Tutorial 5: Asset Pricing

ECON 3123: Macroeconomic Theory I

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Example 1: Investment Choices

Suppose that an investor has a choice between buying a 3-year bond with a face value of \$60 and a stock paying a constant dividend of \$20 per year, which the investor plans to hold for three years. The real interest rate on the stock and the bond is the same, 5%. in addition, the risk premium on the stock is constant at 10%, while on the bond, it is 5%.

1. Compare the present values of the two investments. Which one should the investor choose?
2. Imagine that the risk premia on the stock and the bond were to be equalized at 5%. How would that affect the choice made in part (1)?
3. Suppose now that risk premium returns to its initial value, which is 10% for the stock and 5% for the bond. The interest rate changes each year for bothsecurities: 5% in the first year, 8% in the second, and 12% in the third. How would that affect the investor's valuation of the two investments? How would you explain your result?