

# **Part 1**

## **Introduction to Managerial Finance**

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**Integrative Case 1: Merit Enterprise Corp.**

# Chapter 1

## The Role of Managerial Finance

### ■ Instructor's Resources

#### Overview

This chapter introduces the student to the field of finance and explores career opportunities in both financial services and managerial finance. The three basic legal forms of business organization (sole proprietorship, partnership, and corporation) and their strengths and weaknesses are described, as well as the relationship between major parties in a corporation. The managerial finance function is defined and differentiated from economics and accounting. The chapter then summarizes the three key activities of the financial manager: financial analysis and planning, investment decisions, and financing decisions. A discussion of the financial manager's goals—maximizing shareholder wealth and preserving stakeholder wealth—and the role of ethics in meeting these goals is presented. The chapter includes discussion of the agency problem—the conflict that exists between managers and owners in a large corporation.

This chapter, and all that follow, emphasize how the chapter content plays a vital role in the student's professional and personal life. Each chapter includes an early discussion of the relevance of the topic to majors in accounting, information systems, management, marketing, and operations. Throughout each chapter are detailed examples of how the chapter's topic relates to the student's financial life. These pedagogic tools should motivate students to quickly grasp an understanding of the chapter content and employ it in both their professional and personal lives.

### ■ Suggested Answer to *Opener in Review Question*

**If Zuckerberg is expected to remain the CEO of Facebook after the IPO, why would he be worried about going public?**

Beyond the challenges arising from the influences of outside investors and government regulations, as mentioned in the case, there is also the fact that his actions and the firm's financial statements would be more accessible to the general public. While the public might reward him with a higher salary in good years, there is a potential that he could be removed from office in bad years. Also, Facebook would be a tantalizing company to many other firms, making it a takeover target.

### ■ Answers to Review Questions

1. *Finance* is the art and science of managing money. Finance affects all individuals, businesses, and governments in the process of the transfer of money through institutions, markets, and instruments. At the personal level, finance is concerned with an individual's decisions regarding the spending and investing of income. Businesses also have to determine how to spend and invest revenues.
2. *Financial services* is the area of finance concerned with the design and delivery of advice and financial products to individuals, businesses, and government.

*Managerial finance* encompasses the functions of budgeting, financial forecasting, credit administration, investment analysis, and funds procurement for the firm. Managerial finance is the management of the firm's funds within the firm. This field offers many career opportunities, including financial analyst, capital budgeting analyst, and cash manager. (*Note:* Other answers possible.)

3. Sole proprietorships are the most common form of business organization, while corporations are responsible for the majority of business receipts and profits. Corporations account for the majority of business receipts and profits because they receive certain tax advantages and can expand more easily due to access to capital markets.
4. Stockholders are the true owners, through equity in common and preferred stock, of a corporation. They elect the board of directors, which has the ultimate authority to guide corporate affairs and set general policy. The board is usually composed of key corporate personnel and outside directors. The president or chief executive officer (CEO) reports to the board. He or she is responsible for day-to-day operations and carrying out policies established by the board. The owners of the corporation do not have a direct relationship with management but give their input through the election of board members and voting on major charter issues. The owners of the firm are compensated through the receipt of cash dividends paid by the firm or by realizing capital gains through increases in the price of their common stock shares.
5. The most popular form of limited liability organizations other than corporations are:
  - Limited partnerships—A partnership with at least one general partner with unlimited liability and one or more limited partners who have limited liability. In return for the limited liability, the limited partners are prohibited from active management of the partnership.
  - S corporation—If certain requirements are met, the S corporation can be taxed as a partnership but receive most of the benefits of the corporate form of organization.
  - Limited liability corporation (LLC)—This form of organization is like an S corporation in that it is taxed as a partnership but primarily functions like a corporation. The LLC differs from the S corporation in that it is allowed to own other corporations and be owned by other corporations, partnerships, and non-U.S. residents.
  - Limited liability partnership (LLP)—A partnership form authorized by many states that gives the partners limited liability from the acts of other partners, but not from personal individual acts of malpractice. The LLP is taxed as a partnership. This form is most frequently used by legal and accounting professionals.

These firms generally do not have large numbers of owners. Most typically they have fewer than 100 owners.

6. Virtually every function within a firm is in some way connected with the receipt or disbursement of cash. The cash relationship may be associated with the generation of sales through the marketing department, the incurring of raw material costs through purchasing, or the earnings of production workers. Since finance deals primarily with management of cash for operation of the firm, every person within the firm needs to be knowledgeable of finance to effectively work with employees of the financial departments.

Individuals plan, monitor, and assess the financial aspects of their activities over a given period through the consideration of cash inflows and outflows.

7. The *goal of the firm*, and therefore all managers, is to maximize shareholder wealth. This goal is measured by share price; an increasing price per share of common stock relative to the stock market as a whole indicates achievement of this goal.

8. Profit maximization is not consistent with wealth maximization due to: (1) the timing of earnings per share, (2) earnings that do not represent cash flows available to stockholders, and (3) a failure to consider risk.
9. *Risk* is the chance that actual outcomes may differ from expected outcomes. Financial managers must consider both risk and return because of their inverse effect on the share price of the firm. Increased risk may decrease the share price, while increased return is likely to increase the share price.
10. In recent years the magnitude and severity of “white collar crime” has increased dramatically, with a corresponding emphasis on prosecution by government authorities. As a result, the actions of all corporations and their executives have been subjected to closer scrutiny. This increased scrutiny of this type of crime has resulted in many firms establishing corporate ethics guidelines and policies to cover employee actions in dealing with all corporate constituents. The adoption of high ethical standards by a corporation strengthens its competitive position by reducing the potential for litigation, maintaining a positive image, and building shareholder confidence. The result is enhancement of long-term value and a positive effect on share price.
11. The treasurer or financial manager within the mature firm must make decisions with respect to handling financial planning, acquisition of fixed assets, obtaining funds to finance fixed assets, managing working capital needs, managing the pension fund, managing foreign exchange, and distribution of corporate earnings to owners.
12. Finance is often considered a form of applied economics. Firms operate within the economy and must be aware of economic principles, changes in economic activity, and economic policy. Principles developed in economic theory are applied to specific areas in finance. From macroeconomics comes the institutional structure in which money and credit flows take place. From microeconomics, finance draws the primary principle used in financial management, marginal analysis. Since this analysis of marginal benefits and costs is a critical component of most financial decisions, the financial manager needs basic economic knowledge.
13. Accountants operate on an accrual basis, recognizing revenues at the point of sale and expenses when incurred. The financial manager focuses on the actual inflows and outflows of cash, recognizing revenues when actually received and expenses when actually paid.

The accountant primarily gathers and presents financial data; the financial manager devotes attention primarily to decision making through analysis of financial data.

14. The two key activities of the financial manager as related to the firm’s balance sheet are:
  - a. Making investment decisions: Determining both the most efficient level and the best mix of assets; and
  - b. Making financing decisions: Establishing and maintaining the proper mix of short- and long-term financing and raising needed financing in the most economical fashion.

Investment decisions concern the left-hand side of the balance sheet (current and fixed assets). Financing decisions deal with the right-hand side of the balance sheet (current liabilities, long-term debt, and stockholders’ equity).

15. *Corporate governance* refers to a system of organizational control that is used to define and establish lines of responsibility and accountability among major participants in the corporation. These participants include the shareholders, board of directors, officers, and managers of the corporations and other stakeholders. A company's organizational chart is an example of a broad arrangement of corporate governance. More detailed responsibilities would be established within each branch of the organizational chart.

The Sarbanes-Oxley Act of 2002 is directed toward reducing the apparent conflicts of interest that exist in many corporate structures. The act has many provisions, but the major thrust of the act is to reduce the number of situations in which a conflict of interest can arise and to hold management more accountable for the financial and operating information they communicated to the public.

16. Firms incur *agency costs* to prevent or minimize agency problems. It is unclear whether they are effective in practice. The four categories of agency cost are *monitoring expenditures* incurred by the owners for audit and control procedures, *bonding expenditures* to protect against the potential consequences of dishonest acts by managers, *structuring expenditures* that use managerial compensation plans to provide financial incentives for managerial actions consistent with share price maximization, and *opportunity costs* resulting from the difficulties typically encountered by large organizations in responding to new opportunities.

The agency problem and the associated agency costs can be reduced by a properly constructed and followed corporate governance structure. The structure of the governance system should be designed to institute a system of checks and balances to reduce the ability and incentives of management to deviate from the goal of shareholder wealth maximization.

17. *Structuring expenditures* are currently the most popular way to deal with the agency problem—and also the most powerful and expensive. Compensation plans can be either incentive or performance plans. *Incentive plans* tie management performance to share price. Managers may receive stock options giving them the right to purchase stock at a set price. This provides the incentive to take actions that maximize stock price so that the price will rise above the option's price level. This form of compensation plan has fallen from favor recently because market behavior, which has a significant effect on share price, is not under management's control. As a result, *performance plans* are more popular today. With these, compensation is based on performance measures, such as earnings per share (EPS), EPS growth, or other return ratios. Managers may receive *performance shares* and/or *cash bonuses* when stated performance goals are reached.

In practice, recent studies have been unable to document any significant correlation between CEO compensation and share price.

18. Market forces—for example, shareholder activism from large institutional investors—can reduce or avoid the agency problem because these groups can use their voting power to elect new directors who support their objectives and will act to replace poorly performing managers. In this way, these groups place pressure on management to take actions that maximize shareholder wealth.

The threat of hostile takeovers also acts as a deterrent to the agency problem. *Hostile takeovers* occur when a company or group not supported by existing management attempts to acquire the firm. Because the acquirer looks for companies that are poorly managed and undervalued, this threat motivates managers to act in the best interests of the firm's owners.

Institutional investors are a powerful source of shareholder involvement in the monitoring of managers to reduce the agency problem. Institutions hold large quantities of shares in many of the corporations in their portfolio. Managers of these institutions should be active in the monitoring of

management and vote their shares for the benefit of the shareholders. The power of institutional investors far exceeds the voting power of individual investors.

## ■ Suggested Answer to *Focus on Practice Box: Professional Certifications in Finance*

### Why do employers value having employees with professional certifications?

Studying to pass certification exams allows employees to continue their education beyond their undergraduate degree. The study will be focused on one area of finance, which is likely to be that needed to perform their job well. Furthermore, it will allow the employer to advertise the additional training of the employees, and thereby attract additional business.

## ■ Suggested Answer to *Focus on Ethics Box: Will Google Live Up to Its Motto?*

### Is the goal of maximization of shareholder wealth necessarily ethical or unethical?

It is not the goal that makes maximization of shareholder wealth ethical or unethical, it is actions of the financial manager in pursuit of this goal.

### How can Google justify its actions in the short run to its long-run investors?

Google must stress the long-run benefits of its decision to investors. For example, Google might make the case that the company's stance in China will open up business opportunities elsewhere. They might also show that the company's business model is more valuable when search results are uncensored.

## ■ Answers to Warm-Up Exercises

E1-1. Comparison of advantages and disadvantages of a partnership versus incorporation.

**Answer:** While Jack and Ann disagree over whether or not their firm should incorporate or remain as a partnership, each form of business organization has its advantages and disadvantages. One advantage of a partnership is that income is taxed at each partner's individual tax rate that includes 10%, 15%, 25%, and higher rates up to a top rate of 35% while corporate rates are 15%, 25%, and 34% with a top rate of 39%. The corporation is allowed to retain accumulated taxable income, but for a personal service corporation such as Jack and Ann's tax preparation service, there is an additional tax, called an accumulated earnings tax, of 15% for accumulated taxable income in excess of \$150,000. If corporate earnings are paid out as salary, Jack and Ann will pay their individual rates as they do on their partnership earnings. If some of the income is paid out in the form of dividends it will be taxed twice, first as corporate income and then as dividend income (generally 5% or 15% depending upon the individual's tax bracket).

While taxation of income is a key factor in deciding which form of business organization to select, two other factors are also important. In a partnership, each partner has **unlimited liability** and may have to cover debts of other partners, while corporate owners have limited liability that guarantees that they cannot lose more than they have invested in the corporation. The third major consideration is **ease of transfer of the business**. Partnerships are harder to transfer and are technically dissolved when a partner dies, while a corporation can have a very long life with ownership readily transferred through the sale of stock.

If a third party was asked to decide which legal form of business A&J Tax Preparation should take, it would be useful to have the following information:

- Marital status and tax situation of each partner
- Expectation of the longevity of the firm
- Age of the current owners
- Current plan of succession
- Risk tolerance of the owners
- Expectation of future tax law changes
- Capital needs of the firm
- Growth prospects of the firm
- Reasons for each partner's view of the preferred form of ownership

E1-2. Cash flow vs. accrued profits

**Answer:** It is not unusual for a firm to be profitable yet experience a cash crunch. The most common cause is when expenses have a shorter due date than expected revenue. In such cases the firm must arrange short-term financing to meet its debt obligations before the revenue arrives. If the forthcoming cash crunch is not a new situation for this firm, management should probably consider going ahead with the year-end party if it is important to employee morale and the future success of the firm, as long as adequate short-term funding can be arranged. On the other hand, if the firm has not experienced such a cash crunch before, there may be larger problems looming ahead and it would be unseemly to spend cash on a party that would be better spent meeting the debt obligations of the firm.

E1-3. Sunk costs

**Answer:** Marginal cost-benefit analysis ignores sunk costs, so the \$2.5 million dollars is irrelevant to the current decision that must be made. At this point there are two questions that must be answered. First, will the \$10,000 additional investment generate a *PV* of expected revenue that will exceed the \$10,000 investment? In other words, will the project generate a positive net *PV*? If it does, the project must be considered further to see if it is the best use of capital. If the firm has a need to ration capital, the project must then be compared to other projects competing for the limited capital to see if it is viable. The fact that the project's technology has been surpassed by new technology does not immediately disqualify the project since new technology does not ensure a positive cost-benefit result. In this case, a small \$10,000 investment might avoid a heavy expenditure in new technology. Depending upon the industry, however, failure to keep up with competitors can be devastating. The key may well lie in the description "the project has little chance to be viable," which indicates that approving the \$10,000 is likely to be throwing good money after bad.

E1-4. Agency costs

**Answer:** Agency costs are the costs borne by stockholders to maintain a governance structure that ensures against dishonest acts of management, and gives managers the financial incentive to maximize share price. One example of agency costs is stock options, which are used to provide an incentive for managers to work diligently for the benefit of the firm. Tips are similar to stock options in that they are offered as rewards for good service much as stock options are used to reward managers, presumably based on their good performance—which subsequently leads to a higher stock price. The Donut Shop, Inc. example does not represent a clear case of agency costs because it is the management itself that has instituted the "No tips" policy and the employees have responded with reduced performance. By banning tips, the management has created a situation where an agency cost may be necessary to provide an incentive for employees to resume their former level of performance.



One solution that may work for Donut Shop, Inc. is to institute a profit-sharing plan that reaches down to the employee level where the slowdown and inefficiency are occurring. A profit-sharing plan is designed to motivate the employees and could alleviate the aggravation caused by the no-tip policy, but must be clearly identified as the replacement to tipping in order to be effective. A profit-sharing plan is usually viewed by the employees as a reward for good performance, but does not have the immediacy of the positive effect that an employee gets from a tip.

It is unclear from the case whether the new no-tip policy is a company-wide policy or simply the actions of a few branch managers. However, the real solution here is to recognize that the no-tip policy has created an unnecessary backlash that can be alleviated by reversing management's position without incurring the additional costs of revising the current employee benefit plan and paying out a portion of corporate profits.

## ■ Solutions to Problems

### P1-1. Liability comparisons

#### LG 2; Basic

- Ms. Harper has unlimited liability.
- Ms. Harper has unlimited liability.
- Ms. Harper has limited liability, which guarantees that she cannot lose more than she invested.

### P1-2. Accrual income vs. cash flow for a period

#### LG 4; Basic

- |                    |                  |
|--------------------|------------------|
| Sales              | \$760,000        |
| Cost of goods sold | <u>300,000</u>   |
| Net profit         | <u>\$460,000</u> |
- |                    |                  |
|--------------------|------------------|
| Cash receipts      | \$690,000        |
| Cost of goods sold | <u>300,000</u>   |
| Net cash flow      | <u>\$390,000</u> |
- The cash flow statement is more useful to the financial manager. The accounting net income includes amounts that will not be collected and, as a result, do not contribute to the wealth of the owners.

### P1-3. Cash flow statement

#### LG 4; Intermediate

- Total cash inflow:  $\$450 + \$4,500 = \$4,950$

Total cash outflow:  $\$1,000 + \$500 + \$800 + \$355 + \$280 + \$1,200 + \$222 = \$4,357$
- Net cash flow:  $\$4,950 - \$4,357 = \$593$
- If Jane is facing a shortage, she could cut back on some of her discretionary items, including clothing, dining out, and gas (i.e., travel less).
- If Jane has a surplus in August, she should compare these cash flows to those of other months and verify that August's cash flows are typical. She may, for instance, observe the existence of large automobile insurance bills or tendency to spend more during the Christmas holiday season. If she has such needs, Jane will want to save the \$593 in a money market security,

where she is unlikely to face a decline in investment. If her August net cash flow is not needed to pay anticipated bills, she should invest in a diversified portfolio.

P1-4. Marginal cost-benefit analysis and the goal of the firm

**PG 3, 5; Challenge**

- a. Marginal benefits of new robotics – Marginal benefits of original robotics = Marginal benefits of proposed robotics

$$\$560,000 - \$400,000 = \$160,000$$

- b. Marginal cost of new robotics – Sales price of current robotics = Marginal cost of proposed robotics

$$\$220,000 - \$70,000 = \$150,000$$

- c. Net benefits of new robotics = Marginal benefits of proposed robotics – Marginal cost of proposed robotics

$$\$160,000 - \$150,000$$

- d. Ken Allen should recommend the new robotics be used on the heavy truck gear line. The marginal benefits exceed the marginal costs
- e. Ken Allen should determine whether there will be additional training necessary with the new robotics, whether even better robotics may be available in a short while, and what will be the energy consumption of the new robotics.

P1-5. Identifying agency problems, costs, and resolutions

**LG 4; Intermediate**

- a. In this case the employee is being compensated for unproductive time. The company must pay someone to take her place during her absence. Installation of a time clock that must be punched by the receptionist every time she leaves work and returns would result in either: (1) her returning on time or (2) reducing the cost to the firm by reducing her pay for the lost work.
- b. The costs to the firm are in the form of opportunity costs. Money budgeted to cover the inflated costs of this project proposal is not available to fund other projects that may help to increase shareholder wealth. Make the management reward system based on how close the manager's estimates come to the actual cost rather than having them come in below cost.
- c. The manager may negotiate a deal with the merging competitor that is extremely beneficial to the executive and then sell the firm for less than its fair market value. A good way to reduce the loss of shareholder wealth would be to open the firm up for purchase bids from other firms once the manager makes it known that the firm is willing to merge. If the price offered by the competitor is too low, other firms will raise the price closer to its fair market value.
- d. Generally part-time or temporary workers are not as productive as full-time employees. These workers have not been on the job as long to increase their work efficiency. Also, the better employees generally need to be highly compensated for their skills. This manager is getting rid of the highest-cost employees to increase profits. One approach to reducing the problem would be to give the manager performance shares if he or she meets certain stated goals. Implementing a stock incentive plan tying management compensation to share price would also encourage the manager to retain quality employees.

## P1-6. Ethics Problem

**LG 3; Intermediate**

The phrase “ethical constraints” is quite broad. The company may be referring to legal issues, and the fact that it will comply with laws. For instance, it may be implying that it will not be using illegal immigrants and paying them a reduced salary. It may refer to the use of substandard materials, which are less likely to hold up over an extended period of time. Sometimes the use of substandard manufacturing facilities will increase the chance of harm to employees or worse, as witnessed by the BP Gulf oil spill in April 2010.

## ■ Case

Case studies are available on [www.myfinancelab.com](http://www.myfinancelab.com).

### Assessing the Goal of Sports Products, Inc.

- a. Maximization of shareholder wealth, which means maximization of share price, should be the primary goal of the firm. Unlike profit maximization, this goal considers timing, cash flows, and risk. It also reflects the worth of the owners’ investment in the firm at any time. It is the value they can realize should they decide to sell their shares.
- b. Yes, there appears to be an agency problem. Although compensation for management is tied to profits, it is not directly linked to share price. In addition, management’s actions with regard to pollution controls suggest a profit maximization focus, which would maximize their earnings, rather than an attempt to maximize share price.
- c. The firm’s approach to pollution control seems to be questionable ethically. While it is unclear whether their acts were intentional or accidental, it is clear that they are violating the law—an illegal act potentially leading to litigation costs—and as a result are damaging the environment, an immoral and unfair act that has potential negative consequences for society in general. Clearly, Sports Products has not only broken the law but also established poor standards of conduct and moral judgment.
- d. From the information given there appears to be a weak corporate governance system. The fact that management is able to measure and reward their performance on profits indicates that no one is watching out for the shareholders. Loren and Dale’s concerns indicate that employees apparently have an interest in the long-run success of the firm. Allowing the continuation of pollution violations is also apparently escaping the interest and control ability of others who should be monitoring the firm.
- e. Some specific recommendations for the firm include:
  - Tie management, and possibly employee, compensation to share price or a performance-based measure and make sure that all involved own stock and have a stake in the firm. Being compensated partially on the basis of share price or another performance measure, and owning stock in the firm will more closely link the wealth of managers and employees to the firm’s performance.
  - Comply with all federal and state laws as well as accepted standards of conduct or moral judgment.
  - Establish a corporate ethics policy, to be read and signed by all employees.
  - Set up a corporate governance system that has as its basis the oversight and welfare of all the stakeholders in the firm.

(Other answers are, of course, possible.)

## ■ Spreadsheet Exercise

The answer to Chapter 1's Monsanto spreadsheet problem is located at [www.pearsonglobaleditions.com/gitman](http://www.pearsonglobaleditions.com/gitman) under the Instructor's Manual.

## ■ Group Exercise

*Group exercises are available on [www.myfinancelab.com](http://www.myfinancelab.com).*

### Notes for Adopters

The motivation for these group exercises is to place the learning goals of each chapter within the context of a fictitious firm while giving students a valuable set of teamwork skills. Creativity is encouraged, while the strong links of each assignment to a real-world, shadow firm should ground each group's work in reality. Any of these assignments and their deliverables can be modified to better fit within an adopter's course goals as they were designed with an eye toward flexibility of use. The learning through these exercises should be something students enjoy, being both applicable to the real world and less confining than traditional homework.

The first issue for adopters to address is group composition and size. Should students self-separate or be divided by their instructor? How big should the groups be? This is a semester-long assignment and students will need to get along with their fellow group members. If students choose their own groups it may, though not always, reduce the incidence of intra-group squabbles. Diversity within the groups might then be sacrificed, however. One strategy is to ask students to first pair-off. The instructor can then join the pairs into groups of 4. This pairing of the pairs could be done randomly through a number-in-the-hat selection process, as could the entire group setup.

Group size does matter and these exercises were designed for a workload spread across a minimum of 3 students. Larger groups would lessen the homework load; however, the issue of free-riding is often more prevalent in larger groups, where slackers can hide. Management of larger groups is also more challenging for the participants. The suggested group size is between 3–5 students.

Group leadership is another issue. The best situation might be rotating the CEO/leader, where each group member has several opportunities to be in charge. Lastly, these exercises were designed to allow students freedom but with the responsibility of working somewhat independently of their instructor. In this vein the instructions for each assignment have been written to be relatively self-explanatory.

## Chapter 1

This first chapter asks students to name their fictitious firm and describe its business. As this firm is going public students are asked to explain why it is appropriate for them to go public, and also discuss different managerial roles within the corporation. The group must choose a shadow firm to follow that is publicly held, allowing them to gather a substantial amount of information about it on the Internet. This publicly-traded firm should be in an industry related to their fictitious firm.

The most important counsel students could get at the outset is to spend time making these initial decisions. Later work is going to build on these choices and careful choosing is paramount. For example, in choosing the shadow firm, students should pick a well-established firm whose information, including financials, will be easily found. This also impacts their decisions regarding their own fictitious firm. Throughout many of the subsequent chapters students will be taking real-world information from their shadow firm and applying it to their fictitious firm; dressing their own firm with the clothes of the shadow firm. Students should feel

comfortable in these clothes, so encouraging them to choose industries they're familiar with, or interested in, is helpful.