Evaluating Residential Investment Strategies

Joshi Shreya, Shaik Salma Aga, Upputuri Lakshmi Anusha, Yeluri Monica

ISE 200, San José State University, San José, CA

Investing in real estate in desirable areas like San Jose and Sunnyvale requires a deep grasp of finances for stability. Understanding the economic terrain is key to secure long-term success in property ventures. This study delves into the economic ramifications of property acquisition in these vibrant Silicon Valley regions. Various purchasing methods are considered, encompassing both conventional and innovative approaches, while employing financial metrics like Net Present Value (NPV) and Equivalent Uniform Annual Worth (EUAW). By comprehensively analyzing costs, returns, and risk factors, this study equips individuals and investors with the insights necessary to navigate the booming real estate markets in these coveted Silicon Valley locations. It aims to provide a nuanced understanding of financial sustainability, offering guidance amidst competitive domestic real estate demands, enabling stakeholders to make well-informed choices regarding property acquisition and investment

Introduction

It is important for people to look at financial sustainability if planning to buy a house or invest in real estate at San Jose and Sunnyvale. The present study investigates the financial consequences of purchasing or renting such structures through four distinct financing arrangements: cash payment in full, bank loan spread over five years, buyout via third party over seven years, and lease/rent scenarios. To give a thorough knowledge of the long-term financial implications of each choice, the analysis will include important financial measurements including Net Present Value (NPV) and Equivalent Uniform Annual Worth (EUAW). This study aspires to give consumers with the knowledge they need to make informed opinions in extremely competitive domestic real estate requests.

# PROBLEM STATEMENT

Our task is to compare the financial impacts of purchasing or renting a one BHK apartment in Sunnyvale and San Jose using a various of financial techniques Our goal is to examine and evaluate four distinct methods of purchasing real estate: leasing or renting, a 5-year bank loan, a 7-year third-party buyout agreement, and full upfront payment. Our goal is to determine the most favorable financial path through this investigation by assessing variables like Equivalent Uniform Annual Worth (EUAW) and Net Present Value (NPV). In these highly competitive housing markets, this analysis will enable individuals and stakeholders to make informed decisions about residential choices and real estate investments. (Ignoffo, 1991)

## Key Challenges

*Financial Complexity.* There are a variety of complex financial scenarios with different total costs, cash flows, and net present

values (NPVs) when using the different payment options, which include full payment, bank loans with variable down payments and repayment terms, and leases with or without buyouts. To make sure the most economical and financially feasible decision is made, a thorough understanding, and comparison of these options is necessary, requiring financial literacy and expertise.

*Maintenance fees and other costs.* Over time, the overall cost of ownership is greatly impacted by the recurring maintenance costs connected to each payment choice. Since these fees add to the entire cost of property ownership, they should be carefully evaluated and considered when making decisions

*Salvage Value and Depreciation.* As seen in the computations, the idea of salvage value and depreciation adds layers of complexity to the long-term assessment of real estate. Assessing long-term investment returns and exit plans requires an understanding of how the property's value depreciates and what salvage value may be expected at certain times in time.

*Interest Rates and Loan Terms*. There are a variety of complex financial scenarios with different total costs, cash flows, and net

present values (NPVs) when using the different payment options, which include full payment, bank loans with variable down payments and repayment terms, and leases with or without buyouts. To make sure the most economical and financially feasible decision is made, a thorough understanding, and comparison of these options is necessary, requiring financial literacy and expertise.

*Market Volatility and Inflation.* Presumptions concerning inflation, appraisal rates, and depreciation (e.g., 7% appraisal, 9% inflation, and 4% depreciation) might create uncertainty about future expenses and property values. Long-term changes in market conditions may have an impact on the chosen payment option's financial viability.

*Comparing Lease vs. Ownership.* It assessing the advantages and disadvantages of retaining versus renting entails comparing the

parcel option with no buyout to power choices, considering rudiments like long- term equity structure, inflexibility, and general fiscal stability. (Shishir & Alicia, 2007 )

# Methodologies for Resolving the Issues

To thoroughly explore the long-term costs of owning two diverse residences, this study utilizes a comprehensive empirical strategy centered on evaluating the principles of Net Present Value (NPV) and Equivalent Uniform Annual Worth (EUAW). (Meese & Wallace, 1994)

## Data Collection

To examine various payment choices for purchasing a 1BHK property, data collection requires obtaining information such as property price, fees (registration, legal, maintenance), loan terms (down payment, interest rate, payback schedule), and salvage value estimations. In order to create an accurate financial model for assessing the overall cost and viability of each payment option, this method makes sure that all pertinent financial characteristics and assumptions are considered.

## Net Present Value Calculation

In order to find the current value of the investment, the net present value (NPV) was computed by taking into account future cash flows, which includes salvage value, and then deducting the initial and ongoing costs. The net present value technique determines the overall effect of cash coming in and going out throughout the duration of an investment, taking into consideration the importance of money's value over time. This makes it easier to evaluate the profitability and financial viability of various payment methods.

## Depreciation And Salvage Value Calculation

Salvage value was calculated using a residual rate of 103% applied to the original purchase price, and depreciation was calculated at a set rate of 4% year to approximate the property's value decrease over time. These computations help with long-term investment planning and exit strategy considerations by offering insights into the property's predicted value trajectory and prospective selling value.

## Loan Repayment Analysis

To evaluate the effect on cash flows and overall investment costs, the total loan amount, down payment, interest rate, and annual repayment amounts were examined for payment choices including bank loans. By analyzing loan repayment terms, one can determine which payment option is most financially favorable by gaining an idea of the affordability and overall financing cost of each choice.

## Comparison of Cash Flows and Costs:

To determine the most economical and advantageous course of action, cash inflows (such as salvage value) and outflows (such as upfront expenses, maintenance fees, and loan repayments) were compared across a range of payment alternatives. Decision-makers can select payment choices that maximize returns or minimize total spending over the investment period with the help of this comparison study.

## Sensitivity Analysis and Financial Assumptions

The depreciation rate, residual rate, appraisal rate, and inflation rate were among the several financial assumptions used to model the property's worth and financial performance under various conditions. Sensitivity analysis, which involves adjusting important underlying assumptions, supports risk management and informed decision-making by illuminating the possible effects of market conditions that may be unpredictable or ambiguous on investment outcomes.

# RESULTS

## Higher Salvage value

Sunnyvale offers a higher salvage value across the board compared to San Jose, which can be beneficial for long-term asset retention value. (Shami, 2006)

## Better EUAW

Most EUAW figures for Sunnyvale are significantly higher than those for San Jose, suggesting that the annual worth of investments in Sunnyvale might yield better returns over time.

## Favourable NPV in Specific Cases

For Bank Loan Option 1 and Buyout through third-party dealer Option 1, Sunnyvale displays a much more favourable NPV, indicating a higher net benefit over time when compared to San Jose.

**More Expensive Monthly Payments**

Monthly payments in Sunnyvale are consistently higher, which could impact short-term cash flow but might be justified by the higher salvage values and EUAW figures.

**Consistent Negative NPV for Leases**

Both locations show a negative NPV for leasing options without buyout, indicating that these options might be less favourable compared to purchasing or financing options.

**Figure 1.1: Salvage value diagram**

**Figure 1.2: San Jose Investment Strategy diagram**

**Figure 1.3: Sunnyvale Investment Strategy diagram**

# Discussion

The examination of various payment methods for buying a one-bedroom apartment provides crucial information for making decisions. We can comprehend the financial effects of one-time expenses, recurring maintenance costs, loan repayments, and possible salvage value over a seven-year period by computing Net Present Value (NPV) for each option. We can evaluate the viability and profitability of lease alternatives, bank loans with different down payments, and full payment using the net present value (NPV) technique. Furthermore, taking salvage value and depreciation into account sheds light on how the property's worth varies over time and influences possible resale tactics. Analysis of loan payback provides insight into the affordability and overall financing costs of various loan arrangements. Finding the most economical course of action is aided by comparing the costs and cash flows of various options, and sensitivity analysis on financial assumptions draw attention to possible dangers and uncertainties. The best payment option that fits your investment objectives and financial situation can be chosen with the help of this thorough financial analysis. (Matthew, 2004)

## Interpretation of Results

*Net Present Value (NPV) Analysis*. NPV tells how the future cash flows in today’s terms. This involves discounting cashflows to

present value using a discount rate this would reflect risk and opportunity cost. A negative NPV signals financial disadvantages, while a positive NPV indicates potential financial benefits.

*Depreciation and Salvage Value*. Depreciation helps to understand how property value decreases over time and estimating salvage

value at the end of the analysis period.

*Loan Repayment Assessment*. Evaluating loan repayment terms helps understand borrowing affordability and total costs.

*Comparison of Cash Flows and Costs*. comparison of cash flows helps in determining which method provides the best balance between cost and benefit over time.

*Sensitivity Analysis on Financial Assumptions*. Sensitivity analysis examines how varying financial assumptions affect investment outcomes, revealing risks and uncertainties in different payment methods. (Daniel, Patrick, & Ken, 2019)

## Conclusion

Sunnyvale often requires larger monthly payments, but for long-term investments in particular, its higher salvage values and overall better NPV and EUAUW numbers indicate that Sunnyvale would be the most financially advantageous choice. San Jose or Sunnyvale would be chosen based on one's ability to pay for greater upfront expenses weighed against Sunnyvale's potential for higher long-term returns.

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# Appendix 1: salvage value table

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**Figure 2.1: Salvage value comparison**

# Appendix 2: san Jose

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| --- | --- |
| **Assumptions:** |  |
| **Depreciation** | **4.00%** |
| **Residual Rate** | **103.00%** |
| **Appraisal** | **7.00%** |
| **inflation** | **9.00%** |

**Figure 2.2: Assumptions of San Jose**

# Appendix 2: sunnyvale

|  |  |
| --- | --- |
| **Assumptions:** |  |
| **Depreciation** | **4.00%** |
| **Residual Rate** | **106.00%** |
| **Appraisal** | **10.00%** |
| **inflation** | **9.00%** |

**Figure 2.3: Assumptions of Sunnyvale**