Housing Costs Calculator Worksheet

Chapter 10.1: Renting vs. Owning - Making Informed Housing Decisions

Instructions

This worksheet will help you calculate and compare the true costs of renting versus buying a home. Enter the requested information for both options, then calculate and analyze the results to determine which option might be financially advantageous in different time frames.

Rental Cost Inputs

Monthly Rent: The amount you would pay each month for rent	$ Example: 1,200
Expected Annual Rent Increase: The percentage your rent is likely to increase each year	Example: 3 %
Security Deposit: One-time payment typically equal to 1-2 months of rent	$ Example: 1,200
Renter's Insurance: Monthly cost to protect your belongings	$ Example: 15 /month
Utilities Not Included in Rent: Monthly cost of utilities you would pay separately	$ Example: 150 /month
Application Fee: One-time fee to apply for rental	$ Example: 50
Other Rental Fees: Any additional fees (pet deposits, amenity fees, etc.)	$ Example: 30 /month

Home Purchase Cost Inputs

Home Purchase Price: The price of the home you would buy	$ Example: 250,000
Down Payment Percentage: The percentage of the purchase price you would pay upfront	Example: 10 %
Down Payment Amount: Calculated from purchase price and percentage	$ Calculate this amount
Mortgage Interest Rate: The annual interest rate on your home loan	Example: 4.5 %
Loan Term: The length of your mortgage in years	Example: 30 years
Closing Costs: Typically 2-5% of the purchase price	$ Calculate this amount
Property Tax Rate: Annual percentage of home value	Example: 1.2 %
Homeowner's Insurance: Monthly cost to protect your home and possessions	$ Example: 100 /month
HOA Fees: Monthly homeowners association fees, if applicable	$ Example: 100 /month
Estimated Monthly Utilities: Total monthly utility costs	$ Example: 200

	/month
Estimated Maintenance Costs: Annual percentage of home value	Example: 1 %
Expected Home Appreciation Rate: Annual percentage increase in home value	Example: 3 %

Monthly Payment Calculations

Monthly Rental Costs

Monthly Rent:	$
Renter's Insurance:	$
Utilities Not Included in Rent:	$
Other Monthly Fees:	$
Total Monthly Rental Cost:	$

Monthly Homeownership Costs

Principal and Interest Payment:	$
Property Taxes (monthly):	$
Homeowner's Insurance:	$
HOA Fees:	$
Utilities:	$
Maintenance (monthly average):	$
Total Monthly Homeownership Cost:	$

Long-Term Cost Comparison

5-Year Cost Comparison

Cost Category	Renting	Buying	Difference
Initial Costs			
Security Deposit / Down Payment	$	$	$
Application Fees / Closing Costs	$	$	$
Ongoing Costs (5 years)			
Monthly Payments (including rent increases)	$	$	$
Insurance	$	$	$
Maintenance/Repairs	$	$	$
Property Taxes	$	$	$
Exit Costs/Values			
Security Deposit Return	$	N/A	
Home Equity (Principal + Appreciation)	N/A	$	
NET TOTAL COST (5 years)	**$**	**$**	**$**

10-Year Cost Comparison

Cost Category	Renting	Buying	Difference
Initial Costs			
Security Deposit / Down Payment	$	$	$
Application Fees / Closing Costs	$	$	$
Ongoing Costs (10 years)			
Monthly Payments (including rent increases)	$	$	$
Insurance	$	$	$
Maintenance/Repairs	$	$	$
Property Taxes	$	$	$
Exit Costs/Values			
Security Deposit Return	$	N/A	
Home Equity (Principal + Appreciation)	N/A	$	
NET TOTAL COST (10 years)	**$**	**$**	**$**

Analysis Questions

1. **Based on your calculations, which option (renting or buying) appears more cost-effective in the 5-year timeframe?**

2. **Which option appears more cost-effective in the 10-year timeframe?**

3. **At approximately what point (how many years) does buying become more cost-effective than renting in your scenario?**

4. **How does changing the down payment percentage affect the comparison? Try calculating with a 20% down payment.**

5. **How does changing the appreciation rate affect the comparison? Try calculating with a 1% appreciation rate.**

6. **Which variable seems to have the biggest impact on whether renting or buying is more cost-effective?**

7. **What non-financial factors would you also consider when making a housing decision?**

Calculation Notes

Helpful Formulas

Monthly Mortgage Payment (Principal and Interest):

For a 30-year mortgage with monthly payments:

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Monthly Payment = P × [r(1+r)^n] ÷ [(1+r)^n – 1]
```

Where:

- P = Principal (loan amount)
- r = Monthly interest rate (annual rate ÷ 12, expressed as a decimal)
- n = Total number of payments (term in years × 12)

Example: For a $225,000 loan at 4.5% for 30 years:

- P = $225,000
- r = 0.045 ÷ 12 = 0.00375
- n = 30 × 12 = 360
- Monthly Payment = $1,140.05

Monthly Property Tax:

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Monthly Property Tax = (Home Value × Annual Tax Rate) ÷ 12
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Projected Rent in Future Years (with annual increases):

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Year N Rent = Initial Rent × (1 + Annual Increase Rate)^(N–1)
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Home Equity after N years:

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Equity = Down Payment + Principal Paid + Appreciation
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Projected Home Value after N years (with appreciation):

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Year N Value = Initial Value × (1 + Annual Appreciation Rate)^N
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