Rent or Sell: An Investment Decision

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ABSTRACT

This is a real-life personal finance problem that is presented as an investment decision case with opportunities for analysis using the typical business finance capital budgeting framework. A number of conceptual and practical issues are raised in the case. These include: Estimating incremental cash flows, diversification benefits of real estate in a personal investment portfolio, risk and required rate of return for an investment in a less liquid market, application of the weighted average cost of capital concept for a leveraged real estate investment, and decision criteria for small business investment projects.

INTRODUCTION

Dr. D. J. Singh became an accidental landlord in October, 2007. DJ, as he was popularly known to his friends, served as a chemistry professor for 15 years at a regional university in L-Town, a city of about 100,000 people in a mid-western state. DJ moved to a larger city in the same state when he accepted a job at another university. L-Town economy is dominated by a major military base and the level of the base population and decisions made by the Federal Government on military personnel movement to/from the base heavily influenced the city's economic conditions. After a brief attempt at selling the house in the summer of 2007, and on the advice of his real estate agent and some friends who had experience in renting property in L-Town, DJ decided to rent the house he had lived in for 15 years. The city was considered a very stable rental market due to the regular flow of military personnel posted for short stints of two or three years. From October 2007 the property was rented out without a break until December 2012, when the last tenant vacated the house. The house had been vacant for nearly 3 months and the property manager who managed the rental property suggested that DJ might have to lower the rent as the rental market in L-Town has cooled off quite a bit because the military has added a lot of new housing at the base. DJ decided to re-evaluate his options and wanted to consider selling the property. He called Larry of the real estate firm that managed his property.

THE HOUSE

DJ bought the house in 1992 for $84,900, which was well over the then median price of homes in L-Town. The house, built in 1979, has 2,100 square feet living area on a 9,500 square feet lot, and is located close to good schools in a neighborhood considered typical middle-class and safe and free of crimes. Over the years, DJ had spent about $26,000 in improvements on the house. The house was appraised at $166,000 in 2007 and DJ had listed the house in 2007 for sale for $165,900 with Larry, a leading realtor in the city after interviewing several realtors. DJ felt that Larry could be trusted and would provide honest advice.

During his discussions with Larry in April, 2007, Larry indicated that L-Town property prices have gone down since 2009 and that it could now be listed for only $137,500. The fall in prices was attributed to increase in the availability of base housing for officers and enlisted personnel. Larry suggested that DJ could rent the house for about $1,100 per month, which was about $100 lower than the last tenant's rent. Larry also suggested that, if he so chose, he could list the property for sale and for rent at the same time. DJ decided to take this suggestion, and, on April 15, had the property listed at $136,900 for sale and $1,095 for rent. He was not sure what he should do if he got an offer for either one or both of his listings.

DJ had his 65th birthday in June. DJ considered his financial position fairly sound as he had saved very diligently throughout his career and accumulated very healthy balances in his retirement funds through a 403b account and two IRA accounts. His job also had a good pension plan. His two daughters were married and well settled and he felt that he and his wife, Ria could lead very comfortable retired life even if he were to retire now. However, he enjoyed his teaching job and planned to stay on his professor's job at least into his early seventies. His L-Town property was the only financial issue that worried him. However, his net investment in it was less than 10 percent of his overall net worth.

It was late June and he had received no offers on either of his listings. His email exchanges with Larry and Becky, the rental property manager, did not bring any encouraging news as both reported that there appears to an excess of rental and sale property inventory in L-Town. DJ's house had been vacant for six months and he had to spend about $125 a month in utility and yard maintenance. The house was proving to be a drain on DJ's cash flows. DJ and Ria made a trip to L-town and met Larry to discuss their options. Larry was of the view that market prospects looked rather weak for the immediate future. To DJ's question: "what is the price that would sell the house immediately?" Larry's answer: $120,000. Larry was also of the view that the L-Town real estate market was close to a bottom and if DJ does not need immediate cash, he should wait it out. He could rent the house at about $1,000 for a few years and when the real estate prices got to a more reasonable level, he could consider selling the house. Larry suggested lowering the listing price now to $129,500 and rental listing to $985.

DJ and his wife discussed their options on their drive back home and decided to take Larry's advice. DJ lowered the rent to $985, and also the listing price to $129,500. Two days later, he received an email from Becky, saying that there is an offer to rent the property and DJ has to make a decision now to rent or wait for a sale. DJ decided to go ahead and take the rental offer, but was not very sure if he did the right thing. While he knew some basic investment concepts, he was not sure how one would proceed in a situation like this. His notes and best efforts at preparing financial statements are in Appendix A. DJ asked his friend John, a finance professor, for advice for possible future use.

THE PROFESSOR'S ADVICE

John suggested that DJ consider this as an investment decision. He should decide on a "required rate of return" for the rental investment. His investment would be the net market value of the house. DJ might consider a 5-year investment horizon and collect the rental income for the 5 years and then assume that he could sell the house at about the forecast price given by Larry. John also provided a short explanation of risk-return trade off and investment decisions. Since DJ has a diversified stock portfolio as the major component of his net worth, he consider the real estate asset as adding further diversification to his portfolio. Portfolio investors typically use a

risk measure known as beta. Based on the limited information available for DJ's property and its price swings recently, John would conservatively estimate beta for the property at 0.5. The low value of the risk measure is the result of the rather low correlation the real estate asset prices in L-Town seemed to have to the stock market prices.

John added that real estate rentals could be looked at as "fixed income" investments. In this framework, the asset is evaluated using a very different methodology using what is labeled as a "Capitalization rate." This is based on multiple-unit income properties, which provides some diversification for the property owner. This method, called direct capitalization, may be adapted for evaluation of single property owners such as DJ. To calculate market value with the direct capitalization method, the following simple formula is used:

$$\text{Value of property} = \frac{\text{Net Operating Income}}{\text{Capitalization Rate}}$$

The capitalization rate represents the overall rate of return on capital that buyers of similar income properties typically require. The real estate industry's usage of cap rates reflects its historic linkage to the bond market, as real estate derives its income from promissory income streams (Ambrose and Nourse, 1993). The approach is similar to the yields used in bond market and should be seen as compensation for the risk involved in the investment. For example, a retail building with a national tenant on a long-term triple-net lease would come with an expected low cap rate, say 6 per cent. On the other hand, a four unit apartment in a questionable neighborhood might come with an expected higher capitalization rate, of, say 12 percent. Medium risk real estate investments generally yield a 9 or 10 percent rates. Capitalization rates can be seen as a method for investors to value an investment that brings future benefits (Kaiser, 1999). DJ could consider a capitalization rate that would be appropriate to his risk-return preferences. A low capitalization rate would mean a high value and vice versa. The current low interest rate environment would seem to suggest a relatively low rate.

Suggested Case Questions

Here are a few questions that may help identify the key issues:

1. Construct simple balance sheets in both book value and market value terms.
2. Suggest an investment decision framework for DJ.
3. What do you think would be an appropriate required rate of return for Dr. Singh's investment in the rental business? Please note that the return should reflect the risk he is taking in the investment.
4. Can you estimate a weighted average cost of capital (WACC) for the rental business based on your answers to questions 1 and 2 and information given in the case?
5. Using the income statement given, estimate the after-tax operating cash flows for the investment and evaluate the investment in the rental business using the capital budgeting tools you are familiar with. You may use a 5-year investment horizon and make other appropriate assumptions. Do specify and explain your assumptions.
6. Your advice to DJ?

References

Ambrose, B. and H. Nourse. 1993. "Factors Influencing Cap Rates, " *The Journal of Real Estate Research* 8(2), 221-37.

Kaiser, R. 1999. "Using Capital Markets' Value Cycles in Allocating to Real Estate vs. Stocks or Bonds." *Journal of Real Estate Portfolio Management* 5(1), 1-22.

RENT OR SELL: APPENDIX A

Information on Assets and Liabilities

Cost: Initial purchase price	$84,900
Improvements	$26,000
Total	$110,900
Accumulated Depreciation	$23,370
Net book value	$87,530

Mortgages:

First Mortgage	$42,500
Carries interest @4.0%	
Second Mortgage***	$51,500

*** Carries variable rate of interest of Prime rate: 0.75%, with a floor of 3.0%. DJ is making monthly payments of $600, which is well above the minimum monthly payments.

Listed sale price	$129,500
Net price after closing costs, etc.	115,405
Marginal tax rate	20%

Average monthly rent for 5 years $1,125

Larry's best estimate for sale price 5 years from now - $155,000

Income Statement Estimate

Annual rent - @985/month	**$11,820**
Property manager's fees @7%	$827
Insurance	$1,200
Property taxes	$1,380
Maintenance costs**	$650
Depreciation	$4,064
Interest	$3,245
Income before taxes	**$454**
Income taxes @20%	**$91**
Net income	**$363**
Operating Cash flow (after-taxes)	7,672

** Average of last 5 years.