

## Study Plan

### Chapter 4

#### **Learning objectives**

After completing this chapter you should be able to:

- Recall the fundamental concepts that determine how we value assets;
- Understand the vocabulary that describes bonds and the markets in which they trade;
- Interpret the relationship between bond prices and interest rates; and
- Explain the meaning of the “term structure of interest rates.”

#### **Summary and conclusions**

- Valuation is a process that links an asset’s return with its risk. To value most types of assets, one must first estimate the asset’s future cash flows and then discount them at an appropriate discount rate.
- Pricing bonds is an application of the general valuation framework. A bond’s price equals the present value of its future cash flows, which consist of coupon and principal payments.
- The yield to maturity is a measure of the return that investors require on a bond. The YTM is the discount rate that equates the present value of a bond’s cash flows to its current market price.
- Bond prices and interest rates are inversely related. When interest rates rise (fall), bond prices fall (rise), and the prices of long-term bonds are more responsive in general to changes in interest rates than short-term bond prices are.
- Bonds are categorized based on who issues them or on any number of features such as convertibility, callability, maturity, and so on.
- Bond rating agencies help investors evaluate the risk of bonds. Bonds with lower ratings must offer investors higher yields.
- The return that is most important to investors is the real, or inflation-adjusted, return. The real return is roughly equal to the nominal return minus the inflation rate.
- The “term structure of interest rates” describes the relationship between time to maturity and yield to maturity on bonds of equivalent risk. A graph of the term structure is called the yield curve. The slope of the yield curve is highly correlated with future economic growth.