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Case Study Series

Millennials Buying a Home with a Mortgage or Renting a Home

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Abstract

This case required the student to analyze three different housing options for a couple who have outgrown their apartment. The Shillers are considering purchasing one of two houses on the market. They are also not averse to moving into a new larger condo. A student is to perform a financial analysis of all three options. In addition, the student is asked to compose a list of non-financial considerations for the Shillers to mull over.

Background Information

Mr. and Mrs. Shiller have out grown their 1,000 sq. ft. apartment they rented when they got married. While they are seriously considering the purchase of their first home, they are not opposed to moving into a larger rental property.

The Shillers have a combined annual gross income of $150,000. Like many college graduates they are making student loan payments. Their combined student loan plus a car loan payment will be $800 a month for the next seven years. After that they will just be making student loan payments of $500 for an additional 23 years. Their credit score is 730. The Shillers have saved $120,000 to use for a down payment. In the geographic area in which they would like to live, the average annual property tax and home owner's insurance expenses run two percent of the value of the house.

Mortgage Broker

The Shiller family provided all their financial history to a mortgage broker and they were told that they could borrow a maximum of $417,000 at 3.75% with a 30-year mortgage assuming a 20% down payment. If they want to make a lower down payment (but not less than 10%) they would have to pay an extra 1% for mortgage insurance for the life of the loan. If they choose to borrow greater than $417,000 but lower than $700,000, they have two choices. If they put 20% down, their interest cost would be 100 basis points (1%) higher than the quoted 30-year mortgage rate. If they put less than 20% down with the minimum down payment of 10%, they also must pay an extra 1% for mortgage insurance for the life of the loan.

The mortgage broker also provided another option to the Shillers. They could take out a 15-year mortgage with 50-basis points (.5%) lower interest rate across the board. For ether of the two fixed rate mortgages, the Shillers can pay up front one point (1% of the mortgage amount) and receive a reduction in the mortgage rate by 25-basis points (.25%).

The ideal Debt-to-income ratio is below 43% in order not to have any other excessive fees. Debt-to-income ratio is all your monthly debt payments divided by your gross monthly income.

Of course, there is another option. Do not purchase a house and move into a larger apartment. Since the broker works on commission, this option is not discussed much.

Housing Options

After spending many weekends going to open houses and spending countless hours on Trulia / Zillow, the Shillers have narrowed their house choices down to the following two homes.

Both homes are in the same school district and the same city with the same property tax rate (2% of the house value). Other things remain the same.

Buy House A: It is a lovely 3,500 sq. ft. single family home on 0.85 acres. It is recessed and private with lush landscaping. It has 4 bedrooms and 3 full and one-half bathrooms. This house was built in 2005. The current owners have undertaken extensive renovations. There is a new wood deck and two new patios. It is in the exclusive neighborhood of historic North Shore. There is convenient access to shopping, dining, and other amenities. There are too many upgrades to count. This house looks brand new. The asking price is $750,000 and the house has been on the market for 63 days.

Buy House B: It is a completely updated 2,800 sq. ft. single family home. A 2005 total rehab transformed this home that was built in 1980. It has 3 bedrooms and 3 bathrooms. It sits on a .34-acre lot with easy access to the expressway close to historic North Shore. It is in a great location in a walking community. The asking price is $500,000. It has only been on the market for one week.

Rent Condo A: A third option for the Shillers is to rent a condo now and to put off purchasing a home until they have a family. There is a 2500 sq. ft. condo for rent on the top floor of a new high rise. This option has 3 bedrooms and 2 bathrooms. It comes with two parking spaces in an enclosed garage. It has additional storage space in a secured area in the basement. The condo has concierge service and the elevators require a key fob to keep non-residents from wandering around the building. There is a fitness center and an outdoor pool that is located on the roof of the 20th floor. This condo rents for $2200 a month including a $200 monthly residents' association fee to cover the cost of the concierge, pool and gym maintenance, and the cleaning of the communal areas.

If the Shillers purchase one of the two houses, they plan to use the entire $120,000 for a down payment. If they end up renting, they will invest this amount of money is some index funds that are expected to earn no less than 6% annually. A possible cost of delaying the purchase of a home is that housing prices have been increasing at about 3% annually. Even if the Shillers end up renting a large condo, they know that when they have children, they will have to purchase a house. It is just a question of whether they should do that now or at some time in the future.

Your Assignment

The Shillers have turned to you for advice. They would like you to do a financial analysis of the three options presented above. They have asked you to complete the Excel spreadsheets below.

After the Shillers obtain your feedback, they will have to decide which house to purchase or to rent the large condo. If the Shillers decide on the condo option, how much will their current $120,000 savings grow to in five years if they earn the expected annual rate? How much would a house like the two-housing options cost in five years? If the Shillers are in the 30% marginal tax bracket, how would this fact alter your projections? Remaining in their current apartment is not an option. In addition to the financial analysis, what other variables do you think the Shillers should consider?

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Table I. House A - Template

	House A							
	30 Year Mortgage				15 Year Mortgage			
Type of Mortgage								
	House A	House A	House A	House A	House A	House A	House A	House A
Value of House (USD)	$	$	$	$	$	$	$	$
Down Payment (%)	20%	20%	10%	10%	20%	20%	10%	10%
Down Payment (USD)								
Loan Amount (USD)								
Points	0	1	0	1	0	1	0	1
Quoted Interest Rate (%)								
APR (%)								
PMT/Month (USD)								
Property Taxes/Month (USD)								
Mortgage insurance (USD)								
Total Payment (USD)								
Other expenses, if any (USD)								
Monthly Net Income (USD)								
Loan Balance at end of Year 5 (USD)								
Payments % of Monthly Income								
Total Interest Payments over life of loan (USD)								
Other items you would like to add								
Final Outcome: **Is this a viable choice? & Why or why not?**								

Table II. House B - Template

	House B							
	30 Year Mortgage				**15 Year Mortgage**			
Type of Mortgage*								
	House B	House B	House B	House B	House B	House B	House B	House B
Value of House (USD)	$	$	$	$	$	$	$	$
Down Payment (%)	20%	20%	10%	10%	20%	20%	10%	10%
Down Payment (USD)								
Loan Amount (USD)								
Points	0	1	0	1	0	1	0	1
Quoted Interest Rate (%)								
APR (%)								
PMT/Month (USD)								
Property Taxes/Month (USD)								
Mortgage insurance (USD)								
Total Payment (USD)								
Other expenses, if any (USD)								
Monthly Net Income (USD)								
Loan Balance at end of Year 5 (USD)								
Payments as % of Monthly Income								
Total Interest Payments over life of loan (USD)								
Other items you would like to add								
<u>Final Outcome:</u> **Is this a viable choice? & Why or why not?**								