PART 1

Introduction to Financial Management

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CHAPTER 1

FOUNDATIONS

CHAPTER OUTLINE

AN OVERVIEW OF FINANCE

Finance is the art and science of handling money. In the modern world virtually every organization, public and private, runs on money. That includes families, businesses, governments, and nonprofit enterprises. Money touches everything we do. And finance, the management of money, is behind most everything we see each day. We don't physically observe the financing behind a building or a new car or a house, but it's there, and without it most of the things we do see wouldn't exist. That's because without money to pay for resources and a financial system to make trading possible, no one could organize more than a few people to work together at one time.

Our study of finance will be broadly divided into two areas: (1) investments and financial markets and (2) the financial management of companies.[1] These are separate but related. A financial system involves flows of money and paper between the two.

To begin our study of finance, we need a few basic terms and ideas. Let's master these before going any further.

FINANCIAL ASSETS

A **real asset** is an object or thing, such as a car, a house, a factory, or a piece of machinery. Real assets have value because they provide service of some kind, such as transportation, shelter, or the ability to produce something.

1. The banking system, a third sector of the financial world, is generally covered in an economics course on "Money and Banking" or "Financial Institutions."

A **real asset** is an object that provides a service.

A **financial asset** is a legal document representing a claim to income.

Stock represents an **ownership** interest. **Bonds** represent a **debt** relationship.

Financial assets, on the other hand, are legal documents, pieces of paper. Their value comes from the fact that they give their owners claim to certain future cash flows. Most financial assets are either stocks or bonds, and their claim to future income is based on ownership or debt, respectively.

Stock ownership means that the holder of a share owns a piece of the company that issued the stock. As a part owner, he or she is entitled to a share of the firm's profits, which may be paid out in dividends or retained to enhance prospects for growth. The shareholder generally expects to sell the share at some time in the future and will then receive the proceeds of that sale in cash. Thus, the owner of a stock certificate can look for two sources of cash in the future: dividends and the eventual selling price of the share.

A **bond** signifies a debt relationship. When a person buys a bond, he or she is actually lending money to the firm issuing the bond. The terminology seems strange—"buying a bond" meaning "lending money." Nevertheless, a bondholder is actually a lender and as such is entitled to interest on the amount lent and the repayment of principal at the end of the loan period.

Companies issue financial assets to raise money. They generally use that money to buy real assets that are used in running their businesses.

Investing involves buying financial assets in the hope of earning **income.**

Financial assets are purchased by people or other companies to earn income with funds they don't currently need. Buying such an asset is similar to opening a savings account and receiving interest on the money you've put in the bank. In fact, a savings account is another kind of financial asset. Another name for a financial asset like a stock or a bond is a **security**.[2] A person or organization buying a financial asset is said to be **investing** in that asset, and we generally call that buyer an *investor*.

A **mutual fund** purchases securities with the pooled resources of many investors.

Investments in financial assets can be made directly by buying securities or indirectly by buying shares in a **mutual fund**. A mutual fund pools the contributions of many investors and employs a professional manager to select securities that match a particular set of investment goals.

FINANCIAL MARKETS

Securities are traded in **financial markets** like the **stock market**.

Stocks and bonds as well as certain other kinds of financial assets are issued by companies and purchased by investors in *financial markets*. A **financial market** isn't exactly a place; rather, it's a framework or organization in which people can buy and sell securities in accordance with well-defined rules and regulations. The best known financial market is the **stock market**. It is centered in several places around the country, called **stock exchanges**. The largest exchange is the New York Stock Exchange, often referred to as the NYSE.

A **stockbroker** is licensed to trade securities on behalf of investors.

To participate in the market, you don't have to go to an exchange. You simply establish a relationship with a *stockbroker* in your area and communicate with him or her by phone. A **stockbroker** is a person who is licensed to help investors buy and sell securities for a commission. Local brokers are connected to the various exchanges electronically. The stock market is really the entire network of brokers and exchanges all connected together. Bond markets for trading debt securities operate similarly.

http://

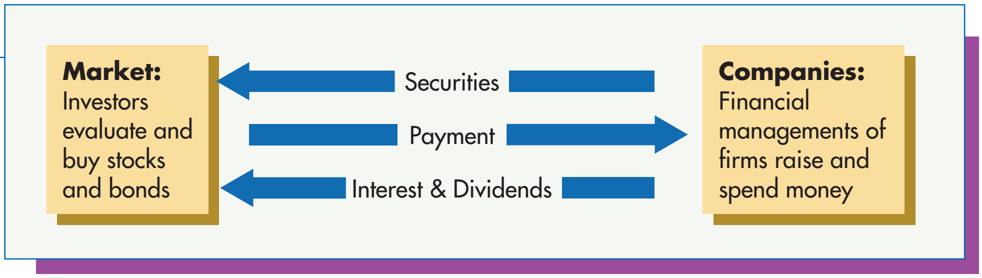
Besides stock quotes and other data and information, the NYSE has a financial glossary at **http://www.nyse.com**

In summary, financial markets are "places" where investors buy financial assets from companies that issue them. Investors also buy and sell the same financial assets between themselves in the same financial markets. In fact, the vast majority of transactions are between investors. That's because a security is issued by a company only once, but it may be traded among investors many times thereafter.

2. Securities are financial assets that can be traded among investors. Hence stocks and bonds are securities while savings accounts are not.

Figure 1.1

Simplified Financial System



In practice, the term "market" describes the combined actions of investors acting within the marketplace just described. For example, someone might say that the market has placed a price of $100 on a share of IBM. That would mean the going price among investors buying and selling the stock of the IBM corporation within the structure of the stock market is $100.

Figure 1.1 is a schematic representation of the interaction between companies and the market.

The field of investments involves making decisions about buying stocks and bonds. Decisions about how to raise money and what to do with it are part of the financial management of a firm. These decisions are made on the two sides of Figure 1.1, which represent the two areas in which our study will focus.

Now let's consider the word "finance" itself. Its use can be a little confusing. It's a noun, as in "the field of finance." It's a verb, as in "to finance something." And it also has an adjective form, as in "financial management." Let's explore these variations in meaning.

RAISING MONEY

VIDEO>>

The most common application of the term "finance" involves raising money to acquire assets. We've all heard people say they're going to *finance* a car or a house. When they say that, individuals usually mean they're going to borrow money from a bank to buy the item.

The word is used similarly in business. Companies *finance assets* when they raise money to acquire those assets. They do that by borrowing, selling stock, or using money they've earned. In recent years, many assets have been acquired through leasing. We say those items are *lease financed*.

Financing means raising money to acquire something.

A company itself is *financed* when money is raised to get it started or for expansion. Such money can come from borrowing or from selling stock. To the extent the money is borrowed, we say the company is *debt financed*. To the extent it comes from selling stock, we say the firm is *equity financed*. Equity implies financing with an owner's own money.

Looking at Figure 1.1, we see that firms in the box on the right are raising money, financing things. They do that by selling stocks and bonds to investors in the box on the left. The *field of finance* includes both sides of this money-raising transaction. It relates to the concerns of parties raising money and to those of parties providing it. Further, because the money raised flows through financial markets and institutions, their operation is a part of the field as well.

The Changing Focus of Finance

Historically, the field of finance was narrowly limited to activity within financial markets. Today the perspective has expanded in two directions.

First, in modern finance a great deal of attention is given to the goals and activities of the investor. In the early days a complete description of a particular security (stock or bond) was felt to be all an investor needed to make a decision comfortably. Today we've become concerned with the notion of risk in investing and with how investors put together groups of securities called **portfolios** to minimize that risk. We'll examine these concepts at length in Chapter 9.

A **portfolio** is a collection of securities.

The second direction of expansion involves the role and function of financial management within firms. Historically, financial managers were told how much money their companies needed for particular projects, and they went outside in pursuit of those funds. They had little to do with deciding how much was needed or what was done with the money after it was raised. Today financial managers are deeply involved in those related decisions.

FINANCIAL MANAGEMENT

Financial management means the management and control of money and money-related operations within a business. Companies have finance departments that are responsible for these functions.

The corporate executive in charge of finance is called the **Chief Financial Officer (CFO)**.

The executive in charge of the finance department is the company's **Chief Financial Officer,** abbreviated **CFO**. The title **Vice President of Finance** is sometimes used instead of CFO. In either case, the position usually reports to the president of the company.

The term "financial management" refers to the things the CFO and the finance department do. These activities include keeping records, paying employees and vendors, receiving payments from customers, borrowing, purchasing assets, selling stock, paying dividends, and a number of others.

http://

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It's important to notice that accounting is included in this broad definition of finance and that the accounting function is usually found within the finance department.

Business Decisions

Financial management also refers to the financial input that goes into general business decisions. This extremely important concept is best explained by an example.

Suppose a domestic company is contemplating expanding overseas. That's likely to be a big decision discussed by the firm's key executives over a long period of time. Each executive will have opinions and recommendations related to his or her own area of responsibility, such as marketing or manufacturing. The CFO will similarly have opinions on how to set up the finance function in the new venture, how to do its accounting, and what banks to use. In addition, he or she will probably have to secure funding to support the project, either from a bank or by issuing securities.

Beyond that, however, the CFO must form a judgment about the feasibility of the project in terms of whether it will be profitable enough to justify its own cost. In other words, the bottom line for most projects is money, and the responsibility for assessing that bottom line falls to financial management. (We'll study the techniques used to make this kind of decision called capital budgeting in Chapters 10, 11, and 12.)

Oversight

Another important aspect of financial management involves the relationship between finance and other departments in the day-to-day management of the firm. It's important to grasp the fact that finance is responsible for its own activities, but has a responsibility for the operation of other departments as well.

The finance department **oversees** how other departments spend money.

Let's look into that idea a little more deeply. Finance is responsible for money, but other departments deal in money too. That's because they have to spend it to do their jobs, and their success is defined in terms of money. For example, manufacturing's task may be to produce some quantity of product, but doing the job properly involves keeping costs low and using a reasonable level of inventory.

from the **CFO**

The finance department generally has an *oversight responsibility* for the effective management of the money other departments spend. Hence, if manufacturing's costs are too high or if it carries too much inventory, finance is responsible for calling attention to those facts and ensuring that corrective action is taken. In other words, *part of finance's job involves looking over everyone else's shoulder to make sure they're using money effectively*.

THE PRICE OF SECURITIES—A LINK BETWEEN THE FIRM AND THE MARKET

The two sides of finance, investments and the financial management of the firm, are connected by the fact that companies sell securities to investors in financial markets.

A fundamental truth, which we'll examine in detail later, is that investors buy securities for the future cash flows that come from owning them. Those cash flows depend on the issuing companies' financial performance. Hence, the prices investors are willing to pay for securities depend on their expectations about how well the issuing companies are likely to do in the future in terms of profit. Further, because the future is never guaranteed, the market is also concerned about the risk associated with expected performance. A perception of greater risk tends to lower investor interest and security prices.

The link between company management and investments comes from this relationship between price and expected financial results. Everything firms and their managers do is watched by the market and has an impact on investors' perceptions of likely future performance and risk. Those perceptions, in turn, determine the prices of stocks and bonds.

In other words, the study of investments includes looking at the way companies are managed to estimate future performance. At the same time, the management of companies includes consideration of how business decisions are perceived by investors and the effects those perceptions have on the prices of stocks and bonds.

FINANCE AND ACCOUNTING

In most industrial companies, the majority of the people involved in money-oriented activities are accountants, so people sometimes get the idea that accounting and finance are synonymous. In fact they're not, and it's important to understand how they fit together.

Accounting is a system of record keeping designed to portray a firm's operations to the world in a fair and unbiased way. The records are used periodically to produce financial statements that present the company's results to anyone who reads them.

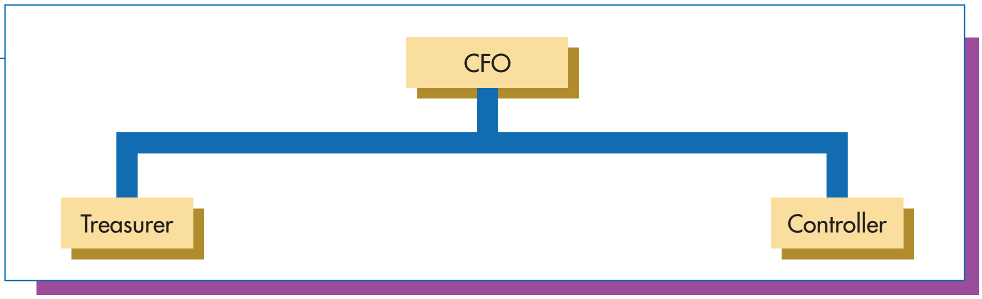
However, several other financial functions are performed in most companies. These include raising money, analyzing results, and handling relationships with outsiders such as banks, shareholders, and representatives of the investment community. Most of these functions are performed by the *treasury department*.

The **controller** is in charge of accounting while the **treasurer** supervises most other financial functions.

The *finance department* normally consists of both the *accounting department* headed by the ***controller*** and the *treasury department* headed by the ***treasurer***. Both of these positions report to the *chief financial officer* (CFO). The typical organization is depicted in Figure 1.2.

Figure 1.2

Finance Department Organization



In practice, it has become common to think of accounting as an almost separate field, and to refer to the other financial functions as finance. For the most part this means that the treasury functions are called *finance* and the controller functions are called *accounting*.

People tend to have careers in one side of the department or the other, but crossover is possible. It's generally easier for an accountant to move into treasury than the other way around. That's because of the large number of specialized courses required to be a professional accountant. Either controllers or treasurers can become CFOs.

Companies are organized in different ways, and who does what isn't always clear cut. Many of the activities we'll study in this book are done in the accounting department in one company and in the treasury (finance) department in another. Activities such as financial analysis (Chapter 3), financial planning (Chapter 4), and capital budgeting (Chapters 10, 11, and 12) are generally done wherever the resources are available to do the job best.

Finance majors shouldn't be discouraged by the preponderance of accounting jobs in typical industrial companies. The majority of jobs in the investment industry and in financial institutions such as banks and insurance companies are in finance rather than accounting.

THE IMPORTANCE OF CASH FLOW

In finance, **cash is king**.

The relative emphasis placed on cash flow is important in conceptually differentiating between accounting and finance. The accounting system attempts to portray a business's financial results in a way that reflects what is physically going on. In finance we're less interested in such a representative portrayal, and tend to concentrate on where cash is coming from and going to. In finance, "cash is king"!

This point can be made clear with a simple example. We'll consider how a typical accounting system represents the acquisition and use of a long-lived asset, and contrast that with the way people in finance look at the same event.

Suppose a firm buys a $1,000 asset to be depreciated straight line over five years at $200 per year. The accounting books show the initial addition of the $1,000 asset followed by yearly depreciation entries, each of which has two parts. Every year depreciation appears on the income statement to reflect the allocation of $200 to cost. And, an addition of $200 is made to an accumulated depreciation account on the balance sheet, which is subtracted from the asset's original value, to reflect the wearing out of the item. (We'll review fixed asset accounting in more detail in Chapter 2.)

Notice how much information this set of numbers conveys. The asset originally cost $1,000 and results in an expense of $200 each year that reduces profit. At the same time, the balance sheet indicates how worn out the item is by showing the portion of its original value that's left on the books. The accounting representation thus gives us a portrait of the entire life of the asset and its impact on the business in numbers!

from the **CFO**

When people in the finance department think about the same asset, their orientation is very different. They're interested in only two numbers: the $1,000 cash outflow needed to acquire the asset and the annual tax saving generated by the depreciation deduction. The reason for this emphasis is easy to understand. Finance is responsible for raising the initial $1,000, and the future tax saving affects the amount of cash that will have to be raised for other things later on. In fact, a finance person might react that the accounting representation doesn't display the most important piece of financial information about the asset—where the money to buy it came from.

The point behind the illustration is that in finance the emphasis is on cash. We're not implying that accountants are ignorant of the cash requirements associated with the asset in the example. Their emphasis is simply different, involving a broader portrayal of the business. Finance concentrates on cash flow. We'll keep that in mind throughout our study.

THE LANGUAGE OF FINANCE

Accounting is the **language of finance**.

The practice of finance is closely tied to accounting, because financial transactions are recorded within the structure of accounting systems. It's often said that *accounting is the language of finance*. Because of this connection, all finance professionals need some knowledge of accounting. However, the level of knowledge required varies significantly depending on one's job.

A financial analyst, who investigates companies and makes recommendations about their investment value, needs to know quite a bit of accounting. That's because analysts have to decipher complex financial statements without missing any of the detailed implications that may be buried in the notes and numbers. Stockbrokers, on the other hand, generally sell securities on the basis of a broad knowledge of what's going on in various industries and expectations generated by the reports of analysts. They can get by without much more than an ability to read basic financial statements.

FINANCIAL THEORY—THE RELATIONSHIP WITH ECONOMICS

So far we've been examining the practical side of finance and how it fits into the business world. Finance is a field in which millions of people find jobs after they've mastered certain skills that are taught in school. As in any other field, success comes with experience and wisdom after you've learned the basics. In this regard, finance is a lot like accounting—you learn the techniques in school and apply them on the job.

Financial **theory** has grown out of **economics**.

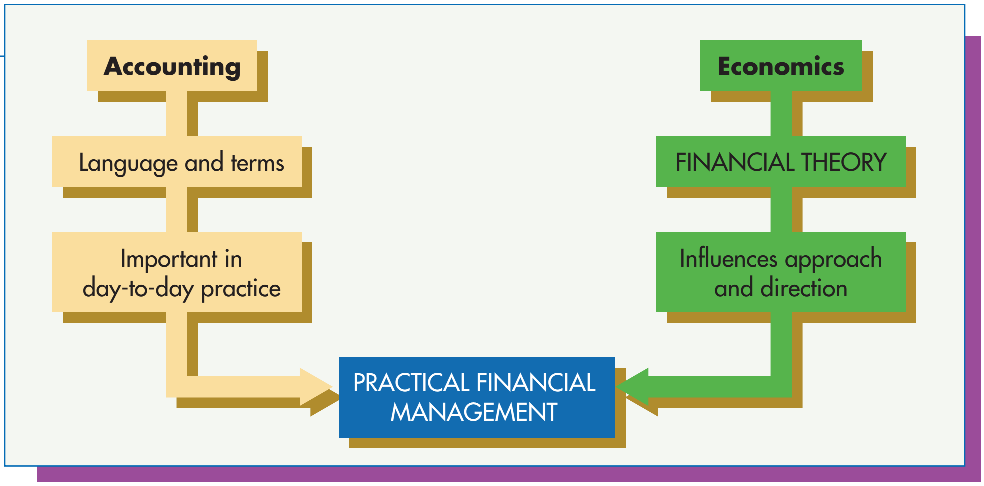
However, there's also a theoretical aspect to finance. Financial theory is a body of thought that is studied and continually developed by highly trained experts, usually professors. In this regard, finance is a lot like economics. Scholars in both fields observe the world of business and government and attempt to model and explain behavior in abstract terms.

In fact, modern financial theory began as a branch of economics during the 1950s. Since that beginning, finance has grown so much that most people now think of it separately, although the term "financial economics" is still used occasionally. The techniques of advanced financial theory are very similar to those of advanced economic theory.

Financial theory has a big impact on practice in some areas and less influence in others. Where the impact is significant, theory influences the direction and approach that people take in practice. As we go forward, we'll identify and explain theoretical elements that have had a noticeable influence on the way the world operates. Theory's

Figure 1.3

The Influence of Accounting, Economics, and Financial Theory on Financial Management



most significant impact in recent years has been in the area of investments, which we'll cover in Chapter 9.

The ideas and relationships discussed in this and the last section are portrayed graphically in Figure 1.3.

FORMS OF BUSINESS ORGANIZATION AND THEIR FINANCIAL IMPACT

A business can be legally organized in one of three ways: as a sole proprietorship, as a partnership, or as a corporation. Within the third category, there are three possibilities: the regular or C-type corporation, the S-type corporation and the limited liability company known as an LLC. The last two forms are generally intended for smaller businesses.

The choice of form is important financially because it can have an impact on raising money, taxation, and financial liability. The issue is really relevant only in the context of smaller businesses, because virtually all large companies are organized as C-type corporations.[3]

For financial purposes, a partnership is essentially a sole proprietorship with more than one owner, so we'll concentrate on distinguishing between a proprietorship and a corporation. We'll also begin by ignoring S-type corporations and LLCs and reintroduce them later. We'll explore some of the ideas behind form through a hypothetical example that stresses the financial advantages and disadvantages of each.

THE PROPRIETORSHIP FORM

Suppose an entrepreneur wants to open a business, has enough money to get started, and chooses to organize as a sole proprietorship.

Getting Started

Starting a proprietorship is very simple. Because the business is indistinguishable from the entrepreneur, all he has to do to get started is obtain a local permit and

3. With the exception of personal service organizations such as law or CPA firms, which are generally partnerships.

declare the business open. That's an advantage of the proprietorship form—it's easy to start.

Taxes

Now suppose the entrepreneur operates for a while and makes a profit. That profit will simply be taxed as personal income to the business owner. That's another advantage of the proprietorship form—the business's profits are taxed only once, and that tax is at personal income tax rates. (We'll see why this is an advantage in a moment.)

Raising Money

Next, suppose the business is successful for six months and the entrepreneur wants to expand but doesn't have enough money to buy the assets required. He therefore looks for outside financing in the form of a loan. Any number of sources are possible, including family, friends, and a bank.

Family and friends might advance some money on the strength of their personal relationship with our entrepreneur, but people who don't know him will always ask two very important questions.

First they'll want to know, "What happens to my money if your business fails?" The honest answer is that the money will be lost.

Next they'll ask, "What happens to me if you're phenomenally successful?" The answer is simply that the lender will get his or her money back with interest.

Now consider the lender's position. Lending to the entrepreneur is a gamble, but not a very good one. The worst possible outcome is a total loss, while the best result imaginable is merely getting back the amount loaned with a few dollars of interest. That might be all right if the chance of loss is very small, but in fact the overwhelming majority of small businesses fail. Of course lenders know this, so the loan isn't very attractive to them.

Assets pledged to guarantee a loan are **collateral**.

For this reason it's almost impossible for a new business to get a loan that isn't fully *collateralized*. A collateralized loan is backed by some asset (the **collateral**) that the lender can take and sell in the event the borrower defaults on paying off the loan. Many entrepreneurs use their homes as collateral for start-up loans. In the case we're considering, our business owner's expansion plans would be stopped cold if he didn't have enough collateral to guarantee a loan.

A major **financial disadvantage** of proprietorship is the difficulty encountered in **raising money**.

This result is a major disadvantage of the sole proprietorship form. The only way a nonowner can advance money to the business is by lending, and that's a very risky proposition. Therefore, raising start-up or expansion money is difficult while the business is new.

THE CORPORATE FORM

Now let's explore what happens when another entrepreneur starts a similar business using the corporate form.

Getting Started

The first thing she'd find is that getting started is somewhat more difficult. She must go through the legal process of incorporation and register with the state, probably using a lawyer to file the papers. The whole thing would take some work and cost a bit of money.

Taxes

Once set up, the incorporated business operates in much the same way as the sole proprietorship. When the business makes a profit, however, the tax situation is significantly different.

A corporation is a separate legal entity subject to a *corporate tax* on whatever it earns. What's left over after the corporate tax is paid (earnings after tax or net income) belongs to the corporation.

That's an important point. Even though the entrepreneur owns the business, she doesn't own its earnings directly. The corporation owns them. To get the earnings into her own pocket, the entrepreneur has to declare a dividend that is paid to her as an individual.

Double taxation of earnings is the major **financial disadvantage** of the traditional **corporate form.**

However, such a dividend is taxable income to the individual. Hence, our entrepreneur will pay individual taxes on the after (corporate) tax earnings of her company.

In other words, the profits of the business will be taxed twice, once at corporate rates and once at individual rates, before the entrepreneur gets to spend any of the business's earnings. This phenomenon is known as the **double taxation of corporate earnings**. It is the main *financial* disadvantage of the corporate form.[4]

In an effort to stimulate a sluggish economy, Congress acted to mitigate the double taxation disadvantage of the corporate form in 2003. Until that time dividends received by individuals were taxed at rates as high as 38.6%. In 2003 the tax code was changed to cap the tax rate on dividend income at 15%. The tax on corporate earnings was unchanged. This legislation makes owning dividend paying stocks more attractive and is expected to stimulate stock investment, which in turn tends to stimulate the economy.

Example 1.1

Ruth Samson owns a business that earns $100,000 before taxes. She wants to take the earnings home and spend them on herself. Assume a simplified tax system in which the relevant rates are 34% for corporations and 30% for individuals on the entire amounts subject to those taxes. Remember, however, that dividends received by individuals are taxed at a maximum rate of 15% which we'll assume applies here. Compare the total tax bills under the sole proprietorship and corporate forms of organization.

SOLUTION: Under the corporate form, the $100,000 is first subject to a 34% corporate income tax of $34,000, leaving earnings of $66,000. If Ruth wants to take that sum home, she has to declare it as a dividend and pay personal tax on it at 15%, an additional tax of (.15 × $66,000) = $9,900.

In a sole proprietorship, the $100,000 is taxed once at 30% for a total tax bill of $30,000. The calculations are summarized as follows.

	Corporate	Proprietor
Pretax earnings	$100,000	$100,000
Less:		
Corporate tax (34%)	34,000	—
Earnings/dividend	$ 66,000	$100,000
Less:		
Personal tax (15%, 30%)	9,900	30,000
Net	$ 56,100	$ 70,000

Notice that the difference is a significant $13,900, so the business is paying a lot for the privilege of being a corporation!

4. The owner would pay herself a salary, which wouldn't be taxed twice but would have to be reasonable for the value of the work performed. The salary would be part of the business's expenses. Only profit is taxed twice.

Raising Money

Let's assume that our incorporated entrepreneur's business is successful and that she wants to expand, but needs money to do it. If she tries to borrow as an incorporated business, she'll run into the same problems that face the sole proprietor. Lending to a new business is risky, and generally no one will do it. Whether the business is incorporated doesn't make much difference.

However, a corporation has an option that isn't available to a sole proprietor. The incorporated firm can raise money by offering stock to investors. New stockholders will own shares of the business and may have some influence over how it's run. But if less than a 50% interest is sold, effective control can still be maintained by the original owner.

People contemplating buying stock will ask the same two questions that potential lenders ask, "What happens to my investment if the business fails?" and "What happens if it does very well?"

The answer to the first question is the same as it was in the lending case. If the business fails, the stockholder is likely to lose most or all of his or her investment. But the answer to the second question is very different. If the company does extremely well, the stock's price will go up, perhaps multiplying the value of the original investment many times over. In short, the answer to the second question for a stockholder is "You may get rich!"

Now consider the potential stockholder's position. An investment in the new business is still a gamble in which the worst possible outcome is total loss, but the best result is a very substantial gain. This is a much more attractive gamble than the loan, because the potential reward justifies the risk.

Ease of raising money by selling stock is the most significant financial advantage of the corporate form.

What this means in practical terms is that although people will almost never make uncollateralized loans to start-ups or new companies, they'll frequently buy stock in such ventures. That fact leads us to the *most significant financial advantage of the corporate form: **ease of raising money** by selling stock.*

THE TRUTH ABOUT LIMITED LIABILITY

The most frequently cited advantage of the corporate form is limited liability. The concept says that a stockholder cannot be held liable for the debts of the corporation or for damages it may do to others. That in turn implies that all the stockholder can lose is his or her investment in the stock.

Let's state the matter another way. Suppose someone has a valid claim against a business that exceeds its assets. If the business is a proprietorship, the claimant can take the owner's personal property after taking the assets of the business. On the other hand, if the business is a corporation, only the assets of the business can be taken, not the personal assets of the stockholder owners.

The limited liability concept is absolutely valid in the context of owning shares in a company that the investor isn't running. But it doesn't usually work when an entrepreneur is operating his or her own incorporated business. Let's explore why.

Companies generally create liabilities that exceed their assets in two ways: by borrowing money they can't repay and by losing a lawsuit. The first situation is very common. It usually occurs when a firm takes out a loan in the expectation of good business in the near future. The plan is to pay off the debt with the profits from the anticipated business. Trouble arises when the expected sales don't materialize and the firm can't make its loan payments. If things get bad enough, the company goes bankrupt and the value of the unpaid loan along with other debts exceeds the value of its assets.

Theoretically, incorporation protects business owners from having their personal assets seized as a result of such unpaid loans. In practice, however, lenders circumvent

Personal guarantees make entrepreneurs liable for loans made to their businesses.

this feature of incorporation by demanding **personal guarantees** from small business owners before making loans to their companies.

Personal guarantees are side agreements signed along with loan papers that make owners personally responsible for repayment should their businesses fail to meet loan obligations. This device virtually destroys the value of limited liability where loans to small businesses are concerned.

In the second situation, the entrepreneur or an employee damages some outside party. For example, suppose an auto repair shop fixes a customer's brakes negligently and thereby causes an accident. In such a case, the injured party can sue *both* the business and the negligent individuals, bypassing the limited liability of the corporate form.

The limited liability feature of corporations is largely a myth for owner-operated small businesses. However, it is real for stockholders who don't participate in the business themselves.

S-TYPE CORPORATIONS AND LIMITED LIABILITY COMPANIES

We've seen that the major financial advantage and disadvantage of the corporate form are the ability to raise money through the sale of stock and the double taxation of earnings, respectively. It's difficult to expand a company that's not a corporation, and double taxation makes it hard to accumulate earnings if a company is a corporation.

S-type corporation and LLCs let small businesses avoid double taxation.

However, the government generally favors small businesses because of the jobs they create. To encourage the formation and expansion of new businesses, Congress created some devices that give small firms the best of both worlds. These include the **S-type corporation** and **limited liability companies (LLCs)**.

Both are corporations in the sense of limited liability and the ability to sell stock, but their earnings are not subject to corporate income tax. Earnings flow directly to the personal income of the owners and are taxed only once at personal rates. Essentially, the tax system treats S-type corporations and LLCs as partnerships. That feature makes them a significant incentive to small business formation.

THE GOALS OF MANAGEMENT

To run a company, management needs a goal or an objective against which to measure the implications of its decisions. In the study of economics, theorists assume that the goal of the firm is profit maximization. The concept works in theory but is unmanageable in the real world. Truly maximizing profit today (in the short run) is likely to cause serious problems tomorrow (in the long run).

For example, the work of most research and development (R&D) departments has little effect on current business, because their efforts are focused on developing products that won't be marketed for years. If a firm fires its R&D staff, today's business won't be affected and profits will increase immediately because of the expenses saved. However, in two or three years the firm won't have any new products to sell and will probably be in trouble. From that example, we can deduce that simply maximizing today's profit isn't a very good goal for a real company.

Fortunately, financial markets provide an easy-to-state yet realistic goal for management. Because stockholders own the company and have invested for financial gain, and because management works for those stockholders, the appropriate managerial

INSIGHTS

REAL **APPLICATIONS**

The Limited Liability Company (LLC): An Alternative to the S-Type Corporation

The big advantage of an S-type corporation is that it's treated like a proprietorship with respect to federal income taxes. It allows income to "pass through" to the business's owners before being taxed. Although the S-type is predominantly used by smaller businesses, there isn't really any size limitation. The "S" stands for subchapter S of the Internal Revenue Code, not for small.

S-type corporations sound like a good idea in that they avoid double taxation, but they come with lots of restrictions that make them hard to use in some situations. One of the most significant limitations is that all of the shareholders must be people. That means an S-type corporation can't be owned by another corporation. This makes it impossible to use when two businesses want to form a joint venture to do something together. Until recently, companies forming joint ventures had to organize as either traditional corporations (called C-type corporations) or as partnerships. The C-type corporate form usually subjects the earnings of the new business to some double taxation, while the partnership form opens the owning companies up to any liabilities incurred by the joint venture. (Partnerships don't have limited liability, so the debts of the partnership are also the debts of the partners.)

Another business form has been gaining popularity since the late 1970s and is permitted under the law of every state today. The new form is called the limited liability company (LLC) and is more flexible than the S-type in several ways. It can elect to retain the pass-through characteristic of S-type corporations with respect to tax but doesn't have the restriction that all of its owners must be people. And, as the name implies, it has limited liability. The LLC is rapidly replacing the S-type corporation as the organizational form of choice among small businesses, but it is also used by big firms.

For example, two industrial giants, the Dow Chemical Company and Cargill Inc, a large agricultural company, recently formed a joint venture to explore making plastics from crops like corn rather than from petrochemicals. The idea was to make plastics out of renewable resources rather than from oil byproducts. Dow and Cargill chose the LLC form of organization and formed Cargill Dow LLC. The venture now operates a factory in Nebraska and has developed a commercial line of plastic packaging materials made from corn and other plants. The new product line is aptly named NatureWorks™ PLA.

Sources: http://www.cargilldow.com

Shareholder wealth maximization is a practical goal for corporate management.

goal is the *maximization of shareholder wealth*. That's generally taken to be equivalent to *maximizing the price of the company's stock*.[5]

This idea gets around the short-run/long-run problem just described. Remember that stock market investors watch everything the company does and reflect those actions in their expectations about the firm's future performance. Those expectations determine the price of the stock today. Current profits also affect the price of the stock, but only as an indicator of future profit.

If a real company fired its R&D department and thereby increased current profits, its stock price wouldn't go up. The market would recognize the long-run folly of the move, and the stock price would drop like a stone.

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5. We're assuming here that management doesn't keep stock price high fraudulently by lying to investors about the company's performance and its future prospects.

As our study of finance proceeds, we will run into situations in which a management decision has an impact on stock price. In such cases, we'll assume that the best decision is the one that results in the highest stock price.

STAKEHOLDERS AND CONFLICTS OF INTEREST

In any company, several groups of people have special interests in the way the firm is run. These groups include the following.

Stockholders	Management
Employees	Creditors
Customers	Suppliers
Local community	

Such interested groups can be called *stakeholders* in or *constituencies* of the company. We'll use the term "stakeholder," meaning that each group has a stake or vested interest in the way the firm is operated. Various conflicts of interest are possible between stakeholder groups. A conflict of interest occurs when something that benefits one group takes away from another.

CONFLICTS OF INTEREST—AN ILLUSTRATION

Suppose an employee group at a manufacturing company comes to management with a request. They want the company to build an athletic complex on the factory site so employees can exercise before and after work and during lunch hours. They argue that although this project will cost money, it will lead to a happier, and healthier employee population that will be more effective on the job.

Management agrees that happy, healthy workers are good workers, but also sees a possibility that employees will spend time at the gym at the expense of their jobs or that they will be exhausted on the job after working out. Therefore, they aren't sure whether the facility would help or hurt productivity. On balance, management feels the net efficiency effect will be more or less neutral.

It's important to recognize that this situation reflects a conflict of interest between two stakeholder groups, employees and stockholders. If the athletic facility is built, the money will come out of profits that belong to shareholders. Hence, making the employees a little happier entails making shareholders a little poorer and presumably less happy. In this case, management is effectively an arbitrator and has to make a decision in favor of one group or the other.

In this hypothetical example, the employees' request is something of a luxury, so the decision doesn't generate a lot of emotion when we read about it. But what if working conditions were really terrible at the plant, and employees were asking for money to create a clean, safe work environment? The conflict of interest would still be there, but we would be more likely to favor the employees on an emotional or ethical basis.

MANAGEMENT—A PRIVILEGED STAKEHOLDER GROUP

The ownership of a **widely held company** is dispersed so no one has enough control to influence management.

Management usually has a special position among stakeholder groups. Although top managers theoretically work for the company's stockholders, they often have little accountability to that group. If ownership is widely dispersed and no one holds more than 1% or 2% of the company, stockholders have limited influence because no one can muster enough power to force a change in the management team.

In such cases, top managers become entrenched in positions controlling vast company resources and are able to use those resources for their own benefit rather than for the benefit of shareholders.

THE AGENCY PROBLEM

The conflict of interest between stockholders and management is known as the **agency problem**.

The special position of management in widely held companies leads to a particularly onerous conflict of interest known as the **agency problem**. The term is derived from the legal concept of agency.

An **agent** is hired by a principal and given **decision-making** authority.

An *agency relationship* is created when a person hires another and gives him or her decision-making authority over something. For example, if Smith hires Jones to run his business, Jones is the **agent** of Smith, who is called the *principal*. Conversely, if Smith hires Jones to sweep the floor, no agency relationship is created, because no decision-making authority is involved. The agency relationship creates an opportunity for abuse by the agent who has control over the assets of the principal. In general, corporate managers are the agents of the firm's stockholders.

The Abuse of Agency

The most common example of abuse of the agency relationship is the practice in which companies pay top executives excessive compensation (compensation includes salary, bonuses, and special deals on buying the company's stock called stock options). The conflict is with stockholders because the excess pay would otherwise be profit, which belongs to them.

Executive compensation levels in excess of $200 million in a year have recently been recorded. Stockholders have a right to ask whether anyone can be worth that much. Perhaps even more outrageous is the fact that high levels of compensation for top executives aren't necessarily connected to good performance by the company.

Privileges and luxuries provided to executives are called **perquisites** (or "perks").

Compensation isn't the only way in which managers can feather their own nests. The use of company-owned assets such as boats, airplanes, and vacation retreats is common, as are such benefits as expense account meals, chauffeur-driven limousines, and paid country club memberships. These benefits are called **perquisites** ("perks" for short) and have become a way of life among top corporate executives.

Controlling the Agency Problem

Efforts to manage the agency problem generally involve monitoring what the agent is doing. For example, principals can employ auditors to periodically review company books to make sure funds aren't being diverted to questionable uses. Such measures involve costs known as *agency costs*.

Another way to manage the agency problem is to pay a good part of managers' compensation in the form of a bonus tied to company profit. This approach reduces the incentive to spend money on company-owned assets that are used by executives. For example, buying a vacation retreat for executive use will reduce profit by the cost of the facility. If the president's bonus goes up or down with the size of profits, he or she will be less inclined to approve the expenditure for the retreat.

The government has gotten into the act by limiting the corporate tax deductibility of certain expenses such as luxurious meals and executive compensation exceeding $1 million per year. However, the effect of these efforts has been minimal, and the agency problem remains a major issue in the efficient functioning of the American economy.

INSIGHTS

ETHICS

Ethics and Ethical Investing

Investors buy stocks and bonds expecting to get back more than they spend. That's called earning a **return** on the investment. People are generally interested in the size of the return and the risk associated with it. But is that all they should be concerned about?

Earlier we said companies sold securities to raise money to finance assets. But suppose the assets are to be used in some project or business that's unethical or immoral. Doesn't that mean the investor is indirectly participating in the unethical activity? Should investors be concerned about that? Should they refuse to invest in companies whose activities they feel are unethical?

Let's be precise about what we mean by unethical. It's important not to get ethics mixed up with legality. Most illegal activities are also unethical, so there's no question that we should not participate. Ethics comes up when an activity is morally wrong but is technically legal.

Unethical activities generally involve at least two groups of people. One typically has some power over the other and uses it to gain a benefit at the other's expense.

The tobacco industry provides a good example. People smoke by choice, and the production and sale of cigarettes are legal activities. But the American Lung Association tells us that smoking accounts for more than 440,000 deaths per year and drains more than $150 billion per year from the economy in health-care costs and lost productivity.* Further, media reports say tobacco companies have allegedly kept sales up by targeting children in advertising and manipulating nicotine levels to promote addiction.

Some people consider the making and selling of tobacco products to be a legal but unethical business activity. Under this view, the groups that benefit are the managements and stockholders of tobacco companies who enjoy lucrative jobs and profits. The injured group is smokers who become sick and may die. The power of the benefited group is seen as coming from advertising and the addictive properties of smoking.

On the other hand, some people feel that smokers are aware of the health risks of tobacco and make their own decisions about using it, and that there's nothing morally wrong with providing the product to those who want it.

CREDITORS VERSUS STOCKHOLDERS—A FINANCIALLY IMPORTANT CONFLICT OF INTEREST

The conflict of interest between creditors and stockholders is important at this point, because it will begin to develop your concept of risk in finance. Let's explore the idea through an illustration.

Suppose Smith starts a business with $1,000 of his own money and convinces Jones to lend the business another $1,000 without a personal guarantee. The business now has cash of $2,000, which comes from debt of $1,000 and equity of $1,000. Smith is the sole owner and decision maker. Jones is a **creditor**.

A **creditor** is anyone owed money by a business, including lenders, vendors, employees, or the government.

Now suppose Smith decides to use the business to take on some very risky venture. Imagine that the venture has a high probability of total failure, say 50%, in which case all invested funds would be lost. However, if the venture is successful, it will double invested money in a few months. Smith puts the entire $2,000 into the risky enterprise.

The question is whether ethics should keep investors who do morally condemn the industry from buying tobacco stocks in pursuit of financial returns. Or should the financial market act as a veil that legally and morally separates investors from what is eventually done with their money?

What do you think? Is it ok to invest in the stocks of tobacco companies?

Ethical investing is a growing practice in which people concern themselves with what the companies whose securities they buy do. Also known as socially responsible investing, it generally takes the form of avoiding the securities of firms that engage in activities considered questionable by the investor.

Ethical mutual funds exist which avoid the stocks of companies that engage in certain activities. For example, the Calvert Group Ltd offers a variety of funds that avoid investing in companies associated with unhealthy products and practices or that have poor records on labor relations, human rights, and the environment.

Ethical issues can be hard to analyze. They're usually charged with emotion and involve costs and benefits that are difficult to see. To keep your thinking clear, go through the following steps when analyzing an ethical problem.

1. Clearly identify the unethical practice. Is it all or part of what the firm is doing? In the tobacco illustration, is it wrong to make cigarettes at all or just to advertise to children?
2. Separate legal and ethical issues. Something may not be OK just because it's legal.
3. Identify the benefited party or group and describe the benefit.
4. Identify the injured party or group and describe the injury or cost.
5. Identify the nature and source of the power of the benefited group. Do they have the ability to manipulate and preserve their power? How did the power come about? Did they do something to create it?
6. State any alternatives the injured group has. How difficult are they to use?
7. State the opposing view. What argument will someone who doesn't feel there's a problem make?

As we continue with our study, we'll highlight ethical issues in finance from time to time.

*__Sources:__ American Lung Association, Smoking 101 Fact Sheet, November 2004, http://www.lungusa.org.

It's important to recognize that this is a very unfair deal between Smith and Jones. It is an abuse of the creditor by the stockholder. To see this, consider what happens if the venture fails versus what happens if it is successful.

In the event of failure, both investors lose equally—their entire $1,000 investments. If the venture succeeds, the company will have $4,000 in cash. However, Jones's claim against that sum will still be $1,000, representing the unpaid loan balance (plus a little interest). The remaining $3,000 will belong entirely to Smith.

To put it another way, the venture is a gamble. The losses are shared equally between the stockholder and the creditor, but the profits all belong to the stockholder. That's not a very good deal for the creditor.

from the CFO

This situation occurs in practice when companies that have borrowed money take on ventures that are riskier than those they took on before borrowing. To prevent this from happening, lenders generally put clauses in loan agreements that preclude the borrowing company from becoming more of a risk taker.

SECURITIES ANALYSIS AND THOMSON ONE—BUSINESS SCHOOL EDITION

A large part of financial practice involves valuing securities, especially stocks. Valuation means estimating the price a knowledgeable investor *should* be willing to pay for financial assets. Once such a price is determined it can be compared to the asset's current market price in order to make a buy-sell decision. For example, if we think a stock *should* be worth more than its current market price, buying it will probably lead to a profit as other investors recognize its value and bid its price up.[6]

The process of estimating the value of particular stocks and bonds is called Securities Analysis. It's impossible to overemphasize the importance of Securities Analysis in financial practice. It's critical because most investment decisions are based on the results of analyses done by either investors themselves or professional analysts who issue reports and recommendations that investors read.

A security analysis begins by gathering information about the issuing company. That information is used to forecast the amount and reliability of the future cash flows that are likely to come from owning that stock or bond. The information of interest for an analysis includes general material about what the company does and its prospects for the future, as well as financial detail about its past performance.

This text will introduce you to securities analysis through a series of exercises based on Thomson ONE–Business School Edition (TO-BSE), an educational version of Thomson Financial's professional-level online database of financial information, limited to 500 companies for finance students. As you progress through the book, you will learn to access the TO-BSE system and draw information from it, which you can use in forming your own opinions about companies.

Exercises using Thomson ONE–Business School Edition are included at the end of several chapters and are clearly identified. It's a good idea to have a look at the problem at the end of this first chapter now. You'll find it on page 22. We're confident that you'll thoroughly enjoy the insights into the world of finance these problems provide.

You'll access Thomson ONE–Business School Edition through the text Web site at **http://lasher.swlearning.com**. Select your book, then click on the Thomson ONE button. Use the Thomson ONE access card packaged with your new textbook to register your serial number and gain access to Thomson ONE. You'll need to create a user name and password.

QUESTIONS

1. Separate the following list of assets into real assets and financial assets. What are the distinguishing characteristics of each type of asset?

Delivery Truck	Corporate Stock
Factory Building	Land
Corporate Bond	Note Receivable
Inventory	Computer

6. It's important to understand that all movement in the prices of securities comes from the facts that investors have different opinions about the value of individual securities and that those opinions change frequently.

2. What is the primary factor that determines the price of securities? Can you think of another factor that might significantly affect how investors value the first factor? (Think hard: this second factor isn't mentioned in the chapter.)
3. Companies are generally financed with a mix of debt and equity. How does the riskiness of the company as perceived by the financial market change as the mix shifts from all equity to mostly debt? Why? Would changes in perceived risk induced by changes in the debt-equity mix affect the company's stock price?
4. Discuss the differences, similarities, and ties between finance and accounting.
5. Discuss the relationship between finance and economics.
6. How does the activity of investors in financial markets affect the decisions of executives within the firm?
7. What are the significant financial advantages and disadvantages of the sole proprietorship/partnership form in comparison with the corporate form?
8. Is limited liability a meaningful concept? Why or why not? And if so, for whom?
9. What conflict(s) of interest can you imagine arising between members of the community in which a company operates and some other stakeholders? (*Hint:* Think about pollution.)
10. Is the agency problem an ethical issue or an economic issue?
11. Compare and contrast the terms "stockholder" and "stakeholder."

BUSINESS ANALYSIS

1. Diversified companies are made up of divisions, each of which is a separate business. Large companies have divisions spread over the entire country. In such companies, *most* treasury functions are centralized whereas *most* accounting functions are carried out in the individual divisions.

   The cash management function controls the collection of revenues and the disbursement of funds from various bank accounts. It makes sure that the company never runs out of cash by monitoring outflows and having lines of bank credit ready in case temporary shortages occur. Today's banking system is linked electronically so that cash can be transferred around the country immediately.

   The credit and collection function decides whether a particular customer can be sold to on credit. After the sale, it is responsible for following up to ensure that the bill is paid. Customers are often reluctant to pay because of problems and misunderstandings with sales or service departments.

   If you were designing the finance department of a diversified company, would you centralize these functions or locate them in the remote divisions? Why? Address each function separately.

2. The company president is reviewing the performance and budget of the marketing department with the vice president of marketing. Should that be a one-on-one meeting, or should the CFO be present? Why? If you feel the CFO should be there, what should be his or her role in the meeting?

PROBLEMS

1. Sussman Industries purchased a drilling machine for $50,000 and paid cash. Sussman expects to use the machine for ten years after which it will have no value. It will be depreciated straight-line over the ten years. Assume a marginal tax rate of 40%. What are the cash flows associated with the machine.

   a. At the time of the purchase?
   b. In each of the following ten years?

2. Jill Meier is the sole owner of Meier Corp., which provides her only source of income. Jill has always paid herself entirely by drawing dividends from her corporation. A friend suggested that as long as she is earning about what she would have to pay someone else to run the business, she might be better off paying herself a salary instead of dividends, because she would avoid the problem of double taxation. If Jill's company earns $120,000 all of which she will pay to herself, how much will she take home under each method? Assume a corporate tax rate of 30%, a personal tax rate of 25% and a 15% tax on dividends.

INTERNET PROBLEM

3. Visit the *Business Job Finder* at http://www.careers-in-business.com to explore a career in finance. Prepare a one-page report profiling one of the positions listed. Include education and skills required and average starting salaries.

THOMSON ONE Business School Edition

In this chapter we'll use Thomson ONE to get a quick overview of several companies that are of investment interest. To do the problem, go to the text Web site at **http://lasher.swlearning.com**, select your book and click on the Thomson ONE button. Enter Thomson ONE—Business School Edition by using the username and password you created when you registered the serial number on your access card. Select the problem for this chapter, and you'll see an expanded version that includes instructions on how to navigate within the Thomson ONE system, as well as some additional explanation of the presentation format.

4. You're a new financial analyst for the brokerage firm of Lodge and Howe. A client has expressed an interest in the following companies:

   General Motors (GM),

   Harley-Davidson (HOG),

   Starbucks (SBUX), and

   Microsoft (MSFT),

   and you've been asked to provide him with a brief overview of each firm. The letters in parentheses are symbols used to represent company names when security prices are quoted in financial markets. Use either the names or symbols to get to the overview page for each company. Once there, do the following exercises.

a. Briefly summarize the nature of each firm's business.
b. Based on the graph provided on each overview page, write a paragraph discussing the stock's price performance relative to that of the market as a whole. The market is represented by a price index called the S&P 500. Your comments should include statements as to whether the stock's price seems to move up and down with the market or against it, and whether it moves more or less vigorously than the market.
c. How large is the company in terms of annual sales and total assets?
d. How profitable has it been recently? Answer this by stating net income (profits) as a percent of sales. What is the trend of sales and profits over the last three years?
e. What are professional analysts saying about investing in the stock?
f. What is the stock selling for right now? How recent is that quote? What did the stock open at this morning? Is the price moving up or down?
g. Look back at the graph. Does the stock seem *volatile* to you? Think in terms of the range of price movement over the last several months as a percent of an average of the high and low prices.