# Chapters One & Two

**Chapter Overview**

**Learning Objectives**

After a careful reading of this chapter, you should be able to list and define the functional skills and areas of knowledge that comprise managerial economics and to describe the five steps involved in the decision-making process. You should understand the objectives and constraints that influence the behavior of firms, the function of profit in motivating a firm's behavior and in allocating society's resources, the role of business ethics in defining appropriate conduct by a firm and its employees, and the influence of globalization on the nature of the modern business environment.

Chapter 2 is a review of supply, demand, and market equilibrium that should refresh your understanding of these topics. Finally, you should have developed an appreciation for the contribution that a knowledge of managerial economics can make to the quality of managerial decisions and, consequently, to the efficiency with which firms operate.

**Software Tools**

Many of the problems that you will encounter in this chapter will require you to carry out calculations that involve the time value of money. One of the popular calculators that is helpful for these types of calculations is Texas Instruments BA II Plus. Excel spreadsheet is also very convenient in doing such calculations.

**Summary of Notation and Formulas**

 (1–1) $Q=f\left(P,Y,P\_{C},P\_{S}\right)$

Equation 1–1 is a mathematical expression that represents a demand function, where Q is the quantity demanded of a commodity per time period, P is the price of the commodity, Y is consumer income, PC is the price of a complementary commodity, and PS is the price of a substitute commodity. The equation is presented as an example of a general mathematical model that is used to represent an economic theory: one can read it as quantity demanded is a function of product’s price, consumer’s income, price of complements and price of substitutes.

(1–2) $PV=\frac{π\_{1}}{\left(1+r\right)^{1}}+\frac{π\_{2}}{\left(1+r\right)^{2}}+…+\frac{π\_{k}}{\left(1+r\right)^{k}}$

(1–2a) $PV=\sum\_{t=1}^{k}\frac{π\_{t}}{\left(1+r\right)^{t}}$

(1–3) $Value of the Firm=\sum\_{t=1}^{k}\frac{TR\_{t}-TC\_{t}}{\left(1+r\right)^{t}}$

Equations 1–2, 1–2a, and 1–3 are equivalent. They define the present value of a firm as the total discounted value of future profits, where PV is present value, n is the number of time periods, $π\_{t}$ is the profit in time period t, which is equal to total revenue in time t (TRT) minus total cost in time t (TCT), and r is the interest rate used to discount future cash flows to present value.