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## Chapter 19 Bonds and Mutual Funds

SOFTWARE<br>ACTIVITY<br>(OPTIONAL)

## Spreadsheet Application

## Calculating Profit or Loss on a Bond Transaction

Objective: Calculate the profit or loss realized on a bond transaction.

## Practice Situation

Assume that you purchased an $83 / 8$ percent Phoenix Municipal Water Bond on December 1, 2006. You paid $\$ 650$ plus a $\$ 25$ commission charge, for a total investment of $\$ 675$. The bond holds a maturity date of 2026 . On December 1,2016 , you sold the bond at its current market value of $\$ 1,050$. Complete the spreadsheet to determine the total profit or loss on the bond transaction. Then, answer the questions that follow.

| Purchase Costs |  |
| :--- | :--- |
| 1 bond @ $\$ 650$ |  |
| Plus commission cost |  |
| Total investment |  |


| Returns when Sold |  |
| :--- | :--- |
| 1 bond @ $\$ 1,050$ |  |
| Minus commission fee |  |
| Total return on sale |  |


| Transaction Summary |  |
| :--- | :--- |
| Total return on sale |  |
| Minus total investment |  |
| Profit from bond sale |  |
| Plus interest |  |
| Total profit and interest on transaction |  |

## Spreadsheet Directions

1. Start your spreadsheet software program and open problem SA10.xls.
2. Using the data presented, first input the purchase costs for the bond. Note: Format all dollar amounts to Number, $\underline{2}$ decimal places. Use 1000 Separator (,).
3. Next, input the data for the dollar returns on the sale of the bond.
4. Complete the transaction summary information. When computing the interest on the bond, remember to multiply the annual interest earned by the number of years that the bond has been held.
5. When you have completed your spreadsheet, save your work to a new file labeled SA10***.xls. (Replace **** with your initials.)
6. Print out a copy of your work if your teacher has instructed you to do so.
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## Interpreting Results

1. What was your total investment for the bond on December 1, 2006 ? $\qquad$
2. What were the total dollar returns on the sale of the bond on December 1, 2016?
3. What total interest income was earned on the bond for the period of $12 / 1 / 2006$ through $12 / 1 / 2016 ?$
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4. What total profit and interest was earned on the bond transaction?

## Drawing Conclusions

1. In this example, the Phoenix Municipal Water bond was sold well in advance of its maturity date. If the bond had been held until its maturity date, what total interest would have been earned over the life of the bond?
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2. What factors might cause an investor to sell a bond prior to its maturity date? How might fluctuations in the overall interest rates of the economy impact bond market values? Explain.
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