Chapter 6 – Example 1

You are considering buying a bond with a 15-year maturity that has a face value of $1000 and a coupon rate of 8% (semi-annual payments). What cash flows would you pay and receive from your investment if the yield to maturity on the bond is 6% now and 7% when you sell it 2 years from today (just after a coupon is paid)?

$$V_0 = \frac{40}{.03}\left(1 - \left(\frac{1}{1.03}\right)^{30}\right) + 1000\left(\frac{1}{1.03}\right)^{30}$$

$$V_2 = \left(\frac{40}{.035}\right)\left(1 - \left(\frac{1}{1.035}\right)^{26}\right) + 1000\left(\frac{1}{1.035}\right)^{26}$$

CF: $0 = -V_0$

$\quad\quad\quad \frac{1}{2}, 1, 1\frac{1}{2} = +40$

$\quad\quad\quad 2 = +40 + V_2$