

IFRS Standards Edition

BUSINESS ANALYSIS AND VALUATION

Krishna G. Palepu
Paul M. Healy
Erik Peek

IFRS Standards Edition

BUSINESS ANALYSIS AND VALUATION



Krishna G. Palepu
Paul M. Healy
Erik Peek

***Business Analysis and Valuation:
IFRS Standards edition, 5th Edition***
**Krishna G. Palepu, Paul M. Healy
& Erik Peek**

Publisher: Annabel Ainscow

List Manager: Jenny Grene

Marketing Manager: Sophie Clarke

Senior Content Project Manager:
Sue Povey

Manufacturing Buyer: Elaine Bevan

Typesetter: SPI Global

Text Design: Design Deluxe Ltd

Cover design: Simon Levy Associates

Cover Image(s): nats77/Getty Images

© 2019, Cengage Learning EMEA

ALL RIGHTS RESERVED. No part of this work covered by the copyright herein may be reproduced or distributed in any form or by any means, except as permitted by U.S. copyright law, without the prior written permission of the copyright owner.

While the publisher has taken all reasonable care in the preparation of this book, the publisher makes no representation, express or implied, with regard to the accuracy of the information contained in this book and cannot accept any legal responsibility or liability for any errors or omissions from the book or the consequences thereof.

Products and services that are referred to in this book may be either trademarks and/or registered trademarks of their respective owners. The publishers and author/s make no claim to these trademarks. The publisher does not endorse, and accepts no responsibility or liability for, incorrect or defamatory content contained in hyperlinked material.

All the URLs in this book are correct at the time of going to press; however the Publisher accepts no responsibility for the content and continued availability of third party websites.

For product information and technology assistance,
contact emea.info@cengage.com

For permission to use material from this text or
product, and for permission queries,
email emea.permissions@cengage.com

British Library Cataloguing-in-Publication Data

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

ISBN: 978-1-4737-5842-1

Cengage Learning EMEA

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

Cengage Learning products are represented in Canada by Nelson
Education Ltd.

For your lifelong learning solutions, visit www.cengage.co.uk

Purchase your next print book or e-book at
www.cengagebrain.com

Brief contents

PART I

Framework 1

- 1 A framework for business analysis and valuation using financial statements 2

PART II

Business analysis and valuation tools 45

- 2 Strategy analysis 46
- 3 Accounting analysis: The basics 78
- 4 Accounting analysis: Accounting adjustments 118
- 5 Financial analysis 174
- 6 Prospective analysis: Forecasting 232
- 7 Prospective analysis: Valuation theory and concepts 274
- 8 Prospective analysis: Valuation implementation 312

PART III

Business analysis and valuation applications 357

- 9 Equity security analysis 358
- 10 Credit analysis and distress prediction 386
- 11 Mergers and acquisitions 417

PART IV

Additional cases 459

Contents

Preface viii
Acknowledgements xii
Authors xiii
Digital Support Resources xiv

PART I

Framework 1

1 A framework for business analysis and valuation using financial statements 2

The role of financial reporting in capital markets 2
From business activities to financial statements 4
Influences of the accounting system on information quality 5

Feature 1: Accrual accounting 5
Feature 2: Accounting conventions and standards 7
Feature 3: Managers' reporting strategy 8
Feature 4: Auditing, legal liability, and public enforcement 9

Alternative forms of communication with investors 10
Analyst meetings 11
Voluntary disclosure 12

From financial statements to business analysis 12
Analysis step 1: Business strategy analysis 14
Analysis step 2: Accounting analysis 14
Analysis step 3: Financial analysis 15
Analysis step 4: Prospective analysis 15

Public versus private corporations 15

Summary 16

Core concepts 16

Questions, exercises, and problems 18

Problem 1 The Neuer Markt 18

Problem 2 Fair value accounting for financial instruments 20

Notes 21

Appendix: Defining Europe 23

CASE The role of capital market intermediaries in the dot-com crash of 2000 25

PART II

Business analysis and valuation tools 45

2 Strategy analysis 46

Industry analysis 46

Degree of actual and potential competition 46
Bargaining power in input and output markets 50

Applying industry analysis: The european airline industry 51

Competition in the european airline industry 51
The power of suppliers and buyers 52
Limitations of industry analysis 53

Competitive strategy analysis 53

Sources of competitive advantage 53
Achieving and sustaining competitive advantage 55
Applying competitive strategy analysis 56

Corporate strategy analysis 57

Sources of value creation at the corporate level 57
Applying corporate strategy analysis 59

Summary 60

Core concepts 61

Questions, exercises, and problems 61

Problem 1 The European airline industry 62

Notes 64

CASE Akris: Competition in the high-end fashion industry 65

3 Accounting analysis: The basics 78

Factors influencing accounting quality 78

Noise from accounting rules 78

Forecast errors 79

Managers' accounting choices 79

Steps in accounting analysis 80

Step 1: Identify key accounting policies 81

Step 2: Assess accounting flexibility 81

Step 3: Evaluate accounting strategy 82

Step 4: Evaluate the quality of disclosure 83

- Step 5: Identify potential red flags 84
- Step 6: Recast financial statements and undo accounting distortions 85

Recasting financial statements 86

- Some complications 86
- Categories of financial statement items 87

Accounting analysis pitfalls 95

- Conservative accounting is not "good" accounting 95
- Not all unusual accounting is questionable 96
- Common accounting standards are not the same as common accounting practices 96

Value of accounting data and accounting analysis 96

Summary 97

Core concepts 97

Questions, exercises, and problems 98

Problem 1 Key accounting policies 99

Problem 2 Fashion retailers' key accounting policies 99

Problem 3 Euro Disney and the first five steps of accounting analysis 100

Notes 102

Appendix A: First-time adoption of IFRS Standards 104

Appendix B: Recasting financial statements into standardized templates 105

CASE Toshiba: Accounting fraud 111

4 Accounting analysis: Accounting adjustments 118

Recognition of assets 118

- Who owns or controls resources? 119
- Can economic benefits be measured with reasonable certainty? 120
- Have fair values of assets declined below book value? 120
- Are fair value estimates accurate? 121

Asset distortions 122

Recognition of liabilities 140

- Has an obligation been incurred? 140
- Can the obligation be measured? 140

Liability distortions 141

Equity distortions 147

- Contingent claims 147

Summary 148

Core concepts 149

Questions, exercises, and problems 150

Problem 1 Impairment of non-current assets 153

Problem 2 Audi, BMW, and Skoda's research and development 153

Problem 3 H&M and Inditex's non-current assets 155

Notes 156

CASE Accounting for the iPhone Upgrade Program (A) 158

5 Financial analysis 174

Ratio analysis 174

- Measuring overall profitability 178
- Decomposing profitability: Traditional approach 179
- Decomposing profitability: Alternative approach 180
- Assessing operating management: Decomposing net profit margins 184
- Evaluating investment management: Decomposing asset turnover 188
- Evaluating financial management: Financial leverage 191
- Putting it all together: Assessing sustainable growth rate 194
- Historical patterns of ratios for European firms 197

Cash flow analysis 197

- Cash flow and funds flow statements 197
- Analyzing cash flow information 199
- Analysis of Hennes & Mauritz's and Inditex's cash flow 202

Summary 203

Core concepts 203

Questions, exercises, and problems 205

Problem 1 ROE decomposition 205

Problem 2 Ratios of three fashion retailers 208

Problem 3 The Fiat Group in 2008 211

Problem 4 Ahold versus Delhaize 213

Notes 215

Appendix: Hennes & Mauritz AB financial statements 216

CASE Carrefour S.A. 221

6 Prospective analysis: Forecasting 232

The overall structure of the forecast 232

- A Practical Framework for Forecasting 233
- Information for forecasting 234

Performance behavior: A starting point 235

- Revenue growth behavior 236
- Earnings behavior 236
- Returns on equity behavior 237
- The behavior of components of ROE 238

Forecasting assumptions 239

- Background: Macroeconomic and industry growth 239
- Revenue growth 240
- NOPAT margins 243
- Working capital to revenue 245
- Non-current assets to revenue 246
- Non-operating investments 247

Capital structure	247
From assumptions to forecasts	247
Cash flow forecasts	250
Sensitivity analysis	250
Seasonality and interim forecasts	251
Summary	252
Core concepts	252
Questions, exercises, and problems	253
Problem 1 Predicting Tesco's 2017/2018 earnings	254
Notes	257
Appendix: The behavior of components of ROE	257
CASE Forecasting earnings and earnings growth in the European oil and gas industry	260
7 Prospective analysis: Valuation theory and concepts	274
Defining value for shareholders	275
The discounted cash flow model	276
The discounted abnormal profit model	278
Accounting methods and discounted abnormal profit	279
The discounted abnormal profit growth model	280
Valuation using price multiples	285
Main issues with multiple-based valuation	285
Determinants of value-to-book and value-earnings multiples	286
Shortcut forms of profit-based valuation	289
Abnormal profit (growth) simplification	289
ROE and growth simplifications	291
Comparing valuation methods	291
Focus on different issues	292
Differences in required structure	292
Differences in terminal value implications	292
Summary	294
Core Concepts	294
Summary of notations used in this chapter	295
Questions, exercises, and problems	296
Problem 1 Estimating Hugo Boss's equity value	297
Problem 2 Estimating Adidas's equity value	298
Notes	299
Appendix A: Asset valuation methodologies	300
Appendix B: Reconciling the discounted dividends, discounted abnormal profit, and discounted abnormal profit growth models	301
CASE Valuation Multiples in Fast Fashion	303

8 Prospective analysis: Valuation implementation 312

Computing a discount rate	312
Estimating the cost of equity	313
Estimating the required return on net operating assets	318
Estimating the weighted average cost of capital	318
Detailed forecasts of performance	322
Making performance forecasts for valuing H&M	322
Terminal Values	324
Terminal values with the competitive equilibrium assumption	326
Competitive equilibrium assumption only on incremental revenue	326
Terminal value with persistent abnormal performance and growth	326
Terminal value based on a price multiple	327
Selecting the terminal year	328
Estimates of Hennes & Mauritz's terminal value	328
Computing Estimated Values	329
From asset values to equity values	331
Asset valuation versus equity valuation	333
Value estimates versus market values	334
Sensitivity analysis	334
Some practical issues in valuation	335
Dealing with accounting distortions	335
Dealing with negative book values	335
Dealing with excess cash flow	336
Summary	336
Core concepts	337
Questions, exercises, and problems	338
Problem 1 Hugo Boss's and Adidas's terminal values	339
Problem 2 Anheuser-Busch InBev S.A.	339
Notes	340
CASE Ferrari: The 2015 Initial Public Offering	341

PART III

Business analysis and valuation applications 357

9 Equity security analysis	358
Investor objectives and investment vehicles	358
Equity security analysis and market efficiency	360
Market efficiency and the role of financial statement analysis	360
Market efficiency and managers' financial reporting strategies	361

Evidence of market efficiency 361

Approaches to fund management and securities analysis 361

Active versus passive management 362

Quantitative versus traditional fundamental analysis 362

Formal versus informal valuation 362

The process of a comprehensive security analysis 362

Selection of candidates for analysis 363

Inferring market expectations 363

Developing the analyst's expectations 366

The final product of security analysis 366

Performance of security analysts and fund managers 367

Performance of security analysts 367

Performance of fund managers 368

Summary 369

Core concepts 369

Questions 370

Notes 371

CASE Valuation at Novartis 373

10 Credit analysis and distress prediction 386

Why do firms use debt financing? 386

The market for credit 388

Commercial banks 389

Non-bank financial institutions 389

Public debt markets 389

Sellers who provide financing 390

Country differences in debt financing 390

Country factors and credit types 390

Country factors and the optimal mix of debt and equity 391

The credit analysis process in private debt markets 392

Step 1: Consider the nature and purpose of the loan 393

Step 2: Consider the type of loan and available security 393

Step 3: Conduct a financial analysis of the potential borrower 395

Step 4: Assemble the detailed loan structure, including loan covenants 396

Financial statement analysis and public debt 398

The meaning of debt ratings 398

Factors that drive debt ratings 399

Prediction of distress and turnaround 402

Models for distress prediction 402

Investment opportunities in distressed companies 404

Credit ratings, default probabilities, and debt valuation 404

Summary 407

Core concepts 408

Questions 409

Notes 410

CASE Getronics' debt ratings 411

11 Mergers and acquisitions 417

Motivation for merger or acquisition 417

Acquisition pricing 420

Analyzing premium offered to target shareholders 420

Analyzing value of the target to the acquirer 421

DuPont's pricing of Danisco 424

Acquisition financing and form of payment 424

Effect of form of payment on acquiring shareholders 424

Effect of form of payment on target shareholders 426

DuPont's financing of Danisco 426

Acquisition outcome 427

Other potential acquirers 427

Target management entrenchment 428

Antitrust and security issues 429

Analysis of outcome of DuPont's offer for Danisco 429

Reporting on mergers and acquisitions: Purchase price allocations 430

Danisco's purchase price allocation 432

Summary 441

Core concepts 441

Questions 442

Notes 443

CASE Glencore/Xstrata: Playing Aida's Triumphant March on Top of the Everest 445

PART IV

Additional cases 459

1 Enforcing financial reporting standards: The case of White Pharmaceuticals AG 460

2 KarstadtQuelle AG 468

3 Tesco: From Troubles to Turnaround 479

4 Valuing Europe's fastest growing company: HelloFresh in 2017 490

5 Spotify's direct-listing IPO 499

6 The Air France-KLM merger 519

7 Measuring impairment at Dofasco 539

8 The initial public offering of PartyGaming Plc 558

9 Two European hotel groups (A): Equity analysis 568

10 Two European hotel groups (B): Debt analysis 577

11 Fiat Group's first-time adoption of IFRS Standards 582

Index 599

Preface

Financial statements are the basis for a wide range of business analyses. Managers use them to monitor and judge their firms' performance relative to competitors, to communicate with external investors, to help judge what financial policies they should pursue, and to evaluate potential new businesses to acquire as part of their investment strategy. Securities analysts use financial statements to rate and value companies they recommend to clients. Bankers use them in deciding whether to extend a loan to a client and to determine the loan's terms. Investment bankers use them as a basis for valuing and analyzing prospective buyouts, mergers, and acquisitions. And consultants use them as a basis for competitive analysis for their clients. Not surprisingly, therefore, there is a strong demand among business students for a course that provides a framework for using financial statement data in a variety of business analysis and valuation contexts. The purpose of this book is to provide such a framework for business students and practitioners. This IFRS Standards edition is the European adaptation of the authoritative US edition – authored by Krishna G. Palepu and Paul M. Healy – that has been used in Accounting and Finance departments in universities around the world. In 2007 we decided to write the first IFRS Standards edition because of the European business environment's unique character and the introduction of mandatory IFRS Standards reporting for public corporations in the European Union. This fifth IFRS Standards edition is a thorough update of the successful fourth edition, incorporating new examples, cases, problems and exercises, and regulatory updates.

This IFRS Standards edition

Particular features of the IFRS Standards edition are the following:

- A large number of examples support the discussion of business analysis and valuation throughout the chapters. The examples are from (mostly European) companies that students will generally be familiar with, such as Audi, BMW, British American Tobacco, BP, Carlsberg, Deutsche Telekom, easyGroup, Hennes and Mauritz, Lufthansa, Renault, Sanofi, Société Générale, and Tesco.
- The chapters dealing with accounting analysis (Chapters 3 and 4) prepare students for the task of analyzing IFRS Standards-based financial statements. All numerical examples of accounting adjustments in Chapter 4 describe adjustments to IFRS Standards-based financial statements. Further, throughout the book we discuss various topics that are particularly relevant to understanding IFRS Standards-based (European) financial reports, such as: the classification of expenses by nature and by function; a principles-based approach versus a rules-based approach to standard setting; the first-time adoption of IFRS Standards; cross-country differences and similarities in external auditing and public enforcement, and cross-country differences in financing structures.
- The terminology that we use throughout the chapters is consistent with the terminology that is used in the IFRS Standards.
- Throughout the chapters, we describe the average performance and growth ratios, the average time-series behavior of these ratios, and average financing policies of a sample of close to 7,800 firms that have been listed on European public exchanges between 1998 and 2017.
- The financial analysis and valuation chapters (Chapters 5-8) focus on firms in the apparel retail sector, primarily Hennes & Mauritz and Inditex. Throughout these chapters, we explicitly differentiate between analyzing and valuing operations and analyzing and valuing non-operating investments. Further, Chapter 8 explicitly discusses implementation differences between equity-based and asset-based valuation approaches.

- Chapter 10 on credit analysis includes a discussion of how credit ratings and default probability estimates can be used in debt valuation. Chapter 11 on M&A analysis includes a discussion on how to perform a purchase price allocation using the tools and techniques from Chapters 5 through 8.
- Data, analyses, problems, and examples have been thoroughly updated in the fifth edition.
- We have updated some of the fourth IFRS Standards edition's cases ('Carrefour SA,' 'Forecasting Earnings and Earnings Growth in the European Oil and Gas Industry,' 'Two European Hotel Groups') and have included eight new cases: 'Akris: Competition in the High-End Fashion Industry,' 'Toshiba: Accounting Fraud,' 'Accounting for the iPhone Upgrade Program,' 'Valuation Multiples in Fast Fashion,' 'Ferrari: The 2015 Initial Public Offering,' 'Tesco: From Troubles to Turnaround,' 'Spotify's Direct Listing IPO,' and 'Valuing Europe's fastest growing company: HelloFresh in 2017.'

Key features

This book differs from other texts in business and financial analysis in a number of important ways. We introduce and develop a framework for business analysis and valuation using financial statement data. We then show how this framework can be applied to a variety of decision contexts.

FRAMEWORK FOR ANALYSIS

We begin the book with a discussion of the role of accounting information and intermediaries in the economy, and how financial analysis can create value in well-functioning markets (Chapter 1). We identify four key components, or steps, of effective financial statement analysis:

- Business strategy analysis
- Accounting analysis
- Financial analysis
- Prospective analysis

The first step, business strategy analysis (Chapter 2), involves developing an understanding of the business and competitive strategy of the firm being analyzed. Incorporating business strategy into financial statement analysis is one of the distinctive features of this book. Traditionally, this step has been ignored by other financial statement analysis books. However, we believe that it is critical to begin financial statement analysis with a company's strategy because it provides an important foundation for the subsequent analysis. The strategy analysis section discusses contemporary tools for analyzing a company's industry, its competitive position and sustainability within an industry, and the company's corporate strategy.

Accounting analysis (Chapters 3 and 4) involves examining how accounting rules and conventions represent a firm's business economics and strategy in its financial statements, and, if necessary, developing adjusted accounting measures of performance. In the accounting analysis section, we do not emphasize accounting rules. Instead we develop general approaches to analyzing assets, liabilities, entities, revenues, and expenses. We believe that such an approach enables students to effectively evaluate a company's accounting choices and accrual estimates, even if students have only a basic knowledge of accounting rules and standards. The material is also designed to allow students to make accounting adjustments rather than merely identify questionable accounting practices.

Financial analysis (Chapter 5) involves analyzing financial ratio and cash flow measures of the operating, financing, and investing performance of a company relative to either key competitors or historical performance. Our distinctive approach focuses on using financial analysis to evaluate the effectiveness of a company's strategy and to make sound financial forecasts.

Finally, under prospective analysis (Chapters 6–8) we show how to develop forecasted financial statements and how to use these to make estimates of a firm's value. Our discussion of valuation includes traditional discounted cash flow models as well as techniques that link value directly to accounting numbers. In discussing accounting-based

valuation models, we integrate the latest academic research with traditional approaches such as earnings and book value multiples that are widely used in practice.

While we cover all four steps of business analysis and valuation in the book, we recognize that the extent of their use depends on the user's decision context. For example, bankers are likely to use business strategy analysis, accounting analysis, financial analysis, and the forecasting portion of prospective analysis. They are less likely to be interested in formally valuing a prospective client.

APPLICATION OF THE FRAMEWORK TO DECISION CONTEXTS

The next section of the book shows how our business analysis and valuation framework can be applied to a variety of decision contexts:

- Securities analysis (Chapter 9)
- Credit analysis and distress prediction (Chapter 10)
- Merger and acquisition analysis (Chapter 11)

For each of these topics we present an overview to provide a foundation for the class discussions. Where possible we discuss relevant institutional details and the results of academic research that are useful in applying the analysis concepts developed earlier in the book. For example, the chapter on credit analysis shows how banks and rating agencies use financial statement data to develop analysis for lending decisions and to rate public debt issues. This chapter also presents academic research on how to determine whether a company is financially distressed.

Using the book

We designed the book so that it is flexible for courses in financial statement analysis for a variety of student audiences – MBA students, Masters in Accounting or Finance students, Executive Program participants, and undergraduates in accounting or finance. Depending upon the audience, the instructor can vary the manner in which the conceptual materials in the chapters, end-of-chapter questions, and case examples are used. To get the most out of the book, students should have completed basic courses in financial accounting, finance, and either business strategy or business economics. The text provides a concise overview of some of these topics, primarily as background for preparing the cases. But it would probably be difficult for students with no prior knowledge in these fields to use the chapters as stand-alone coverage of them.

If the book is used for students with prior working experience or for executives, the instructor can use almost a pure case approach, adding relevant lecture sections as needed. When teaching students with little work experience, a lecture class can be presented first, followed by an appropriate case or other assignment material. It is also possible to use the book primarily for a lecture course and include some of the short or long cases as in-class illustrations of the concepts discussed in the book. Alternatively, lectures can be used as a follow-up to cases to more clearly lay out the conceptual issues raised in the case discussions. This may be appropriate when the book is used in undergraduate capstone courses. In such a context, cases can be used in course projects that can be assigned to student teams.

Companion website

A companion website accompanies this book. This website contains the following valuable material for instructors and students:

- Instructions for how to easily produce standardized financial statements in Excel.
- Spreadsheets containing: (1) the reported and standardized financial statements of Hennes & Mauritz (H&M) and Inditex; (2) calculations of H&M's and Inditex's ratios (presented in Chapter 5); (3) H&M's forecasted

financial statements (presented in Chapter 6); and (4) valuations of H&M's shares (presented in Chapter 8). Using these spreadsheets students can easily replicate the analyses presented in Chapters 5 through 8 and perform "what-if" analyses – i.e., to find out how the reported numbers change as a result of changes to the standardized statements or forecasting assumptions.

- Spreadsheets containing case material.
- Answers to the discussion questions and case instructions (for instructors only).
- A complete set of lecture slides (for instructors only).

Accompanying teaching notes to some of the case studies can be found at www.harvardbusiness.org or www.thecasecentre.org. Lecturers are able to register to access the teaching notes and other relevant information.