

# FUNDAMENTALS OF CORPORATE FINANCE

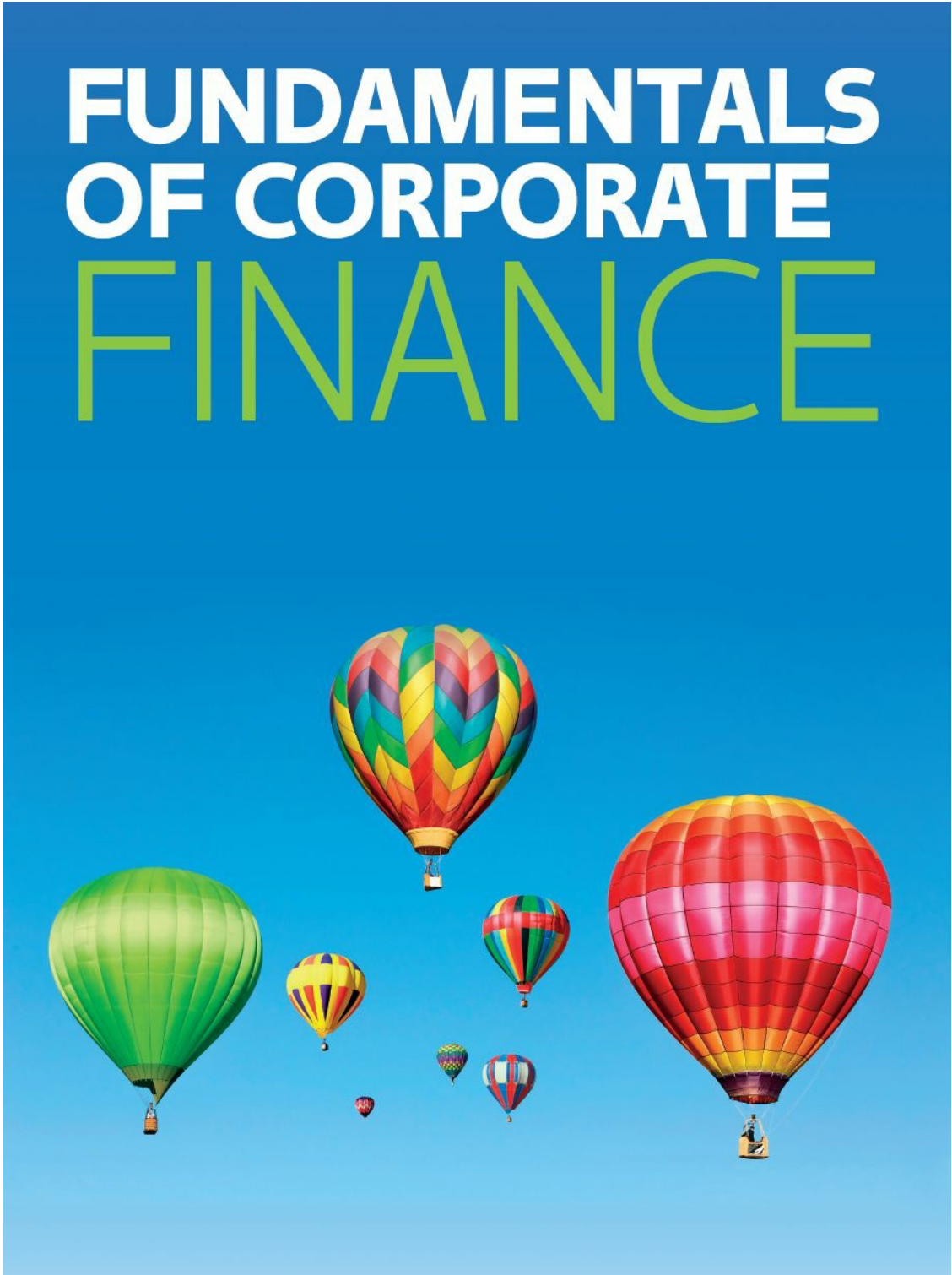
**David Hillier**, Iain Clacher, Stephen Ross,  
Randolph Westerfield, Bradford Jordan



**third edition**



# FUNDAMENTALS OF CORPORATE FINANCE



page ii

# FUNDAMENTALS OF CORPORATE FINANCE

**David Hillier, Iain Clacher,  
Stephen Ross, Randolph  
Westerfield, Bradford Jordan**

**Third European Edition**



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David Hillier, Iain Clacher, Stephen Ross, Randolph Westerfield, Bradford Jordan

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To Mary-Jo

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# PREFACE

*Fundamentals of Corporate Finance* is the third in a trilogy of quality finance textbooks for international readers that spans *Financial Markets and Corporate Strategy* through *Corporate Finance* to the present text. These books take a student from having virtually no knowledge of Corporate Finance to a doctoral level of understanding.

As a lecturer of 23 years, I fully understand the need for textbooks to be targeted to different reader groups and *Fundamentals of Corporate Finance* is no different in that regard. The book aims to introduce non-specialist students to the key concepts in Corporate Finance in both a clear and concise manner and in a manageable number of chapters, ideal for one- or two-semester courses. Drawing from comprehensive reviewer feedback, focus sessions, as well as earlier innovations in *Corporate Finance* and *Financial Markets and Corporate Strategy*, I have extensively revised *Fundamentals of Corporate Finance* to be at the forefront of European Corporate Finance thought and practice.

The field of Corporate Finance is always changing and in this new edition, every chapter has been thoroughly updated to reflect the newest developments in the Finance field and academic research. I have also focused on providing more real life examples of the concepts covered in the text, to ensure that readers can put the flesh of practice to the bones of theory.

## **Other improvements include:**

New real-world cases in each chapter, ‘Real World Insights’, illustrating the main concepts in the context of real corporate events.

The text is adapted to reflect the outcome of the 2016 UK referendum on the European Union.

All the material is updated to reflect new published research since the previous edition.

An updated recommended reading section in every chapter increases

links to academic literature.

Updated end-of-chapter sections with many brand new practice questions and problems, organized by level of difficulty.

*Fundamentals of Corporate Finance* captures current thinking in Corporate Finance and expresses it in a highly intuitive and accessible way. I've thoroughly enjoyed writing the chapters and sincerely hope you have the same enjoyment reading them.

David Hillier

## GUIDED TOUR

In addition to illustrating pertinent concepts and presenting up-to-date coverage, *Fundamentals of Corporate Finance* strives to present the material in a way that makes it coherent and easy to understand. To meet the varied needs of its intended audience, *Fundamentals of Corporate Finance* is rich in valuable learning tools and support:

## UNDERSTANDING AND APPLICATION

Each chapter opens with a set of **learning objectives**, summarizing what knowledge, skills or understanding you will acquire from each chapter.

### LEARNING OBJECTIVES

After studying this chapter, you should understand:

- LO1** The financial implications of the different forms of business organization.
- LO2** The conflicts of interest that can arise between managers and owners.
- LO3** The institutional governance factors that influence corporate behaviour.

**Key Terms** are printed in bold type and defined within the margin for easy location and identification.

**sole proprietorship** A business owned by a single individual.

A **sole proprietorship** is a business owned by one person. This is the simplest type of business to start, and is the least regulated form of organization. Depending on where you live, you might be able to start a proprietorship by doing little more than getting a business licence and opening your doors. For this reason, there are substantially more sole proprietorships than any other type of business, and many businesses that later become large corporations start out as small proprietorships.

The owner of a sole proprietorship keeps all the profits. That's the good news. The bad news is that the owner has *unlimited liability* for business debts. This means that creditors can look beyond business

New to this edition are **Real World Insight** boxes which use real companies to show how they have applied corporate finance theories and concepts to their businesses and business decisions.

### REAL WORLD INSIGHTS

Is it possible to manipulate prices in large stock markets? Although it may appear highly unlikely, if individuals have access to a large enough amount of money they can make prices change temporarily - and take advantage of that change. Alternatively, senior executives can release unnecessarily optimistic or pessimistic news to make the market react accordingly. Clearly, all these activities are illegal and will lead to criminal convictions if the perpetrators are caught, but it does happen.

A word of warning to readers who have similar aspirations, the maximum jail sentence for this crime totalled 380 years!

Each chapter ends with a **mini case** that focuses on common company situations. Each case presents a new scenario, data and a dilemma. Several case questions reinforce the material learned in that chapter.

## MINI CASE

### DAVIES GOLD MINING

Dick Davies, the owner of Davies Gold Mining, is evaluating a new gold mine in Tanzania. Barry Koch, the company's geologist, has just finished his analysis of the mine site. He has estimated that the mine would be productive for eight years, after which the gold would be completely mined. Barry has taken an estimate of the gold deposits to Andy Marshall, the company's financial officer. Andy has been asked by Dick to perform an analysis of the new mine and present his recommendation on whether the company should open the new mine.

# MASTERY OF MATHEMATICS

Each chapter provides a number of **figures and tables** to help you visualize the material being covered.

**KEY NOTATIONS**

<i>b</i>	Retention ratio
NWC	Net working capital
P/E ratio	Price-earnings ratio
PPE	Property, plant and equipment
ROA	Return on assets
ROE	Return on equity

Listing the variables and acronyms you will encounter as you read the chapters in **key notation** boxes at the start of the chapter.

**Spreadsheet strategies** introduce you to Microsoft Excel and page xiii helps you brush up your Excel spreadsheet skills. This feature appears in self-contained sections and shows you how to set up spreadsheets and analyse common financial problems.

**SPREADSHEET STRATEGIES 5.1**  
How to Calculate Present Values with Multiple Future Cash Flows Using a Spreadsheet  
Just as we did in our previous chapter, we can set up a basic spreadsheet to calculate the present values of the individual cash flows as follows. Notice that we have simply calculated the present values one at a time and added them up.

	A	B	C	D	E
1 Rate		0.12			
2 Year		1	2	3	4
3 Cash Flow		£200	£400.00	£600.00	£800.00
4 Present Value		£178.57	£318.88	£427.07	£508.41

Numbering **math equations** the first time they appear in full for ease of reference and understanding.

$$\text{Cash flow from assets} = \text{Cash flow to creditors} + \text{Cash flow to shareholders} \quad (3.3)$$

This is the *cash flow identity*. It says that the cash flow from the firm's assets is equal to the cash flow paid to suppliers of capital to the firm. What it reflects is the fact that a firm generates cash through its various activities, and that cash is either used to pay creditors or paid out to the owners of the firm.

Another way of presenting cash flow is to separate it according to the corporate activity to which it relates. Cash flows that arise because of the firm's core operations are known as *operating cash flow*. When a company buys or sells a warehouse, this is a long-term investment that will span many years, and a cash flow of this type relates to the firm's long-term investing activities. Finally, if a firm raises cash in the form of equity or debt, the cash flow would be part of its financing activities. Any cash flow that occurs can be identified as one of these three components:

**operating cash flow** Cash generated from a firm's normal business activities.

$$\begin{aligned} \text{Total cash flow} = & \text{Cash flow from operating activities} + \text{Cash flow from investing activities} \\ & + \text{Cash flow from financing activities} \end{aligned} \quad (3.4)$$

We discuss the various components that make up these cash flows next.

## PRACTICE AND PROFICIENCY

Each chapter ends with **questions and problems**, graded by difficulty, to fully test your knowledge of the chapter. These questions are also integrated into our digital learning and teaching environment **Connect®**. For more information see pp. xiv-xvii.

Level of difficulty: Basic Intermediate Challenge

### QUESTIONS AND PROBLEMS

---

**11.1** **Calculating Yields** At the beginning of the year, the price of Anheuser-Busch was €19.67, paid a dividend of €0.28 per share during the year, and had an ending share price of €36.40. What is the dividend yield? What is the capital gains yield?

**11.2** **Return Calculations** At the beginning of the year the price of Nokia was Skr 22; it paid a dividend of Skr 2 per share during the year, and had an ending share price of Skr 20. Compute the percentage total return. What is the dividend yield? What is the capital gains yield?

Chapter sections are intentionally kept short to promote a step-by-step, building-block approach to learning. Most sections are then followed by a series of short **concept questions** that highlight the key ideas just presented.

### CONCEPT QUESTIONS

**11.2a** With 20/20 hindsight, what would you say was the best investment for the period from 2005 through 2016?

**11.2b** Why doesn't everyone just buy small equities as investments?

**11.2c** About how many times did large-company equities return more than 30 per cent? How many times did they return less than -20 per cent?

**11.2d** What was the longest 'winning streak' (years without a negative return) for large-company equities?

**Chapter Review and Self-Test Problems** allow you to test your abilities in solving key problems related to the chapter content, and provide instant reinforcement.



### CHAPTER REVIEW AND SELF-TEST PROBLEMS

- 11.1 Recent Return History** Use Table 11.2 to calculate the average return over the years 2006–2016 for all the indices presented in the table.
- 11.2 More Recent Return History** Calculate the standard deviation for each index using information from Problem 11.1. Which of the investments was the most volatile over this period?

**Summary and Conclusions** briefly review and reinforce the main topics you will have covered in each chapter to ensure you have acquired a solid understanding of the key topics.



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- Sophisticated **online testing** capability.
- A **filtering and reporting** function that allows you to easily assign and report on materials that are correlated to learning outcomes, topics, level of difficulty, and more. Reports can be accessed for individual students or the whole class, as well as offering the ability to drill into individual assignments, questions or categories.
- **Instructor materials** to help supplement your course.

The screenshot displays three main components of the LMS interface:

- Assignment Management:** A 'Chapter 6 Test' configuration screen with options to 'add questions', 'organize assignment', and 'view' (list or individually). It shows 0 questions assigned and 0.00 points.
- Assignment Results:** A report for 'Reporting Course (Lynnott, Jordan)' showing a total value of 100.00 points. It includes a table of student scores across four assignments.
- At Risk Student Report:** A report for 'Reporting Course (Jordan Lynnott)' showing a breakdown by risk with a pie chart and a table of students with online engagement indicators and remediate buttons.

Student	Research Assignment 2: Learning	Quiz 1: Learning	Quiz 2: Learning	Quiz 3: Learning
2020, Demetrius	10.00%	80.00%		
Bono, James	40.00%	80.00%		
Chen, Jiah	70.00%	80.00%		
Dika, Mike	70.00%	70.00%	70.00%	70.00%
Freund, Kim	70.00%	70.00%	70.00%	70.00%
Green, Rachel	100.00%	100.00%	80.00%	100.00%
Hart, Kelly	80.00%	80.00%	70.00%	70.00%
James, Hennigan	40.00%	80.00%	80.00%	20.00%
James, Gita	100.00%	80.00%	100.00%	80.00%
James, Sam	50.00%	80.00%	100.00%	80.00%
Lang, Ella	80.00%	80.00%	80.00%	80.00%
Lopez, Maria	100.00%	100.00%	100.00%	100.00%
Lynnott, Jordan				
Schwartz, Aaron	20.00%	40.00%	40.00%	40.00%

Student	Online Engagement Indicator	Remediate
2020, Demetrius	2.2	send message to student
James, Hennigan	3.4	send message to student
Lynnott, Jordan	1.8	send message to student
Thomas, Scott	1.8	send message to student
Wes, Sam	3.9	send message to student
Bono, James	4.0	send message to student
Dika, Mike	4.3	send message to student
Freund, Kim	3.4	send message to student
Hart, Kelly	6.3	send message to student
James, Gita	5.2	send message to student
Lang, Ella	4.6	send message to student
Schwartz, Aaron	4.5	send message to student
Blump, Amy	5.8	send message to student

## Available online via Connect is a wealth of instructor support materials including:

- Appendices that accompany the textbook.
- Fully updated PowerPoint slides to use in lectures and an instructor's manual to support your course preparation.
- A solutions manual providing answers for the end of chapter questions in the textbook.
- Image library of the artwork from the textbook.

## STUDENTS

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According to AEB Systems plc financial statements as of June 2015, the firm had current assets of £6.642 billion, non-current assets of £16.521 billion, current liabilities of £11.283 billion, and non-current liabilities of £6.569 billion.

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Owners' equity £

(b) How much is net working capital? (Do not include the pound sign (£). Negative amounts should be indicated by a minus sign. Enter your answer in billions. Round your answer to 3 decimal places.)

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Finance: Corporate Finance (2nd Edition Edition) - Hillier, Ross, Westerfield, Jafar, 3e

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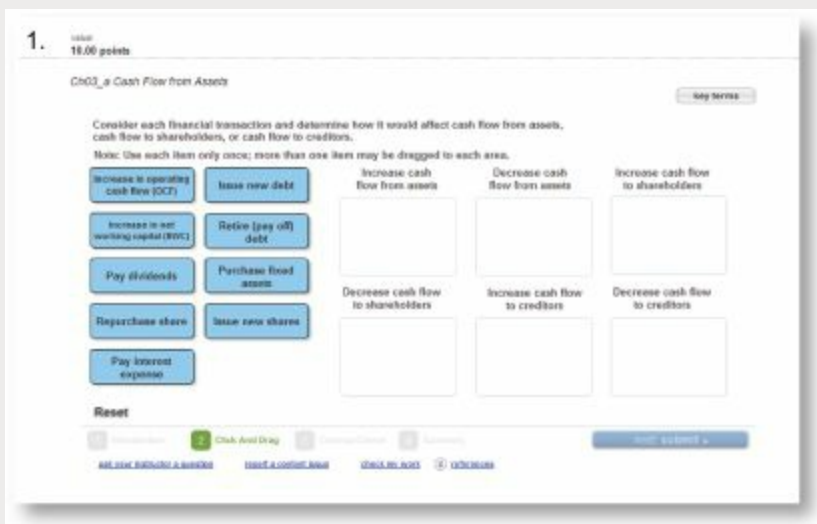


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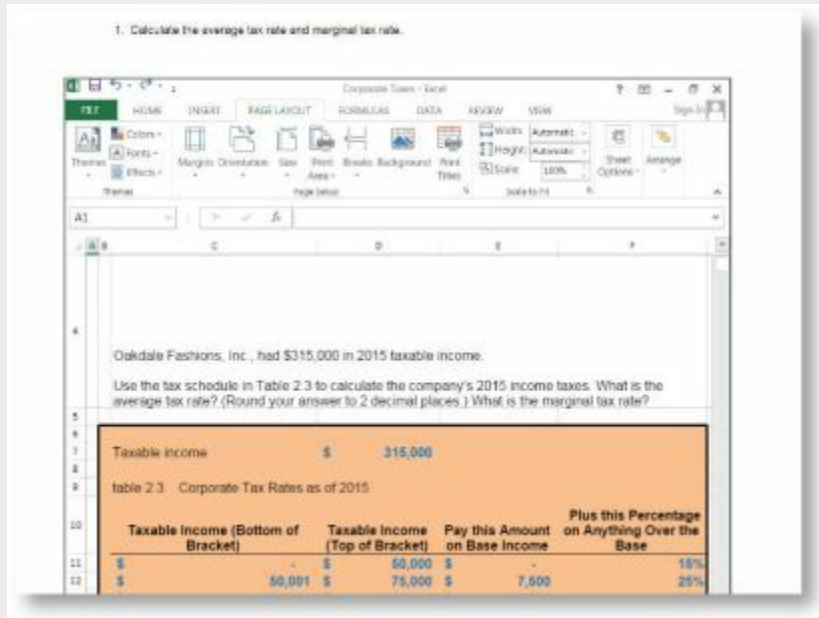
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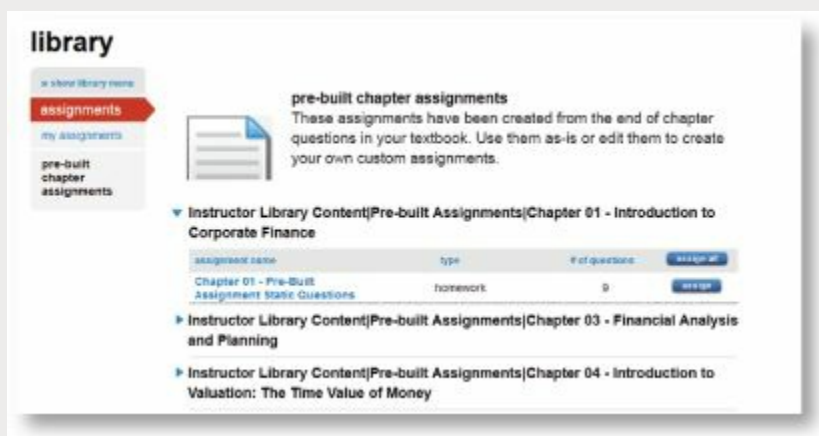
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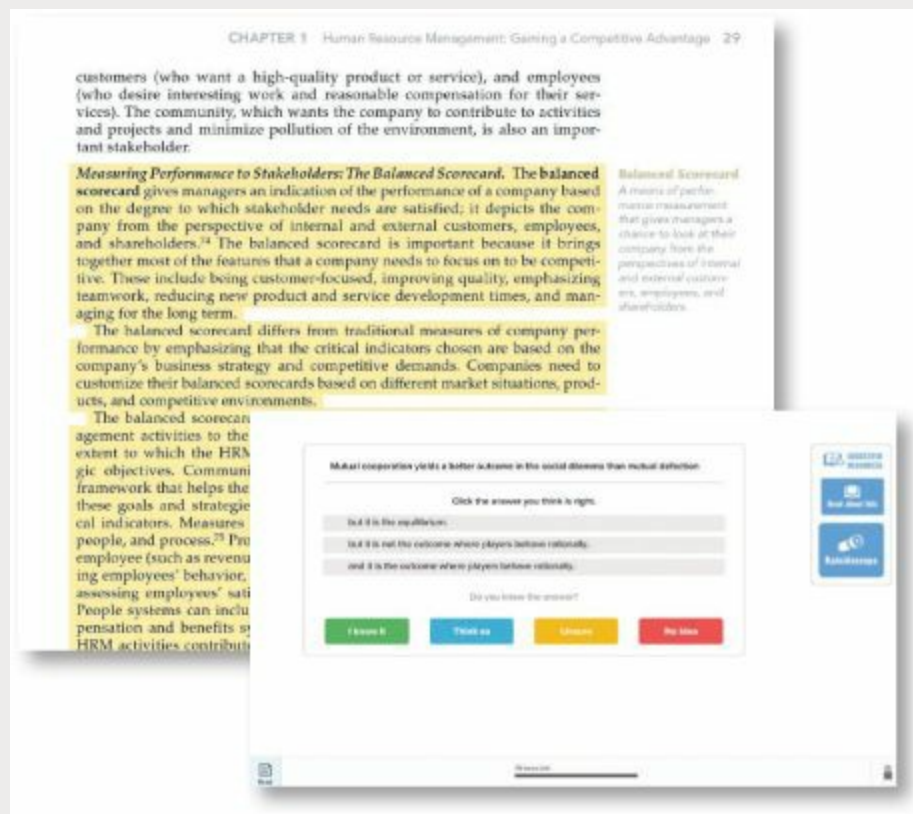
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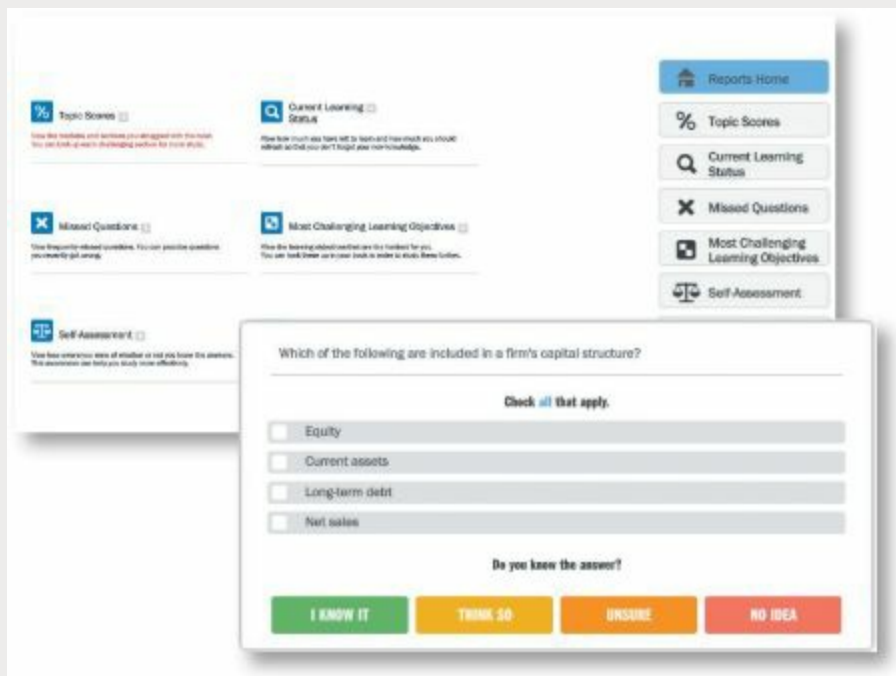
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## ABOUT THE AUTHORS



**David Hillier\*** is Professor of Finance, Executive Dean of Strathclyde Business School, and Associate Principal of the University of Strathclyde. Professor Hillier has published a wide range of peer-reviewed academic articles on corporate governance, corporate finance, insider trading, asset pricing, precious metals, auditing, and market microstructure. His research has attracted an ANBAR citation and a best paper prize from one of the top finance and management journals in South East Asia. He is on the editorial board and reviews for many of the world's top finance journals. Professor Hillier is an established teacher of executive programmes and has conducted courses for a variety of professional clients, including The World Bank and the UK National Health Service. He is a co-author of *Corporate Finance, Third European Edition* (McGraw-Hill, 2016) and *Financial Markets and Corporate Strategy, Second European Edition* (McGraw-Hill, 2011).

**Iain Clacher** is an Associate Professor in Accounting and Finance at Leeds University Business School. His work is published in international journals and has covered issues including; institutional economics,

accounting, ethics, pension management, fund performance, and sovereign wealth. He has advised and worked for organizations including publicly traded companies, the CERN Pension Fund, the City of London Corporation, the Work Foundation, the Pensions and Long-term Savings Association, SEI, and Aon.

**Stephen A. Ross** is the Franco Modigliani Professor of Finance and Economics at the Sloan School of Management, Massachusetts Institute of Technology.

**Randolph W. Westerfield** is Dean Emeritus of the University of Southern California's Marshall School of Business and is the Charles B. Thornton Professor of Finance.

**Bradford D. Jordan** is Professor of Finance and holder of the Richard W. and Janis H. Furst Endowed Chair in Finance at the University of Kentucky.

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Jon Olav Mjølhus, *University College Southeast*, Norway  
Sanjukta Brahma, *Glasgow Caledonian University*, UK  
Arif Khurshed, *University of Manchester*, UK

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Jason Laws, *University of Liverpool*, UK  
Peter de Goeij, *Tilburg University*, Netherlands  
Thao Nguyen, *Nottingham Trent University*, UK  
Stuart Farquhar, *University of Wolverhampton*, UK  
Ray Donnelly, *University College Cork*, Ireland  
Yifan Chen, *University of East Anglia*, UK  
Ortenca Kume, *University of Kent*, UK  
Graeme Elgin, *Manchester Metropolitan University*, UK  
Surendranath Jory, *University of Southampton*, UK  
Christos Kolympiris, *Wageningen University*, Netherlands  
Malgorzata Sulimierska, *University of Sussex*, UK

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Nikos Daskalakis, *University of Brighton*, UK  
Neeta Shah, *University of Westminster*, UK  
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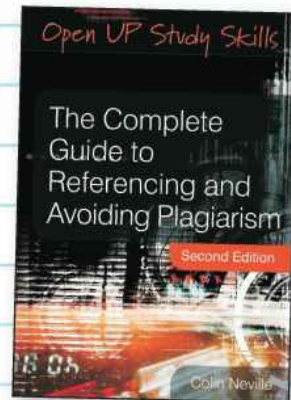
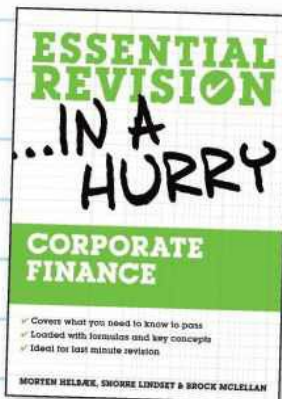
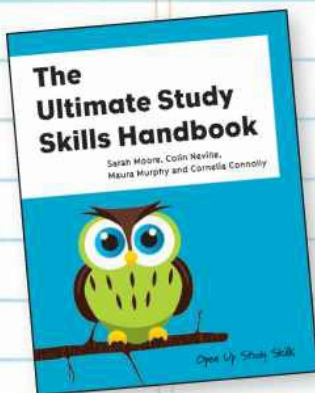
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# PART ONE

## OVERVIEW OF CORPORATE FINANCE

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# CHAPTER 1

## INTRODUCTION TO CORPORATE FINANCE

### LEARNING OBJECTIVES

After studying this chapter, you should understand:

- LO1** The basic types of financial management decision, and the role of the financial manager.
- LO2** The goal of financial management.
- LO3** How financial markets work and the reason they exist.

SINCE THE UK referendum on the country's future within the European Union in June 2016, the corporate environment has become substantially more risky. This naturally affects the viability of existing business opportunities, whether you are a UK firm or come from Europe. In the wider arena, emerging markets are experiencing a sustained slowdown in growth caused by falling energy and commodity prices (oftentimes their biggest export).

During periods such as the one the world is currently experiencing, financial managers must be exceptionally careful when managing their company's assets, spotting good investments and raising financing. Unlike bull market economies where profitable business opportunities are common and money is not in short supply, the business radar must be very sensitive to those projects that add value.

The goal of this text is to allow the reader an insight into the methods, techniques and strategies that can be used to add value to firms. We will consider the investment decision, how it is financed and the various approaches to ensuring that a company has the necessary liquidity to optimally run its affairs. The appropriate mix of debt and equity will be discussed. Tried and trusted methods to value a firm's assets, its equity and debt will also be covered in some detail. This takes us into issues involving

corporate goals and the functioning of financial markets, both of which we introduce in this chapter.

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To begin our study of modern corporate finance we need to address two central issues. First, what is corporate finance, and what is the role of the financial manager in the corporation? Second, what is the goal of financial management? For many companies, share price valuation is an exceptionally important issue, and so we also take a brief look at the financial markets and their impact on corporate decision-making.

## 1.1 CORPORATE FINANCE AND THE FINANCIAL MANAGER

In this section we discuss where the financial manager fits in the corporation. We start by defining *corporate finance* and the financial manager's job.

### WHAT IS CORPORATE FINANCE?

Imagine that you were to start your own business. No matter what type you started, you would have to answer the following three questions in some form or another:

1. What long-term investments should you make? That is, what lines of business will you be in, and what sorts of buildings, machinery and equipment will you need?
2. Where will you get the long-term financing to pay for your investment? Will you bring in other owners, or will you borrow the money?
3. How will you manage your everyday financial activities, such as collecting from customers and paying suppliers?

These are not the only questions by any means, but they are among the most important. Corporate finance, broadly speaking, is the study of ways to answer these three questions. Accordingly, we'll be looking at each of them in the chapters ahead.

### THE FINANCIAL MANAGER

A striking feature of large corporations is that the owners (the shareholders) are not usually directly involved in making business decisions, particularly on a day-to-day basis. Instead, the corporation employs managers to represent the owners' interests and make decisions on their behalf. In a large corporation the financial manager would be in charge of answering the three questions we raised in the preceding section.

The financial management function is usually associated with a top officer of the firm, such as a finance director (FD) or chief financial officer (CFO). Figure 1.1 is a simplified organizational chart that highlights the finance activity in a large firm. As shown, the finance director co-ordinates the activities of the treasurer and the controller. The controller's office handles cost and financial accounting, tax payments and management

information systems. The treasurer's office is responsible for managing the firm's cash and credit, its financial planning, and its capital expenditures.

You may be wondering what the difference is between the finance and accounting functions in a firm. The accounting function takes all the financial information and data that arises as a result of ongoing business activities, and presents this in ways that allow management to assess the performance and risk of their firm (financial accounting) and make informed decisions on future corporate activity (management accounting). To ensure that all firms provide comparable information, there are generally accepted accounting standards. In the European Union all firms that are listed on a stock exchange must follow International Accounting Standards (IAS), as set by the International Accounting Standards Board (IASB).

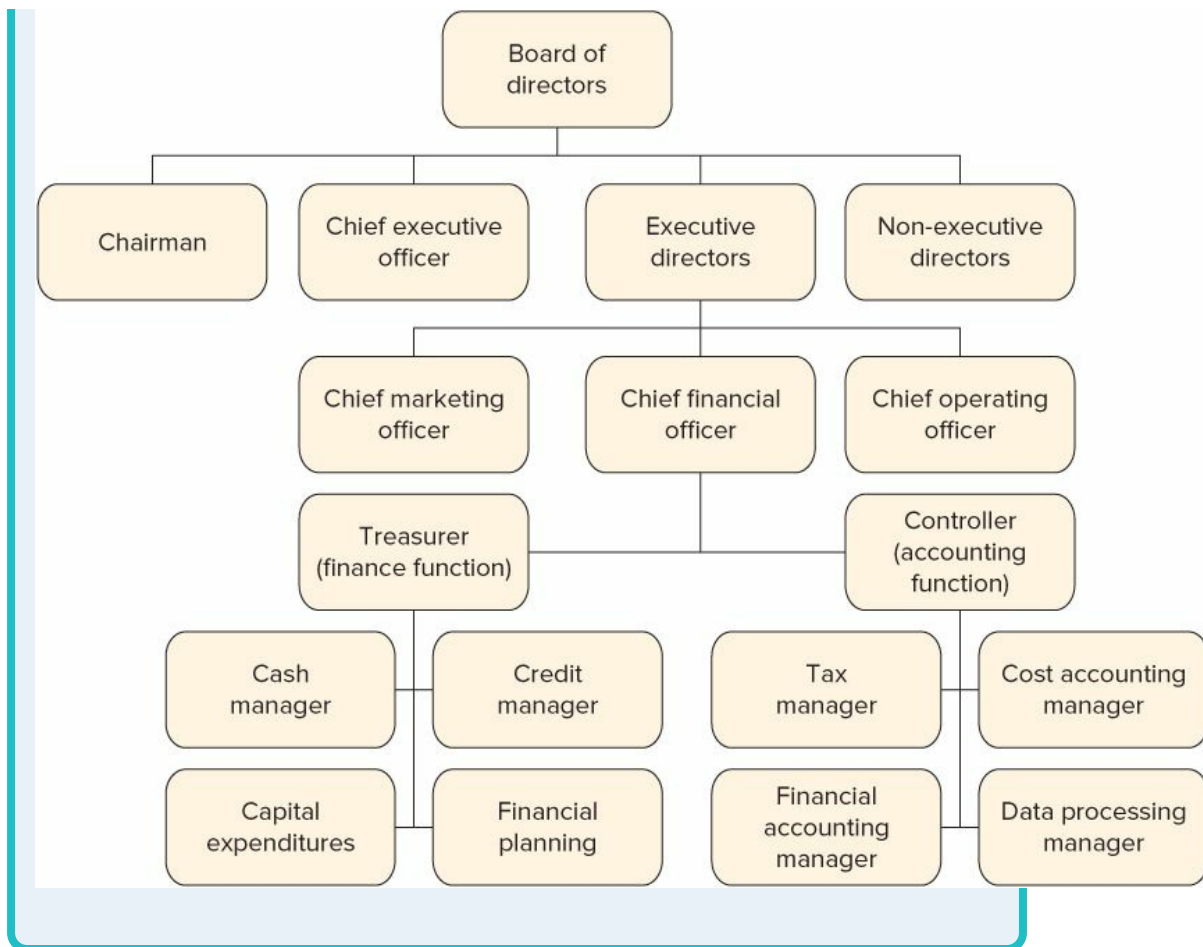
The finance function of the firm is related to the three general questions raised earlier, and the chapters ahead deal primarily with these issues. However, although our study bears mostly on activities associated with the finance function, we also discuss the accounting function whenever it is required to better understand the decisions made by corporations.

## **FINANCIAL MANAGEMENT DECISIONS**

As the preceding discussion suggests, the financial manager must be concerned with three basic types of question. We consider these in greater detail next.

### **FIGURE 1.1**

**A sample simplified organizational chart**



**Capital Budgeting** The first question concerns the firm's long-term investments. The process of planning and managing a firm's long-term investments is called **capital budgeting**. In capital budgeting the financial manager tries to identify investment opportunities that are worth more to the firm than they cost to acquire. Loosely speaking, this means that the value of the cash flow generated by an asset exceeds the cost of that asset.

**capital budgeting** The process of planning and managing a firm's long-term investments.

The types of investment opportunity that would typically be considered depend in part on the nature of the firm's business. For example, for a large retailer such as Tesco, deciding whether to open another store would be an important capital budgeting decision. Similarly, for a technology company such as Apple, the decision to develop and market a new tablet computer would be a major capital budgeting decision. Some decisions, such as what type of computer system to purchase, might not depend so

much on a particular line of business.

Regardless of the specific nature of an opportunity under consideration, financial managers must be concerned not only with how much cash they expect to receive, but also with when they expect to receive it, and how likely they are to receive it. Evaluating the *size*, *timing* and *risk* of future cash flows is the essence of capital budgeting. In fact, as we shall see in the chapters ahead, whenever we evaluate a business decision, the size, timing and risk of the cash flows will be by far the most important things we shall consider.

**Capital Structure** The second question for the financial manager concerns ways in which the firm obtains and manages the long-term financing it needs to support its long-term investments. A firm's **capital structure** (or financial structure) is the specific mixture of **long-term debt** and **equity** the firm uses to finance its operations. The financial manager has two concerns in this area. First, how much should the firm borrow? That is, what mixture of debt and equity is best? The mixture chosen will affect both the risk and the value of the firm. Second, what are the least expensive sources of funds for the firm?

**capital structure** The mixture of long-term debt and equity maintained by a firm.

**long-term debt** Long-term borrowing by the firm (longer than 1 year) to finance its long-term investments.

**equity** The amount of money raised by the firm that comes from the owners' (share-holders') investment.

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If we picture the firm as a pie, then the firm's capital structure determines how that pie is sliced – in other words, what percentage of the firm's cash flow goes to creditors and what percentage goes to shareholders. Firms have a great deal of flexibility in choosing a financial structure. The question of whether one structure is better than any other for a particular firm is the heart of the capital structure issue.

In addition to deciding on the financing mix, the financial manager has to decide exactly how and where to raise the money. The expenses



associated with raising long-term financing can be considerable, so different possibilities must be carefully evaluated. Also, corporations borrow money from a variety of lenders in a number of different, and sometimes exotic, ways. Choosing among lenders and among loan types is another job handled by the financial manager.

**Working Capital Management** The third question concerns **working capital** management. The term *working capital* refers to a firm's short-term assets, such as inventory, and its short-term liabilities, such as money owed to suppliers. Managing the firm's working capital is a day-to-day activity which ensures that the firm has sufficient resources to continue its operations and avoid costly interruptions. This involves a number of activities related to the firm's receipt and disbursement of cash.

**working capital** A firm's short-term assets and liabilities.

Some questions about working capital that must be answered are the following:

1. How much cash and inventory should we keep on hand?
2. Should we sell on credit? If so, what terms will we offer, and to whom will we extend them?
3. How will we obtain any needed short-term financing? Will we purchase on credit, or will we borrow in the short term and pay cash? If we borrow in the short term, how and where should we do it?

These are just a small sample of the issues that arise in managing a firm's working capital.

**Conclusion** The three areas of corporate financial management we have described – capital budgeting, capital structure and working capital management – are very broad categories. Each includes a rich variety of topics, and we have indicated only a few questions that arise in the different areas. The chapters ahead contain greater detail.

#### CONCEPT QUESTIONS

- 1.1a What is the capital budgeting decision?
- 1.1b What do you call the specific mixture of long-term debt and equity that a firm chooses to use?

1.1c Into what category of financial management does cash management fall?

## 1.2 THE GOAL OF FINANCIAL MANAGEMENT

Assuming that we restrict ourselves to for-profit businesses, the main goal of financial management is to make money or add value for the owners. This goal is a little vague, of course, so we examine some different ways of formulating it to come up with a more precise definition. Such a definition is important, because it leads to an objective basis for making and evaluating financial decisions.

### POSSIBLE GOALS

If we were to consider possible financial goals, we might come up with some ideas like the following:

Survive.

Avoid financial distress and bankruptcy.

Beat the competition.

Maximize sales or market share.

Minimize costs.

Maximize profits.

Maintain steady earnings growth.

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These are only a few of the goals we could list. Furthermore, each of these possibilities presents problems as a goal for the financial manager.

For example, it's easy to increase market share or unit sales: all we have to do is lower our prices or relax our credit terms. Similarly, we can always cut costs simply by doing away with things such as research and development. We can avoid bankruptcy by never borrowing any money or never taking any risks, and so on. However, it is not clear that any of these actions are in the shareholders' best interests.

Profit maximization would probably be the most commonly cited goal, but even this is not a precise objective. Do we mean profits this year? If so, we should note that actions such as deferring maintenance, letting inventories run down, and taking other short-run cost-cutting measures will tend to increase profits now, but these activities aren't necessarily desirable.

The goal of maximizing profits may refer to some sort of 'long-run' or 'average' profits, but it's still unclear exactly what this means. First, do we

mean something like accounting net income or earnings per share? As we shall see in more detail in the next chapter, these accounting numbers may have little to do with what is good or bad for the firm. Second, what do we mean by the long run? As John Maynard Keynes, a famous economist, once remarked, in the long run we're all dead! More to the point, this goal doesn't tell us what the appropriate trade-off is between current and future profits.

The goals we've listed here are all different, but they tend to fall into two classes. The first of these relates to profitability. The goals involving sales, market share and cost control all relate, at least potentially, to different ways of earning or increasing profits. The goals in the second group, involving bankruptcy avoidance, stability and safety, relate in some way to controlling risk. Unfortunately, these two types of goal are somewhat contradictory. The pursuit of profit normally involves some element of risk, so it isn't really possible to maximize both safety and profit. What we need, therefore, is a goal that encompasses both factors.

#### REAL WORLD INSIGHTS

How does a company maximize revenue at the same time as keeping down costs and ensuring its share price is performing well? This is the difficulty that faces all publicly listed firms, whether they are small domestic companies or massive multinationals. After its public listing, Facebook saw its share price collapse by more than 50 per cent. Pressure mounted on the firm to increase revenues from mobile technology amid fears that it wasn't able to monetize the incredible user base it has across the world. The basic model of Facebook had to change and the firm introduced a new algorithm for its user posts that prioritized the visibility of paid messages over unpaid ones. This forced companies to spend more on advertising, which in turn improved the company's finances. Facebook is continually looking at ways to improve its revenues further. New Facebook technology will prioritize greater visual content over written words because of the immediacy of photos, especially on smaller mobile devices where user growth is expected to be at its fastest. All of these innovations have only one purpose: to maximize firm value and increase Facebook's share price.

#### AN APPROPRIATE GOAL

The financial manager in a corporation makes decisions for the shareholders of the firm. Given this, instead of listing possible goals for the financial manager, we really need to answer a more fundamental question: from the shareholders' point of view, what is a good financial management decision?

If we assume that shareholders buy shares of a company's equity because they seek to gain financially, then the answer is obvious: good decisions increase the value of the equity, and poor decisions decrease the value of the equity.

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Given our observations, it follows that the financial manager acts in the shareholders' best interests by making decisions that increase the value of the equity. The appropriate goal for the financial manager can thus be stated quite easily:

**The goal of financial management is to maximize the current value per share of the existing equity.**

The goal of maximizing the value of the equity avoids the problems associated with the different goals we listed earlier. There is no ambiguity in the criterion, and there is no short-run versus long-run issue. We explicitly mean that our goal is to maximize the *current* share value.

If this goal seems a little strong or one-dimensional to you, keep in mind that the shareholders in a firm are residual owners. By this we mean that they are entitled only to what is left after employees, suppliers and creditors (and anyone else with a legitimate claim) are paid their due. If any of these groups go unpaid, the shareholders get nothing. So, if the shareholders are winning in the sense that the leftover, residual portion is growing, it must be true that everyone else is winning also.

Because the goal of financial management is to maximize the value of the equity, we need to learn how to identify investments and financing arrangements that impact favourably on the value of the equity. This is precisely what we shall be studying. In fact, we could have defined *corporate finance* as the study of the relationship between business decisions and the value of the equity in the business.

## **A MORE GENERAL GOAL**

Given our goal as stated in the preceding section (to maximize the value of

the equity), an obvious question comes up: what is the appropriate goal when the firm has no traded equity? Corporations are certainly not the only type of business, and the equity in many corporations rarely changes hands, so it's difficult to say what the value per share is at any given time.

As long as we are dealing with for-profit businesses, only a slight modification is needed. The total value of the equity in a corporation is simply equal to the value of the owners' equity. Therefore a more general way of stating our goal is as follows: maximize the market value of the existing owners' equity.

With this in mind, it doesn't matter what form the business takes. Good financial decisions increase the market value of the owners' equity, and poor financial decisions decrease it. In fact, although we focus on public corporations in the chapters ahead, the principles we develop apply to all forms of business. Many of them even apply to the not-for-profit sector.

Finally, our goal does not imply that the financial manager should take illegal or unethical actions in the hope of increasing the value of the equity in the firm. What we mean is that the financial manager best serves the owners of the business by identifying goods and services that add value to the firm because they are desired and valued in the free marketplace.

#### EXAMPLE 1.1

##### CORE VALUES

Every corporation will have a number of goals and objectives that contribute to the main financial management goal of increasing shareholder wealth. Some strategic goals of firms taken directly from their websites include:

1. An unflinching focus on health and safety.
2. Maximize the strength of the company's assets.
3. Focused strategy.
4. Simplify management structures and minimize differences among divisions.
5. Much greater focus on transparency and maximizing firm value.
6. Ensure every staff member carries out their business with integrity, commitment and loyalty.

Is each goal consistent with maximizing shareholder wealth? If not, why not, and does this mean that there are other objectives not related to shareholder value?

Note: Do not worry about some of the terms that you don't understand above. All will become clear in time!

### CONCEPT QUESTIONS

- 1.2a What is the goal of financial management?
- 1.2b What are some shortcomings of the goal of profit maximization?
- 1.2c Can you give a definition of corporate finance?

## 1.3 FINANCIAL MARKETS AND THE CORPORATION

In most countries the financial markets play a fundamental role in the operations of large corporations. Even if a firm is not traded on a stock exchange, the stock market is important, because it can inform management of the performance of their competitors, suppliers, customers and the economy as a whole. The primary advantage of financial markets is that they facilitate the flow of money from those that have surplus cash to those that need financing.

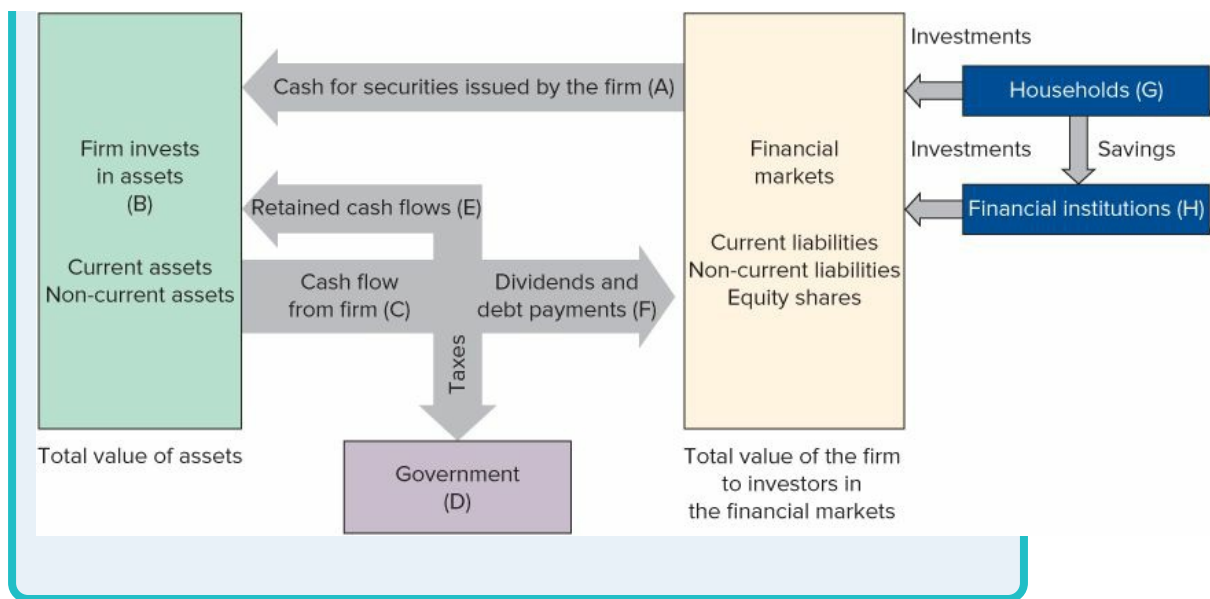
### CASH FLOWS TO AND FROM THE FIRM

The interplay between the corporation and the financial markets is illustrated in Figure 1.2. The arrows in the figure trace the passage of cash from the financial markets to the firm, and from the firm back to the financial markets. Suppose we start with the firm selling shares of equity and borrowing money to raise cash. Cash flows to the firm from the financial markets (A). The firm invests the cash in assets (B). These can be short term (current) or long term (non-current), and they generate cash (C), some of which goes to pay corporate taxes (D). After taxes are paid, some of this cash flow is reinvested in the firm (E). The rest goes back to the financial markets as cash paid to creditors and shareholders (F).

### FIGURE 1.2

Cash flows between the firm, the financial markets and the economy





The financial markets are not funded just by corporations paying cash to creditors or shareholders. The savings of households (G) also find their way into the financial markets. For example, whenever your salary goes into your bank account, whenever you pay insurance on your car, house or computers, and every time you pay your pension premium, this money will end up in the financial markets. This happens because the financial institutions (H) you pay your money to use it to invest in the financial markets. The difference between what financial institutions earn in the financial markets and what they have to pay you (in terms of monthly interest, random insurance payouts, and pensions) is their profit.

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A financial market, like any market, is just a way of bringing buyers and sellers together. In financial markets it is debt and equity securities that are bought and sold. Financial markets differ in detail, however. The most important differences concern the types of security that are traded, how trading is conducted and who the buyers and sellers are. Some of these differences are discussed next.

## **PRIMARY VERSUS SECONDARY MARKETS**

Financial markets function as both primary and secondary markets for debt and equity securities. The term *primary market* refers to the original sale of securities by governments and corporations. The *secondary markets* are those in which these securities are bought and sold after the original sale. Equities are, of course, issued solely by corporations. Debt securities are

issued by both governments and corporations. In the discussion that follows, we focus on corporate securities only.

**Primary Markets** In a primary market transaction the corporation is the seller, and the transaction raises money for the corporation. Corporations engage in two types of primary market transaction: public offerings and private placements. A public offering, as the name suggests, involves selling securities to the general public, whereas a private placement is a negotiated sale involving a specific buyer.

By law, public offerings of debt and equity must be registered with the securities regulator in the country where the offerings are made. For example, in the UK this is the Financial Conduct Authority, and in the Netherlands it is the Authority for Financial Markets (Autoriteit Financiële Markten). Registration requires the firm to disclose a great deal of information before selling any securities. The accounting, legal and selling costs of public offerings can be considerable.

Partly to avoid the various regulatory requirements and the expense of public offerings, debt and equity are often sold privately to large financial institutions such as life insurance companies or mutual funds. Such private placements do not normally have to be registered with securities regulators, and do not require the involvement of underwriters (investment banks that specialize in selling securities to the public).

**Secondary Markets** A secondary market transaction involves one owner or creditor selling to another. Therefore the secondary markets provide the means for transferring ownership of corporate securities. Although a corporation is directly involved only in a primary market transaction (when it sells securities to raise cash), the secondary markets are still critical to large corporations. The reason is that investors are much more willing to purchase securities in a primary market transaction when they know that those securities can later be resold if desired.

**Dealer versus Auction Markets?** There are two kinds of secondary market: *auction* markets and *dealer* markets. Generally speaking, dealers buy and sell for themselves, at their own risk. A car dealer, for example, buys and sells automobiles. In contrast, brokers and agents match buyers and sellers, but they do not actually own the commodity that is bought or sold. A real estate agent, for example, does not normally buy and sell houses.

Dealer markets in equities and long-term debt are called *over-the-counter* (OTC) markets. Most trading in debt securities takes place over

the counter. The expression *over the counter* refers to days of old when securities were literally bought and sold at counters in offices around the country. Today, a significant fraction of the market for equities and almost all of the market for long-term debt have no central location; the many dealers are connected electronically.

Auction markets differ from dealer markets in two ways. First, an auction market or exchange has a physical location (such as Paternoster Square for the London Stock Exchange). Second, in a dealer market, most of the buying and selling is done by the dealer. The primary purpose of an auction market, on the other hand, is to match those who wish to sell with those who wish to buy. Dealers play a limited role.

**Trading in Corporate Securities** The equity shares of most large firms trade in organized auction markets. The largest such market in the world is NYSE Euronext, followed by NASDAQ, Tokyo and London. Other European exchanges include the Deutsche Börse, the BME Spanish Exchanges, the SIX Swiss Exchange, and the NASDAQ OMX Nordic Exchange. Because of globalization, financial markets have reached the point where trading in many investments never stops; it just travels around the world.

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**Listing** Securities that trade on an organized exchange are said to be *listed* on that exchange. To be listed, firms must meet certain minimum criteria concerning, for example, asset size and number of shareholders. These criteria differ from one exchange to another.

Considering the London Stock Exchange as an illustrative case, the listing requirements are extensive. To be listed on the LSE a company must satisfy past track record requirements, must have a minimum market value and number of publicly held shares, excellent future prospects, audited accounting information for three full years and appropriate corporate governance, and must follow international accounting standards.

#### CONCEPT QUESTIONS

- 1.3a What is a dealer market? How do dealer and auction markets differ?
- 1.3b What does OTC stand for? The London Stock Exchange has a large OTC market for smaller equities and an auction market for its biggest equities. Why do you think this is the case?

1.3c What are the 10 largest stock exchanges in Europe?