CHAPTER 1
The Investing Environment

A. Introduction and Investment Objectives

Stock markets are typically the first thing that comes to the minds of most people thinking about finance. World stock markets have grown to well over $50 trillion, or about $10,000 for every person on the planet. This course will discuss the instruments traded in equity markets as well as the markets themselves. We will emphasize valuation, trading and the efficiency of markets.

Shares of common stock are securities entitling the holder to shares of any dividends that the issuing company' might pay, providing for voting rights where applicable and, in the event of liquidation, providing the right to the company's assets after all bondholder, other debt holder, and preferred stockholder claims have been fully satisfied. That is, common stock can be regarded as a limited liability or residual security. Common stock holders' losses are limited to their investment and common stock holders presumably have a claim on all of the assets remaining after bondholders and all other fixed claimants have their claims satisfied. Shareholders of common stock in the typical corporation normally are granted a number of rights that are specified in the corporate charter. The most significant of these rights are related to income (the right to receive a dividend if one is to be paid) and to vote in the affairs of the company.

Publicly traded shares are issued either through a public offering, a rights offering or through deferred equity securities such as warrants and convertibles. Common stock is typically issued with a par value (the minimum value at which a company's stock can be issued to shareholders) that usually has very little market significance. Because par value is sometimes regarded as a mechanism to protect corporate creditors, many states prohibit the firm from payment of dividends if their payment would impair the capital implied by par value. However, this protection is not particularly meaningful because most corporations issue stock with only a nominal par value. The corporation will be authorized by its charter to issue a specified number of shares, some of which may remain unissued. Issued shares will either be held by shareholders (outstanding shares) or held in the corporate treasury (treasury stock). Treasury stock was previously outstanding and subsequently repurchased. In addition, shares may be classified according to shareholder rights to vote and to receive dividend income. That is, some shares may receive more or less than one vote per share.

More generally, investing is the commitment of money or capital with the expectation or realizing future benefits. Usually, investing commits money towards some sort of productive activity. Investments may be directed towards real assets (equipment, buildings, land, technology, knowledge, etc.). Alternatively, investments may be directed towards securities paper or electronic documents that represent claims on real assets or other securities.

An individual, group of individuals or an institution engages in productive activity for the purpose of receiving some benefit, material or otherwise, from this activity. From a financial perspective, one invests by directing his monetary assets towards productive activity, normally

for the purpose of receiving increased monetary assets (profit) in the future. This productive activity may be related to the provision of goods or services. For example, an investor investing his monetary assets or capital in the productive activity of an industrial corporation by purchasing its stock may be providing funds which will enable that company to obtain equipment to produce products needed by consumers. Consumers desiring this units of this product may be willing to pay enough for them such that the investor obtains a significant profit due to the cash generated by the product sales.

Investment activity may also be directed towards furthering the efficiency of the investment process itself. For example, some investors will attempt to profit by engaging in risk-shifting activities such as taking positions in futures and options contracts.[1] Because of the uncertain nature of the future, most investment in productivity involves the assumption of risk. Many investors with monetary assets may not be willing to assume certain levels of risk and may be hesitant to direct their funds towards productive investment activity. Other investors may be willing to assume the risks associated with these investments if they can obtain increased profits from doing so. Several types of investment contracts exist for the purpose of enabling investors to trade risks among themselves.

From a social perspective, one might characterize the objective of investment as the proportion of optimal allocation of society's resources and to provide for its future welfare. From an individual or microeconomics perspective, the investment objective might be to maximize the individual's wealth or the utility or satisfaction that the investor derives from his wealth. This utility or satisfaction might be related to the following investment considerations:

1. Profits: Investment activity leading to increased wealth is clearly of utmost concern to most investors.
2. Safety versus risk: Since the future is uncertain, investment outcomes are subject to risk. Most investors prefer situations of certainty to situations of risk. However, investors may be able to select investments that enable them to control or limit their exposure to risk.
3. Liquidity: Liquidity issues arise when investors are concerned about their abilities to liquidate (convert into cash or sell) their investment securities.
4. Current Income: Many investors, such as retirees living on fixed incomes generated from their savings, will be concerned with current income or cash flows that their investments generate.
5. Taxes: Many investors, particularly those in high tax brackets, will wish to select investments to limit their tax liabilities.
6. Growth: Investors without pressing needs for current income will wish to invest so as to provide for growth in the size of their investment portfolios. For example, many younger professionals generate sufficient current income from their jobs such that they invest for future portfolio growth, perhaps providing for their retirements.
7. Manageability: Investors without significant technical expertise may wish to select investments which are easy to manage or may wish to invest funds with

[1] Futures and options contracts, often used for the purpose of affecting investment risk levels, will be discussed in detail later.

professional managers.

8. Social Responsibility: Investors with social or other considerations such as those concerning the environment, military or foreign governments may wish to pay particular attention to how monies that they invest will affect those issues which concern them.

Clearly, shareholders in a corporation are concerned with increasing their own wealth. However, what is the objective of the corporation itself? Determining the objectives of the firm is not necessarily a straightforward task because the typical firm will have many types of participants (stakeholders). Among these stakeholders are shareholders, creditors, managers, employees, customers, suppliers, governments and a variety of special interest groups. The objectives of these different types of participants are likely to be in conflict. For sake of simplicity, we will simply assume that the objective of the corporation is to create or maximize wealth. However, exactly whose wealth is to be maximized? Maximization of shareholder wealth may directly conflict with the maximization of managerial wealth or the wealth of creditors. This conflict in corporate objectives is known as the agency problem. Corporations must maintain plans to align objectives of its participants to contend with this problem. For example, bonus or stock plans for managers and employees may help align their objectives with those of shareholders; managers and employees participation in such plans may increase the incentive to act on behalf of shareholder interests.

Do managers really act on behalf of the shareholders who appoint them? What is the primary objective of the manager? Some managers might be primarily interested in job security or increasing their status or salaries. These objectives may conflict with the interests of the shareholders who (through the board) appoint them. This is an example of the agency problem introduced earlier. Here, shareholders and the managers (agents) they appoint to represent them have conflicting interests. As mentioned earlier, it is possible to partially resolve this agency problem with appropriate incentive compensation and promotion schemes, although these schemes usually are not perfect and are often expensive.

One might assert that the objective of shareholders is to maximize their own wealth. However, shareholders tend to be widely dispersed and self-centered. Thus, shareholders are frequently at a competitive disadvantage when conflict arises between them and a well-organized cohesive management team. This is very likely to lead to the so-called *Free Rider Problem* (a form of the *Prisoner's Dilemma Problem*) where each shareholder acting in his own best interests regardless of the actions of other shareholders actually obtain sub-optimal wealth outcomes. Essentially, in this scenario, no single shareholder is willing to bear the cost of monitoring and disciplining the management team. This enables managers to act in their own interest at the expense of shareholders. For example, suppose that I only have 100 shares invested in ICBM stock. How much incentive do I have to monitor what the managers do? If other shareholders maintain holdings similar to my own, none of us would be willing to bear the costs of monitoring and disciplining managers.

B. An Introduction To The Theory Of The Firm

Business organizations provide goods and services in free market economies. In the process, they seek profits from their business activities. The most common forms of business organizations in the United States are *proprietorships*, *partnerships* and *corporations*. A proprietorship is owned by a single individual who retains all of its profits and is responsible for all of its obligations. A partnership is jointly owned by more than one person or entity that share in its profits and obligations. These partnerships are typically treated by governments as entities separate from their partners and other affiliates; partnerships can enter into contracts, borrow, lend, own property, pay income taxes and exercise other rights just as individuals do. Corporations, also known in various countries as limited liability companies, public limited companies and joint stock companies are also treated as entities, separate from their shareowners. Many corporations issue shares of stock to be publicly traded. The focus of this book is how such companies are controlled, governed, acquired and restructured.

Understanding firms and analyzing their behavior is simplified by constructing models. The simplest model of the firm is based on a single entrepreneur or owner-manager who single-mindedly manages the firm so as to maximize his own profits or wealth.[2] This model provides for the simplest analyses because the single owner-manager can be assumed to manage the firm intending to maximize his own wealth. However, in reality, most larger firms have more than one shareowner. Typically, most shareowners play little or no role in the management of the firm. This means that modeling firm behavior must account for the often-complex interactions among the various shareowners and managers. Because actual ownership and managerial structures are more complex than the simple single owner-manager model of the firm, the classical model of the firm structures managers who are entities separate from stock holders. These managers are presumed to manage the firm on behalf of shareholder interests, even putting shareholder interests ahead of their own self-interests.[3] Many well-known financial models are based on this classical model.

Further complicating the governance of the firm is the myriad of other *stakeholders* in the firm. Any individual or organization with an interest in the firm is regarded to be a stakeholder. Such stakeholders can include shareholders, managers, employees, customers and clients, governments, public interest groups, suppliers, etc. Perhaps the most interesting developments in understanding firm behavior have been realized by modeling the firm as a nexus of contracts among factors of production, each of whom act in their own economic self-interests.[4] More generally, *organizations are simply legal fictions that serve as a nexus for a set of contracting relationships among individuals*.[5] In the early 19th century, Chief Justice John Marshall characterized the corporation as "an artificial being, invisible, intangible, and existing only in the contemplation of the law." Note that these characterizations seem to sidestep issues concerning

[2]For example, see Fama [1980].

[3]See, for example, Coase [1937], Cyert and March [1963] and Williamson [1964].

[4]See Alchian and Demsetz [1972], Jensen and Meckling [1976] and Fama [1980]

[5]Jensen and Meckling [1976], p. 87.

who owns the corporation and what its objective is. A state or government might recognize the *corporate charter* created by shareholders to be the central contract defining the firm. The corporate charter (discussed later) defines rights and responsibilities of shareholders. This corporation then enters into a variety of other contracts with managers, employees, suppliers, customers, etc. Many of these contracts will be formal and others might be less formal or even unwritten or implicit.

Production in decentralized economies is a complex process involving a variety of stakeholders and markets. Perhaps the most important role of markets is to provide for the allocation of capital, labor and other resources. Markets play other important roles in the economy as well. For example, they facilitate the aggregation of information that enables various stakeholders to understand the production and marketing processes. Markets provide for the monitoring of corporate performance and provide opportunities for risk sharing and speculation.

The corporate form of organization has evolved to become the dominant structure for productive activity throughout the industrialized world. Defining the corporation is important to model and understand its behavior. However, defining the corporation is not necessarily an easy task. In the United States, the I.R.S. regards the corporation to be a business organization having four essential characteristics: limited shareholder liability, unlimited life span, centralized management and transferable ownership. However, while this listing of characteristics is useful for tax purposes, it still does not define the corporation. In the academic literature, the definition of the firm varies according to discipline. Because organizational structures vary around the world, and precise definitions are important for modeling and analysis, defining the firm for purposes of our discussion is important. For example, Alchian and Demsetz [1972] view the corporation as a contractual structure where production is the result of coordinated activities among involved parties. Alchian and Demsetz emphasize the separate natures of the parties involved in the firm and their joint contributions to production. Jensen and Meckling [1976] emphasize the contractual nature of the firm, stating that "Contractual relations are the essence of the firm, not only with employees but with suppliers, customers, creditors, etc." Fama [1980] extends this definition:

> *We set aside the typical presumption that a corporation has owners in any meaningful sense. The attractive concept of the entrepreneur is also laid to rest, at least for the purpose of the large modern corporation ... management and risk bearing are as naturally separate factors within the set of contracts called a firm.*

Thus, a business firm might be loosely defined as a contractual structure within which individuals function for the purpose of creating wealth. This definition may be somewhat vague and not entirely consistent with definitions offered in other academic disciplines (or even by other academics within the finance discipline). Nonetheless, it does capture the most important elements of what we normally think of as relating to the business firm, and we will maintain this as our operating definition for the remainder of this text.

C. The Market For Corporate Control

Corporate governance matters to shareholders. Voting rights distributes with corporate shares are the most important security components in the market for corporate control. Corporate governance concerns how a company is managed and concerns the accountability of management and the board to its various stakeholders. Shleifer and Vishny [1997] provide a slightly narrower definition of corporate governance: "Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment."[6] Effective corporate governance plays a crucial role in the success of the companies while poor governance not only risks failure of the company, but can undermine financial markets and the economy as well. Corporate governance usually focuses on the relationship between the corporate board of directors and corporate management and the accountability of both to shareholders. While there is no universal standard for sound corporate governance, governance has been affected by regulation, notably, the Sarbanes-Oxley Act (to be discussed later). In addition, a number of institutions and government-sponsored task forces have disseminated their own sets of principles for sound corporate governance, including the 1992 Cadbury Report in the U.K., CalPERS, the New York Stock Exchange and the OECD (Organization for Economic Cooperation and Development). Most of these and other reports can be found on-line and have been adapted for use by major corporations.

Corporate control refers to the ability to direct the acquisition, use and distribution of corporate assets. Such control may itself be regarded as a valued asset. The market for corporate control is simply the arena in which competitors for corporate control compete for the right to direct acquisition, use and distribution of corporate assets. Managers, owners of securities, workers, customers, suppliers and governments are all among the competitors for corporate control. The market for corporate control includes markets for managerial services and stock markets, since shares of stock generally confer rights to vote in corporate elections. For example, block holders (defined here to be share holders with very large stakes in the firm) who wish to increase their control in the firm might simply buy additional shares of stocks to control more votes. Some block holders might wish to purchase enough shares to take over their firms, affording them outright voting control. The United States maintains very active markets for corporate control while many other countries such as Germany are more reliant on institutional monitoring or government regulation.

The value of corporate control is an important component of equity value. In most cases, the purchase of shares involves investment in corporate voting rights. In the U.S. governance system, corporate control may be regarded as an asset capable of generating an indirect return. This indirect return results from the actions of controlling agents and is in the form of increased anticipated wealth to security-holders as well as private benefits realized by the controlling agents (typically managers). The sources of this indirect return include:

1. Heterogeneous expectations or abilities among competitors for control
2. The opportunity to transfer wealth from others to oneself. This opportunity can manifest itself in the form of managerial compensation, perquisites, remaining on

[6] p. 737

the job when no longer effective or in the ability to divert corporate resources to other firms in which managers might have an interest.

3. The opportunity to affect the timing, form and variability of cash flows and other benefits generated by the firm. For example, managers may wish to time dividends so as to fit their own personal tax strategies.
4. Non-monetary gains or “psychic” income (e.g., pride, etc.)
5. Monopoly power in markets for the company's securities, markets, etc.
6. Private information that can be put to profitable use by managers

While the first item in the above list might be a part of security benefits enjoyed by all shareholders, the second through sixth items would be regarded as private benefits, defined as those enjoyed by controlling parties or managers only. Later, we will address control and governance along with their impact on share valuation.

D. Corporate Ownership Structure

The shareholder with a large commitment to the firm has substantial motivation to ensure that managers act in the best interests of shareholders. More generally, the distribution of equity shares among different shareholders and shareholder types will certainly impact equity value. Ownership of public companies is widely dispersed in the U.S., Ireland and the U.K., but in half of listed firms in Austria, Belgium, Germany and Italy a single shareholder controlled more than 50% of the votes.[7] Large ownership blocks are also common in the rest of continental Europe and Japan. Many individual block holders such as Warren Buffet serve well in this role, but, as we will discuss later, many individual shareholders and family shareholder groups with controlling interests often extract value from the firm for their personal benefits. Large blocks of shares increase individuals' motivation to monitor, but the power associated with large numbers of shares can also enable them to direct the firm's resources to their personal benefit. On the other hand, institutions holding blocks of shares can play a monitoring role and their managers are accountable to the institutional shareholders, weakening their abilities to extract wealth for their personal benefit. Consider, for example that as of 2003, institutional shareholders held $7.97 trillion, or slightly more than 59% of all U.S. corporate equity (Brancato [2005]). Growth in institutional shareholdings has been particularly significant among pension funds such that private pension funds held approximately 18% of U.S. equities, state and local pension funds 9.7% and mutual funds held approximately 19.5%. In addition, insurance companies also held approximately 8.5%, bank trusts approximately 1.7% and universities, foundations and endowments approximately 1.9%. Institutional shareholders own even larger stakes in the U.K., accounting for approximately 2/3rds share of U.K. shares. Pension funds and life assurance companies own approximately 80% of these shares.

Institutional managers should be motivated to monitor given the substantial stakes held by their employers without the ability to divert resources for their personal benefit. Historical accounts reveal that beginning in the 1990's, institutional shareholders have been playing a more significant role in the monitoring of corporate management. All U.S. institutional shareowners are subject to strict fiduciary standards. Brickley, Lease and Smith (1998) found that institutional investors and outside blockholders were more likely to actively vote and actively participate in corporate governance than other outside investors. However, interests do vary among the various groups of institutions. Although large institutional investors might in some respects make ideal corporate monitors, there do exist numerous problems and conflicts of interest. Institutions are frequently criticized for habitually voting with management teams. Consider the following categories of institutional monitors:

Pension Plans

In most cases, the investment horizons for pension funds are long-term and most pension funds are large enough to afford more sophisticated investment techniques and managers. Most pension funds take large enough positions to motivate active monitoring and most have no direct relationships with corporations whose shares they own. However, some large pension funds, such as Calpers and TIAA/CREF, index substantial portions of their

[7] Berglof and Burkhart [2003]

portfolios, precluding them from selling off stakes when performance declines.[8] This creates an incentive for more effective monitoring. Hence, pension plans such as CalPERS (The California Public Employee Retirement System) and TIAA/CREF have been among the most active shareholders.

While state and local retirement plans generally have no direct business relationships with corporations whose shares they own, in some cases, state or local governments may influence pension fund activism based on political or other non-economic considerations. For example, some government plans have exerted pressures to limit pension fund investment in companies manufacturing or distributing tobacco products and guns.

Over half of working Americans participate in pension plans. This represents a very diverse ownership structure somewhat representative of the U.S. population as a whole, suggesting to some that what is good for pension plans is good for the economy as a whole. On the other hand, regulators tend to discourage pension plans from taking risks. This reduces the incentive for pension funds to motivate firms to assume wealth-increasing risks. In many instances, the compensation of managers of many public pension funds is not performance-based. Since pension funds act as fiduciaries rather than as principals, they may not be sufficiently motivated to actively monitor on behalf of shareholders.

Mutual funds

Mutual funds tend to take rather large stakes in the firms in which they invest. This should provide additional incentive to actively monitor. However, U.S. mutual funds are normally precluded from investing more than 10% of their assets in any single firm.

Mutual funds are frequently not long-term holders of securities, leaving them with an incentive to simply free ride off the efforts of other monitors. Mutual funds act as fiduciaries rather than as principals, hence, they may not be sufficiently motivated to actively monitor on behalf of shareholders and there is some evidence that they may favor corporate management teams in contests. Several studies, including one sponsored by the Corporate Library have indicated that mutual funds are likely to vote in favor of management pay plans (75.6% of the time) and against shareholder proposals to limit managerial pay (72.4% of the time).

Insurance companies

Insurance companies are regulated by state governments that usually restrict them with respect to their proportional ownership of other companies. This limits insurance company incentives to actively monitor. While insurance companies may own both debt and equity in companies, shareholder and bondholder objectives frequently conflict, meaning that insurance companies may strive to maximize the values of their debt

[8] A portfolio is indexed when its manager attempts to match its composition to that of a securities market index such as the Dow Jones Industrials Average or the S&P 500.

positions in firms. Many insurers own equity in their own clients, imposing potential conflicts of interest.

Banks

In many respects, banks could be ideal corporate monitors. They have financial resources necessary to take large positions in firms and their lending relationships with clients affords them significant levels of important and relevant information. Through these lending relationships, banks are able to gather intimate details about their clients that no other institutions would be able to. However, banks in the U.S. are prohibited from taking large equity stakes in corporations. Universal banking in Germany and Japan does allow for banks to take large equity stakes, enabling banks in these countries to be very active in corporate governance.

While effective in some respects, bank monitoring has not proven to be a panacea. For example, lending relationships with clients skew incentives from maximizing shareholder wealth. Banks may use their control to maximize creditor wealth rather than shareholder wealth. Many banks and corporations have overlapping directorships and other business relationships that can skew monitoring incentives. Overlapping directorships exist when bank officers and directors sit on boards, provide services or perform other functions for companies they invest in. In some instances, banks may monitor less aggressively in order to support other business relationships with their clients.

Banks are in ideal positions to obtain information from clients concerning financial distress. Japanese banks tend to actively support clients facing financial distress or bankruptcy by providing financial resources and managerial support. German banks tend to provide very little support to their distressed clients.

Bank Trusts

Bank trusts also act as fiduciaries rather than as principals, hence, they may not be sufficiently motivated to actively monitor on behalf of shareholders. In most cases, trusts are irrevocable such that trust beneficiaries have little recourse if returns are low. This means that beneficiaries of trusts lack the means to discipline banks or to motivate them to improve investment performance. Compensation to banks and officers acting as trustees typically is not related to investment performance.

Banks are able to vote the shares that they hold in trust. However, most banks derive the bulk of their business from corporations, creating potential conflicts of interest and reduced incentives to monitor. Finally, many banks and corporations have overlapping directorships and other business relationships.

Universities, Foundations and Endowments

Contributions to universities, foundations and endowments often come from corporations and alumni that work for corporations. Furthermore, universities rely on corporations to

recruit graduates in job markets and to provide other support. Board members of universities and foundations are often selected from corporations, frequently with an expectation that their participation will result in donations. In addition, the president of a university might well be on the compensation committee of a major contributor to the university.

In a study of Honeywell voting records in 1989, van Nuys [1993] found that banks and insurance companies were significantly more supportive of management-sponsored shareholder proposals than were public pension funds and independent investment managers (usually mutual funds). Brickley, Lease and Smith [1988] obtained similar results, finding that support for manager-sponsored anti-takeover proposals increases as bank and insurance company firm holdings in the firm increases and that public employee pension funds, foundations and mutual funds were more likely to oppose management.

In the late 1980s, CalPERS, a $177 billion pension fund institution (as of 2004) began to play a leading role in shareholder activism, publicly targeting firms thought to be deficient in governance and performance, initiating shareholder proposals and voting against manager-proposed slates of board candidates. Numerous other institutions, particularly pension funds have since played roles in shareholder activism. Nesbitt [1994] found evidence that firms targeted for poor performance realized significant shareholder returns after being targeted by CalPERS while those targeted for poor governance did not. Smith [1996] found that overall, share price performance following action directed for both poor performance and poor governance was significantly positive, though wealth effects were negative if CalPERS-initiated activism failed in its attempt to bring about changes. Akghibe, Madura and Tucker [1997] found that individual activism produces somewhat higher gains than institutional activism. However, in late 2004, Sean Harrigan, a former union official that headed CalPERS was fired. He claimed that California's Republican governor, Arnold Schwarzenegger and business interests teamed against him while his critics claim that he diluted the effectiveness by turning institutional activism into a tool for unions and leftist organizations.

Shareholder activists have been active in European markets as well. For example, TIAA-CREF was instrumental in derailing the Telecom Italia's effort to split off its wireless unit to Tecnos at a particularly low price. German funds DWS and Union Investment have been among the more active in monitoring firms. Knight Vinke Asset Management was founded to foster shareholder activism and to invest in sound but underperforming UK and European companies while attempting to improve their value. The fund was founded to use an engagement strategy to improve corporate governance and business practices. Sweden's Investors Association was instrumental in preventing the merger of Renault and Volvo and in scrapping a managerial compensation plan proposed by Skandia.

Other than in the U.S., the U.K. and Ireland, families maintain majority interests and control in most public firms around the world. Anderson, Mansi and Reeb [2003] argue that founding families are a special class of large shareholders that have unique incentive structures and a strong desire to perpetuate their control of the firm. Family control and unique family objectives are important in the equity valuation process. Founding families maintain large and undiversified holdings and are different from other shareholders in at least two other respects; the

family's interest in the firm's long-term survival (to pass the firm on to heirs) and the family's concern for the reputations of the family and firm. The founding family undiversified holdings may serve to promote stability and align founding family shareholder interests with bondholder interests, reducing the cost of debt financing. Many European large companies have prospered under their founding family for many years, sometimes for centuries, suggesting that they are long-term investors committed to the long-term success of their firms. Villalonga and Amit [2006] find that family ownership creates value when the founder serves as the CEO of the family firm or as its Chairman with a hired CEO. On the other hand, many families seek to maintain control of their companies through value-destroying control-enhancing devices (dual-class shares, pyramids, etc.; see, Barontini and Caprio [2005] and Gompers, Ishii and Metrick, 2004). Families frequently promote their own members to executive positions in their firms, thereby depriving outside shareholders of the value-creation talents of potentially superior external managers. Villalonga and Amit found that these control mechanisms such as dual share class issuance, pyramids, and voting agreements tend to reduce the founding family value premium that they otherwise find. Worse, they find that when founder descendants serve as CEOs, firm value is destroyed.

Nevertheless, contrary to a number of studies focusing on U.S. companies (excepting Villagona and Amit [2006]), Barontini and Caprio [2005] found that in Continental Europe, the presence of founders – either as CEO or as non-executive director – is associated with higher market valuation and operating performance. They found no evidence that descendants-controlled firms underperformed non-family firms. In fact, they found that family firms performed better than non-family firms when descendants limit themselves to the role of non-executive directors, and not worse when a founder-descendant is CEO. However, their results do conflict with the results of Barth, Gulbrandsen and Schøne [2005], whose study on Norwegian firms found that family-managed firms did underperform their counterparts managed outside the family, particularly when the family controlled more than 30% of the firm's stock. This suggests that high family ownership concentration may enable families to become entrenched in controlling positions. Obviously, such entrenchment has adverse effects on shareholder wealth.

Equity analysts need to realize the important links between firm performance and managerial ownership levels. Mehran (1995), in a study of 153 randomly selected manufacturing firms, determined that superior managerial performance was related to the percentage of equity held by managers and the fraction of equity-based compensation received by managers. Generally, one might expect that higher managerial shareholdings will lead to superior firm performance, though higher managerial stock holdings also afford managers increased control over the firm, enabling them to become entrenched. Managerial entrenchment reduces the ability of shareholders to hold managers accountable for their performance. Managers holding more stock increase their voting power within the firm, which makes them more difficult to remove in the event of inferior firm performance.

E. Securities: An Introduction

A security is a tradable claim on the assets of an institution or individual. Where real assets contribute to the productive capacity of the economy, securities are financial assets that merely represent claims on real assets. Securities frequently denote ownership (such as shares of stock) or creditorship of an institution (such as a bond). We might also claim that most corporate securities imply either fixed claims (such as bonds which typically involve fixed interest and principal repayments) or residual claims (such as common stock, whose owners receive assets remaining after creditors' claims have been satisfied). Some securities such as options and futures denote very specific claims. Many securities are marketable, meaning that they can be sold or assigned to other investors. Some of the more common types of securities are classified and briefly introduced in the following:

1. *Debt securities*: Denote creditorship of an individual, firm or other institution. They typically involve payments of a fixed series of interest or amounts towards principal. Examples include:

   Bonds Long term debt securities issued by corporations, governments or other institutions.

   Treasury securities Debt securities issued by the Treasury of the United States federal government.

2. *Equity securities:* Denote ownership in a business or corporation. They typically permit for dividend payments if the firm's debt obligations have been satisfied. The two primary types of marketable equity issued by corporations are:

   Common stock Security held by the residual claimant or owner of the firm, and

   Preferred stock Stock which is given priority over common stock in the payment of dividends; preferred stock holders must receive their dividends if common stock holders are to be paid dividends.

3. *Derivative securities:* Have payoff functions derived from the values of other securities, rates or indices. Some of the more common derivative securities are:

   Options: Securities that grant their owners rights to buy or sell an asset at a specific price on or before the expiration date of the security. Options on stock are the most frequently traded. The two types of stock options are:

      Calls A security or contract granting its owner the right to purchase a given asset at a specified price on or before the expiration date of the contract, and

      Puts A security or contract granting its owner the right to sell a given asset at a specified price on or before the expiration date of the contract

   Futures Contracts: Securities that oblige their owners to either purchase or sell a given asset at a specified price on the future settlement date of that contract. We will discuss later the differences between futures and options contracts. Investors may take either a long or a short position in a futures contract. A *long* position obligates the investor to purchase the given asset on the settlement date of the

contract and a *short* position obligates the investor to sell the given asset on the settlement date of the contract.

Swaps: Provide for the exchange of cash flows associated with one asset, rate or index for the cash flows associated with another asset, rate or index.

We emphasize that this list of security types is far from complete; it only reflects those securities that will be most frequently discussed in the course. Obviously, this course will focus on equities.

Securities markets provide for the allocation among various uses of capital and other productive resources including plant, equipment, supplies and raw materials. The exchange of securities among investors intending to maximize their own wealth ensures that resources will be allocated to their most productive uses.

F. Common and Preferred Stock Characteristics

As we discussed earlier, Common stock is a limited liability or residual security. Publicly traded shares are issued either through a public offering, a rights offering or through deferred equity securities such as warrants and convertibles. Common stock is typically issued with a par value (the minimum value at which a company's stock can be issued to shareholders) that usually has very little market significance. Because par value is sometimes regarded as a mechanism to protect corporate creditors, many states prohibit the firm from payment of dividends if their payment would impair the capital implied by par value. However, this protection is not particularly meaningful because most corporations issue stock with only a nominal par value. The corporation will be authorized by its charter to issue a specified number of shares, some of which may remain unissued. Issued shares will either be held by shareholders (outstanding shares) or held in the corporate treasury (treasury stock). Treasury stock was previously outstanding and subsequently repurchased. In addition, shares may be classified according to shareholder rights to vote and to receive dividend income. That is, some shares may receive more or less than one vote per share.

A fairly small fraction of corporations issue preferred stock, which is given priority over common stock in a firm liquidation and in the payment of dividends; that is, preferred stock holders must receive their dividends if common stock holders are to be paid dividends. Preferred stock dividends are normally specified as a fixed dollar amount or as a percentage of preferred stock par value. "Plain vanilla" preferred stock can often be valued as a perpetuity with its dividend as the periodic cash flow. In many instances, the firm will issue preferred stock with cumulative dividend rights requiring the firm to pay preferred shareholders all dividends, including those which had not been paid in the past, before any dividends can be paid to common stock holders. On occasion, firms will issue callable preferred stock, particularly during periods of high interest rates.

Use of preferred stock was initiated in the United Kingdom and United States in the early part of the nineteenth century to finance canal and railroad construction. Common equity issues were often restricted by financial distress (firms could not issue equity at below par) and by shareholders who did not want their ownership rights to control diluted or restricted. Borrowing was restricted by government limitations on debt levels. Railroad companies were often able to stave off bankruptcy by making interest payments with shares of preferred stock. Typically, preferred stock prior to 1850 had full voting rights. Preferred shares were usually convertible into shares of common stock. Use of non-convertible preferred stock as permanent financing grew during the later nineteenth century largely due to its similarity to debt and ease of valuation.

Because preferred stock dividends are not tax-deductible to the issuing corporation and usually have no growth potential, it is not usually an attractive source of funds to most firms. Its cost of issue is generally quite high in terms of non-deductibility and investors are aware of their lack of growth potential. Historically, preferred stock was typically issued by companies before corporate taxes became an important issue. Much of the recently offered preferred stock has been issued by utility companies which, because of governmental regulation and price controls faced by the industry, are often able to pass on higher costs of financing to consumers. Government

regulators seemed to prefer that utilities issue preferred equity rather than assume increased leverage associated with long term debt. However, even this use of preferred equity has dwindled due to reduced investment in plant and equipment by utilities during the 1980's. A number of commercial banks have issued preferred stock due to the Fed's classification of preferred stock as primary capital, making it easier for banks to meet their capital requirements. Other recently offered preferred shares have been issued by new, growing companies. In many instances, these firms had no earnings against which to deduct interest payments on debt. Furthermore, in some cases, purchasers of these preferred shares were other corporations that receive a 70%-80% exclusion of preferred dividends from taxable income. These shares are often convertible into common stock. In some instances, firms issued voting preferred equity to help defend against unfriendly takeover activity.

G. Historical Performance of Stock and Other Securities

Ibbotson and Sinquefield [1988] have performed studies of return and risk levels of various classes of securities since 1925. Some of this data is summarized in the following table:

Table 1: Security Returns

Security	Geometric Mean Return	Standard deviation
Small firm stocks	.121	.359
Common stocks	.099	.211
Long term corporate bonds	.049	.085
Intermediate term treasuries	.048	.055
Long term treasury bonds	.043	.085
T-Bills	.035	.034
Inflation Rate	.030	.048

Between 1925 and 1995, stocks have earned a positive return in every twenty-year period.[9] In 98% of those twenty-year periods, the stock market outperformed the U.S. Government bond market. This raises the question "Why do investors invest in long-term bonds if they are almost certain to be outperformed by stocks?"

Table 2 provides returns for stock, bonds and T-Bills over various sub-periods from 1802 to 2001.[10] Again, longer-term returns for stocks clearly exceed those for bonds and T-Bills. Again, we ask why investors would buy bonds or T-Bills rather than stocks if their investment horizons are intermediate- to long-term. However, consider the possibility that the U.S. has experienced an unprecedented period of economic growth and stability over the past 200 years. No other country's economy could have matched this level of sustained economic prosperity over this long period. For example, how much would an investor's stock portfolio had she invested in German stocks in 1920 or Japanese stocks in 1940 and retained those portfolios until now? Might it be that Tables 1 and 2 reflect results of the most successful economy on earth during its most successful period? Can we continue to expect the future to bring such sustained prosperity for the long-term?

[9] See the *Wall Street Journal*, May 28, 1996, p.R10. The data for this report was provided by Ibbotson and Associates.

[10] From Siegel [2002]

Table 1. Historical Returns and Equity Premiums, 1802–September 2001

	Real Return						Stock Excess Return over			
	Stocks		Bonds		Bills		Bonds		Bills	
Period	Comp.	Arith.	Comp.	Arith.	Comp.	Arith.	Comp.	Arith.	Comp.	Arith.
1802–2001	6.8%	8.4%	3.5%	3.9%	2.9%	3.1%	3.4%	4.5%	3.9%	5.3%
1871–2001	6.8	8.5	2.8	3.2	1.7	1.8	3.9	5.3	5.0	6.6
Major subperiods										
1802–1870	7.0%	8.3%	4.8%	5.1%	5.1%	5.4%	2.2%	3.2%	1.9%	2.9%
1871–1925	6.6	7.9	3.7	3.9	3.2	3.3	2.9	4.0	3.5	4.7
1926–2001	6.9	8.9	2.2	2.7	0.7	0.8	4.7	6.2	6.1	8.0
Post World War II										
1946–2001	7.0%	8.5%	1.3%	1.9%	0.6%	0.7%	5.7%	6.6%	6.4%	7.8%
1946–1965	10.0	11.4	−1.2	−1.0	−0.8	−0.7	11.2	12.3	10.9	12.1
1966–1981	−0.4	1.4	−4.2	−3.9	−0.2	−0.1	3.8	5.2	−0.2	1.5
1982–1999	13.6	14.3	8.4	9.3	2.9	2.9	5.2	5.0	10.7	11.4
1982–2001	10.2	11.2	8.5	9.4	2.8	2.8	1.7	1.9	7.4	8.4

Note: Comp. = compound; Arith. = arithmetic.

Sources: Data for 1802–1871 are from Schwert (1990); data for 1871–1925 are from Cowles (1938); data for 1926–2001 are from the CRSP capitalization-weighted indexes of all NYSE, Amex, and Nasdaq stocks. Data through 2001 can be found in Siegel (2002).

Table 2: Historical Results I

Discussion Questions

1. Who owns the corporation? What does it mean to own the corporation? What if the firm is in or close to being in bankruptcy? What if the firm issues equity shares without voting rights?

2. What is the objective of the corporation? What if the firm is in or close to being in bankruptcy? What if the firm issues equity shares without voting rights?

3. Under what circumstances might families provide for superior monitoring relative to institutional shareholders? Under what circumstances might institutional shareholders provide for superior monitoring relative to family groups?

4. How does the creation represent a typical example of financial innovation?

5. What is the historical relationship between return and risk in the U.S.?

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