

## Chapter 1 The Scope of Corporate Finance

### Chapter Overview

The *What Companies Do* opening feature looks at an issue close to most students' hearts – digital music. It details Apple's successful strategy in selling songs for about a dollar each, downloaded into its iPod MP3 player. Students may not realise that Apple sells more iPods than computers. Apple has found a way to compete in two highly competitive businesses – music and computers. Chapter 1 looks at how financial managers, like those at Apple, interacted with operations, marketing, communications and legal to create shareholder wealth. The importance of the finance function and the financial manager within business organisations has been rising steadily over the past two decades. Financial professionals can do more than just raise the operating efficiency of a company – they can create value in their own right. The primary focus of this textbook will be on the practising financial manager, working as an integral part of the management team of a modern company. As an introduction to what a financial manager's job entails, this chapter includes a description of the principal tasks and responsibilities that a finance professional employed by a large company might encounter.

### What Companies Do Discussion Questions:

1. What do you imagine were the interactions between the finance function and operations function at Apple when the iPod was being developed? On what business criteria does Apple's strategy depend?
2. What can a company do to make a low profit margin strategy more successful? What are other examples of tie-ins, like Apple's iTunes and iPod?

This chapter looks at:

- 1-1. The Role of Corporate Finance in Business
- 1-2. Corporate Finance Essentials
- 1-3. Legal Forms of Business Organisation
- 1-4. The Corporate Financial Manager's Goals

### Technology

1. **Smart Video.** Andy Bryant, executive vice president of finance and enterprise systems and chief financial officer, Intel Corp., discusses that ethical behaviour on the part of a company can add value.
2. **Smart Video.** This quotes Joshua Haines, senior credit analyst at the Private Bank, concerning how he continues to use basic finance concepts he learned in earlier finance classes.
3. **Smart Video.** This quotes Bill Eckmann, Principal, Solar Capital, concerning his career in investment banking.
4. **Smart Video.** This quotes David Nickel, controller for Intel Corp.'s Communications Group, about how finance can help business increase shareholder value.
5. **Smart Video.** Vern LoForti, Vice-President, Chief Financial Officer and Corporate Secretary InfoSonics 'Sarbanes-Oxley has certainly impacted our company in many ways, from operations all the way to the board.'
6. **Smart Video.** See risk management explained step by step.

After studying this chapter, you will be able to:

- appreciate how finance interacts with other functional areas of any business and see the diverse career opportunities available to finance majors
- describe how companies obtain funding from financial intermediaries and markets, and discuss the five basic functions that financial managers perform
- assess the costs and benefits of the three principal forms of business organisation and explain why limited liability companies, with publicly traded shares, dominate economic life in most countries
- define agency costs and explain how shareholders monitor and encourage corporate managers to maximise shareholder wealth.

## **Lecture Guide**

### **1-1: The Role of Corporate Finance in Modern Business**

#### **1-1a: How Finance Interacts with Other Functional Business Areas**

#### **1-1b: Career Opportunities in Finance**

Give students some examples of jobs they can get as finance graduates. The university career services office may be helpful in giving examples of specific employers who recruit on campus. It may also have information about average pay scales in each area in finance.

#### **Table 1.1 Career Opportunities in Corporate Finance**

#### **Table 1.2 Career Opportunities in Commercial Banking**

#### **Table 1.2 Career Opportunities in Money Management**

### **1-2: Corporate Finance Essentials**

The instructor can introduce the topics that will be covered throughout the teaching period, including when and in how much depth each topic will be covered in this course, and what might be topics for other finance courses.

#### **1-2a: The Five Basic Corporate Finance Functions**

Explain that internal financing – the profits that a company generates that are not paid to shareholders as dividends are the most important source of company financing. A company seeks capital market debt and equity finance when it does not generate enough funds for its investment opportunities.

Tell students about the history of finance. For example, raising funds from a large number of investors spread with the legal concept of a company. During the 17th century, companies were first given limited liability. This induced wealthy individuals to invest – they knew the worst that could happen was the loss of their investment; they would not lose all of their wealth in a bad venture. The idea of incorporation as a company was so successful that England freely allowed companies to incorporate by the mid 19th century. Other countries followed England's lead. The verb 'to finance,' or raising funds for investment, was entered into the English dictionary in 1866.

Student Interaction:

- Ask students how many of them give money directly to a company. Few will (unless they own their own business.) This is a good springboard to how companies receive money from individuals, for example, through banks that lend their savings deposits to companies. Few, if any of the students will have participated in a company's direct means of obtaining funds (initial public offerings and secondary offerings) and are more likely to have participated in share investing through the secondary market.

This section provides an opportunity to bring in current events, while explaining the external financing choices a company has. The Google IPO made news in the summer of 2004. It was an innovative IPO. For most IPOs, only the favoured clients of the investment banking company can purchase shares at the IPO price. Google specifically structured its IPO so that small investors could participate, buying as few as 5 shares of Google. At the time of the IPO, Google had a great deal of information posted online, at <http://www.ipo.google.com>. If still available, the instructor can run Google's interactive prospectus.

### **The Financial Management Function**

Note that this function covers the theory that financial managers put into practice in their jobs.

### **The Capital Budgeting Function**

Capital budgeting is the function perhaps most highly associated with corporate finance – what projects should a company invest in? Note how the nature of investment has changed over time. Investment used to mean building a factory and stocking it with equipment. Today's business model generally requires a high investment in information technology. It is much harder to measure the value of an investment in IT. A factory produces a particular product that is then sold to consumers. Ask students what technology produces. It may be more of preventing a loss; for example, investing in IT may keep consumers coming to a company's online and physical retail stores. The company has invested in IT to keep customers from shopping at competitors with better web sites.

### **Risk Management Function**

Note that a great deal of finance is about the risk-return relationship. An investor (or a company) expects to be compensated for taking on higher risk; in other words, higher risk, then higher return. By the nature of its business a company is exposed to risk. Most companies have international dealings and will be exposed to exchange rate risk. Companies with commodity inputs will be exposed to commodity risk. There are ways a company can hedge, or mitigate, this risk and more complex securities developed to help companies manage their risks.

### **The Corporate Governance Function**

Talk to students about the nexus of stakeholders concerned with a company. Companies must be concerned with

- Shareholders
- Debt-holders/Creditors
- Managers
- Employees
- Local community
- Suppliers
- Customers

The idea of a 'nexus of stakeholders' is becoming increasingly recognised. Several countries such as Germany and Sweden require company boards to have external stakeholder representation.

This chapter is a good opportunity to bring in current issues in finance. The after-effects of accounting scandals (Enron, Worldcom, HIH, One-Tel, Storm, etc.) will be in the news for a long time. Define executive share options, and ask students for their opinion about their usage. Ask for suggestions about what small shareholders can do if they are unhappy about the way their company is managed (band together, sell shares). Ask if company insiders should be on a company's board of directors.

## **1-2b Debt and Equity: The Two Flavors of Capital**

## **1-2c The Role of Financial Intermediaries in Corporate Finance**

This section is a graphical depiction of two strong trends – the equity market has grown worldwide, and as a corollary, more people are invested in the share market. First, there are more new companies than existed a decade ago. Many start-up companies, like Microsoft which first issued shares in 1986, have grown substantially. For example, an investment in Microsoft in 1986 would have grown over 34,000% by 2004! While US markets are still the largest, global markets are also increasing in size and importance. The result is 24/7 trading in major securities.

### **Figure 1.1 Bank Shares Fall by Half**

#### **1-3a Business Organisational Forms in Australia**

For sole proprietorships, note that the principles of finance apply to all three forms of the business organisation. The main advantages to a proprietorship are its ease of formation, subject to few regulations and no corporate income taxes, all of which are at least somewhat quantifiable. Ask students what is another big, but non-quantifiable advantage of a proprietorship. Most students will point to the idea of being one's own boss as an attraction of owning your own business – but one that is very hard to quantify.

- When talking about the advantage of no corporate income taxes, ask students how many of them own shares, and how their income from the shares is taxed. Note that most other countries do not double-tax dividends as the US does. Only a few countries, however, allow full dividend imputation as Australia does for Australian-resident investors.
- When talking about partnerships note that partnerships for the most part have the same advantages and disadvantages of sole proprietorships. Note that limited partnerships have been increasingly used, and provide limited liability to all except the general partners. There are very few large partnerships, except law and accounting companies.
- When talking about companies point out why they were 'invented', including greater efficiency, collective effort and greater access to capital. Unlimited life is one advantage of a company. Go to <http://www.hbc.com>, the web site of Hudson Bay Company. In its history section, there is a picture of Charles II of England granting a charter to the Hudson Bay Company in 1670. The company is still here today. Instead of an exploration company, it is a retail chain in Canada, but it shows when we talk about unlimited life, we mean it! You can either show the picture from the Internet in class if you have a classroom connection, or you can save the picture in a PowerPoint presentation.

#### **1-3b Forms of Business Organisation Used by Companies outside Australia**

This section reinforces the section of the text that describes other forms of organisation popular among companies outside Australia.

- These countries show many common patterns. In almost all capitalist economies, some form of limited liability business structure is allowed, with ownership shares that can be traded freely on national share markets.

#### **1-4 The Corporate Financial Manager's Goals**

Point out the differences between profit and share price maximisation. As the Enron and Worldcom cases (and subsequent criminal prosecutions) showed, it is possible to manipulate accounting statements to deceive shareholders. Shareholders are overwhelmingly concerned with cash flow, not accounting numbers, even though there is a high positive correlation between cash flow and net income.

#### **1-4b How Can Agency Costs be Controlled in Corporate Finance?**

Agency costs include:

- Bonding management to the company
- Monitoring the company

- Residual loss

#### Student Interaction:

- Give students examples (or ask them for examples) of how to mitigate these costs. For example, share options and share grants were initially designed to tie managers to the company by giving them a large enough ownership stake so that they would want to increase share price. Boards of directors are charged with monitoring companies. Institutional investors are becoming more active in corporate governance, forcing the firing of chief executives who are not increasing shareholders' wealth. Residual loss refers to value lost when management does not act in the best interests of shareholders. An example might be a company that 'empire builds' – purchasing non-value adding companies simply to become a larger company, since, on average, chief executive officers of large companies have greater compensation than CEOs of small companies.
- Ask students about a company's responsibilities. Does a company have responsibilities to society at large? Do you believe companies should be good corporate citizens? What does it mean to be a good corporate citizen? Is the goal of maximising shareholder wealth good or bad for society at large? Why? Should companies be ethical? What does this mean?

Point out that when chief financial officers were surveyed, only 38% unequivocally said that their main job was to serve shareholders. Twenty-seven per cent said their main responsibility was to the company as an organisation. A company is a separate entity, able to enter contracts, sue or be sued, own land, make investments, etc. Note that agency cost problems have changed with the advent of new economy companies. For example, in 1994, Maurice Saatchi, chairman of Saatchi and Saatchi, an advertising company, proposed a very generous compensation package for himself and top executives in the company. The company's institutional investors voted this down at the annual meeting, citing the share's underperformance, and said executives shouldn't be rewarded. Maurice Saatchi and his top managers left the company and formed their own advertising agency. The original company changed its name to Cordiant and was very damaged by the executives' departure. In hindsight, the advertising organisation could not be treated like a traditional company where managers buy and then manage assets. In this case, the managers were the assets. In 1994, this kind of human capital company was an exception. Now there are many more software, consulting, etc. companies where human capital is more valuable than physical assets. Employees are no longer operating valuable assets – they are the valuable assets.

#### 1-4c Why Ethics are Important in Corporate Finance

Corporate scandals and insolvency have focused attention on the question of ethics, or standards of conduct in business dealings. As a result, the financial community is developing and enforcing higher ethical standards. The ASX adopted rules for its listed companies to increase transparency of activities among its members, by enhancing the level of public reporting by companies. The US Congress passed the Sarbanes-Oxley Act in 2002 to enforce higher ethical standards and increase penalties for violators.

### Chapter 1 Resource Articles

Welch, Ivo, 'The Top Achievements, Challenges, and Failures of Finance,' *Yale ICF Working Paper No. 00-67*, available at <http://papers.ssrn.com/abstract=291987>. This paper lists Welch's assessment of the top ten achievements of finance and the most important challenges for finance to work on, as well as its failures to date.

Jensen, Michael C., 'Value Maximization, Stakeholder Theory, and the Corporate Objective Function,' *European Financial Management*, September 2001. This paper notes that the widely-recognised principle of value maximisation has come under attack by the increasingly popular view that managers

ought to take account of the interests of all the stakeholders of a company, not only its suppliers of capital. Jensen believes the conflict between value maximisation and stakeholder theory can be brought together under what he calls 'enlightened value maximization,' in which market value is still the yardstick against which conflicting interests can be gauged. He said the two goals are not dissimilar if stakeholder advocates realise a company's market value should be used as a measure and value maximisation advocates understand that value can only be created when the company has good relations with all stakeholders.

Grinyer, John R., C. Donald Sinclair and Daing Nasir Ibrahim, 'Management Objectives in Capital Budgeting,' *Financial Practice and Education*, Fall/Winter 1999. This paper outlines some conflicting perceptions about the objectives of financial management. It considers capital project investment decisions in particular. In that context, it establishes hypotheses that are based on the perception that managers consider the interests of a wider group of stakeholders than just shareholders. These hypotheses are then tested by reference to the responses by managers in a survey of the largest 300 UK companies. The empirical evidence is consistent with hypotheses based on the perception that many managers do not seek primarily to maximise shareholders' wealth as conventionally defined, but instead emphasise characteristics of total company risk and of earnings related variables.

Laux, Paul and Betty J. Simkins, 'An Empirical Framework and Teaching Note for Introducing Financial Management in the First MBA Core Class,' *Journal of Financial Education*, Fall/Winter 2002. This paper demonstrates one way of introducing finance to first-year MBA students. It explains what companies do about financing, investing, profiting and payout. By introducing these concepts, along with economy-wide financial ratios, students are given intuition and insight into the theory and practice of finance.

### Enrichment Exercises

1. Tell the story of corporate finance by making up stories involving students. For example, on the first day pick a student at random. Say, 'John has just invented a cure for cancer. What he has done is invent a process that makes chemotherapy drugs more effective. He's patented his process and formed a company. The good thing about John's invention is that it doesn't take much money for him to start it – just \$2,000, and he's spent a very frugal 2 years at the university, so he's got that amount in savings. He needs to buy some lab equipment and chemicals with his \$2,000. John's company issues 100 shares, at \$20 a share, and he owns all of the shares. Here's what his book value balance sheet looks like:

Book Value Balance Sheet

Assets		Liabilities	
Fixed Assets	\$2,000	Ordinary Shares	\$2,000

Next, pick another student and identify him/her as a pre-med student taking finance so he knows how to invest all the money he'll make as a world-class surgeon. He overhears John talking about his invention when he's having lunch in the student union. Since he's taken lots of chemistry and biology courses, he knows John's idea sounds like a very good idea. He offers to buy 10% of John's company for \$200. Then ask John if he's willing to sell 10% of his company for this amount. Sometimes John will say he needs the money and will take it. Most of the time John will turn down the offer. If the student doesn't point it out, bring out the fact that the primary value of John's investment is his idea – the patent he has on his new process. The market value of his company is worth more than \$2,000. Let's say, for example that the value of the idea is \$20,000 – the sum of the discounted future cash flows from John's investment. Show students the market value balance sheet, and point out that we use market values in finance more than book values.

## Market Value Balance Sheet

<b>Assets</b>		<b>Liabilities</b>	
Fixed Assets	\$ 2,000	Ordinary Shares	\$20,000
Intangible Assets	18,000		

Ask the class how the market will know that John's company is worth \$20,000. Usually someone will say that John must distribute information about his company – balance sheets, income statements, etc. Then tell students that we will be studying how to value a business like John's and how the market assesses risk. Ask how risky John's company is. Most students will believe it is very risky because it is medical in nature and untested. Ask why forming a company is a good idea in John's situation, and most students point to limited liability. If his process doesn't work out, he can only lose his initial \$2,000 investment.

Then ask the class if they think the Australian Taxation Office (ATO) is a kind, generous agency out to help others. Most disagree with this. Point out that a company that borrows money adds value. Suppose John borrowed half of the money he needs for his company. His new balance sheet is:

<b>Assets</b>		<b>Liabilities</b>	
Fixed Assets	\$ 2,000	Debt	\$ 1,000
Intangible Assets	18,000	Ordinary Shares	\$19,000 + tax shield
Tax shield of debt			

Point out that later in the course, we'll be looking at how debt adds value and we'll learn how to quantify that value added.

Depending on the topics you are going to cover, tell students that John's company will also likely be affected by exchange rates, inflation rates, and interest rates. At some point, John's company may be a candidate for an initial public offering, and after that a leveraged buyout or other kind of financial engineering.

This story covers the main topics covered in a corporate finance course.

2. Break students into small groups. Tell them that in a survey of Fortune 500 companies, executives said the following goals were most important to their companies:
  - i. Maximisation of the per cent return on total asset investment
  - ii. Achievement of a desired growth rate in earnings per share
  - iii. Maximisation of aggregate dollar earnings

Questions for groups:

- a. Is each goal a good or bad goal for the company? Why?
- b. Is each goal consistent with the principle of maximising shareholder wealth? Why or why not?

After the discussion, point out to students that while all the goals are good goals for the most part, they can conflict with shareholder wealth. For example, all use net income, an accounting measure. It is possible to legitimately manipulate accounting income to reach a goal. For example, the use of LIFO (last in, first out) inventory control lowers net income but increases cash flow, while FIFO (first in, first out) increases net income but lowers cash flow. Also, there is a relationship

between risk and return. Maximising per cent return on total investment could mean taking on very risky, high return projects that don't return enough to compensate for the amount of risk taken.

### **Answers to Concept Review Questions**

1. Many companies have connections between other functional areas and finance. For example, any company with international dealings must look at the impact of foreign exchange on its business. Does the company generate revenues overseas? Does it have foreign suppliers? What impact do currency changes have on operations? If the dollar weakens, then imports become more expensive for US citizens and domestic production companies may benefit. On the other hand, if the company sells its product abroad, a weaker dollar may increase foreign sales. The finance function may hedge some of the impact of currency fluctuations on the company's financial statements. Another example of the relationship between finance and operations is seen in the pharmaceutical industry. One estimate said it takes 90 months and \$802 million (DiMasi, Hansen and Grabowski (2003)) to bring a drug to market – how must finance work to control costs during this phase – long before revenues are even seen?
2. The five most important career paths for finance professionals are in corporate finance, commercial banking, investment banking, money management and consulting. Corporate finance is concerned with the duties of the financial manager in a business company, while commercial banking involves providing loans and other financial services to a bank's customers. Investment banking involves three main types of activities: (1) helping corporate customers obtain funding via security market issues or complex structured financings, (2) providing advice to corporate clients on a variety of financial issues and transactions, including mergers and acquisitions and derivative products, and (3) trading debt and equity securities for customers or for the company's own account. Money management involves acting as a fiduciary, investing and managing money on someone else's behalf, while consultants are hired by companies to analyse their business processes and strategies and then to recommend how these should be changed to make the company more competitive.
3. The five basic corporate functions are financing (or capital raising), capital budgeting, financial management, corporate governance, and risk management. These functions are all related: for example, a company needs financing to fund its capital budgeting choices. The financial management decision concerns management of its internal cash flows and its mix of external debt and equity. Its financing needs are related to how much internal capital the company can generate and its choice of debt or equity financing. A Board of Directors, which generally makes major financing and investment decisions governs companies, and all of the decisions will depend on the risk involved. With all of the functions, it is important to understand how value is created.
4. Issues in corporate finance and risk management have become more prominent in recent years. For example, executive share options have been touted as a way to align the interests of managers with shareholders. Now, there is a growing controversy about executive share options, for example, that these encouraged some executives to take measures, some fraudulent, that pushed up share prices in the short run, making their options more valuable. With the development of a vast array of derivative securities, risk management has become more complicated.
5. A **financial intermediary** is an institution that raises capital by issuing liabilities against itself, and then uses the funds so raised to make loans to companies and individuals. Borrowers, in turn, repay the intermediary, meaning that they have no direct contact with the savers who actually funded the loans. Capital markets have grown steadily in importance, principally because the rapidly declining cost of information processing has made it much easier for large numbers of investors to obtain and evaluate financial data for thousands of potential corporate borrowers and issuers of ordinary and preferred shares.

6.

## Advantages of Proprietorships and Partnerships

1. Easy to form
2. Few regulations
3. No corporate income taxes
4. Being one's own boss

## Disadvantages

1. Limited life
2. Unlimited liability
3. Hard to raise capital

## Advantages of Companies

1. Unlimited life
2. Easy to transfer ownership
3. Limited liability
4. Easier to raise capital

## Disadvantages

1. Double taxation
2. Costly set up
3. Costly period reports required

Hybrid forms are successful because they can combine the advantages of several forms of organisation. For example, the limited liability partnership has the advantages of a partnership, without the disadvantage of unlimited liability.

7. The idea that all successful private companies organised as proprietorships or partnerships must become companies is largely opinion. There are many proprietorships and partnerships that remain so throughout their lives. However, if a business is to grow, it probably will thrive as a company, with better access to capital, less risk of losing everything (limited liability), easy transferability, and unlimited life.
8. An agency cost occurs when a conflict arises between parties within a company. The primary agency conflicts arise between managers and shareholders and shareholders and bondholders, but there can also be conflicts between top management and operating management, managers and employees, and shareholders and customers, suppliers, the government and the community. Agency costs are the costs of monitoring the company to make sure that managers act in shareholders' interests, bonding or the efforts that managers take to assure shareholders that they are acting in their best interest, and residual loss, losses because managers did not make decisions in the best interests of shareholders. These tend to increase as the company grows larger because there is a larger, more diverse body of shareholders to satisfy. When there is one owner/manager, by definition whatever choices he/she makes will maximise shareholder wealth. This becomes more difficult as the number of shareholders increases.
9. Advantages of sophisticated compensation packages
  - Allow better alignment among shareholder and management interests
  - When a large part of a manager's wealth is invested in company shares, he/she will work harder to maximise share price so his/her personal wealth is also maximised.
 Disadvantages
  - Share price could increase because the overall share market is rising, not because the manager has done a good job.
  - Compensation packages have raised US executive pay well above that of non-management employees and above that of their counterparts in other countries.
  - Some managers receive high compensation even when the company is performing poorly.
10. Unethical behaviour can have severe financial consequences for a company. For example, Arthur Andersen went bankrupt because of the fallout from its involvement in Enron's collapse. For many businesses, reputation is critical to conducting business. A company with a reputation for shady dealing will lose value relative to its ethical competitors. Ethical behaviour becomes part of the intangible value of the company.

## Answers to End-of-Chapter Questions

**Q1-1.** Why must a financial manager have an integrated understanding of the five basic finance functions? Why has the risk-management function become more important in recent years? Why is the corporate governance function considered a finance function?

**A1-1.** A financial manager needs to know all five basic finance areas because they all impact his or her job. While the manager's primary responsibilities may be in raising money or choosing investment projects, the manager also needs to know about capital markets and debt/equity optimal levels, be able to manage risks of the business and governance of the company. Corporate governance is a function because a manager wants to act in the best interests of its shareholders. New methods of managing risk have been developed in recent years, and a manager must be aware of these in order to maximise shareholder value.

**Q1-2.** What are the advantages and disadvantages of the different legal forms of business organisation? Could the limited liability advantage of a company also lead to an agency problem? Why? What legal form would an upstart entrepreneur likely prefer?

**A1-2.** Advantages of proprietorships and partnerships

1. Easy to form
2. Few regulations
3. No corporate income taxes
4. Being one's own boss

Disadvantages

1. Limited life
2. Unlimited liability
3. Hard to raise capital

Advantages of companies

1. Unlimited life
2. Easy to transfer ownership
3. Limited liability
4. Easier to raise capital

Disadvantages

1. Double taxation
2. Costly to set up
3. Costly period reports required

**Q1-3.** Can there be a difference between *maximising profit* and *maximising shareholder wealth*? If so, what could cause this difference? Which of the two should be the goal of the company and its management?

**A1-3.** Profit maximisation and maximising shareholder wealth could conflict. For example, a company could accept very high return (and also very high risk projects) that do not return enough to compensate for the high risk. Profits, or net income, are accounting numbers and therefore subject to manipulation. It would be possible to show positive profits when shareholder wealth was actually being decreased.

- Q1-4.** Define a corporate *stakeholder*. Which groups are considered stakeholders? Would shareholders also be considered stakeholders? Compare, in terms of economic systems, the principle of maximising shareholder wealth with the principle of satisfying stakeholder claims.
- A1-4.** Stakeholders include anyone with an interest in the company, including shareholders. Stakeholders are also management, employees, the government, the community, suppliers, customers, and lenders. Stakeholder wealth preservation appears to favour socialism more than capitalism. Stakeholder wealth, for example, keeping on too many employees for the company to be efficient, may be preserved at the expense of shareholder wealth.
- Q1-5.** What is meant by an 'agency cost' or 'agency problem'? Do these interfere with maximising shareholder wealth? Why or why not? What mechanisms minimise these costs/problems? Are executive compensation contracts effective in mitigating them?
- A1-5.** Agency cost or agency conflict refers to any time a decision is made that does not maximise shareholder wealth. For example, managers may want excessive benefits, such as a fleet of company planes, which maximise their personal satisfaction, but conflict with maximising shareholder wealth. These costs can be minimised by, for example, tying management's compensation to share price so they have an incentive to work to maximise share price. Such contracts can be effective if structured properly, although they have been criticised as providing excessive gains to managers when the entire market was rising.
- Q1-6.** Are ethics critical to the financial manager's goal of maximising shareholder wealth? How are the two related? Is establishing corporate ethics policies and requiring employee compliance enough to ensure ethical behaviour by employees?
- A1-6.** Ethics are critical to shareholder wealth maximisation. Unethical behaviour can have severe financial consequences to a company. For example, Arthur Andersen was unable to continue in its role as a corporate accountant for Enron and its other clients because of the fallout from Enron's collapse. For many businesses, reputation is critical to conducting business. A company with a reputation for shady dealing will lose value relative to its ethical competitors.

### ***Solutions to End-of-Chapter Problems***

#### ***LEGAL FORMS OF BUSINESS ORGANISATION***

- P1-1.** a. Calculate the tax disadvantage to organising a US business today as a company, as compared to a partnership, under the following conditions. Assume that all earnings will be paid out as cash dividends. Operating income (operating profit before taxes) will be \$500,000 per year under either organisational form. The tax rate on corporate profits is 35 per cent ( $T_c = 0.35$ ), the average personal tax rate for the partners is also 35 per cent ( $T_p = 0.35$ ), and the capital gains tax rate on dividend income is 15 per cent ( $T_{div} = 0.15$ ).
- b. Now recalculate the tax disadvantage using the same income but with the maximum tax rates that existed before 2003. (These rates were 35 per cent ( $T_c = 0.35$ ) on corporate profits and 38.6 per cent ( $T_p = 0.386$ ) on personal investment income).
- A1-1.** a. If the entity is organised as a partnership, operating income will be taxed only once, so investors will receive  $\$500,000 \times (1 - 0.35) = \$325,000$ . If the entity is organised as a company, operating income will be taxed once at the corporate level and again at the personal level at the capital gains tax rate of 15 per cent, so investors will receive only  $\$500,000 \times (1 - 0.35)(1 - 0.15) = \$276,250$ . The 'corporate tax wedge' is thus \$48,750, or 9.75 percentage points.

- b. Using the pre-2003 tax rates, partnership investors would receive  $\$500,000 \times (1 - 0.386) = \$307,000$ . If the entity was organised as a company, operating income would be taxed once at the corporate level (at 35 per cent) and again at the personal level at the personal income tax rate of 38.6 per cent, so investors received only  $\$500,000 \times (1 - 0.35)(1 - 0.386) = \$199,550$ . The 'corporate tax wedge' was thus  $\$107,450$ , or 21.49 percentage points.\*

\*Note that this solution assumes that the company is not re-investing any of its profits, but is distributing all of its profits to shareholders as dividends.

### THE CORPORATE FINANCIAL MANAGER'S GOALS

- P1-2.** Consider the following simple corporate example involving one shareholder and one manager. There are two mutually exclusive projects in which the manager may invest and two possible manager compensation plans that the shareholder may choose to employ. The manager may be paid a flat \$300,000 or receive 10 per cent of corporate profits. The shareholder receives all profits net of manager compensation. The probabilities and associated gross profits associated with each project are given below:

Project #1		Project #2	
Probability	Gross Profit	Probability	Gross Profit
33.33%	\$0	50.0%	\$600,000
33.33%	\$3,000,000	50.0%	\$900,000
33.33%	\$9,000,000		

- Which project maximises shareholder wealth? Which compensation plan does the manager prefer if this project is chosen?
- Which project will the manager choose under a flat compensation arrangement?
- Which compensation plan aligns the interests of the shareholders and the manager so that the manager will act in the best interest of the shareholders?
- What do the answers tell you about structuring management pay contracts?

**A1-2.** Payoffs to Project #1

Probability	Gross Profit	Manager's Flat Pay	Shareholders Payoff	Manager's 10% Payoff	Shareholders Payoff
1/3	\$ 0	\$300,000	\$ -300,000	\$ 0	\$ 0
1/3	3,000,000	300,000	2,700,000	300,000	2,700,000
1/3	9,000,000	300,000	8,700,000	900,000	8,100,000
Expected Payoff	\$4,000,000	\$300,000	\$3,700,000	\$400,000	\$3,600,000

Payoffs to Project #2

Probability	Gross Profit	Manager's Flat Pay	Shareholders Payoff	Manager's 10% Payoff	Shareholders Payoff
1/2	\$600,000	\$300,000	\$300,000	\$60,000	\$540,000
1/2	900,000	300,000	600,000	90,000	810,000
Expected Payoff	\$750,000	\$300,000	\$450,000	\$75,000	\$675,000

- a. Project #1 has the higher expected gross profit and shareholder's payoff, regardless of the managerial compensation method. If Project #1 is chosen, the manager would prefer the 10% payoff because it provides greater compensation (\$400,000 vs \$300,000 flat compensation).
- b. Technically, under a flat compensation arrangement the manager would be indifferent because his or her compensation would be a flat \$300,000 in either case.
- c. Under a profit-sharing arrangement, the manager would prefer Project #1 because it would provide him or her with greater compensation (\$400,000 vs \$75,000 for Project #2).
- d. The profit-sharing arrangement better aligns the interests of the shareholders and manager and provides maximum benefit to both shareholders (\$3,600,000 vs \$675,000 for Project #2) and managers (\$400,000 vs \$75,000 for Project #2).

### ***Answer to MiniCase***

#### **Minicase: The Scope of Corporate Finance**

The potential career paths for a person with expertise in finance are varied and exciting. Career possibilities include the areas of corporate finance, commercial banking, investment banking, money management, and consulting.

#### **Assignment**

Find descriptions for these and other finance-related careers on the following web site:

<http://www.wetfeet.com/asp/careerlist.asp>.

Think of ways that the skills described as being vital to success in this chapter can be applied in each career listed. How will the ongoing trends of globalisation and increased technological sophistication likely impact these jobs over the next decade?

#### **Answer**

The website WetFeet Incorporated ([www.wetfeet.com](http://www.wetfeet.com)) provides extensive discussion of the range of tasks and careers that are undertaken in the Finance field. The site is from the US, so many examples are American; but the general content is still useful to students in other countries.