

COLIN

DRURY

COST AND MANAGEMENT ACCOUNTING

AN INTRODUCTION

SEVENTH EDITION



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COST AND MANAGEMENT ACCOUNTING 7TH EDITION AN INTRODUCTION

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Cost and Management Accounting
An Introduction
Seventh edition
Colin Drury

Publishing Director: Linden Harris
Publisher: Brendan George
Editorial Assistant: Helen Green
Content project Editor: Lucy Arthy
Production Controller: Eyvett Davis
Marketing Manager: Amanda Cheung
Typesetter: Integra, India
Cover design: Adam Renvoize

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British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library.

ISBN: 978-1-4080-3213-8

Cengage Learning EMEA

Cheriton House, North Way, Andover, Hampshire, SP10 5BE
United Kingdom

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Printed by RR Donnelley, China
1 2 3 4 5 6 7 8 9 10 – 13 12 11

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PREFACE AND ACKNOWLEDGEMENTS

The aim of the seventh edition of this book is to provide an introduction to the theory and practice of cost and management accounting. A cost accounting system is concerned with accumulating costs for inventory valuation to meet external financial accounting and internal monthly or quarterly profit measurement requirements. A management accounting system accumulates, classifies, summarizes and reports information that will assist employees within an organization in their decision-making, planning, control and performance measurement activities. This book is concerned with both cost and management accounting, with similar emphasis being placed on both systems.

Intended primarily for students who are pursuing a one-year cost and management accounting course, the book is ideal for those approaching this subject for the first time. The more advanced topics contained in the final stages of the cost and management accounting syllabuses of the professional accountancy bodies and final year degree courses are not included. These topics are included in the author's successful *Management and Cost Accounting*, the seventh edition of which is also published by Cengage Learning EMEA.

Feedback from instructors in a large number of universities indicated that they had found the content, structure and presentation of *Management and Cost Accounting* extremely satisfactory and most appropriate for students pursuing a two-year management accounting course at an advanced professional or degree level. They also indicated that there was a need for a book (based on *Management and Cost Accounting*) tailored to meet the requirements of a one-year introductory course in cost and management accounting. Many lecturers, in particular those running introductory courses, felt there was a need for an introductory text which covered the required ground in an academically sound manner and which was also appropriate for students on non-advanced courses. This book is aimed specifically at students who are pursuing a one-year non-advanced cost and management accountancy course and is particularly suitable for the following courses:

- Foundation/introductory professional accountancy (e.g. Chartered Association of Certified Accountants, Chartered Institute of Management Accountants and one-year college foundation courses).
- Association of Accounting Technicians.
- Higher National Certificate and Diploma in Business and Finance.
- A first-level course for undergraduate accounting and finance or business students.

An introductory course in financial accounting is not a prerequisite, although many students will have undertaken such a course. The flexibility provided by modular courses can result in introductory classes consisting of a group of students not studying management accounting beyond an intermediate level and a further group continuing their studies beyond the intermediate level. *Cost and Management Accounting: An Introduction* is appropriate for the

former group and *Management and Cost Accounting* can be adopted by the latter. Because much of the content and assessment material in *Cost and Management Accounting: An Introduction* has been extracted from *Management and Cost Accounting*, lecturers can assign identical reading and assessment and also recommend two separate books that are geared to the specific requirements of the students.

STRUCTURE AND PLAN OF THE BOOK

In writing this book I have adopted the same structure as that in *Management and Cost Accounting*. The major theme is that different financial information is required for different purposes. The framework is based on the principle that there are three ways of constructing accounting information. The first is cost accounting with its emphasis on producing product costs for allocating costs between cost of goods sold and inventories to meet external and internal financial accounting inventory valuation and profit measurement requirements. The second is the notion of decision-relevant costs with the emphasis on providing information to help managers to make good decisions. The third is responsibility accounting and performance measurement which focuses on both financial and non-financial information, in particular the assignment of costs and revenues to responsibility centres.

This book has 15 chapters divided into four parts. Part 1 consists of two chapters and provides an introduction to cost and management accounting and a framework for studying the remaining chapters. The following three parts reflect the three different ways of constructing accounting information. Part 2 consists of six chapters and is entitled 'Cost Accumulation for Inventory Valuation and Profit Measurement'. This section focuses mainly on assigning costs to products to separate the costs incurred during a period between costs of goods sold and the closing inventory valuation for internal and external profit measurement. The extent to which product costs accumulated for inventory valuation and profit measurement should be adjusted for meeting decision-making, cost control and performance measurement requirements is also considered briefly. Part 3 consists of four chapters and is entitled 'Information for Decision-making'. Here the focus is on measuring and identifying those costs which are relevant for different types of decisions. The title of Part 4 is 'Information for Planning, Control and Performance Measurement'. It consists of three chapters and concentrates on the process of translating goals and objectives into specific activities and the resources that are required, via the short-term (budgeting) and long-term planning processes, to achieve the goals and objectives. In addition, the management control systems that organizations use are described and the role that management accounting control systems play within the overall control process is examined. The emphasis here is on the accounting process as a means of providing information to help managers control the activities for which they are responsible.

In devising a framework around the three methods of constructing financial information there is a risk that the student will not appreciate that the three categories use many common elements, that they overlap, and that they constitute a single overall management accounting system, rather than three independent systems. I have taken steps to minimize this risk in each section by emphasizing why financial information for one purpose should or should not be adjusted for another purpose. In short, each section of the book is not presented in isolation and an integrative approach has been taken.

MAJOR CHANGES IN THE CONTENT OF THE SEVENTH EDITION

Feedback from a lecturers' survey from users of the sixth edition indicated that many students found cost and management accounting to be a complex subject and there was a need for a simplified and more accessible text. The major objective in writing the seventh edition has therefore been to produce a less complex and more accessible text. This objective created the need to thoroughly review the entire content of the sixth edition and to rewrite, simplify and improve the presentation of much of the existing material. Most of the chapters have been rewritten. The end result has been the most extensive rewrite of the text since the book was first published.

Feedback from the lecturers' survey indicated that some of the more advanced and complex topics in the sixth edition were not included in their teaching programmes whereas a minority of respondents indicated that the same topics were included in their teaching programmes. In order to meet the different requirements of lecturers, some of the advanced and more complex topics from the sixth edition have been transferred from the text to learning notes that can be accessed by students and lecturers on the companion website. Examples of topics that are now incorporated as learning notes within the seventh edition include the application of linear programming to management accounting, decision-making under conditions of risk and uncertainty and responsibility accounting in profit and investment centres. All learning notes are appropriately referenced within the text. For example, at appropriate points within specific chapters the reader's attention is drawn to the fact that, for a particular topic, more complex issues exist and that a discussion of these issues can be found by referring to a specific learning note on the open access website.

The feedback relating to the structure and content of the previous editions has been extremely favourable and therefore only minor changes have been made to the existing structure, while incorporating the extensive changes that have been made to the content of the new edition. The sixth edition included the application of linear programming to management accounting (Chapter 12), decision-making under conditions of risk and uncertainty (Chapter 14) and a chapter on capital investment appraisal (Chapter 15). In response to feedback from lecturers and examination of the syllabuses of the professional management accounting bodies, these chapters have been deleted from the seventh edition and the content relating to chapters 12 and 14 (sixth edition) can now be accessed on the open access dedicated website. No other changes have been made to the structure of the text.

Finally, much of the assessment material has been extensively changed and new assessment material added. In addition, many 'Real World Views' that provide examples of the practical application of management accounting have been replaced by more recent examples that provide better illustrations of the practical applications. Questions have been added to the 'Real World Views' to encourage readers to think about the issues involved.

Case studies

Over 20 case studies are available on the dedicated website for this book. A list of these case studies is provided in a separate section immediately following the final chapter. Both lecturers and students can download these case studies from the open access section of the website. Teaching notes for the case studies can be downloaded only by lecturers from the password-protected lecturers' section of the website. The cases generally cover the content of several

chapters and contain questions to which there is no ideal answer. They are intended to encourage independent thought and initiative and to relate and apply your understanding of the content of this book in more uncertain situations. They are also intended to develop your critical thinking and analytical skills.

International focus

The book has now become an established text in many different countries throughout the world. Because of this a more international focus has been adopted. A major feature is the presentation of boxed exhibits of surveys and practical applications of management accounting in companies in many different countries, particularly the European mainland. To simplify the presentation, however, the UK pound monetary unit has mostly been used throughout the book. Most of the assessment material has incorporated questions set by the UK professional accountancy bodies. These questions are, however, appropriate for worldwide use.

Assessment material

Throughout this book simple illustrations have been provided. You can check your understanding of each chapter by answering the review questions. Each question is followed by page numbers within parentheses that indicate where in the text the answers to specific questions can be found. More complex review problems are also set at the end of each chapter to enable students to pursue certain topics in more depth. Fully worked solutions to the review problems are provided in a separate section at the end of the book.

This book is part of an integrated educational package. A *Students' Manual* that includes additional review problems and accompanying answers is available to download from the accompanying website. Additional review problems and case studies are available for students and lecturers to access on the accompanying website www.drury-online.com. Solutions to the review problems and case study teaching notes are only available to lecturers on the lecturer's password-protected section of the website.

Also available for adopting lecturers to download from the companion website is an Examview® testbank, offering over 1000 questions tailored to the content of the book, for use in classroom assessment.

In recognition of the increasing need for the integration of IT teaching into the curriculum, this book is accompanied by an online *Spreadsheet Applications Manual*, which has been written by Dr Alicia Gazely. This explains basic spreadsheet techniques and then builds up ten spreadsheet models which illustrate, and allow students to explore, examples in the main text. The spreadsheets, guidance notes and online access are available to teachers on adoption. Further details of this package are given in the section covering the dedicated website below.

SUPPLEMENTARY MATERIAL

Dedicated website

The dedicated website can be found at www.drury-online.com. The lecturer section is password-protected and the password is available free to lecturers who confirm their

adoption of the seventh edition. Lecturers should complete the registration form on the website to apply for their password, which will then be sent to them by e-mail. The following range of material is available:

For students and lecturers (open access):

Learning notes

The learning notes relate to either specific topics that may be only applicable to the curriculum for a minority of the readers, or a discussion of topics where more complex issues are involved that not all readers may wish to pursue. All learning notes are appropriately cross-referenced within the text to the website. For example, at appropriate points within specific chapters the reader's attention is drawn to the fact that, for a particular topic, more complex issues exist and that a discussion of these issues can be found by referring to a specific learning note on the student resources section of the website.

Case studies

Internationally focused case studies. (Teaching notes to accompany the cases are available in the password-protected lecturer area of the website.)

Examview® interactive self-test questions

(compiled by Wayne Fiddler of Huddersfield University)

Interactive multiple choice questions to accompany each chapter. The student takes the test online to check their grasp of the key points in each chapter. Detailed feedback is provided for each question if the student chooses the wrong answer.

PowerPoint™ slides

PowerPoint presentations to accompany each chapter.

Guide to Excel

(written by Steve Rickaby)

A PDF guide to Microsoft Excel giving you all the information you need to train yourself in basic Excel skills.

Links to accounting and finance sites on the web

Including links to the main accounting firms, accounting magazines and journals, and careers and job search pages.

Definitions of accounting and finance terms

A handy introduction to accounting and finance techniques, disciplines and concepts

Students' manual and extra review problems

The *students' manual* is now provided free from the site in PDF (Portable Document Format), the *students' manual* contains further questions for students which are accompanied by the supporting answers.

Extra review problems are also provided and solutions to these appear in the *instructor's manual* on the lecturer's password-protected section of the website.

For lecturers only (password protected)

ExamView®

This testbank and test generator provides a huge amount of different types of questions, allowing lecturers to create online, paper and local area network (LAN) tests.

Instructor's manual

Available to download free from the site in PDF (Portable Document Format), the manual includes answers to the extra review problems on the open access website.

Teaching notes to the case studies

To accompany the case studies available in the student area of the website.

Spreadsheet exercises

(compiled and designed by Alicia Gazely of Nottingham Trent University)

Created in Excel to accompany the self assessment exercises in the book, the exercises can be saved by the lecturer to their own directories and distributed to students as each topic is covered. Each exercise explains a basic spreadsheet technique which illustrates, and allows the student to explore, examples in the main text.

PowerPoint™ slides

PowerPoint presentations to accompany each chapter.

Overhead transparencies

Available to download as pdf files.

ACKNOWLEDGEMENTS

I am indebted to many individuals for their ideas and assistance in preparing this and previous editions of the book.

Rona O'Brien, Sheffield Hallam University

Jonathan Rooks, South Bank University

Pieter Koortzen, Polytechnic of Namibia

John MacKenzie, Napier University

Lau Siok Hwa, Multimedia University, Malaysia

Chong Chin Wei, Multimedia University, Malaysia

Mark Pilkington, University of Westminster

Darren Duxbury, Leeds University

Norwood Whittle, University College Northampton

Elaine Shellard, University of Glamorgan

Professor M B Adams, Swansea University

Kirsten Wallace, University of Glasgow

A Abofaid, Manchester Metropolitan University

Cathy Knowles, Oxford Brookes University

George Arthur Qua-Enoo, University of Johannesburg

Venus Leung, Lingnan University

Iris Kwok, University of Hong Kong

Shirley Venzke, Vaal University of Technology

I am also indebted to Stephen Wellings and Helen Green at Cengage Learning for their valuable publishing advice, support and assistance; and to all of the staff at Cengage Learning who have worked on the book. My appreciation goes also to the Chartered Institute of Management Accountants, the Chartered Association of Certified Accountants, the Institute of Chartered Accountants in England and Wales, and the Association of Accounting Technicians for permission to reproduce examination questions. Questions from the Chartered Institute of Management Accountants' examinations are designated CIMA; questions from the Chartered Association of Certified Accountants are designated ACCA; questions from the Institute of Chartered Accountants in England and Wales are designated ICAEW; and questions from the Association of Accounting Technicians are designated AAT. The answers at the end of this book and in the accompanying teachers' and students' guides to this book are my own and are in no way the approved solutions of the above professional bodies. Finally, and most importantly, I would like to thank my wife, Bronwen, for converting the original manuscript of the earlier editions into final typewritten form and for her continued help and support throughout the seven editions of this book.

WALK THROUGH TOUR

CHAPTER 1 INTRODUCTION TO MANAGEMENT ACCOUNTING

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

- distinguish between management accounting and financial accounting;
- identify and describe the elements involved in the decision-making, planning and control process;
- justify the view that a major objective of commercial organizations is to broadly seek to maximize future profits;
- explain the factors that have influenced the changes in the competitive environment;
- outline and describe the key success factors that directly affect customer satisfaction;
- identify and describe the functions of a cost and management accounting system.

There are many definitions of accounting, but the one that captures the theme of this book is the definition formulated by the American Accounting Association. It describes accounting as:

the process of identifying, measuring and communicating economic information to permit informed judgments and decisions by users of the information.

In other words, accounting is concerned with providing both financial and non-financial information that will help decision-makers to make good decisions. In order to understand accounting, you need to know something about the decision-making process, and also to be aware of the various uses of accounting information.

CHAPTER 3 ACCOUNTING FOR DIRECT COSTS

the purchase department to obtain the re-order quantity from an appropriate supplier. Methods that are used for establishing optimum stock levels, re-order points and re-order quantities will be explained later in the chapter.

Purchase of materials

When a purchase requisition is received, purchasing department staff select an appropriate supplier and then complete a purchase order requesting that the supplier supply the materials listed on the order. A copy of the purchase order is sent to the receiving section within the stores department for checking with the goods when they arrive.

Receipt of materials

When the goods are received by the receiving section they are inspected and checked with the supplier's delivery note and a copy of the purchase order. The receiving section then lists the materials received on a goods received note (GRN) and forwards copies of the GRN to the purchasing and accounting departments. The purchasing department records that the order has been completed, and the accounting department checks the GRN with the supplier's invoice to ensure that payment is made only in respect of goods actually received. The department also uses the invoice to price each of the items listed on the GRN. The GRN is the source document for entering details of the items received in the receipts column of the appropriate stores ledger account, as in EXHIBIT 3.1. This document is merely a record of the quantity and value of each individual item of material stored by the organization.

Issue of materials

The formal authorization for the issue of materials is a stores requisition, which lists the type and quantity of materials issued. This document also contains details of either the customer's

Stores ledger account

Date	GRN no.	Receipts			Stores req. no.	Issues			Stock
		Quantity	Unit price (£)	Amount (£)		Quantity	Unit price (£)	Amount (£)	

EXHIBIT 3.1
A stores ledger account

Learning objectives Listed at the start of each chapter, highlighting the core coverage that you should acquire after studying each chapter.

Exhibits Illustrations of accounting techniques and information are presented throughout the text.

RECORDING THE ISSUE OF MATERIALS 111

EXAMPLE 5.1

The following are the transactions of AB Ltd for the month of April.

- 1 Raw materials of £162 000 were purchased on credit.
- 2 Raw materials of £2 000 were returned to the supplier because of defects.
- 3 The total of stores requisitions for direct materials issued for the period was £165 000.
- 4 The total issue for indirect materials for the period was £10 000.
- 5 Gross wages of £186 000 were incurred during the period consisting of wages paid to employees:

£105 000	
Tax deductions payable to the Government (i.e. Inland Revenue)	500 000
National Insurance contributions due	220 000
- 6 All the amounts due in transaction 5 were settled by cash during the period.
- 7 The allocation of the gross wages for the period was as follows:

Direct wages	£145 000
Indirect wages	£40 000
- 8 The employer's contribution for National Insurance deductions was £25 000.
- 9 Indirect factory expenses of £41 000 were incurred during the period.
- 10 Depreciation of factory machinery was £30 000.
- 11 Overhead expenses allocated to jobs by means of overhead allocation rates was £140 000 for the period.
- 12 Non-manufacturing overhead incurred during the period was £40 000.
- 13 The cost of jobs completed and transferred to finished goods stock was £300 000.
- 14 The sales value of goods withdrawn from stock and delivered to customers was £400 000 for the period.
- 15 The cost of goods withdrawn from stock and delivered to customers was £240 000 for the period.

An entry for the returned materials is also made in the appropriate stores ledger records and in the individual creditors' accounts.

RECORDING THE ISSUE OF MATERIALS

The storeskeeper issues materials from stores in exchange for a duly authorized stores requisition. For direct materials the job number will be recorded on the stores requisition, while for indirect materials the overhead account number will be entered on the requisition. The issue of direct materials involves a transfer of the materials from stores to production. For transaction 3, material requisitions are summarized and the resulting totals are recorded as follows:

Dr Work in progress account	165 000	
Cr Stores ledger control account		165 000

CHAPTER 3 ACCOUNTING FOR DIRECT COSTS

grouped in descending order in terms of their purchase cost for the period. The top 10 per cent of items is stock in terms of the purchase cost for the period are classified as 'A' items. The next 20 per cent as 'B' items and the final 70 per cent as 'C' items. It is generally found that the 'A' items can account for over 70 per cent of the total purchase cost for a period. The most sophisticated procedures for planning and controlling stocks are applied to the 'A' items.

- **Outline the main features of a just-in-time approach.** A just-in-time (JIT) approach aims to eliminate non-value-added activities (e.g. set-up times). By significantly reducing set-up times, smaller production batches and the purchase of smaller batch sizes become economical. Many companies have developed strategic supply partnerships involving JIT purchasing arrangements whereby the delivery of materials immediately precedes their use. By arranging with suppliers for more frequent deliveries, stocks can be cut to a minimum and ordering costs substantially reduced. The overall impact of adopting this approach is that the EOQ declines.

Notes

1. The steps are as follows:

$$TC = \frac{OC}{Q} + \frac{QH}{2}$$

$$\frac{dTC}{dQ} = -\frac{OC}{Q^2} + \frac{H}{2}$$

$$\frac{dTC}{dQ} = 0 \Rightarrow \frac{H}{2} - \frac{OC}{Q^2} = 0$$

$$\frac{H}{2} = \frac{OC}{Q^2}$$

$$Q^2 = \frac{2OC}{H}$$

Therefore $Q = \sqrt{\left(\frac{2OC}{H}\right)}$

KEY TERMS AND CONCEPTS

ABC classification method classifies stocks into categories of importance so that the most elaborate procedures of controlling stocks can be applied to the most important items.

Complete periodic stockcount the process of physically counting all items of stock and comparing them with the records.

Economic order quantity (EOQ) the optimum size of order, where the total amount of ordering and holding costs are minimized.

Employment costs the costs to the company of employing staff; they include wages or salary and employer's contributions to National Insurance and pension funds.

First in, first out (FIFO) a system of issuing items in the order in which they were received.

Goods received note (GRN) a document prepared by the receiving section of the stores department when goods are delivered and forwarded to the purchasing and accounting departments.

Holding costs the costs to the company of holding stocks; they include opportunity costs, incremental insurance, warehousing

Examples Worked accounting examples are shown throughout the text.

Key terms and concepts Highlighted throughout the text where they first appear alerting the student to the core concepts and techniques.

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Sometimes it may be found that the actual stock level is different from the clerical or computer records. The reasons for this may be:

- 1 an entry having been made in the wrong stores ledger account;
- 2 the items having been placed in the wrong physical location;
- 3 arithmetical errors made when calculating the stores balance on the stores ledger when a manual system is operated;
- 4 theft of stock.

When a discrepancy arises the individual stores ledger accounts must be adjusted so that they are in agreement with the actual stock. Assume, for example, that the actual stock is less than the clerical or computer record. The quantity and value of the appropriate stores ledger account must be reduced and the difference charged to an overhead account for stores losses. The total amount charged to the stores losses overhead account should be allocated to cost objects based on the overhead procedure described in the next chapter.

REAL WORLD VIEWS 3.1

Inventory management practices

Managing inventory in a business is an ongoing job. Depending on the type of business, some items held in inventory will have strict controls – both physical and system controls. For example, retailers like Tesco (UK) and Wal-Mart (US) used sophisticated inventory systems to control inventory in each store or warehouse. They also use technologies like ‘radio barcode’ to keep an eye on items like DVDs or computer games which are often pilfered.

While retailers may be able to keep track of some inventories to the item level, not all are tracked in such detail. Other businesses don't have such detail available on inventory levels or movements. Therefore, management accountants must make assumptions on how inventories ‘move’ in order to cost products. In this chapter, methods used by management accountants are described, and First in first out (FIFO) and Last in first out (LIFO) are two possible methods. FIFO means that it is assumed that oldest items are used first, whereas LIFO assumes that newest items are used first.

In practice however, this may or may not be the case, with the physical movement of items determined by other operational factors. For example, at a building aggregates company like Lafarge (lafarge.com), LIFO may be at play. Aggregates refer to naturally occurring sand/gravel, crushed rock or recycled demolition material. Regardless of source, aggregates are typically seen in large mounds in quarries or building sites, which means that the last materials dumped on the mound are likely to be some of the first used. In their accounting policies section of the Annual Report however, Lafarge state inventories are valued using a weighted average cost method. On the other hand, retailers like Tesco are likely to follow FIFO principles with foodstuffs on their shelves – you might notice that products with a sell-by date in the near future are always towards the front of the shelf. Tesco too use a weighted average method to value their inventories according to their Annual Report.

Questions

- 1 Can you think of other businesses where the physical flow of goods might follow FIFO or LIFO?
- 2 How does the value of inventory affect the profits of a business?

References

Tesco has stock control in the bag *Sunday Times* (UK), 13/09/2004
Lafarge 2009 Annual Report, available at lafarge.com
Tesco 2009 Annual Report, available at tesco.com

KEY EXAMINATION POINTS 47

storage and handling costs and the cost of obsolescence and deterioration.

Just-in-time (JIT) an approach that aims to reduce and eventually eliminate non-value-added activities such as set-up times and to cut stocks to a minimum.

Last in, first out (LIFO) a system of issuing items in the reverse order to when they were received.

Lead time is the time that elapses between the re-order point and delivery.

Material handling costs the expenses involved in receiving, storing, issuing and handling materials.

Materials handling rate the percentage rate at which some companies assign handling costs to cost objects.

Non-value-added activities activities that add nothing to the customer's perception of the usefulness of a product or service and provide an opportunity for cost reduction.

Ordering costs the clerical costs of preparing purchase orders, receiving deliveries and paying invoices.

Purchase order a document sent by the purchasing department to a supplier requesting that items listed are supplied.

Purchase requisition a document issued by the stores department of a manufacturing organization to the purchasing department, requesting that stocks of an item are re-ordered.

Re-order point is the point at which an order is actually placed.

Stores ledger account a record of the quantity and value of each item of material stored by the organization.

Stores requisition a document that lists the type and quantity of any item issued by the stores department.

KEY EXAMINATION POINTS

Typical examination questions relating to the content of this chapter include questions on incentive schemes, stores pricing and computations of the economic order, maximum, minimum and re-order quantities. Question 3.30 is an example of a question relating to incentive schemes. Questions on stores pricing often require you to calculate the amount charged to products/production, to determine the stock valuation and discuss arguments for and against using each method. Question 3M3.7 in the Students' Manual on the website is concerned with most aspects covered in this chapter relating to the computation of the economic order quantity and is typical of the type of examination questions set on this topic. A common mistake that students make in computing the EOQ is to utilize fixed holding and ordering costs. The EOQ should be calculated using only variable costs. Also note that the purchase cost of materials should not be included in EOQ calculations. When the purchase cost per unit varies with the quantity ordered you should prepare a schedule of relevant costs for different order quantities. For an illustration of this approach, see Exhibit 3.4 in this chapter. Sometimes examination questions (see questions 3.22 and 3M3.6 in the Students' Manual on the website) require you to calculate maximum, minimum and re-order levels. You should use the following formulae:

Re-order level = Maximum usage × maximum lead time
Minimum stock level = Re-order level – average usage during average lead time
Maximum stock level = Re-order level + EOQ – minimum usage for the minimum lead time

Real world views Real world cases are provided throughout the text, they help to demonstrate the theory in practice and practical application of accounting in real companies internationally.

Key examination points Important examination tips are presented at the end of each chapter. They show the main concepts to be learnt from the chapter when studying for your examinations.

ASSESSMENT MATERIAL

The review questions are short questions that enable you to assess your understanding of the main topics included in the chapter. The numbers in parentheses provide you with the page numbers to refer to if you cannot answer a specific question.

The review problems are more complex and require you to relate and apply the chapter content to various business problems. The problems are graded by their level of difficulty. The multiple-choice questions are the least demanding and normally take less than 10 minutes to complete. Fully worked solutions to the review problems are provided in a separate section at the end of the book. Further review problems with solutions for this chapter are available on the accompanying website www.cengage.com. The website includes a Student's Manual and an Instructor's Manual. Students can access both questions and answers from the Student's Manual and the questions from the Instructor's Manual. The answers to problems in the Instructor's Manual are available only to lecturers on the lecturer's password-protected section of the website.

REVIEW QUESTIONS

- 3.1 Explain the accounting treatment for holiday pay, overtime payments and employment costs. (pp. 49–50)
- 3.2 Describe the materials recording procedure. (pp. 49–51)
- 3.3 Explain the purpose of a stores ledger account. (p. 50)
- 3.4 Describe the first in, first out (FIFO), last in, first out (LIFO) and average cost methods of stores pricing. (pp. 51–55)
- 3.5 Explain the accounting treatment of stores losses and materials handling costs. (pp. 55–57)
- 3.6 What are holding costs? Provide some examples. (pp. 57–58)
- 3.7 What are ordering costs? Provide some examples. (p. 58)
- 3.8 What determines which holding and ordering costs should be included in the economic order quantity calculation? (pp. 58–59)
- 3.9 What are the assumptions underlying the economic order quantity? (p. 61)
- 3.10 Define lead time. (p. 62)
- 3.11 Explain what is meant by the re-order point. (pp. 61–62)
- 3.12 Describe the ABC classification method. What purposes does it serve? (pp. 62–64)
- 3.13 What are the main features of the just-in-time approach? (p. 64)

Review questions Review questions allow revision of the main issues and concepts learnt within the chapter. Page numbers next to the questions show where the answers can be found.

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REVIEW PROBLEMS

4.11 A company uses absorption costing with a predetermined hourly overhead absorption rate. The following situations exceed planned month:

- (i) Actual hours worked exceeded planned hours.
- (ii) Actual overhead expenditure exceeded planned expenditure.

Which of the following statements is correct?

- (a) Situation (i) would cause overheads to be over-absorbed and situation (ii) would cause overheads to be under-absorbed.
- (b) Situation (i) would cause overheads to be under-absorbed and situation (ii) would cause overheads to be over-absorbed.
- (c) Both situations would cause overheads to be over-absorbed.
- (d) Both situations would cause overheads to be under-absorbed.

ACCA Financial Information for management

4.12 The following data are to be used for sub-questions (i) and (ii) below:

Budgeted labour hours	8500
Budgeted overheads	£148 750
Actual labour hours	7925
Actual overheads	£146 200

- (i) Based on the data given above, what is the labour hour overhead absorption rate?
 - (a) £17.00 per hour
 - (b) £17.20 per hour
 - (c) £18.44 per hour
 - (d) £18.76 per hour
- (ii) Based on the data given above, what is the amount of overhead under-absorbed?
 - (a) £2550 under-absorbed
 - (b) £2520 over-absorbed
 - (c) £2550 over-absorbed
 - (d) £7460 under-absorbed

CMA Stage 1

4.13 J Ltd uses standard absorption costing and absorbs production overheads on the basis of standard machine hours. The following budgeted and actual information applied in its last accounting period:

Review problems Review problems allow you to relate and apply the chapter content to various business problems. Fully worked solutions are found in the back of the text.

ABOUT THE WEBSITE

A companion website accompanies

COST AND MANAGEMENT ACCOUNTING 7TH EDITION COLIN DRURY

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- *Student’s manual* – including additional questions and accompanying answers, now available free to download from the website

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- *Instructor’s manual* – including suggested answers to extra review questions found on the student’s side of the site
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CASE STUDIES AVAILABLE FROM THE WEBSITE

The dedicated website for this book includes over 20 case studies. Both students and lecturers can download these case studies from the open access website. The authors of the cases have provided teaching notes for each case and these can be downloaded only by lecturers from the password-protected lecturers' section of the website.

The cases generally cover the content of several chapters and contain questions to which there is no ideal answer. They are intended to encourage independent thought and initiative and to relate and apply the content of this book to more uncertain situations. They are also intended to develop critical thinking and analytical skills. Details relating to the cases that are available from the website are as follows:

Anjo Ltd

Lin Fitzgerald, Loughborough University Business School

Variance analysis that provides the opportunity for the case to be used as a role-playing exercise.

Berkshire Threaded Fasteners Company

John Shank, The Amos Tuck School of Business Administration, Dartmouth College

Cost analysis for dropping a product, for pricing, for product mix and product improvement.

Berkshire Toy Company

D. Crawford and E.G. Henry, State University of New York (SUNY) at Oswego

Variance analysis, performance evaluation, responsibility accounting and the balanced scorecard.

Blessed Farm Partnership

Rona O'Brian, Sheffield Hallam University

Strategic decision-making, evaluation of alternatives, ethics, sources of information.

Bohemia Industries

Colin Drury, Huddersfield University Business School

The application of variable and absorption costing for internal monthly profit reporting.

Chadwick's Department Store

Lewis Gordon, Liverpool John Moores University

The application of budget-building techniques and spreadsheet skills to a retail sector situation.

Company A

Mike Tayles, University of Hull Business School and Paul Walley, Warwick Business School.

Evaluation of a product costing system and suggested performance measures to support key success factors.

Company B

Mike Tayles, University of Hull Business School and Paul Walley, Warwick Business School.

The impact of a change in manufacturing strategy and method upon product costing and performance measurement systems.

Dumbellow Ltd

Stan Brignall, Aston Business School

Marginal costing versus absorption costing, relevant costs and cost-volume-profit analysis.

Edit 4U Ltd

Rona O'Brien, Sheffield Hallam University

The case study explores and evaluates the role of management accounting information in a small business context.

Electronic Boards plc

John Innes, University of Dundee, and Falconer Mitchell, University of Edinburgh

A general case that may be used at an introductory stage to illustrate the basics of management accounting and the role it can play within a firm.

Endeavour Twoplise Ltd

Antony Head, Brenda McDonnell, Jayne Rastrick, Sheffield Hallam University, and Susan Richardson, University of Bradford Management Centre

Functional budget and master budget construction, budgetary control and decision-making.

Fleet Ltd

Lin Fitzgerald, Loughborough University Business School

Outsourcing decision involving relevant costs and qualitative factors.

Global Ltd

Susan Richardson, University of Bradford Management Centre

Cash budgeting, links between cash and profit, pricing/bidding, information system design and behavioural aspects of management control.

Hardhat Ltd

Stan Brignall, Aston Business School

Cost–volume–profit analysis.

High Street Reproduction Furniture Ltd

Antony Head, Rona O'Brian, Jayne Rastrick, Sheffield Hallam University, and Susan Richardson, University of Bradford Management Centre

Relevant costs, strategic decision-making and limiting factors.

Majestic Lodge

John Shank, The Amos Tuck School of Business Administration, Dartmouth College

Relevant costs and cost–volume–profit analysis.

Merrion Products Ltd

Peter Clarke, University College Dublin

Cost–volume–profit analysis, relevant costs and limiting factors.

Moult Hall

Antony Head, Brenda McDonnell, Jayne Rastrick, Sheffield Hallam University, and Susan Richardson, University of Bradford Management Centre

Organizational objectives, strategic decision-making, evaluation of alternatives, relevant costs, debating the profit ethos, break-even analysis.

Oak City

R.W. Ingram and W.C. Parsons, University of Alabama, and W.A. Robbins, Attorney, Pearson and Sutton

Cost allocation in a government setting to determine the amount of costs that should be charged to business for municipal services. The case also includes ethical considerations.

Quality Shopping

Rona O'Brian, Sheffield Hallam University

Departmental budget construction, credit checking, environmental issues, behavioural issues and management control systems.

Rogatec Ltd

Antony Head, Brenda McDonnell, Jayne Rastrick, Sheffield Hallam University, and Susan Richardson, University of Bradford Management Centre

Standard costing and variance analysis, budgets, ethics, sources of information.

The Beta Company

Peter Clarke, University College Dublin

Cost estimation involving regression analysis and relevant costs.

Traditions Ltd

Antony Head, Brenda McDonnell, Jayne Rastrick, Sheffield Hallam University, and Susan Richardson, University of Bradford Management Centre

Relevant cost analysis relating to a discontinuation decision and budgeting.

CENGAGE **brain**.com

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