1. The objective of financial management

Simply put, the objective of financial management is to maximize the value of the firm. And while we can state this objective simply, it is much more complex than that. The management of the firm involves many stakeholders, including owners, creditors, and participants in the financial markets, as shown in Figure 1.
For a corporation, this goal translates to maximizing shareholders' wealth, as represented by the market value of equity. The **market value of equity**, also referred to as the **market capitalization** (or known informally as the **market cap**) is the present value of all expected future cash flows to owners (as represented as dividends).

The price of a share of stock at any time -- what buyers and sellers in a free market are willing to pay for it -- is called its **market value**. The market value of shareholders' equity is the value of all owners' interest in the corporation and is calculated as the product of the market value of a share of stock and the number of shares of stock outstanding:

\[
\text{Market value of shareholders' equity} = \text{Number of shares outstanding} \times \text{Market price per share of stock}
\]

The number of shares of stock outstanding is the total number of shares that are owned by shareholders. For example, on December 2, 2005, there were 1,923,609,276 shares of Walt Disney Company shares outstanding. The price of Disney stock on that date was $24.88 per share. Therefore, the market value of Disney's equity on December 2, 2005 was $47.844 billion.

Investors buy shares of stock in anticipation of future dividends and increases in the market value of the stock. How much are they willing to pay today for this future -- and hence uncertain -- stream of dividends? They are willing to pay exactly what they believe it is worth today, an amount that is called its present value and that reflects:

- the uncertainty associated with receiving the future payments,
- the timing of these future payments, and
- compensation for tying-up funds in this investment.

In other words, the market price of a share of stock at any time already includes investors' evaluation of both future dividends and the future market value of the stock. Consider a five-year investment horizon, where an investor has expectations regarding dividends in the next five years, as well as the price of the stock in five years. Then,

\[
\text{Present value today} = \text{Present value today of dividends expected during the next five years} + \text{the share price at the end of five years}
\]

But since the share price after five years is itself a present value of future dividends (those after five years, ad infinitum),

\[
\text{Share price today} = \text{Present value today of dividends expected each period forever}
\]

So to maximize the economic well being of the corporation's owners, managers must maximize the market price of the stock. Market price is a measure of owners' economic well being.
Economic profit vs. accounting profit

The objective of financial management is to maximize owners' wealth. The way to do this is to maximize economic profit -- yet this is not the same thing as maximizing accounting profit. Economic profit is the difference between revenues and costs, where costs include the opportunity cost of invested funds. An opportunity cost is the cost of not investing in the next best alternative use of funds; therefore, it is what one gives up. The normal profit is the minimum return investors demand for their funds; in other words, it is the profit when economic profit is zero. Accounting profits and economic profits differ because accounting profits ignore the opportunity cost of funds and are subject to accounting procedures that may not reflect actual cash flows or economic reality.

Economic profit is the difference between revenues and costs, where costs include both the actual business costs (i.e., the explicit costs) and the implicit costs. The implicit costs are the payments that are necessary to secure the needed resources, the cost of capital. With any business enterprise, someone supplies funds, or capital, that the business then invests. The supplier of these funds may be the business owner, an entrepreneur, or banks, bondholders, and shareholders. The cost of capital depends on both the time value of money -- what could have been earned on a risk-free investment -- and the uncertainty associated with the investment. The greater the uncertainty associated with an investment, the greater the cost of capital.

Consider the case of the typical corporation. Shareholders invest in the shares of a corporation with the expectation that they will receive future dividends. But shareholders could have invested their funds in any other investment, as well. So what keeps them interested in keeping their money in the particular corporate? Getting a return on their investment that is better than they could get elsewhere, considering the amount of uncertainty of receiving the future dividends. If the corporation cannot generate economic profits, the shareholders will move their funds elsewhere.

Many U.S. corporations, including Coca-Cola, Briggs & Stratton, and AT&T, embraced a method of evaluating and rewarding management performance that is based on the idea of compensating management for economic profit, rather than for accounting profit. The most prominent of recently developed techniques to evaluate a firm's performance are economic value-added and market value-added, developed by Stern Stewart. Economic value-added (EVA®) is another name for the firm's economic profit. Key elements of estimating economic profit are:

1. calculating the firm's operating profit from financial statement data, making adjustments to accounting profit to better reflect a firm's results for a period;
2. calculating the cost of capital; and
3. comparing operating profit with the cost of capital.

The difference between the operating profit and the cost of capital is the estimate of the firm's economic profit, or economic value-added.

A related measure, market value-added (MVA), focuses on the market value of capital, as compared to the cost of capital. The key elements of market value-added are:

1. calculating the market value of capital;
2. calculating the amount of capital invested (i.e., debt and equity); and
3. comparing the market value of capital with the capital invested.
The difference between the market value of capital and the amount of capital invested is the market value-added. In theory, the market value added of a firm is the present value of the firm's future economic profits.

The application of economic profit is relatively new in the measurement of performance, yet the concept of economic profit is not new -- it was first noted by Alfred Marshall in the nineteenth century. What this recent emphasis on economic profit has accomplished is focus attention away from accounting profit and towards clearing the cost of capital hurdle.

Share prices and efficient markets

An efficient market is a market in which the price of assets rapidly reflects all publicly available information. An implication of efficient markets, for example is that it is not possible to "time" the issuance of a security since investors will pay only what it is worth. It is generally believed that the U.S. securities markets are efficient markets; the valuation effects of any new information are reflected quickly into a security's price. How quickly? It depends on the stock and the type of information, but generally it takes less than fifteen minutes for a stock's price to move in response to news. Therefore, at any point in time the market value of a company's share of stock reflects all publicly-available information regarding that company.

2. Managers representing owners: the agency relationship

An agency relationship is the relationship between the principal and the agent, in which the agency acts for the principal. In a corporation, the principals are the shareholders and the agents are the managers. There are a number of problems with the agency relationship that results from differing interests of the principals and the agents. For example,

- Agents may consume excessive perquisites ("perks"),
- Agents may shirk (not expend their best efforts), and
- Agents may act in their own self interest (instead of that of the principal).

Actual corporate events provide a host of examples of some of the problems with the agency relationship. For example, managers of a corporation may fight a takeover that would be in the best interests of shareholders. As another example, managers adopt golden parachutes, which are lucrative compensation packages that take effect if a manager loses his or her job in a takeover.

These agency problems result in direct and indirect costs: monitoring costs, bonding costs, and residual losses.

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1. **Monitoring costs** are costs incurred by the principal to monitor the actions of the agents (e.g., annual report to shareholders).
2. **Bonding costs** are costs incurred by the agent to ensure they will act in the best interests of the principals (e.g., binding employment contract).
3. The **residual loss** is the implicit cost when management and shareholders' interests cannot be aligned, even when bonding and monitoring costs are incurred.

**Motivating managers: Executive compensation**

The goal is to provide incentives for management to work in the owners' best interests. There are many different ways of compensating managers. The methods include:

- **Salary**: a fixed cash payment per period.
- **Bonus**: a cash payment, based on some measure of operating performance, such as earnings.
- **Stock appreciation rights**: compensation corresponding to changes in the firm's share price.
- **Performance shares**: shares of stock given as rewards based on operating performance.
- **Stock options**: options to buy shares of stock at a specified price (exercise price) within a specified period of time.
- **Restricted stock grant**: options to buy stock, where the stock must be owned for a period of time.

The salary portion of the compensation -- the minimum cash payment an executive receives -- must be enough to attract talented executives. But a bonus should be based on some measure of performance that is in the best interests of shareholders -- not just on the past year's accounting earnings. For example, a bonus could be based on gains in market share. The basic idea behind stock options and grants is to make managers owners since the incentive to consume excessive perks and to shirk are reduced if managers are also owners. As owners, a manager not only share the costs of perks and shirks, but they also benefit financially when their decisions maximize the wealth of owners.

So, the key to motivation through stock is not really the value of the stock, but rather ownership of the stock. For this reason, stock appreciation rights and performance shares, which do not involve an investment on the part of recipients, are not effective motivators. Stock options do work to motivate performance if they require owning the shares over a long time period, are exercisable at a price above the current market price of the shares (to encourage managers to get the share price up), and require managers to tie up their own wealth in the shares.

Currently, there is a great deal of concern because executive compensation is not linked to performance. Often, executives receive compensation packages that bear no relation to the company's performance in terms of creating value to shareholders. One problem is that compensation packages for top management are designed by the board of directors' Compensation Committee and this committee has not always been independent of the company's management. Moreover, reports disclosing these compensation packages to shareholders (the proxy statements) are often confusing, which makes shareholders' monitoring task more challenging. Both problems can be avoided by adequate and understandable disclosure of executive compensation to shareholders, and with compensation packages determined by members of the board of directors who are not executives of the firm. The SEC disclosure requirements were enhanced in 1993, which offer shareholders a clearer picture of executive salaries and stock options than what was available in the past.
Owners have one more tool with which to motivate management -- the threat of firing. As long as owners can fire managers, managers will be encouraged to act in owners' interest. However, if the owners are apathetic -- as they often are in large corporations -- or if they fail to monitor management's performance and the reaction of directors to that performance, the threat may not be credible. The removal of a few poor managers can, however, make this threat very believable.

**Example: Executive Compensation at General Electric**

General Electric provides its executives with compensation from several different sources:

- Salary
- Bonus, based on individual performance and contingent long-term performance awards,
- Stock options, with exercise prices fixed at the date of the option grant,
- Stock appreciation rights, that provide shares based on the difference between the market price at the date of the rights grant and the market price when the rights are exercised,
- Restricted stock units, giving the executives income equal to the quarterly dividend on common stock and giving the executives shares of company stock when the units “lapse” or mature, and
- Long-term incentive awards, based on performance targets of earnings per share growth, revenue growth, return on total capital, and cash generated.

Also, General Electric requires stock ownership based on a multiple of the executive's base salary. The compensation for the Chief Executive Officer and Chairman of the Board, Jeffrey R. Immelt, for 2002 and 2003 is as follows:*

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2003</th>
<th>2002</th>
</tr>
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<tbody>
<tr>
<td>Salary</td>
<td>$3,000,000</td>
<td>$3,000,000</td>
<td>$3,000,000</td>
</tr>
<tr>
<td>Bonus</td>
<td>5,300,000</td>
<td>4,250,000</td>
<td>3,900,000</td>
</tr>
<tr>
<td>Other (e.g., financial consulting, use of corporate aircraft)</td>
<td>234,829</td>
<td>257,515</td>
<td>179,694</td>
</tr>
<tr>
<td>Restricted stock grant</td>
<td>0</td>
<td>0</td>
<td>525,000</td>
</tr>
<tr>
<td>Long term incentive plan payouts</td>
<td>0</td>
<td>0</td>
<td>6,693,000</td>
</tr>
<tr>
<td>All other</td>
<td>279,316</td>
<td>255,164</td>
<td>270,964</td>
</tr>
<tr>
<td>Total</td>
<td>8,814,145</td>
<td>7,762,679</td>
<td>14,568,658</td>
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3. Shareholder wealth maximization and social responsibility

Beyond the shareholders, managers have a responsibility to the firm's *stakeholders* (its employees, community, customers). It may be possible to maximize owners' wealth and be socially responsible.

When financial managers assess a potential investment in a new product, they examine the risks and the potential benefits and costs. If the risk-adjusted benefits do not outweigh the costs, they will not invest. Similarly, managers assess current investments for the same purpose; if benefits do not continue to outweigh costs, they will not continue to invest in the product but will shift their investment elsewhere. This is consistent with shareholder wealth maximization and with the allocative efficiency of the market economy.
However, discontinuing investment in an unprofitable business may mean closing down plants, laying off workers, and, perhaps, destroying an entire town that depends on the business for income. So decisions to invest or disinvest may affect great numbers of people.

All but the smallest business firms are linked in some way to groups of persons who are dependent to a degree on the business. These groups may include suppliers, customers, the community itself, and nearby businesses, as well as employees and shareholders. The various groups of persons that depend on a firm are referred to as its stakeholders because they all have some stake in the outcomes of the firm.

Can a firm maximize the wealth of shareholders and stakeholders at the same time? If a firm invests in the production of goods and services that meet the demand of consumers in such a way that benefits exceed costs the firm will be allocating the resources of the community efficiently, employing assets in their most productive use. But maximizing the wealth of stakeholders succeeds only if these costs include costs to stakeholders. In the case of stakeholders who are employees or members of the community, the firm has a responsibility to assist employees and other stakeholders who are affected. Failure to do so could tarnish its reputation, erode its ability to attract new stakeholder groups to new investments, and ultimately act to the detriment of shareholders.

The effects of a firm's actions on others are referred to as **externalities**; pollution is a very current example that keeps increasing in importance. Suppose the manufacture of a product creates a toxic by-product. If the firm takes action to reduce or treat this by-product, it incurs a cost that either increases the price of its product or decreases profit and the market value of its stock. If competitors do not likewise incur costs to reduce their hazardous waste, the firm is at a disadvantage and may be driven out of business through competitive pressure. The firm may try to use its efforts at reducing the hazardous waste to enhance its reputation, in the hope that this will lead to a sales increase large enough to make up for the cost of reducing the waste. This is what is called a market solution: the market places a value on the hazardous waste control and rewards the firm (or an industry) for it. If society really believes that harming the environment is bad and that reducing hazardous waste is good, the interests of owners and society can be aligned.

It is more likely, however, that costs of reducing or treating hazardous waste will be viewed as reducing owners' wealth. Then firms must be forced to reduce such waste through government laws or regulations. But such laws and regulations also come with a cost -- the cost of enforcement. Again, if the benefits of mandatory pollution control outweigh the cost of government action, society is better off. And if the government requires all firms to reduce pollution or hazardous waste, then pollution control costs simply become one of the conditions under which owner wealth-maximizing decisions are to be made.

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2 This is a very real threat of U.S. companies competing against companies that have little cost associated with the environmental impact of their processing.