Also, the duration of the mortgage is shorter than the duration of a bond with the same maturity, since a portion of each payment is principal in the case of the mortgage. For simplicity, use the yield on a 10-year Treasury for comparison.

Tax considerations, because they tend to be the same for both alternatives, are not relevant. If an individual has a mortgage at 6% and is in the 25% tax bracket (ignoring any state income taxes), the after-tax cost is 4.5%. If he purchased a bond yielding 6%, the after-tax return would also be 4.5%.

Other tax-related factors might favor paying off the mortgage, however. These include the impact of state income taxes and whether the taxpayer itemizes on his tax return (or is over the standard deduction by less than the mortgage interest).

In other words, if the gross rate of return on the fixed-income investment is lower than the interest rate on the mortgage (almost always the case), no further analysis is needed. If the fixed-income gross yield is lower but close, more detailed analysis may be necessary.

Looking at the Human Part. The emotional implications of the mortgage-payoff decision are equally important. How an individual feels about having a mortgage is significant, yet more difficult to quantify. Many people are happy to be debt-free. Yet they should consider at least three other issues before tearing up the mortgage.

Perceived volatility. If an investor pays off the mortgage yet keeps his global asset allocation unchanged (reducing fixed-income exposure by the same amount as the mortgage payoff), his portfolio will appear more risky even though the total risk has not changed. This is a big problem; at a minimum, you will want the person to understand that his finances will look substantially more volatile than they really are.

Going back to our earlier example, the person with a 60/40 portfolio now has a 75/25 portfolio though the aggregate asset allocation has not changed. Since investment portfolios (but not mortgages) are "marked to market," the position may feel more precarious. For people who anxiously examine every monthly statement, this shift could be an important factor in the payoff decision. It will be less important for more financially sophisticated people who understand the situation and have a long-term view.

Ability to stay with the target allocation. Some people will react to the increased portfolio volatility by panicking in poor equity markets and improperly reducing their exposure to stocks. Others may feel more secure knowing that, no matter what happens, they have their home paid for and will be more willing and able to tolerate volatility and an appropriate equity exposure.

Propensity to save. Since most people in this country don't save enough, paying off a mortgage can be problematic. People may feel poorer after reducing their portfolios to pay off the mortgage, and so they should be motivated to save to get their portfolio back to where it was. Yet behavioral finance has shown the reverse to be true; as people have more wealth, they are more motivated to save.

More significant is the fact that an individual without a mortgage must still save the amount of the mortgage payment to remain in the same financial position. In a way, a mortgage is a type of forced savings plan. If the person simply spends the monthly amount he was previously paying on the mortgage, he has effectively reduced his savings rate. For example, in one real-life case, while the investor understands this analysis perfectly, he prefers to keep a relatively large mortgage to restrain household spending.

Proposing the Answer (and some other considerations). First, many investment advisers and planners have a conflict of interest in giving advice on this issue and should fully disclose that conflict. Advisers, whether they receive commissions on investment transactions or fees for assets under management, will reduce their compensation by recommending the mortgage be paid off from the assets in the portfolio. The reduction in fees, however, is eliminated in the long run as the adviser gains a reputation for doing the right thing regardless of the personal cost thereby garnering more than enough business to compensate for losing managed assets.

Second, investors should never take funds from tax-advantaged accounts to pay off the mortgage. They should also maximize their contributions to these accounts before increasing their mortgage payments to pay down principal.

Third, in the case of a minister who needs housing expenses to preserve the tax-free treatment of his housing allowance, a mortgage may be preferred.

Fourth, an individual with a great deal of inflation risk (such as a retiree with a very large pension that has no COLA) may be well served by a long-term, fixed-rate mortgage to function as an inflation hedge.

To recap, the traditional advice to keep the mortgage and collect a higher return from the portfolio is too simplistic; it compares a risk-free return with a risky return. Reducing the portfolio by paying off the mortgage is usually the correct answer from a logical standpoint because the rate of return on the mortgage is frequently (though not always) higher than the equivalent fixed-income investment opportunity.

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