

## Chapter 1

### Getting started—Principles of finance

#### Solutions to Study Questions

**1-1 (Related to Finance Spotlight: 'Welcome to the world of finance' on page 3)**

The solution to this question is dependent upon the student's experiences.

**1-2** There are three basic types of issues that are addressed by the study of finance:

1. *What long-term investments should the firm undertake?* This area of finance is generally referred to as **capital budgeting**.
2. *How should the firm raise money to fund these investments?* The firm's funding choices are generally referred to as **capital structure decisions**.
3. *How can the firm best manage its cash flows as they arise in its day-to-day operations?* This area of finance is generally referred to as **working capital management**.

**1-3** First, investors demand a minimum return for delaying consumption that must be greater than the anticipated rate of inflation. If they didn't receive enough to compensate for anticipated inflation, investors would purchase whatever goods they desired ahead of time. There isn't much incentive to postpone consumption if your savings are going to decline in terms of purchasing power.

Investment alternatives have different amounts of risk and expected return. Investors sometimes choose to put their money in risky investments because these investments offer higher expected returns. The more risk an investment has, the higher will be its expected return—that's because risk investors don't like risk; in particular, they don't like the chance that they might lose their money. That makes risky investments less attractive, which means that to attract investors, riskier investments must be priced to offer investors a higher expected rate of return. This relationship between risk and expected return is shown in Figure 1.2.

Notice that we keep referring to 'expected' return rather than 'actual' return. We may have expectations of what the returns for investing will be, but we can't peer into the future and see what those returns are actually going to be. Until after the fact, you are never sure what the return on an investment will be. That is why corporate bonds pay more interest than Australian Treasury bonds of the same maturity. The additional interest induces some investors to take on the added risk of purchasing a corporate bond.

**1-4** When evaluating an investment opportunity, it is the cash flows, not the accounting profit, that determine its value. That is, we will be concerned with when the money is received, and when we can invest it and start earning more money on it. As a personal investor or a financial manager, you must remember that it is the cash flows, not the profit, that are actually received by the firms and

can be reinvested. Accounting profits, however, appear when they are earned rather than when the money is actually received. As a result, a firm's cash flows and accounting profit may not be the same. For example, a capital expense, such as the purchase of new equipment or a building, is depreciated over several years, with the annual depreciation subtracted from the profits. However, the cash flow, or actual dollars, associated with this expense generally occurs immediately. Therefore cash inflows and outflows involve the actual receipt and payment of money—when the money hits or leaves your hands. As a result, cash flows correctly reflect the timing of the benefits and costs.

**1–5** The three business forms are:

1. Sole Proprietorship
2. Partnership
3. Corporation

*1. Sole Proprietorship*

Advantage

- Forming a sole proprietorship is very easy; there is limited documentation required, and there are no partners to consult since the founder of the business is the sole owner.

Disadvantage

- These businesses typically have limited access to the alternative sources of financing. The owners of a sole proprietorship typically raise money by investing their own funds, and by borrowing from a bank.

*2. Partnership*

Advantage

- An important advantage of the partnership is that it provides access to equity, or ownership, financing from multiple owners in return for partnership shares, or units of ownership.

Disadvantage

- There is the possibility of conflict on the division of profits between the partners.

*3. Corporation*

Advantages

- The shareholders' liability is confined to the amount of their investment in the company. In other words, if the corporation goes under, the owners can only lose their investment.
- The life of the business is not tied to the life of the founding owners. For example, the inventor Thomas Edison founded General Electric (GE) over a century ago. Edison died in 1931, but the corporation lives on.

Disadvantage

- Although management is expected to make ethical decisions that reflect the best interests of the firm's owners, this is not always the case. Indeed, managers often face situations where their own personal interests differ from the interests of shareholders.

If you were to start a lawn-care business for the summer, you would probably form a sole proprietorship. That is the simplest one to form—you don't have to do anything. Moreover, with a lawn-care business the probability of a law suit is quite low, so the advantage of limited liability is not particularly important.

- 1-6** The shareholders are the owners of the corporation. The management should run the business so as to maximise the shareholder wealth without being greedy for quick money generation by unethical conduct and practices.
- 1-7** The goal that the owners of a for-profit business generally strive for is the maximisation of shareholder wealth. However, this isn't the goal of every firm. Privately owned Newman's Own, the makers of salad dressings, spaghetti sauces and other food products, was established in 1982 with the goal of making money for educational and charitable purposes. Paul Newman's estate and the Newman's Own Foundation donate all profits and royalties after taxes for educational and charitable purposes. Australian businessman, entrepreneur and adventurer, Dick Smith, was inspired by Paul Newman and Newman's Own, and created Dick Smith Foods, which not only supports Australian farmers and businesses, but donates all of its profits to charity.
- 1-8** In microeconomics courses, profit maximisation is frequently cited as the goal of the firm. Profit maximisation stresses the efficient use of capital resources, but it is not specific with respect to the timeframe over which profits are to be measured. Do we maximise profits over the current year, or do we maximise profits over some longer period? A financial manager could easily increase current profits by eliminating the firm's research and development expenditures and cutting down on routine maintenance. In the short term, this might result in increased profits, but this clearly is not in the best long-term interests of the firm. If we are to base our financial decisions on a goal, that goal must be precise, not allow for misinterpretation, and deal with all of the complexities of the real world.