Chapter 1

INTRODUCTION: CAPITAL FORMATION, RISK, AND THE CORPORATION

The corporation is the major institution for private capital formation in our economy. The corporate firm acquires funds from many different sources to purchase or hire economic resources, which are then used to produce marketable goods and services. Investors in the corporation expect to be rewarded for the use of their funds; they also take losses if the investment does not succeed. The study of corporation finance deals with the legal arrangement of the corporation (i.e., its structure as an economic institution), the instruments and institutions through which capital can be raised, the management of the flow of funds through the individual firm, and the methods of dividing the risks and returns among the various contributors of funds. The goal of corporate management is to maximize stockholder wealth. A major societal function of the firm is to accumulate capital, provide productive employment, and distribute wealth. The firm distributes wealth by compensating labor, paying interest on loans, purchasing goods and services, and accumulates capital by making investments in real productive facilities.

1. FINANCIAL MATHEMATICS AND THEORY

The financial market is basically free of the frictions of imperfect competition. Securities of a given class and grade are largely homogenous, and the traders and investors do not have strong label or brand preferences. Because the markets are large and have a long history, there is a large mass of data that can be evaluated. This means that financial theory and derived mathematical models may be better evaluated, more appropriate, and better applied than elsewhere in the continuum of business and economic studies. We make extensive use of data in this text, using the data found on the Personal Finance directory of America On Line (AOL), Standard & Poor’s (S&P) Stock Guide, Wharton Research Data Services (WRDS) Compustat, Global Compustat, IBES, and Center for Research in Security Prices (CRSP) databases. These databases are well known and respected sources of financial data. The investor or financial researcher can find five years of data on AOL, 10 years of data in the S&P Stock Guide, 20 years of income
statement and balance sheet data on an industrial Compustat database, and data for the 1950-2003 period with the WRDS Compustat data facilitates. We specifically selected Dominion Resources, DuPont, IBM, as firms to study with respect to their respective financial statements, ratios, valuation, and the cost of capital. These three firms are large, respected firms in their industries, and are familiar to many readers of this text. The reader is introduced to regression and time series analysis to facilitate quantitative analysis, such as estimating betas, or measures of market risk, forecasting earnings per share, predicting stock rankings, analyzing the predictive power of the leading economic indicators.

2. GROWTH AND SURVIVAL OF THE FIRM

Finance focuses on the flow of values through the firm. Corporate finance is concerned with how the firm produces goods and services, generates cash flow, and generates returns for its investors. It explores the effects that different levels of the flow of values over time will have upon the complex legal and accounting entities making up the firm. It is interested in the relations between the legal owners and the various classes of creditors, and it explores the circumstances under which the claims of the original owners can grow and survive and be augmented, or, in contrast, those circumstances under which the legal claims of the owners must be forfeited to the claims of the creditors.

3. RISK AND UNCERTAINTY INHERENT IN FINANCE

The financial management has the tasks of minimizing the total cost of financial funds to the firm, providing adequate resources for expansion at a cost low enough to make it profitable at a risk low enough to maximize the firm’s chance of survival and its stock price. Sometimes the problem of providing adequate funds at minimum financial costs can be separated from the problem of survival or risk and be dealt with simply as a problem in costing or economics. Where this is possible, however, it is usually because some earlier decision set the bounds of the problem. An earlier decision assumed the risks, and historically assumed risks can no more be discarded than historically assumed sunk costs.

Whatever the initial approach, the heart of financial theory is the problem of risk and risk-bearing. The flow of values generated by an