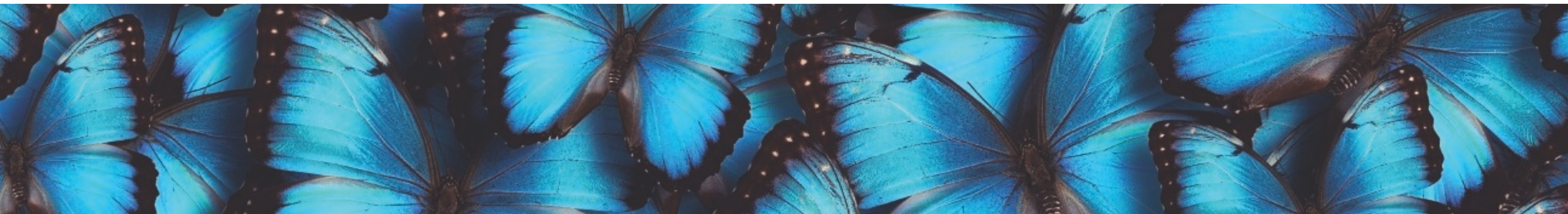
PART 1

INTRODUCTION

CHAPTER 1 CORPORATE FINANCE AND THE FINANCIAL MANAGER

CHAPTER 2 INTRODUCTION TO FINANCIAL STATEMENT ANALYSIS

Valuation Principle connection. What is corporate finance? No matter what your role in a corporation, an understanding of why and how financial decisions are made is essential. The focus of this book is how to make optimal corporate financial decisions. In this first part of the book, we lay the foundation for our study of corporate finance. In Chapter 1, we begin by introducing the corporation and related business forms. We then examine the role of financial managers and outside investors in decision making for the firm. To make optimal decisions, a decision maker needs information. As a result, in Chapter 2 we review and analyse an important source of information for corporate decision making—the firm's accounting statements. These chapters will introduce us to the role and objective of the financial manager and some of the information the financial manager uses in applying the Valuation Principle to make optimal decisions. Then, in Part 2, we will introduce and begin applying the Valuation Principle.



CHAPTER 1

CORPORATE FINANCE AND THE FINANCIAL MANAGER

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. identify the importance of financial information in both your personal and business life;
2. understand the important features of the three main types of firms and see why the advantages of the corporate form have led it to dominate economic activity;
3. explain the goal of the financial manager and the reasoning behind that goal, as well as understand the three main types of decisions a financial manager makes;
4. understand how a corporation is managed and controlled, the financial manager's place in it, and some of the ethical issues financial managers face;
5. understand the importance of financial markets, such as stock markets, to a corporation and the financial manager's role as liaison to those markets;
6. recognise the role that financial institutions play in the financial cycle of the economy.

This book focuses on how people in corporations make financial decisions. Despite its name, much of what we discuss in corporate finance applies to the financial decisions made within any organisation, including not-for-profit entities such as charities and universities. In this chapter, we introduce the three main types of firms. We stress corporations, however, because they represent around 78% of Australian business profits. We also highlight the financial manager's critical role inside any business enterprise. What products to launch, how to pay to develop those products, what profits to keep and how to return profits to investors—all of these decisions and many more fall within corporate finance. The financial manager makes these decisions with the goal of maximising the value of the business, which is determined in the financial markets. In this chapter and throughout the book, we will motivate this goal, provide you with the tools to make financial management decisions, and show you how the financial markets provide funds to a corporation and produce market prices that are key inputs to any financial manager's investment analysis.

1.1 WHY STUDY FINANCE?

LEARNING OBJECTIVE 1
Identify the importance of financial information in both your personal and business life.

Finance and financial thinking are everywhere in our daily lives. Consider your decision to go to university. You surely weighed alternatives, such as starting a full-time job immediately, and then decided that university provided you with the greatest net benefit. More and more, individuals are taking charge of their personal finances with decisions such as:

- when to start saving and how much to save for retirement;
- whether a car loan or lease is more advantageous;
- whether particular shares are a good investment;
- how to evaluate the terms for a home mortgage.

Our career paths have become less predictable and more dynamic. In previous generations, it was common to work for one employer for your entire career. Today, that would be highly unusual. Most of us will instead change jobs, and possibly even careers, many times. With each new opportunity, we must weigh all the costs and benefits, financial and otherwise.

Some financial decisions, such as whether to pay $3.50 for your morning coffee, are simple, but most are more complex. In your business career, you may face such questions as:

- Should your firm launch a new product?
- Which supplier should your firm choose?
- Should your firm produce a part of the product or outsource production?
- Should your firm issue new shares or borrow money instead?
- How can you raise money for your start-up firm?

In this book, you will learn how all of these decisions in your personal life and inside a business are tied together by one powerful concept, the *Valuation Principle*. The Valuation Principle shows how to make the costs and benefits of a decision comparable so that we can weigh them properly. Learning to apply the Valuation Principle will give you the skills to make the types of comparisons—among loan options, investments and projects—that will turn you into a knowledgeable, confident financial consumer and manager.

From 2007 to 2012 we witnessed a credit freeze, a severe stock market decline, a sovereign debt crisis, and the failures of some well-known financial institutions. Attempts to understand these elements of the crisis, their origins, and how they affect our businesses and personal finances highlight the need to learn core financial principles and concepts.

Whether you plan to major in finance or simply take this one course, you will find the fundamental financial knowledge gained here to be essential in both your personal and business life.

1.2 THE THREE TYPES OF FIRMS

LEARNING OBJECTIVE 2
Understand the important features of the three main types of firms and see why the advantages of the corporate form have led it to dominate economic activity.

We begin our study of corporate finance by examining the types of firms that financial managers run. There are three main types of firms: sole traders, partnerships and corporations. We explain each organisational form in turn, but our primary focus is on the most important form—the corporation.

Sole traders

sole trader
A business owned and run by one person.

A **sole trader** is a business owned and run by one person. Sole traders are the simplest business structure and consist of an individual trading on their own. That person controls and manages the business. Although they do not account for much sales revenue in the economy, they are the most common type of firm in the world.

We now consider the key features of a sole trader.

1 Sole traders have the advantage of being straightforward to set up. Consequently, many new businesses use this organisational form.

2 The principal limitation of a sole trader is that there is no separation between the firm and the owner—the firm can have only one owner who runs the business. If there are other investors, they cannot hold an ownership stake in the firm.

3 The owner has unlimited personal liability for any of the firm's debts. That is, if the firm defaults on any debt payment, the lender can (and will) require the owner to repay the loan from personal assets. An owner who cannot afford to repay a loan for which he or she is personally liable must declare personal bankruptcy.

4 The life of a sole trader is limited to the life of the owner. It is also difficult to transfer ownership of a sole proprietorship.

For most growing businesses, the disadvantages of being a sole trader outweigh the advantages. As soon as the firm reaches the point at which it can borrow without the owner agreeing to be personally liable, the owners typically convert the business into another form. Conversion also has other benefits that we will consider as we discuss the other forms below.

Partnerships

partnership
A business owned and run by more than one owner.

A **partnership** is a business owned and run by more than one owner. Key features include the following:

1 *All* the partners are liable for the firm's debt. That is, a lender can require *any* partner to repay all the firm's outstanding debts.

2 The partnership ends in the event of the death or withdrawal of any single partner.

3 Partners can avoid liquidation if the partnership agreement provides for alternatives such as a buyout of a deceased or withdrawn partner.

Some old and established businesses remain as partnerships or sole traders. Often these firms are the types of businesses in which the owners' personal reputations are the basis for the businesses. For example, law firms, medical practices and accounting firms are frequently organised as partnerships. For such enterprises, the partners' personal liability increases the confidence of the firm's clients that the partners will strive to maintain the firm's reputation.

A **limited partnership** is a partnership with two kinds of owners: general partners and limited partners. In this case, the general partners have the same rights and privileges as partners in any general partnership—they are personally liable for the firm's debt obligations. Limited partners, however, have **limited liability**—that is, their liability is limited to their investment. Their private property cannot be seized to pay off the firm's outstanding debts. Furthermore, the death or withdrawal of a limited partner does not dissolve the partnership, and a limited partner's interest is transferable. However, a limited partner has no management authority and cannot legally be involved in the managerial decision making for the business.

limited partnership A partnership with two kinds of owners: general partners and limited partners.

limited liability When an investor's liability is limited to his or her investment.

Corporations

A **corporation** is a legally defined, artificial being (a legal entity), separate from its owners. As such, it has many of the legal powers that people have. It can enter into contracts, acquire assets in its own name, sue and be sued, and incur obligations directly without recourse to owners. Because a corporation is a legal entity separate and distinct from its owners, it is solely responsible for its own obligations. Consequently, the owners of a corporation (or its employees, customers, etc.) are not liable for any obligations the corporation enters into. Similarly, the corporation is not liable for any personal obligations of its owners.

corporation A legally defined, artificial being, separate from its owners.

In the same way that it is difficult to imagine modern business life without email and mobile phones, the corporation revolutionised the economy. Corporations have operated for more than three centuries, starting originally in London in the late 17th century. However, in 1720, in a bizarre turn of events that led to the spectacular collapse of the South Sea Company, corporations were banned in England when Parliament passed the *Bubble Act*, which made it a criminal offence to create a company. Today it is unimaginable that a government would ban this type of firm. The *Bubble Act* was ultimately repealed in 1825 and incorporation was once again legally permitted in England.

In the United States, the corporation went through a revolutionary transformation in the 1890s, the results of which included: (a) elimination of the requirement that a corporation could exist only for a limited time, for a narrowly defined purpose, and could operate only in a particular location; (b) allowing one company to own shares in another; and (c) substantial loosening of the controls on mergers and acquisitions.

Today, the corporation is the dominant business form (in terms of revenue) all over the world.

In Australia, the two most popular types of corporations are 'private' companies and 'public' companies. Private companies have restrictions on the number of non-employee shareholders (a maximum of 50), and are not required to appoint an auditor.

Public companies can have an unlimited number of shareholders and are required to appoint an auditor. All public companies are also required to lodge audited financial accounts with the companies regulator, the Australian Securities and Investments Commission (ASIC). Some larger private companies may also be required to lodge accounts with ASIC if they are deemed to be a 'reporting entity'.

A company is sometimes required to be incorporated as a public company if it intends to undertake certain activities, such as holding a securities licence, being listed on the stock exchange, or operating a bank or other approved deposit-taking institution.

Formation of a corporation. A corporation must be legally formed, which means that the country in which it is incorporated must formally give its consent to the incorporation by chartering it. Setting up a corporation is more costly than setting up as a sole trader, but the cost is not prohibitive. In Australia, the cost to register and incorporate a company with ASIC starts at $469 and can be done online in a matter of minutes. Every corporation in Australia is issued with a unique, nine-digit number, an Australian Company Number (ACN), which must be shown on a range of documents. The purpose of the ACN is to ensure adequate identification of companies when transacting business. Every corporation also has a constitution, which specifies the initial rules that govern how the corporation is run. The conduct of corporations, their shareholders, and their directors and officers is regulated under the *Corporations Act 2001*.

Ownership of a corporation. While there are limits on the number of shareholders in a private company, there is no limit on the number of owners a public company can have. Because most corporations have many owners, each owner owns only a fraction of the corporation. The entire ownership stake of a corporation is divided into **shares**. The collection of all the outstanding shares of a corporation is known as its **equity**. An owner of a share in the corporation is known as a **shareholder**. Shareholders may be entitled to **dividend payments**—that is, payments made at the discretion of the corporation to its equity holders. Shareholders usually receive a share of the dividend payments that is proportional to the number of shares they own. For example, a shareholder who owns 25% of the firm's shares will be entitled to 25% of the total dividend payment.

shares
The ownership or equity of a corporation divided into shares.

equity
The collection of all the outstanding shares of a corporation.

shareholder
An owner of a share of the equity in a corporation.

dividend payments
Payments made at the discretion of the corporation to its equity holders.

A unique feature of a corporation is that there is no limitation on who can own its shares. That is, an owner of a corporation need not have any special expertise or qualification. This feature allows free trade in the shares of the corporation and provides one of the most important advantages of organising a firm as a corporation, rather than as a sole trader or partnership. Corporations can raise substantial amounts of capital because they can sell ownership shares to anonymous outside investors.

The availability of outside funding has enabled corporations to dominate the economy. Let's look at one of the world's largest firms, BHP Billiton, as an example. BHP Billiton reported trading revenue of US$30.91 billion over the 12 months from July 2015 to June 2016. The total value of the company (the wealth in the company the owners collectively owned) as of December 2016 was approximately US$80.74 billion. The company employed over 65 000 people worldwide. Putting these numbers into perspective, the US$31.1 billion in gross domestic product (GDP) in 2015 would rank BHP Billiton behind Bahrain as the 97th richest *country* (out of more than 195).[1] Bahrain has almost 1.3 million people, about 20 times the number of employees at BHP Billiton.

Tax implications for corporate entities

An important difference between the types of corporate organisational forms is the way they are taxed. Because a corporation is a separate legal entity, its profits are subject to taxation separate from its owners' tax obligations. First, the corporation pays tax on its profits, and then when the remaining profits are distributed to the shareholders, the shareholders pay their own personal income tax on this income. This could lead to a situation where shareholders of a corporation pay taxes twice, and this system is sometimes referred to as a 'classical' tax system. However, it does not apply in Australia. In July 1987, Australia abandoned the 'classical' tax system and adopted instead an 'imputation' system of taxation as the method of taxing corporate earnings. Under a 'classical' tax system, corporate profits are taxed twice: once in the hands of the company and again in the hands of the shareholder. The 'imputation' system of taxation was introduced to overcome the double taxation of corporate profits by allowing a company to transfer a tax credit (called a 'franking credit') to the shareholder for the amount of tax the company has paid. This franking credit is then used by the individual shareholder to reduce his or her own personal taxation liability, or any excess is paid back as a tax refund. Only shareholders who are resident taxpayers in Australia are entitled to use the franking credit to offset their tax liability, which means that for many foreign investors there is no benefit from imputation.

EXAMPLE 1.1

CORPORATE INCOME TAX UNDER THE 'CLASSICAL' TAX SYSTEM

Problem

You are a shareholder in a corporation. The corporation earns $100 per share before taxes. After it has paid taxes, it will distribute the rest of its earnings to you as a dividend. (We make this simplifying assumption, but you should note that most corporations retain some of their earnings for reinvestment.) The dividend is income to you, so you will then pay taxes on these earnings. The corporate tax rate is 30% and your personal income tax rate is 45%. Under a 'classical' system of taxation, how much of the earnings remain after all taxes are paid?

Solution

- **Plan**

Earnings before taxes: $100 Corporate tax rate: 30% Personal tax rate: 45%

We first need to calculate the corporation's earnings after taxes by subtracting the taxes paid from the pre-tax earnings of $100. The taxes paid will be 30% (the corporate tax rate) of $100. Since all of the after-tax earnings will be paid to you as a dividend, you will pay taxes of 45% on that amount. The amount left over is what remains after all taxes are paid.

- **Execute**

$100 per share × 0.30 = $30 in taxes at the corporate level, leaving $100 – $30 = $70 in after-tax earnings per share to distribute.

You will pay $70 × 0.45 = $31.50 in taxes on that dividend, leaving you with $38.50 from the original $100 after all taxes.

- **Evaluate**

As a shareholder, you keep $38.50 of the original $100 in earnings; the remaining $30.00 + $31.50 = $61.50 is paid as taxes. Thus, your total effective tax rate under a 'classical' system of taxation is 61.50 / 100 = 61.5%.

EXAMPLE 1.2

CORPORATE INCOME TAX UNDER THE 'IMPUTATION' TAX SYSTEM

Problem

Rework Example 1.1, assuming the Australian 'imputation' tax system. You are a shareholder in a corporation. The corporation earns $100 per share before taxes. After it has paid taxes, it will distribute the rest of its earnings to you as a dividend. (We make this simplifying assumption, but you should note that most corporations retain some of their earnings for reinvestment.) The dividend is income to you, so you will then pay taxes on these earnings. The corporate tax rate is 30% and your personal income tax rate is 45%. Under the 'imputation' system of taxation, how much of the earnings remain after all taxes are paid?

Solution

- **Plan**

Earnings before taxes: $100 Corporate tax rate: 30% Personal tax rate: 45%

In this case, the corporation still pays its taxes. It earned $100 per share, so the taxes paid by the company will be 30% (the corporate tax rate) of $100. Since all of the after-tax earnings will be paid to you as a dividend, you will pay taxes of 45% on the company's pre-tax earnings per share; however, you will also receive credit for the tax already paid on those earnings.

- **Execute**

$100 per share × 0.30 = $30 in taxes at the corporate level, leaving $100 – $30 = $70 in after-tax earnings per share to distribute, plus a franking credit of $30.

You will pay tax on the grossed-up amount of the dividend of $100, being $70 in cash plus $30 in franking credits. Therefore, your tax liability will be $100 × 0.45 = $45; however, this will be partially offset by the $30 franking credit, so you will only pay $45 – $30 = $15 in additional taxes on that dividend. This will leave you with $70 – $15 = $55 from the original $100 after all taxes.

- **Evaluate**

As a shareholder, you keep $55 of the original $100 in earnings; the remaining $30 + $45 – $30 = $45 is paid as taxes. Thus, your total effective tax rate under an 'imputation' system of taxation is 45 / 100 = 45%, which will correspond with your personal marginal tax rate, thereby avoiding double taxation.

FINANCE IN FOCUS

Corporate taxation around the world

In most countries, there is some relief from double taxation. Over 30 countries make up the Organisation for Economic Co-operation and Development (OECD), and of these countries, only Ireland and Switzerland offer no relief from double taxation. The US offers some relief by having a lower tax rate on dividend income than on other sources of income. Outside of Australia and New Zealand, a few countries, including Finland, Mexico and Norway, offer complete relief by effectively not taxing dividend income.

As we have discussed, there are three main types of firms: sole traders, partnerships (general and limited) and corporations. To help you see the differences among them, Table 1.1 compares and contrasts the main characteristics of each.

TABLE 1.1

Characteristics of the different types of firms

	Number of owners	Liability for firm's debts	Owners manage the firm	Ownership change dissolves firm	Taxation
Sole trader	One	Yes	Yes	Yes	Personal
Partnership	Two to 20 (generally, but with higher maximum numbers for some partnerships)	Yes; each partner is liable for the entire amount	Yes	Yes	Personal
Limited partnership	At least one general partner (GP), no limit on limited partners (LP)	GP: Yes LP: No	GP: Yes LP: No	GP: Yes LP: No	Personal
Corporation	Unlimited	No	No	No	Company

→ CONCEPT CHECK

1 What is a corporation? How does it differ from a limited partnership?

2 What are the advantages and disadvantages of organising a business as a corporation?

1.3 THE FINANCIAL MANAGER

LEARNING OBJECTIVE 3

Explain the goal of the financial manager and the reasoning behind that goal, as well as understand the three main types of decisions a financial manager makes.

As of October 2015, Apple Inc. had just over 5.57 billion issued shares held by 25 924 owners.[2] Because there are many owners of a corporation, each of whom can freely trade their shares, it is often not feasible for the owners of a corporation to have direct control of the firm. It falls to the financial manager to make the financial decisions of the business for the shareholders. Within the corporation, the financial manager has three main tasks:

- make investment decisions;
- make financing decisions;
- manage cash flow from operating activities.

We will discuss each of these in turn, along with the financial manager's overarching goal.

Making investment decisions

The financial manager's most important job is to make the firm's investment decisions. The financial manager must weigh the costs and benefits of each investment or project and decide which of them qualifies as good uses of the money shareholders have invested in the firm. These investment decisions fundamentally shape what the firm does and whether it will add value for its owners. For example, it may seem hard to imagine now, but there was a time when Apple's financial managers were evaluating whether to invest in the development of the first iPhone. They had to weigh the substantial development and production costs against uncertain future sales. Their analysis indicated that it was a good investment, and the rest is history. In this book, we will develop all the tools necessary to make these types of investment decisions.

Making financing decisions

Once the financial manager has decided which investments to make, he or she also decides how to pay for them. Large investments may require the corporation to raise additional money. The financial manager must decide whether to raise more money from new and existing owners by selling more shares of stock (equity) or to borrow the money instead (bonds and other debt). A bond is a security sold by governments and corporations to raise money from investors today in exchange for a promised future payment. It can be viewed as a loan from those investors to the issuer. In this book, we will discuss the characteristics of each source of money and how to decide which one to use in the context of the corporation's overall mix of debt and equity.

Managing short-term cash needs

The financial manager must ensure that the firm has enough cash on hand to meet its obligations from day to day. This job, also commonly known as managing working capital,[3] may seem straightforward, but in a young or growing company, it can mean the difference between success and failure. Even companies with great products require a lot of money to develop and bring those products to market. Consider the costs to Apple of launching the iPhone, which included developing the technology and creating a huge marketing campaign, or the costs to Boeing of producing the 787—billions of dollars were spent before the first *Dreamliner* left the ground. A company typically burns through a significant amount of cash before sales of the product generate income. The financial manager's job is to make sure that access to cash does not hinder the firm's success.

The goal of the financial manager

All of these decisions by the financial manager are made within the context of the overriding goal of financial management—*to maximise the wealth of the owners, the shareholders*. The shareholders have invested in the corporation, putting their money at risk to become the owners of the corporation. Thus, the financial manager is a caretaker of the shareholders' money, making decisions in their interests. Many corporations have thousands of owners (shareholders). These shareholders vary from large institutions to small first-time investors, from retirees living off their investments to young employees just starting to save for retirement. Each owner is likely to have different interests and priorities. Whose interests and priorities determine the goals of the firm? You might be surprised to learn that the interests of shareholders are aligned for many, if not most, important decisions. Regardless of their own personal financial position and stage in life, all the shareholders will agree that they are better off if the value of their investment in the corporation is maximised. For example, suppose the decision concerns whether to develop a new product that will be a profitable investment for the corporation. All shareholders will very likely agree that developing this product is a good idea. Returning to our iPhone example, by August 2012, Apple shares were worth seven times as much as they were in January 2007 when the first iPhone was introduced (even after the significant stock market corrections associated with the subprime crises in 2007 and 2008). All Apple shareholders at the time of the development of the first iPhone are clearly much better off because of it, whether they have since sold their shares in Apple to pay for retirement, or are still watching those shares appreciate in their retirement savings account.

Even when all the owners of a corporation agree on the goals of the corporation, these goals must be implemented. In the next section, we discuss the financial manager's place in the corporation and how owners exert control over the corporation.

> **→ CONCEPT CHECK**
>
> **3** What are the main types of decisions that a financial manager makes?
>
> **4** What is the goal of the financial manager?

1.4 THE FINANCIAL MANAGER'S PLACE IN THE CORPORATION

LEARNING OBJECTIVE 4
Understand how a corporation is managed and controlled, the financial manager's place in it, and some of the ethical issues financial managers face.

We have established that the shareholders own the corporation but rely on financial managers to actively manage the corporation. The *board of directors* and the management team headed by the *chief executive officer* have direct control of the corporation. In this section, we explain how the responsibilities for the corporation are divided between these two entities, and describe conflicts that arise between shareholders and the management team.

The corporate management team

The shareholders of a corporation exercise their control by electing a **board of directors**, a group of people who have the ultimate decision-making authority in the corporation. In most corporations, each share gives a shareholder one vote in the election of the board of directors, so investors with more shares have more influence. When one or two shareholders own a very large proportion of the outstanding shares, these shareholders might either be on the board of directors themselves, or they may have the right to appoint a number of directors.

board of directors A group of people elected by shareholders who have the ultimate decision-making authority in the corporation.

The board of directors makes rules on how the corporation should be run (including how the top managers in the corporation are compensated), sets policy and monitors the performance of the company. The board of directors delegates most decisions that involve the day-to-day running of the corporation to its management. The **chief executive officer (CEO)** is charged with running the corporation by instituting the rules and policies set by the board of directors. The size of the rest of the management team varies from corporation to corporation. In some corporations, the separation of powers between the board of directors and the CEO is not always distinct. In fact, the CEO can also be the Chair of the board

chief executive officer (CEO) The person charged with running the corporation by instituting the rules and policies set by the board of directors.

of directors. The most senior financial manager is the chief financial officer (CFO), often reporting directly to the CEO. Figure 1.1 presents part of a typical organisational chart for a corporation, highlighting the positions a financial manager may take.

Ethics and incentives in corporations

A corporation is run by a management team, separate from its owners. How can the owners of a corporation ensure that the management team will implement their goals?

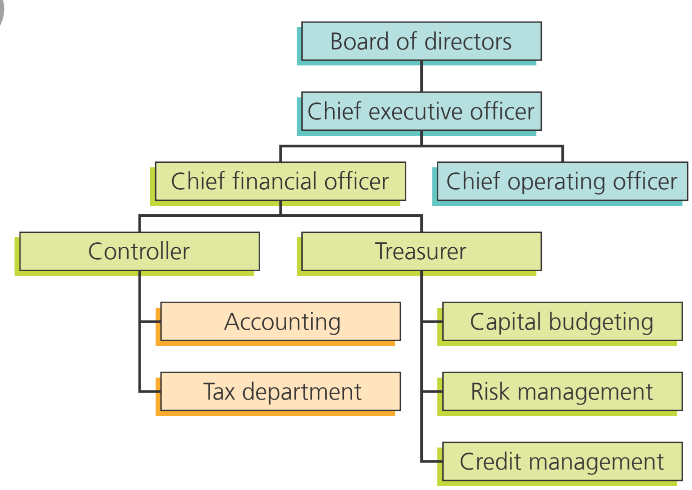
agency problem When managers, despite being hired as the agents of shareholders, put their own self-interest ahead of the interests of those shareholders.

Agency problems. Many people claim that because of the separation of ownership and control in a corporation, managers have little incentive to work in the interests of the shareholders when this means working against their own self-interest. Economists call this an **agency problem**—when managers, despite being hired as the agents of shareholders, put their own self-interest ahead of the interests of those shareholders. Managers face the ethical dilemma of whether to adhere to their responsibility to put the interests of shareholders first, or to do what is in their own personal best interest. This problem is commonly addressed in practice by minimising the number of decisions managers make that require putting their self-interest against the interests of the shareholders. For example, managers' compensation contracts are designed to ensure that most decisions in the shareholders' interests are also in the interests of managers; shareholders often tie the compensation of top managers to the corporation's profits or perhaps to its share price. There is, however, a limitation to this strategy. By tying compensation too closely to performance, the shareholders might be asking managers to take on more risk than they are comfortable taking. As a result, the managers' decisions may not align with

FIGURE 1.1

The financial functions within a company

The board of directors, representing the shareholders, controls the corporation and hires the top management team. A financial manager might hold any of the green-shaded positions, including the CFO role. The controller oversees accounting and tax functions. The treasurer oversees more traditional finance functions, such as capital budgeting (making investment decisions), risk management (managing the firm's exposure to movements in the financial markets) and credit management (managing the terms and policies of any credit the firm extends to its suppliers and customers).



those of shareholders, or it might be hard to find talented managers willing to accept the job. For example, biotech firms take big risks on drugs that fight cancer, AIDS and other widespread diseases. The market for a successful drug is huge, but the risk of failure is high. Investors who put only some of their money in biotech may be comfortable with this risk, but a manager who has all of his or her compensation tied to the success of such a drug might opt to develop a less risky drug that has a smaller market.

Further potential for conflicts of interest and ethical considerations arise when some stakeholders in the corporation benefit and others lose from a decision. Shareholders and managers are two stakeholders in the corporation, but others include, for example, the regular employees and the communities in which the company operates. Managers may decide to take the interests of other stakeholders into account in their decisions, such as keeping a loss-generating factory open because it is the main provider of jobs in a small town, paying above local market wages to factory workers in a developing country, or operating a plant at a higher environmental standard than local law mandates.

In some cases, these actions that benefit other stakeholders may also benefit the firm's shareholders by creating a more dedicated workforce, generating positive publicity with customers, or other indirect effects. In other instances, when these decisions benefit other stakeholders at the shareholders' expense, they represent a form of corporate charity. Indeed, many, if not most, corporations explicitly donate (on behalf of their shareholders) to local and global causes. Shareholders often approve of such actions, even though they are costly and so reduce their wealth. While it is the manager's job to make decisions that maximise shareholder value, shareholders—who own the firm—also want the firm's actions to reflect their moral and ethical values. Of course, shareholders may not have identical preferences in these matters, leading to potential sources of conflict.

The CEO's performance. Another way shareholders can encourage managers to work in the interests of shareholders is to discipline them if they do not. If shareholders are unhappy with a CEO's performance, they can, in principle, pressure the board to oust the CEO. In 2015, shareholder activism led to the ousting of Grant O'Brien and David Knox, former CEOs of Woolworths and Santos, respectively.

Despite these high-profile examples, the removal of directors and top executives through a grassroots shareholder uprising remains difficult. Instead, dissatisfied investors often choose to sell their shares. Of course, somebody must be willing to buy the shares from the dissatisfied shareholders. If enough shareholders are dissatisfied, the only way to entice investors to buy (or hold) the shares is to offer them a low price. Similarly, investors who see a well-managed corporation will want to purchase shares, which drives up the share price. Thus, the share price of the corporation is a barometer for corporate leaders that continuously gives them feedback on the shareholders' opinion of their performance.

When the shares perform poorly, the board of directors might react by replacing the CEO. In some corporations, however, the senior executives might be entrenched because boards of directors do not have the independence or motivation to replace them. Often the reluctance to fire the CEO is because the board is comprised of people who are close friends of the CEO and lack objectivity. In corporations in which the CEO is entrenched and doing a poor job, the expectation of continued poor performance will cause the share price to be low. Low share prices create a profit opportunity. In a **hostile takeover**, an individual or organisation—sometimes known as a corporate raider—can purchase a large fraction of the company's shares and in doing so get enough votes to replace the

hostile takeover
A situation in which an individual or organisation, sometimes referred to as a corporate raider, purchases a large fraction of a target corporation's shares and in doing so gets enough votes to replace the target's board of directors and its CEO.

FINANCE IN FOCUS

'Say on Pay' legislation—two strikes, and you're out

In June 2011, the Australian government approved the Corporations Amendment (Improving Accountability on Director and Executive Remuneration) Bill 2011, governing remuneration and corporate governance practices in Australia. The new laws have far- and wide-reaching economic impacts, ranging from the prohibiting of management entering into hedging trades against share and options plans, to requiring shareholder approval for 'no vacancy' board declarations. The most significant implication of the reforms, developed in the wake of the Global Financial Crisis, enables shareholders to force a board re-election. In the event of a 25% shareholder vote against remuneration reports recommended by the board at two consecutive annual general meetings, a board 'spill meeting' must be held within 90 days, forcing the entire board to stand for shareholder re-election. For this reason, the rule has been nicknamed the 'two strikes' rule.

In a 2016 study, Martin Bugeja and his co-authors report that between 2011 and 2014, 309 first-strike notices were issued, along with an additional 60 two-strike notices. Several managers have spoken out against the reform, arguing the new powers bestowed on shareholders can have adverse effects. They argue that opportunistic shareholders may reject remuneration reports simply to cause a board spill even though remuneration is not an issue. The new laws have been a boon for consultants, providing advice to boards on how best to set remuneration policies and avoid spills. Bugeja et al. (2016) report that while the notices are associated with lower prices and long-run underperformance for the firms, the directors and CEO of the firms do not appear to incur any reputational consequences as measured by loss of outside directorships.

Source: Adapted from Martin Bugeja et al., 'Life after a Shareholder Pay "Strike": Consequences for ASX-Listed Firms', CIFR Paper No. 130/2016.

board of directors and the CEO. With a new superior management team, the shares are a much more attractive investment, which would likely result in a price rise and a profit for the corporate raider and the other shareholders. Although the words 'hostile' and 'raider' have negative connotations, corporate raiders themselves provide an important service to shareholders. The mere threat of being removed as a result of a hostile takeover is often enough to discipline bad managers and motivate boards of directors to make difficult decisions. Consequently, the fact that a corporation's shares can be publicly traded creates a 'market for corporate control' that encourages managers and boards of directors to act in the interests of their shareholders.

The corporate watchdog. The Australian Securities and Investments Commission is Australia's corporate, markets and financial services regulator and is colloquially called 'the corporate watchdog'. ASIC is an independent Commonwealth government body set up to maintain, facilitate and improve the performance of the financial system and entities within it, as well as to promote confident and informed participation by investors and consumers within the Australian financial system.

ASIC is responsible for regulating:

- more than 2.4 million corporations in Australia, and ensuring that company directors and officers carry out their duties honestly, diligently and in the best interests of their company;
- many of the authorised financial markets and clearing and settlement facilities to ensure that they comply with their legal obligations to operate fair, orderly and transparent markets;
- all financial services licensees, all company auditors and liquidators, as well as all managed investments schemes, their product disclosure statements and other fundraising documents, to ensure that they operate efficiently, honestly and fairly.

A key objective of ASIC is to promote Australia's economic reputation and wellbeing by ensuring that the country's financial markets are fair and transparent, and supported by confident and informed investors and consumers.

ASIC also has powers to protect consumers against misleading or deceptive and unconscionable conduct affecting all financial products and services. As well, ASIC is involved in the enforcement of breaches of the Corporations Act.

For the period January to June 2016, ASIC laid 96 criminal charges and issued 75 infringment notices. It also removed 24 individuals from financial services and obtained A$13.4 million in recoveries, costs, compensation fines or frozen assets for investors and creditors.

→ CONCEPT CHECK

5 How do shareholders control a corporation?

6 What types of jobs would a financial manager have in a corporation?

7 What ethical issues could confront a financial manager?

LEARNING OBJECTIVE 5
Understand the importance of financial markets, such as stock markets, to a corporation and the financial manager's role as liaison to those markets.

1.5 THE STOCK MARKET

In Section 1.3, we established the goal of the financial manager: to maximise the wealth of the owners, the shareholders. The value of the owners' investments in the corporation is determined by the price of the corporation's shares. Corporations can be private or public. A private corporation has a limited number of owners and there is no organised market for its shares, making it hard to determine the market price of its shares at any point in time. A public corporation has many owners because the shares are available to the general public. The shares of a *listed* public company trade on an organised market, called a **stock market** (or **stock exchange** or **bourse**). These markets provide *liquidity* for a company's shares and determine the market price for those shares. An investment is said to be **liquid** if it can easily be turned into cash by selling it immediately at a price at which it could be contemporaneously bought. An investor in a public company values the ability to turn his or her investment into cash easily and quickly by simply selling his or her shares on one of these markets. In this section, we provide an overview of the functioning of the major stock markets. The analysis and trading of participants in these markets provides an evaluation of financial managers' decisions that not only determines the share price, but also provides feedback to the managers on their decisions.

stock market or stock exchange or bourse
Organised market on which the shares of many corporations are traded.

liquid
Describes an investment that can easily be turned into cash because it can be sold immediately at a competitive market price.

The largest stock markets

The best-known US stock market and the largest stock market in the world is the New York Stock Exchange (NYSE). Billions of dollars worth of shares are exchanged every day on the NYSE. Other US stock markets include the American Stock Exchange (AMEX) and the National Association of Security Dealers Automated Quotation (NASDAQ). Most other countries have at least one stock market. Outside the US, the biggest stock markets are the Japan Exchange Group and the Shanghai Stock Exchange. The Australian Securities Exchange (ASX) is the 15th largest stock exchange in the world based on market capitalisation and average daily turnover. Figure 1.2 shows the 14 largest stock exchanges in the world ranked by the total volume of shares traded on the exchange during 2015.

primary market When a corporation issues new shares and sells them to investors.

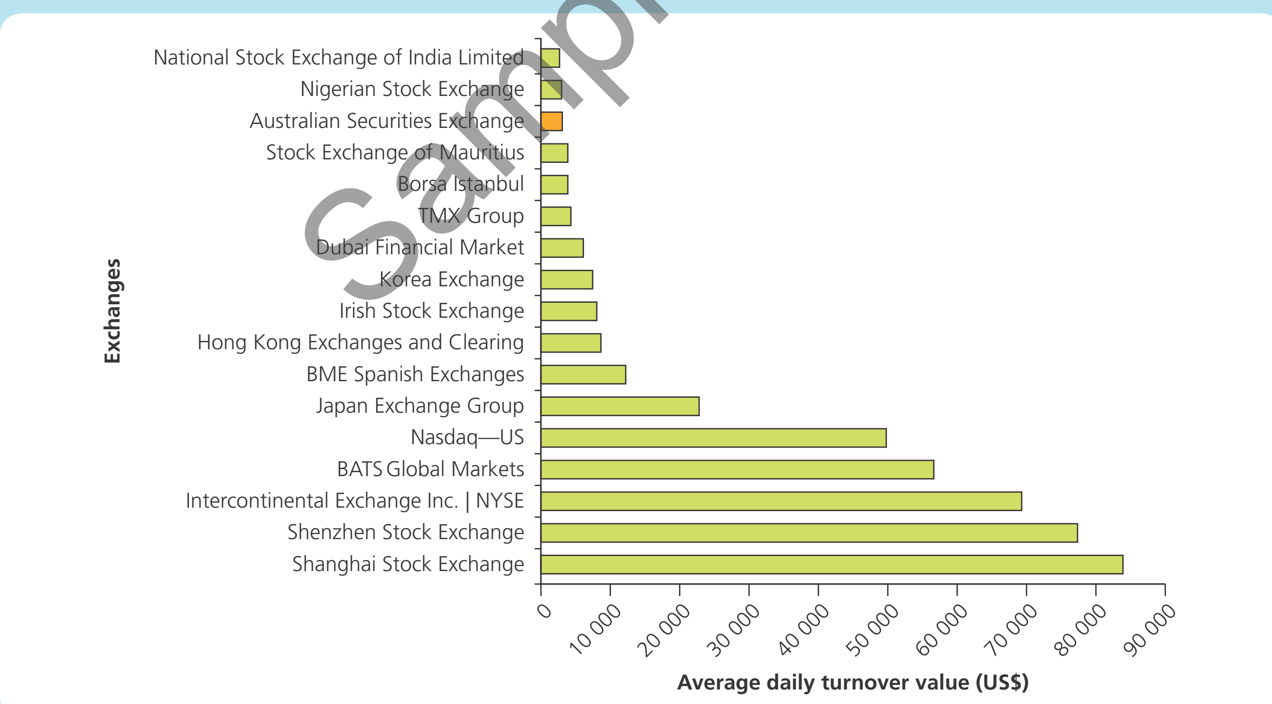
secondary market Markets, such as the ASX or NYSE, where shares of a corporation are traded between investors without the involvement of the corporation.

Primary versus secondary markets. All of the markets shown in Figure 1.2 are *secondary markets*. The term **primary market** refers to a corporation issuing new shares and selling them to investors. After this initial transaction between the corporation and investors, the shares continue to trade in a **secondary market** between investors without the involvement of the corporation. For example, if you wish to buy 100 shares in National Australia Bank, you can place an order on the ASX, where the company trades under the ticker symbol NAB. Your shares will be bought from someone already holding shares in National Australia Bank, not from the company itself.

Traditional trading venues

In Australia, the two most important exchanges are the Australian Securities Exchange and Chi-X Australia. The ASX resulted from the merger of the Australian Stock

FIGURE 1.2 Worldwide stock markets ranked by average daily turnover, 2015 (US$)



Source: © World Federation of Exchanges.

Exchange and the Sydney Futures Exchange in December 2006. The ASX remained the traditional trading venue for listed securities until 2011, when Chi-X Australia provided an alternative trading venue for ASX-listed securities. Chi-X typically accounts for 10% of trading activity. In 2016, it was acquired by J.C. Flowers & Co., a private equity group.

All transactions on the ASX and Chi-X occur electronically with computers matching buy and sell orders. Both trading venues provide two prices for every security listed in the market: the price at which a buyer is willing to buy the share (the **bid price**), and the price at which a seller is willing to sell the share (the **ask price**). Customers always buy at the ask (the higher price) and sell at the bid (the lower price). The **bid–ask spread** is a **transaction cost** investors pay in order to trade. Traders can submit a **limit order** to buy or sell a set amount of shares at a fixed price. For example, a limit buy order is an order to buy 100 shares of BHP at a price of $25/share. The bid–ask spread of a stock is determined by the outstanding limit orders. The limit sell order with the lowest price is the ask price. The limit buy order with the highest price is the bid price. Traders make the market in the stock by posting limit buy and sell orders. The collection of all limit orders is known as the **limit order book**. Exchanges make their limit order books public so that investors (or their brokers) can see the best bid and ask prices when deciding where to trade.

Traders who post limit orders provide liquidity to the market. On the other hand, traders who place **market orders**—orders that trade immediately at the best outstanding limit order—are said to be 'takers' of liquidity. Providers of liquidity earn the bid–ask spread, but in doing so they risk the possibility that their orders will become stale. When news about the stock arrives that causes the price of the stock to move, smart traders will quickly take advantage of the existing limit orders by executing trades at the old prices. To protect themselves against this possibility, liquidity providers need to monitor the market constantly, cancelling old orders and posting new ones when appropriate. So-called **high-frequency traders (HFTs)** are a class of traders who, with the aid of computers, place, update, cancel and execute trades many times per second in response to new information as well as other orders, profiting by both providing liquidity and taking advantage of stale limit orders.

bid price
The price at which a buyer is willing to buy a security.

ask price
The price at which a seller is willing to sell a security.

bid–ask spread
The amount by which the ask price exceeds the bid price.

transaction cost
In most markets, an expense such as a broker's commission and the bid–ask spread investors must pay in order to trade securities.

limit order
An order to buy or sell a set amount of shares at a fixed price.

limit order book
The collection of all limit orders in a market.

market order
An order that trades immediately at the best outstanding bid limit order for seller-initiated trades and at the best outstanding ask for buyer-initiated trades.

high-frequency traders
Traders who, with the aid of computers, place, update, cancel and execute trades many times per second in response to new information as well as other orders.

FINANCE IN FOCUS

All Ords, SPI, S&P/ASX 200: Awash with abbreviations

With all these abbreviations floating around, it is easy to get confused. You may have heard of the 'All Ords' or 'All Ordinaries Index', and the 'S&P/ASX 200' on news reports about the stock markets. However, when commentators talk about whether shares are up or down in general on a given day, they often refer to an index rather than any particular share. The All Ordinaries Index is the most extensive index covering the Australian stock market, comprising a maximum of 500 of the largest companies listed on the ASX. While the All Ordinaries Index is no longer an institutional benchmark index, having been superseded by a more concentrated series of benchmark indices, the index has the largest coverage and typically represents more than 95% of the market capitalisation for Australia. The current institutional benchmark indices that track market capitalisation on the ASX are the S&P/ASX 20 (the largest 20 companies), the S&P/ASX 50 (the largest 50 companies), the S&P/ASX 100, the S&P/ASX 200, the S&P/ASX 300, the S&P/ASX MidCap 50 and the S&P/ASX Small Ordinaries.

Dark pools

When trading on an exchange, investors are guaranteed the opportunity to trade immediately at the current bid or ask price, and transactions are visible to all traders when they occur. In contrast, alternative trading systems called 'dark pools' do not make their limit order books visible. Instead, they offer investors the ability to trade a better price (e.g. the average of the bid and ask, thus saving the bid–ask spread) with the trade-off that their order might not be filled if an excess of either buy or sell orders is received. Trading on a dark pool is therefore attractive to traders who do not want to reveal their demand and who are willing to sacrifice the guarantee of immediacy for potential price improvement.

When dark pools are included, researchers estimate that in Australia there could be as many as 20 venues to trade stocks. Both the ASX and Chi-X operate their own dark pools, ASX Center Point and Chi-X Mid Point. These venues compete with one another for order volume. Because traders value liquid markets, an important area of competition is liquidity; exchanges try to ensure that their limit order books are deep—that is, contain many orders. As a result, exchanges have been experimenting with different rules designed to encourage traders who provide liquidity and to discourage those who take advantage of stale limit orders. For example, some trading venues pay traders to post limit orders and charge traders who place market orders. Others pay for volume from retail investors and impose additional charges on high-frequency trading. The proliferation of exchange venues has generated a wide variety of different compensation schemes. It is highly unlikely that we have seen the end of these changes. Stock markets remain in a state of flux, and only time will tell what the eventual shake-out will look like.

→ CONCEPT CHECK

8 What advantages does a stock market provide to corporate investors? Financial managers?

9 What is the limit order book?

10 Why are people who post limit orders termed providers of liquidity?

1.6 FINANCIAL INSTITUTIONS

LEARNING OBJECTIVE 6
Recognise the role that financial institutions play in the financial cycle of the economy.

The spread of the 2008 financial crisis from subprime mortgages to Wall Street to traditional banks and businesses focused attention on *financial institutions* and their role in the economy. In general, **financial institutions** are entities that provide financial services, such as taking deposits, managing investments, brokering financial transactions, or making loans. In this section, we describe the key types of financial institutions and their functions.

financial institutions
Entities that provide financial services, such as taking deposits, managing investments, brokering financial transactions, or making loans.

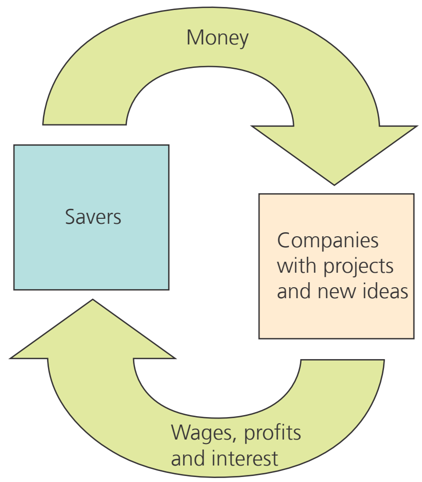
The financial cycle

Keeping the names and roles of the different types of financial institutions straight can be challenging. It is helpful to think of the basic financial cycle, depicted in Figure 1.3, as context. In the financial cycle, (1) people invest and save their money, (2) that money, through loans and shares, flows to companies who use it to fund growth through new products, generating profits and wages, and (3) the money then flows back to the savers and investors. All financial institutions play a role at some point in this cycle of connecting money with ideas and returning the profits back to the investors.

FIGURE 1.3

The financial cycle

This figure depicts the basic financial cycle, which matches funds from savers to companies that have projects requiring funds and then returns the profits from those projects back to the savers.



Types of financial institutions

Table 1.2 (see page 20) lists the major categories of financial institutions, provides examples of representative firms, and summarises the institutions' sources and uses of funds.

Financial conglomerates, sometimes referred to as *financial services firms*, combine more than one type of institution. Examples include ANZ Bank, Macquarie Group and Deutsche Bank, all of which engage in commercial banking as well as investment banking. 'Investment banking' refers to the business of advising companies in major financial transactions. Examples include buying and selling companies or divisions, and raising new capital by issuing shares or bonds. Goldman Sachs and Morgan Stanley are financial institutions that are focused on investment banking activities.

Roles of financial institutions

Financial institutions have a role beyond moving funds from those who have extra funds (savers) to those who need funds (borrowers and firms): they also move funds through time. For example, suppose you need a $20 000 car loan. You need $20 000 now, but do not have it. However, you will have it in the future as you earn a salary. The financial institution, in this case a bank or credit union, helps transfer your future salary into funds today by issuing you a loan.

Financial institutions also help spread out risk-bearing. Insurance companies essentially pool premiums together from policyholders and pay claims in the event of an accident, fire, medical need or death. This process spreads the financial risk of these events out across a large pool of policyholders and the investors in the insurance company. Similarly, mutual funds and pension funds take your savings and spread them out among the shares and bonds of many different companies, limiting your risk exposure to any one company.

TABLE 1.2

Financial institutions and their roles in the financial cycle

Institution	Source of money	Use of money
Bank and credit unions Examples: Westpac, Credit Union SA	Deposits (savings)	Loan to people and businesses
Insurance companies Examples: Suncorp, Insurance Australia Group	Premiums and investment earnings	Invest mostly in bonds and some shares, using the investment income to pay claims
Mutual funds Examples: AMP, AXA Australia	People's investments (savings)	Buy shares, bonds and other financial instruments on behalf of their investors
Superannuation funds Examples: UniSuper, REST	Retirement savings contributed through the workplace	Similar to mutual funds, except with the purpose of providing retirement income
Hedge funds Examples: Platinum Asset Management, K2 Asset Management	Investment by wealthy individuals and endowments	Invest in any kind of investment in an attempt to maximise returns
Venture capital funds Examples: Kliener Perkins, Sequoia Capital	Investment by wealthy individuals and endowments	Invest in start-up, entrepreneurial firms
Private equity funds Examples: CVC Private Equity, KKR	Investment by wealthy individuals and endowments	Purchase whole companies by using a small amount of equity and borrowing the rest

While you may have seen coverage of the stock markets and discussion of financial institutions on the news, it is unlikely that you have had any exposure to the finance function within the firm. In this chapter, we have provided a sense of what corporate finance is all about, what a financial manager does, and the importance of stock markets and financial institutions. In the coming chapters, you will learn how to make financial management decisions and how to use financial market information. We will explore the tools of financial analysis hand-in-hand with a clear understanding of when to apply them and why they work.

→ CONCEPT CHECK

11 What is the basic financial cycle?
12 What are the three main roles financial institutions play?

To test your mastery of the content covered in this chapter and to create your own personalised study plan, go to www.pearsonmylabandmastering.com.

KEY POINTS AND EQUATIONS	TERMS	ONLINE PRACTICE OPPORTUNITIES
1.1 Why study finance?		
• Finance and financial decisions are everywhere in our daily lives. • Many financial decisions are simple, but others are complex. All are tied together by the Valuation Principle—the foundation for financial decision making—which you will learn about in this book.		
1.2 The three types of firms		
• There are three types of firms in Australia: sole traders, partnerships and corporations. • Firms with unlimited personal liability include sole traders and partnerships. • Firms with limited liability include limited partnerships and corporations. • Shareholders under a 'classical' taxation system effectively must pay tax twice. The corporation pays tax once, and then investors must pay personal tax on any funds that are distributed. Shareholders under an 'imputation' system of taxation receive franking credits that offset the tax paid by the corporation, so that profits distributed to shareholders by way of dividends are only taxed once. • The ownership of a corporation is divided into shares collectively known as equity. Investors in these shares are called shareholders or equity holders.	corporation, p. 5 dividend payments, p. 6 equity, p. 6 limited liability, p. 5 limited partnership, p. 5 partnership, p. 4 shareholder, p. 6 shares, p. 6 sole trader, p. 4	MyLab Finance Study Plan 1.2
1.3 The financial manager		
• The financial manager makes investing, financing and cash flow management decisions. • The goal of the financial manager is to maximise the wealth of the shareholders (maximise the share price).		MyLab Finance Study Plan 1.3
1.4 The financial manager's place in the corporation		
• The ownership and control of a corporation are separate. Shareholders exercise their control indirectly through the board of directors.	agency problem, p. 12 board of directors, p. 11 chief executive officer (CEO), p. 11 hostile takeover, p. 13	MyLab Finance Study Plan 1.4

MYLAB FINANCE

KEY POINTS AND EQUATIONS	TERMS	ONLINE PRACTICE OPPORTUNITIES
1.5 The stock market		
• The shares of public corporations are traded on stock markets. The shares of private corporations do not trade on a stock market.	ask price, p. 17 bid–ask spread, p. 17 bid price, p. 17 high-frequency trader (HFT), p. 17 limit order, p. 17 limit order book, p. 17 liquid, p. 15 market order, p. 17 primary market, p. 16 secondary market, p. 16 stock market (stock exchange, bourse), p. 15 transaction cost, p. 17	MyLab Finance Study Plan 1.5
1.6 Financial institutions		
• In the basic financial cycle, money flows from savers and investors to companies and entrepreneurs with ideas, and then back to the savers and investors in the form of profits and interest. • Financial institutions all play some role in this cycle. • Financial institutions also help move money through time (e.g. loans against future wages) and spread risk across large investor bases.	financial institutions, p. 18	MyLab Finance Study Plan 1.6

PROBLEMS

The three types of firms

1. What is the most important difference between a corporation and all other organisation forms?
2. What does the term 'limited liability' mean in a corporate context?
3. Which organisational forms give their owners limited liability?
4. What are the main advantages and disadvantages of organising a firm as a corporation?
5. Explain the difference from a shareholder's perspective between the 'classical' tax system and the 'imputation' tax system.
6. You are a shareholder in an Australian corporation. The corporation earns $2 per share before taxes. Once it has paid taxes, it will distribute the rest of its earnings to you as a dividend. The corporate tax rate is 30% and you are on the lowest personal tax rate of 19%. How much is left for you after all taxes are paid/refunded?
7. Repeat Problem 6 assuming the highest personal tax rate of 45%.

The financial manager

8. What is the most important type of decision that the financial manager makes?
9. Why do all shareholders agree on the same goal for the financial manager?

The financial manager's place in the corporation

10 Corporate managers work for the owners of the corporation. Consequently, they should make decisions that are in the interests of the owners, rather than in their own interests. What strategies are available to shareholders to help ensure that managers are motivated to act this way?

11 Think back to the last time you ate at an expensive restaurant where you paid the bill. Now think about the last time you ate at a similar restaurant, but your parents paid the bill. Did you order more food (or more expensive food) when your parents paid? Explain how this relates to the agency problem in corporations.

12 Suppose you are considering renting an apartment. You, the renter, can be viewed as an agent, while the company that owns the apartment can be viewed as the principal. What principal–agent conflicts do you anticipate? Suppose, instead, that you work for the apartment company. What features would you put into the lease agreement that would give the renter incentives to take good care of the apartment?

13 You are the CEO of a company and you are considering entering into an agreement to have your company buy another company. You think the price might be too high, but you will be the CEO of the combined, much larger company. You know that when the company gets bigger, your pay and prestige will increase. What is the nature of the agency conflict here, and how is it related to ethical considerations?

The stock market

14 What is the difference between a public and a private corporation?

15 What is the difference between a primary and a secondary market?

16 Explain why the bid–ask spread is a transaction cost.

17 What role do stock market indices play? Name five stock market indices from stock markets around the world (other than in Australia and the US).

18 The following quote on AMP Limited shares appeared on 5 January 2016 on CommSec. If you wanted to buy AMP Limited, what price would you pay? How much would you receive if you wanted to sell AMP Limited?

AMP $5.205 ↑ $0.025 (0.48%) Add to Watchlist | Add to Alerts | Manage Orders **Buy** **Sell**

AMP LIMITED FPO Thu 05 Jan 2017 10:32 AM (Sydney time)

Share Quote Discuss in Community

Bid ($)	Offer ($)	High ($)	Low ($)	Volume	Trades	Value ($)	Open ($)	Previous Close ($)
5.200	5.210	5.210	5.180	898,430	401	4,670,374	5.190	5.180

Market Depth View: Price Detail | Order Detail

Buyers			Sellers		
No.	Volume	Price ($)	Price ($)	Volume	No.
29	41,459	5.200	5.210	28,942	22
16	33,516	5.190	5.220	48,509	23
12	28,834	5.180	5.230	56,880	13
8	28,917	5.170	5.240	70,042	14
10	27,400	5.160	5.250	123,788	26
11	244,154	5.150	5.260	34,568	9
5	59,742	5.140	5.270	7,318	5
3	6,266	5.130	5.280	37,268	11
2	1,396	5.120	5.290	21,873	10
5	19,855	5.110	5.300	61,795	19
394 buyers for 1,569,860 units			427 sellers for 1,476,247 units		

Share Details

52 Week High ($)	5.960
52 Week Low ($)	4.385
Last Traded	5/01/2017 10:32:20 AM
Trading Status	Normal
Market Status	Normal
Margin Lending LVR	75%

Market Indices

Index	Value	Change
▲ All Ordinaries	5,808.700	20.500
▲ ASX SPI 200	5,718.000	21.000

Source: Reproduced courtesy Commonwealth Bank of Australia.

Financial institutions

19 What is the financial cycle?

20 How do financial institutions help with risk-taking?

21 What role do investment banks play in the economy?

22 What are some of the similarities and differences among mutual funds, superannuation funds and hedge funds?

NOTES

1 World Development Indicators database, 16 December 2016. For quick reference tables on GDP, see http://data.worldbank.org/data-catalog/GDP-ranking-table.

2 Apple Inc., Form 10-K, 31 October 2012.

3 'Working capital' refers to things such as cash on hand, inventories, raw materials, accounts payable and accounts receivable—the grease that keeps the wheels of production moving. We will discuss working capital in more detail in the next chapter and devote all of Chapter 19 to working capital management.