Fundamentals of Corporate Finance, 11th Edition

Solutions for Chapter 1

Goals and Governance of the Corporation

1. Investment decision
2. Financial asset
3. Public corporation
4. Corporation
5. Treasurer
6. The cost resulting from conflicts of interest between managers and shareholders

*Est time: 01–05*

*Introduction to Corporate Finance*

1. Investment decisions, typically called capital budgeting, relate to investments in tangible and intangible assets. Financing decisions relate to the raising of money through debt and equity. Repayment of that money as well as interest and dividends are also financing decisions.
2. Investment decision
3. Financing decision
4. Investment decision
5. Investment decision
6. Financing decision
7. Financing decision:

*Est time: 01–05*

*Financial Management Decisions*

1. Both capital budgeting decisions and capital structure decisions are long-term decisions. However, capital budgeting decisions are long-term investment decisions, while capital structure decisions are long-term financing decisions. Capital structure decisions essentially involve selecting between equity financing and long-term debt financing.

*Est time: 01–05*

*Introduction to Corporate Finance*

1. A share of stock financial
2. A personal IOU financial
3. A trademark real
4. A truck real
5. Undeveloped land real
6. The balance in the firm’s checking account financial
7. An experienced and hardworking sales force real
8. A bank loan agreement financial

*Est time: 01–05*

*Introduction to Corporate Finance*

1. “Companies usually buy real assets. These include both tangible assets such as executive airplanes and intangible assets such as brand names. To pay for these assets, they sell financial assets such as bonds. The decision about which assets to buy is usually termed the capital budgeting or investment decision. The decision about how to raise the money is usually termed the financing decision.”

*Est time: 01–05*

*Financial Management Decisions*

* 1. Private corporation
  2. Partnership
  3. Public corporation
  4. Public corporation

*Est time: 01–05*

*Forms of Business Organization*

1. *Double taxation* means that a corporation’s income is taxed first at the corporate tax rate. When the income is distributed to shareholders as dividends, the income is taxed again at each shareholder’s personal tax rate.

*Est time: 01–05*

*Forms of Business Organization*

1. C. Ownership can be transferred without affecting operations and D. Managers can be fired with no effect on ownership.

*Est time: 01–05*

*Forms of Business Organization*

1. The individual stockholders of a corporation (i.e., the owners) are legally distinct from the corporation itself, which is a separate legal entity. Consequently, the stockholders are not personally liable for the debts of the corporation; the stockholders’ liability for the debts of the corporation is limited to the investment each stockholder has made in the shares of the corporation.

*Est time: 01–05*

*Forms of Business Organization*

1. B. The corporation survives even if managers are dismissed and C. Shareholders can sell their holdings without disrupting the business.

*Est time: 01–05*

*Forms of Business Organization*

1. Limited liability is generally advantageous to large corporations. Large corporations would not be able to obtain financing from thousands or even millions of shareholders if those shareholders were not protected by the fact that the corporation is a distinct legal entity, conferring the benefit of limited liability on its shareholders. On the other hand, lenders do not view limited liability as advantageous to them. In some situations, lenders are not willing to lend to a corporation without personal guarantees from shareholders, promising repayment of a loan in the event that the corporation does not have the financial resources to repay the loan. Typically, these situations involve small corporations, with only a few shareholders; often these corporations can obtain debt financing only if the shareholders provide these personal guarantees.

*Est time: 01–05*

*Forms of Business Organization*

1. B. Responsible for investing the firm’s spare cash and C. Responsible for arranging any issue of common stock.

*Est time: 01–05*

*Management Organization and Roles*

1. The responsibilities of the treasurer include the following: supervising cash management, raising capital, and banking relationships. The controller’s responsibilities include supervision of accounting, preparation of financial statements, and tax matters. The CFO of a large corporation supervises both the treasurer and the controller. The CFO is responsible for large-scale corporate planning and financial policy.

*Est time: 01–05*

*Management Organization and Roles*

1. Answers will vary. For example, a corporation might cut its labor force dramatically, which could reduce immediate expenses and increase profits in the short term. Over the long term, however, the firm might not be able to serve its customers properly, or it might alienate its remaining workers; if so, future profits will decrease, the stock price, and the market value of the firm, will decrease in anticipation of these problems.

Similarly, a corporation can boost profits over the short term by using less costly materials even if this reduces the quality of the product. Once customers catch on, sales will decrease and profits will fall in the future. The stock price will fall.

The moral of these examples is that, because stock prices reflect present *and future* profitability, the corporation should not necessarily sacrifice future prospects for short-term gains.

*Est time: 01–05*

*Goal of Financial Management*

1. Financial managers refer to the opportunity cost of capital because corporations increase value for their shareholders only by accepting all investment projects that earn more than this rate. If the company earns below this rate, the market value of the company’s stock falls and stockholders look for other places to invest.

To find the opportunity cost of capital for a safe investment, managers and investors look at current interest rates on safe debt securities, such as U.S. Treasury debt.

*Est time: 01–05*

*Cost of Capital—General*

1. The stock price reflects the value of both current and future dividends that the shareholders expect to receive. In contrast, profits reflect performance in the current year only. Profit maximizers may try to improve this year’s profits at the expense of future profits. But stock-price maximizers will take account of the entire stream of cash flows that the firm can generate. They are more apt to be forward-looking.

*Est time: 01–05*

*Goal of Financial Management*

1. In this situation, a “superior” rate of return is a rate greater than the rate of return investors could earn elsewhere in the financial markets from alternative investments with risk equal to that of the “high-risk capital investment” described in the problem. Fritz (who is risk-averse) will likely sell the investment since he is risk averse. Frieda (who is risk-tolerant) will likely keep her shares since it matches her risk tolerance.

*Est time: 01–05*

*Goal of Financial Management*

1. This action might appear, superficially, to be a grant to *former* employees and thus not consistent with value maximization. However, such “benevolent” actions might enhance the firm’s reputation as a good place to work, might result in greater loyalty on the part of current employees, and might contribute to the firm’s recruiting efforts. Therefore, from a broader perspective, the action may be value-maximizing.
2. The reduction in dividends, in order to allow increased reinvestment, can be consistent with maximization of current market value. If the firm has attractive investment opportunities, and wants to save the expenses associated with issuing new shares to the public, then it could make sense to reduce the dividend in order to free up capital for the additional investments.
3. The corporate jet would have to generate benefits in excess of its costs in order to be considered stock-price enhancing. Such benefits might include time savings for executives and greater convenience and flexibility in travel.
4. Although the drilling appears to be a bad bet, with a low probability of success, the project may be value-maximizing if a successful outcome (although unlikely) is potentially sufficiently profitable. A one-in-five chance of success is acceptable if the payoff conditional on finding an oil field is 10 times the costs of exploration.

*Est time: 06–10*

*Goal of Financial Management*

1. Shareholders want managers to maximize the market value of their investments. The firm faces a trade-off. It can either invest its cash in real assets or it can give the cash back to shareholders in the form of a dividend and they can invest it in financial assets. Shareholders want the company to invest in real assets only if the expected return is higher than they could earn for themselves. The return that shareholders could earn for themselves is therefore the opportunity cost of capital for the firm.

*Est time: 06–10*

*Goal of Financial Management*

1. Increased market share can be an inappropriate goal if it requires reducing prices to such an extent that the firm is harmed financially. Increasing market share *can* be part of a well-reasoned strategy, but one should always remember that market share is not a goal in itself. The owners of the firm want managers to maximize the value of their investment in the firm.
2. Minimizing costs can also conflict with the goal of value maximization. For example, suppose a firm receives a large order for a product. The firm should be willing to pay overtime wages and to incur other costs in order to fulfill the order, as long as it can sell the additional product at a price greater than those costs. Even though costs per unit of output increase, the firm still comes out ahead if it agrees to fill the order.
3. A policy of underpricing any competitor can lead the firm to sell goods at a price lower than the price that would maximize market value. In some situations, this strategy might make sense, but it should not be the ultimate goal of the firm. It should be evaluated with respect to its effect on firm value.
4. Expanding profits is a poorly defined goal of the firm. The text gives three reasons:

(i) There may be a trade-off between accounting profits in 1 year and accounting profits in another year. For example, writing off a bad investment may reduce this year’s profits but increase profits in future years. Which year’s profits should be maximized?

(ii) Investing more in the firm can increase profits, even if the increase in profits is insufficient to justify the additional investment. In this case, the increased investment increases profits but can reduce shareholder wealth.

(iii) Profits can be affected by accounting rules, so a decision that increases profits using one set of rules may reduce profits using another.

*Est time: 06–10*

*Goal of Financial Management*

1. A. Make shareholders as wealthy as possible by investing in real assets.

*Est time: 01–05*

*Goal of Financial Management*

1. The director is mistaken. The risk of the project is not determined by the borrowing rate from the bank. The opportunity cost of capital is the rate of return from investments in the financial markets at the same level of risk as Quince’s average-risk investments. The opportunity cost of capital is the minimum acceptable rate of return for a firm’s capital investments. The rate of return on the average-risk investment project must be compared to the firm’s cost of capital to determine whether to move ahead with the project.

*Est time: 01–05*

*Cost of Capital—General*

1. The opportunity cost of capital for this investment is the rate of return that investors can earn in the financial markets from safe investments, such as U.S. Treasury securities. The best estimate of the opportunity cost of capital would rely on interest rates on U.S. Treasuries with the same maturity as that of the proposed investment, for example, 1-year Treasury bills. However, that it is considered “guaranteed” should be met with skepticism.

*Est time: 01–05*

*Cost of Capital—General*

1. a. Because the government guarantees the payoff for the investment, the project is essentially riskless, so opportunity cost of capital is the rate of return on U.S. Treasuries with 1 year to maturity (i.e., 1-year Treasury bills).
2. Because the average rate of return from an investment in carbon is expected to be about 20%, this is the opportunity cost of capital for the investment under consideration by Pollution Busters, Inc. Purchase of the additional sequesters would not be a worthwhile capital investment if the expected rate of return remains 15%. This *expected* return (which is no longer a guaranteed risk-free return) would be less than the opportunity cost of capital given the risk of the project.

*Est time: 01–05*

*Cost of Capital—General*

1. While these other objectives are important, only by having Shareholder Value maximized do we have a clear, unambiguous goal. The risks and liability from ambiguity of multiple “Primary” goals would in the end mean little would be accomplished. Instead, we set one goal as the legal obligation of the board and officers of the company, and if they are prudent they will accomplish that in part through working productively with all stakeholders, including employees, the larger community, and so on. Failure to act ethically might occasionally provide short-term gains, but in the long term is likely to damage the firm’s reputation, alienate employees and customers, and reduce shareholder value (even aside from the intrinsic rewards of ethical behavior). Shareholder value is the one measure that is legally paramount, is measurable, and in the end is most productive overall for all stakeholders.

*Est time: 01-05*

*Cost of Capital—General*

1. Takeover defenses increase the target firm’s agency problems. One of the mechanisms that stockholders rely on to mitigate agency problems is the threat that an underperforming company (with an underperforming management) will be taken over by another company, and the new owners will replace the management team. If management is protected against takeovers by takeover defenses, it is more likely that managers will act in their own best interest, rather than in the interests of the firm and its stockholders.

*Est time: 01–05*

*Agency Costs and Problems*

1. The contingency arrangement aligns the interests of the lawyer with those of the client. Neither makes any money unless the case is won. If a client is unsure about the skill or integrity of the lawyer, this arrangement can make sense. First, the lawyer has an incentive to work hard. Second, if the lawyer turns out to be incompetent and loses the case, the client will not have to pay a bill. Third, the lawyer will not be tempted to accept a very weak case simply to generate bills. Fourth, there is no incentive for the lawyer to charge for hours not really worked. Once a client is more comfortable with the lawyer, and is less concerned with potential agency problems, a fee-for-service arrangement might make more sense.

*Est time: 06–10*

*Agency Costs and Problems*

1. Traders can earn huge bonuses when their trades are very profitable, but if the trades lose large sums, as in the case of Barings Bank, the trader’s exposure is limited. This asymmetry can create an incentive to take big risks with the firm’s (i.e., the shareholders’) money. This is an agency problem.

*Est time: 01–05*

*Agency Costs and Problems*

1. Even if a shareholder could monitor and improve managers’ performance, and thereby increase the value of the firm, the payoff would be small, since the ownership share in a large corporation is very small. For example, if you own $10,000 of Ford Motor stock and can increase the value of the firm by 5%, a very ambitious goal, you benefit by only: 0.05 × $10,000 = $500.

In contrast, a bank that has a multimillion-dollar loan outstanding to the firm has a large stake in making sure that the loan can be repaid. It is clearly worthwhile for the bank to spend considerable resources on monitoring the firm.

*Est time: 01–05*

*Agency Costs and Problems*

1. Company B: Paying managers according to the performance of the firm’s stock aligns their interest with those of the owners. Since managers are likely to seek to maximize their own income, linking their compensation to share price, effectively turning them into shareholders, is likely to cause them to focus on increasing firm value. Long-term decisions may not produce short-term profits, thus managers may shy away from making good long-term decisions. Therefore, stock compensation plans may induce better long-term decisions if share grants are restricted stock, which the manager is required to hold onto while employed by the corporation.

*Est time: 06–10*

*Agency Costs and Problems*

1. Clear and comprehensive financial reports provide essential information to the numerous shareholders of large corporations, allowing the shareholders to monitor the performance of the corporation and its board of directors and management. The debacles at WorldCom and Enron were directly related to a lack of clear and comprehensive financial reports.

*Est time: 01–05*

*Ethics, Governance, and Regulation*

1. While the answer to this question is largely a matter of opinion, and there are significant numbers of commentators on each side of the issue, the perspective of the authors is that failures of corporate governance are a matter of a few “bad apples” rather than a symptom of systematic failure. The mechanisms discussed in the text (such as takeovers, compensation plans, and legal and regulatory requirements) for ameliorating agency problems generally contribute to effective corporate governance. Commentators on both sides of the issue would likely welcome improvements in these mechanisms.

*Est time: 06–10*

*Ethics, Governance, and Regulation*

1. A fixed salary means that compensation is (at least in the short run) independent of the firm’s success.
2. A salary linked to profits ties the employee’s compensation to this measure of the success of the firm. However, profits are not a wholly reliable way to measure the success of the firm. The text points out that profits are subject to differing accounting rules and reflect only the current year’s situation rather than the long-run prospects of the firm.
3. A salary that is paid partly in the form of the company’s shares means that the manager earns the most when the shareholders’ wealth is maximized. This is therefore most likely to align the interests of managers and shareholders.

*Est time: 06–10*

*Agency Costs and Problems*

1. Agency costs are caused by conflicts of interest between managers and shareholders, who are the owners of the firm. In most large corporations, the principals (i.e., the stockholders) hire the agents (i.e., managers) to act on behalf of the principals in making many of the major decisions affecting the corporation and its owners. However, it is unrealistic to believe that the agents’ actions will always be consistent with the objectives that the stockholders would like to achieve. Managers may choose not to work hard enough, to overcompensate themselves, to engage in empire building, to overconsume perquisites, and so on.

Corporations use numerous arrangements in an attempt to ensure that managers’ actions are consistent with stockholders’ objectives. Agency costs can be mitigated by “carrots,” linking the manager’s compensation to the firm’s success, or by “sticks,” creating an environment in which poorly performing managers can be removed.

*Est time: 01–05*

*Agency Costs and Problems*

1. The national chain has a great incentive to impose quality control on all of its outlets. If one store serves its customers poorly, that can result in lost future sales. The reputation of each restaurant in the chain depends on the quality in all the other stores. If Joe’s serves mostly passing travelers who are unlikely to show up again, unsatisfied customers pose a lower cost. They are unlikely to be seen again anyway, so reputation is not a valuable asset. The important distinction is *not* that Joe has one outlet while the national chain has many. Instead, it is the likelihood of repeat relations with customers and the value of reputation. If Joe’s were located in the center of town instead of on the highway, one would expect his clientele to be repeat customers from town. He would then have the same incentive to establish a good reputation as the chain has.

*Est time: 01–05*

*Agency Costs and Problems*

1. Long-term relationships can encourage ethical behavior. If you know that you will engage in business with another party on a repeated basis, you will be less likely to take advantage of your business partner if an opportunity to do so arises. When people say “What goes around comes around,” they recognize that the way they deal with their associates will influence the way their associates treat them. When relationships are short-lived, however, the temptation to be unfair is greater since they provide less reason to fear reprisal and less opportunity for fair dealing to be reciprocated.

*Est time: 01–05*

*Ethics, Governance, and Regulation*

1. As the text notes, the first step in doing well is doing good by your customers. Businesses cannot prosper for long if they do not provide to their customers the products and services they desire. In addition, reputation effects often make it in the firm’s own interest to act ethically toward its business partners and employees since the firm’s ability to make deals and to hire skilled labor depends on its reputation for dealing fairly.

In some circumstances, when firms have incentives to act in a manner inconsistent with the public interest, taxes or fees can align private and public interests. For example, taxes or fees charged on pollution make it more costly for firms to pollute, thereby affecting the firm’s decisions regarding activities that cause pollution. Other “incentives” used by governments to align private interests with public interests include legislation providing for worker safety and product, or consumer, safety; building code requirements enforced by local governments; and pollution and gasoline mileage requirements imposed on automobile manufacturers.

*Est time: 06–10*

*Ethics, Governance, and Regulation*

1. *Answers will vary.* The arguments for ESG-focused mutual funds are based on the broader arguments for stakeholder capitalism. Firms’ incentives can do real harm to people and communities (like a chemical plant disposing of waste in a damaging matter because the fines are cheaper than proper disposal). Businesses who do not act ethically towards the wider base of stakeholders could suffer (in reputation and in profit) in the long run.

Some arguments against ESG-focused mutual funds include the inevitable conflict between competing stakeholders. Which stakeholder(s) has primacy and which stakeholders(s) are rank lower? Another argument against is the potential for companies that are ESG focused to fall to leaner, more efficient competitors. Consider, also, that there are changing and differing opinions on what constitutes socially and environmentally responsible companies.

*Est time: 06–10*

*Agency Costs and Problems*