Will You Breakeven On Your Home

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Expense-based Analysis

By Troy M. Adkins, II.

There are many ways to assess the impact of homeownership costs. One of the most intuitive approaches is to determine the homeowner's break-even rate. For the purpose of this article, the break-even rate will represent the annual increase in the purchase price of a new home that is required in order to offset the costs associated with owning the home. In this article, we'll show you how a practical methodology is used to assess the impact of your homeownership costs. This analytical methodology has been incorporated into the Adkins Residential Home Valuation Analyzer in order to facilitate an expense-based analysis.

Assumptions

In order to illustrate the expense-based methodology, the following homeowner assumptions are made:

- The homeowner is single;
- The homeowner is in the 28% federal income tax bracket;
- The homeowner purchases a new home for $225,000;
- The homeowner makes a 5% down payment and obtains a 30-year fixed rate loan at 6.25%; and
- The homeowner will live in the home for seven years.

Assumptions Continued

The homeowner assumptions used in this illustration play a critical role in the expense-based valuation process. Therefore, if a homeowner chooses to use this methodology, he or she must adjust these assumptions in order to reflect his or her unique circumstances and expenditures. In any event, if this methodology is followed and the proper adjustments are made, the homeowner should be able to determine the rate at which his or her home will need to appreciate in value each year in order to offset the costs associated with owning the home. Prospective home buyers should remember that they can subscribe to use the Adkins Residential Home Valuation Analyzer in order to conduct an expense-based analysis in a user-friendly manner.

"Prospective home buyers can use the Adkins Residential Home Valuation Analyzer in order to conduct a comprehensive residential real estate analysis"

Summary of Home Ownership Expenses

To begin this process, it is important to be aware of the primary expenditures that affect the value of a home. For the typical homeowner, these expenses include:

1. Home maintenance
2. Property insurance
3. Private Mortgage Insurance (PMI)
4. Brokerage fees
5. Closing costs
6. Property taxes
7. Mortgage interest expense.

Summary of Expense-based Analysis

Let's take a look at the end result of our expense-based analysis in the table below and then work our way through each expense one by one.

EXPENSE-BASED ANALYSIS (BREAKEVEN ANALYSIS)	
Type of Home Expenditure	**Percent of Home Purchase Price**
Base Appreciation Rate	0.00%
Plus	
Maintenance Costs	1.00%
Natural Disaster Insurance	0.55%
PMI Insurance	0.50%
Transaction Costs (7 Yr. amortization)	0.86%
Closing Costs (7 Yr. amortization)	0.19%
Property Taxes (28% federal tax rate)	0.93%
Mortgage Interest Expense (fixed rate loan; 95% debt)	5.94%
Subtotal	**9.97%**
Less	
Mortgage Interest Tax Shield (single homeowner eligible for standard income tax deduction)	1.02%
Property Interest Tax Shield (28% federal tax rate)	0.26%
Subtotal	**1.28%**
Required Annual Home Appreciation Rate to Offset Home Expenditures (adjust annually)	**8.69%**

1. Home Maintenance Costs

Home maintenance expenditures include cash outlays for both internal and external maintenance. A new home should only require moderate maintenance costs. However, prospective home buyers should keep in mind that they will likely have to pay for services such as pest control, interior house cleaning, home security, and lawn maintenance. As the house ages, costs for gutter and downspout cleaning, landscaping, roofing work, window and door replacement, painting, HVAC work, and appliance repair will also likely be required. For old homes, costs for infrastructure upgrades, foundation work, structural upgrades, driveway work, and shrub and tree replacement will likely be required. Home maintenance costs typically exceed the amount of money that most homes owners expect to pay.

Tip: Home maintenance costs can be minimized by purchasing a new home. Many experts recommend budgeting 1% of the home purchase price every year in order to offset the costs of these expenditures. Given this assumption, a new home would need to appreciate by 1% each year in order to offset maintenance costs.

2. Property Insurance

Insurance premiums for coverage against certain natural disasters such as fires, floods, mud slides, tornadoes, earthquakes, ice or hail storms, or hurricanes or tsunamis may cost 0.55% of the home purchase price. Using our expense-based methodology, a home would need to appreciate in value by this amount each year in order to offset this cost.

Tip: You can use the Internet-based FEMA flood map service in order to determine if a specific home sets in a flood plain.

> **"Prospective home buyers can significantly reduce their breakeven rate by being a handyman, by not purchasing a home that is located in a floodplain, and by making a 20% down payment in order to avoid having to pay for private mortgage insurance"**

3. Private Mortgage Insurance

Private mortgage insurance (PMI) is charged to homeowners that fail to make a deposit of at least 20% of their home purchase price as collateral for a mortgage loan. Homeowners are charged this amount each year to help protect the lender against default. We have assumed that the homeowner will make a 5% down payment and that PMI insurance will cost 0.5% of the home purchase price. As such, PMI expense will directly increase the required annual home appreciation rate by this amount.

4. Brokerage Costs

Brokerage costs are typically paid by the homeowner to a real estate agent for help with selling the home. In this analysis, we assumed that the homeowners will pay the real estate agent a 6% commission. However, because transaction costs are a one-time expenditure and we are trying to determine how much the home will need to appreciate each year in order to offset this cost, we need to allocate the brokerage commission over the estimated length of time that the home is expected to be owned. For this analysis, we use an industry accepted standard of seven years. By spreading the brokerage cost over this period-of-time, we determined that a home must appreciate in value each year by 0.86% in order to offset the cost of this expenditure.

Prospective home buyers can significantly reduce their breakeven rate by purchasing a home that is being directly sold by the home owner (i.e., For Sale By Owner).

5. Closing Costs

Closing costs are another expenditure that needs to be factored into our expense-based analysis. However, closing costs are more difficult to equate with the home purchase price, because these costs tend to be more closely tied to other factors such as the type of the mortgage loan that is written. For this illustration, we assumed that the homeowner will pay a fee of $3,000 at the time the home is purchased. Therefore, assuming that the purchase price of the home is $225,000, closing costs would translate into an expenditure of 1.3%.

Like brokerage costs, closing costs are a one-time expenditure. Therefore, they should be allocated over the length of time the home is owned for the purposes of conducting an expense-based analysis. As previously explained, we are making this adjustment because we are trying to determine how much the home will need to appreciate in value each year in order to offset this one-time cost. Following the seven-year home ownership assumption used in this analysis, closing costs would increase the annual break-even rate by 0.19%.

Tip: Closing costs depend on the institution that provides the mortgage loan and the type of loan that is written. Therefore, the impact of this expenditure must be tailored by the homeowner in order to accurately determine its impact on the break-even rate.

6. Property Taxes

The median property tax rate in the U.S. is approximately 0.93% of the home purchase price. Therefore, a home would need to appreciate in value each year by 0.93% in order to offset this expenditure. However, the current provisions set forth in the U.S. income tax code allow property tax payments to be deductible for the purpose of calculating taxable income. Therefore, assuming that the homeowner is in the 28% federal income tax bracket, and that the purchase price of the home is $225,000, the tax deduction benefit associated with property tax payments would reduce the required home appreciation rate by 0.26%.

This property tax deduction factor is determined by multiplying the property tax rate and the amount paid for the home by the homeowner's federal income tax rate, and then dividing the result by the purchase price of the home. Again, to apply this methodology, the impact of the property tax factor will have to be adjusted in order to reflect the individual homeowner's federal income tax rate.

7. Interest Expense

We are assuming a fixed rate on a mortgage loan is 6.25% and that 95% of the home will be purchased with debt capital (i.e., a 5% down payment). As a result, the impact of the equity made through the down payment will reduce the interest expense from 6.25% to 5.94%; as only 95% of the $225,000 home is being charged the 6.25% interest.

Like property taxes, mortgage loan interest is also a qualified tax deduction. In this analysis, the homeowner should pay around $13,359 in interest in the first year and assuming that the homeowner is in the 28% income-tax bracket, the interest tax shield would be $3,741. This amount is calculated by multiplying the amount of interest expense the homeowner will pay in the first year by the homeowner's income tax rate.

7. Interest Expense Continued

However, because non-homeowners are entitled to a standard deduction when completing federal income taxes, the benefit of owning a home should only include the portion of the income tax shield that is above the eligible federal deduction amounts granted to non-homeowners. For this illustration, we have assumed that the homeowner is single, and therefore is eligible for a $5,150 standard tax deduction. In comparison, if the homeowner were married, he or she would be entitled to a $10,300 deduction. By factoring the standard deduction into our expense-based methodology, the interest tax expense would be reduced from $13,359 to $8,209. This amount is simply determined by subtracting the standard deduction amount from the amount of interest expense paid by the homeowner in the first year. Again, assuming that the homeowner is in the 28% income tax bracket, we determined that the interest tax shield would reduce the break-even rate by 1.02% ($8,209 x 28%/$225,000).

Total Assessment of Housing Expenses

Based on the expense-based methodology outlined in this article, the assumptions made about the homeowner, and the estimated cost expenditures used in this analysis, we determined that a home will need to appreciate in value by 8.69% during the first year after it is purchased in order for it to offset the costs associated with owning the home.

Now that we understand how to evaluate the breakeven rate of a home, the question then becomes, "Is it likely that a home will appreciate in value on an annual basis at a rate that will exceed the costs of owning the home?"

To make this determination, you may visit the Federal Housing Finance Agency in order to determine the strength of the home appreciation rates in your geographic locale. By looking at home appreciation rates in your area and following the methodology outlined in this article, you should be in a much better position to determine the likelihood of making a profitable home investment.

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