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## Chapter 20 Real Estate and Other Investments

## SOFTWARE <br> ACTIVITY <br> (OPTIONAL)

## Spreadsheet Application

## Choosing Investment Alternatives

Objective: Compare and assess the potential rewards and risks associated with investment alternatives.

## Practice Situation

Raju's parents gave him $\$ 2,000$ as a graduation gift. He is very interested in the real estate industry and wonders whether he could invest in that area.

His father suggests that Raju might invest his money in a mutual fund participation certificate. He can buy into a mutual fund offered by the Federal Home Loan Mortgage Corporation for $\$ 2,000$. He will be charged a 1 percent commission on the purchase of the certificate. The guaranteed return on this investment is 5.5 percent annually. Raju plans to cash out any interest he earns in the mutual fund as it is paid to him. Assume the participation certificate will increase in value by 11 percent in four years.

As a second alternative, Raju researched the possible purchase of Oracle Corporation common stock, currently selling at $\$ 80$ per share. Recent news featured the Oracle Internet platform and forecasted heavy use by Web developers worldwide. Oracle paid dividends of $\$ 3.87$ per share for the last year. Assuming this dividend will be paid at the same level over the next four years, calculate the annual dollar returns that Raju can expect for this option. Raju will have to pay a $\$ 50$ fee for this stock purchase. In researching this stock, he finds that Oracle stock has increased in value by 6 percent every year for the past five years. Assume that the Oracle stock value continues to increase by 6 percent each year.

Complete the following spreadsheet to help Raju analyze his investment opportunities and potential returns.
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| Investment Costs: | Mutual Fund <br> Participation Certificate | Oracle <br> Stock |
| :--- | :--- | :--- |
| Investment amount |  |  |
| Plus Commission |  |  |
| Total Investment Costs |  |  |
| Annual Anticipated Returns: |  |  |
| Annual interest or dividend earned Year 1 |  |  |
| Annual interest or dividend earned Year 2 |  |  |
| Annual interest or dividend earned Year 3 |  |  |
| Annual interest or dividend earned Year 4 |  |  |
| Total earned |  |  |
| Potential Value at Year 4: |  |  |
| Market Value of investment at Year 4 |  |  |
| Summary Information: |  |  |
| Potential selling price |  |  |
| Less investment cost |  |  |
| Profit from sale of investment |  |  |
| Plus interest or dividend returns |  |  |
| Potential profit and interest from <br> transaction |  |  |

## Spreadsheet Directions

1. Start your spreadsheet software program and open problem SA11.xls.
2. Record Raju's costs involved with each investment opportunity to determine his total investment costs.
3. Next, compute the annual returns expected for each investment. Remember that Raju does not intend to reinvest interest earnings.
4. To compute the potential value of each investment at Year 4, review the data presented for the anticipated increase for the mutual fund and the stock. Insert formulas to compute these increases in value.
5. Finally, determine the potential profits and interest from each transaction based on the data presented.
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6. Perform your calculations and complete the spreadsheet, then save your work to a new file labeled SA11***.xls. (Replace ${ }^{* * * *}$ with your initials.)
7. Print out a copy of your work if your teacher has instructed you to do so.

## Interpreting Results

1. How many shares of Oracle stock could Raju purchase with his graduation gift?
2. What would the total investment cost be for the mutual fund participation certificate?
3. What amount of dividend income does Raju expect to earn over the four years that he plans to hold the shares of Oracle stock?
4. If the assumption for each investment's potential value were realized, what total profit and interest for each investment would be earned?

## Drawing Conclusions

1. Assuming that Raju wants to invest his money in an investment that carries less risk, which investment would you recommend? Explain.
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2. Before Raju invests his money, list the types of research that he should do to investigate his investment interests. What sources of information would help Raju make an informed decision?
