

The first two problems are taken directly from one of our previous BUS-121, Principles of Money Management, textbooks. It was written in late 2004 / early 2005 while the real estate mania was raging. The last problem was conveniently omitted from the book. I took the opportunity to number it appropriately.

1. *Calculating the Return on Investment without using Financial Leverage.* Dave bought a rental property for \$200,000 cash. One year later, he sold it for \$240,000. What was the return on his \$200,000 investment?

$$\begin{array}{r} \$240,000 \text{ selling price} \\ - \$200,000 \text{ initial price} \\ \hline \$40,000 \text{ dollar return} \end{array} \quad \frac{\$40,000 \text{ dollar return}}{\$200,000 \text{ initial investment}} = 0.20 \text{ or } 20\% \text{ return}$$

It costs us \$200,000 to make \$40,000.

2. *Calculating the Return on Investment using Financial Leverage.* Suppose Dave invested only \$20,000 of his own money and borrowed \$180,000 (90% financing). What was his return on investment?

$$\begin{array}{r} \$240,000 \text{ selling price} \\ - \$200,000 \text{ initial price} \\ \hline \$40,000 \text{ dollar return} \end{array} \quad \frac{\$40,000 \text{ dollar return}}{\$20,000 \text{ initial investment}} = 2.00 \text{ or } 200\% \text{ return!}$$

It only costs us \$20,000 to make \$40,000! What a deal!

666. *Calculating the Return on Investment using Financial Leverage and things do not go as planned.* Suppose Dave invested only \$20,000 of his own money and borrowed \$180,000 (90% financing) ... and the property value went down 20%. Now, the question is, "What is he going to tell his wife?"

$$\begin{array}{r} \$200,000 \text{ initial price} \\ * \$20\% \text{ drop} \\ \hline \$40,000 \text{ drop in value} \end{array} \quad \begin{array}{r} \$200,000 \text{ initial price} \\ - \$40,000 \text{ drop in value} \\ \hline \$160,000 \text{ property is now worth} \end{array} \quad \text{But he still owes } \$180,000!$$

"Honey, we have a problem ..."