Introduction to Valuation

Module Introduction and Overview

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1 Introduction to the Module

This module introduces concepts and tools for valuing companies in a consistent manner. You should find it useful as a starting point and guide for analysing the performance of companies and industries of your interest, and for interpreting and assessing valuations.

The module should be useful for practitioners working in various market environments – from developed countries to emerging markets, from services to manufacturing industries, and from the viewpoints of managers to the desks of stock analysts.

The field of valuation has evolved over time, along with the changing nature of markets, firms and corporations. While much of the development in this area is encouraged by the need to measure company performance and profitability for the purpose of equity price valuation, valuation is also useful for understanding business conditions and the drivers behind them, for evaluating your own and competing companies, for peers in the industry, and even for suppliers and customers along the production chain.

While the module is meant to apply to various business settings, certain assumptions underline the material:

- that the markets perform well, close to perfect competition and complete information
- that the business decisions that result in corporate performance are made in the best interests of stakeholders
- that the processes of valuation are done with the correct information and for all possible scenarios.

The main part of this module takes a deterministic approach to valuing companies, in which the valuation assumes away most of the errors, randomness, and mismeasurement in the company's financial information. While the module introduces several sensitivity and scenario analyses, you are reminded, where applicable, of the shortcomings of the basic models and the key limitations of the approaches taken. This module focuses on the baseline analysis so that you have an understanding of the tools and concepts necessary for pursuing further more advanced materials.

When you work through the module materials, there are various exercises based upon the key text, the module readings and the unit content. These are designed to consolidate your knowledge and skills. We recommend that you do the exercises, most of which take half an hour or less, before you look at the answers that are provided in the unit text.

At certain points we will ask you to reflect on various aspects of the valuation process in relation to companies with which you are familiar. It will be valuable for you and your fellow students to share these reflections on the VLE. Short notes setting out the issue and the approach will enrich your experience of the module.

Please feel free to raise queries with your tutor and with your fellow students, if there are things that are not clear to you. Do this as soon as you find a problem, because waiting will hold you up as you work through the module. We hope that you will find the module instructive, useful and challenging.

2 The Module Authors

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Pasquale Scaramozzino is a Professor of Economics at the Centre for Financial and Management Studies, SOAS, University of London. Professor Scaramozzino has taught at the University of Bristol, at University College London and at Università di Roma 'Tor Vergata'. His research articles in finance and in economics have been published in several academic journals, including *Applied Economics*, *Economica*, *The Economic Journal*, *Empirical Economics*, *Journal of Comparative Economics*, *Journal of Development Economics*, *Journal of Environmental Economics and Management*, *Journal of Industrial Economics*, *Journal of Population Economics*, *The Manchester School*, *Metroeconomica*, *Oxford Bulletin of Economics and Statistics*, *Oxford Economic Papers*, *Oxford Review of Economic Policy* and *Structural Change and Economic Dynamics*. He has also published extensively in medical statistics. Professor Scaramozzino has contributed to several CeFiMS modules, including *Mathematics and Statistics for Economists*, *Portfolio Analysis and Derivatives*, *Quantitative Methods for Financial Management, Managerial Economics*, and *Risk Management: Principles and Applications*.

Jonathan Simms is a tutor for CeFiMS, and has taught at University of Manchester, University of Durham and University of London. Dr Simms has contributed to development of various CeFiMS modules including *Econometric Principles & Data Analysis*, *Econometric Analysis & Applications*, *Financial Econometrics*, *Risk Management: Principles & Applications*, *Public Financial Management: Reporting and Audit*, *Banking Strategy*, *Introduction to Law and to Finance*, and *Advanced Topics in Valuation*.

3 Study Resources

This study guide is your main learning resource for the module as it directs your study through eight study units. Each unit has recommended reading either from the key text or from supplementary module readings.

Key text

Tim Koller, Marc Goedhart and David Wessels (2015) *Valuation. Measuring and Managing the Value of Companies*. 6th Edition, Hoboken NJ: John Wiley & Sons.

Module readings

The module readings consist of academic journals and financial papers. You will be advised in the study guide when to read these and what to focus on when reading from them.

4 Module Overview

Unit 1 Foundations of Value Creation

1.1 Introduction
1.2 Why Study 'Value'?
1.3 Growth and Return on Invested Capital (ROIC)
1.4 The Maths of Value Creation
1.5 The Conservation of Value
1.6 Risk and Value Creation
1.7 Expectations and Why Shareholder Expectations Become a Treadmill
1.8 Decomposing Total Returns to Shareholders
1.9 Conclusion

Unit 2 Sources of Value Creation

2.1 Introduction
2.2 Drivers of Return on Invested Capital
2.3 Competitive Advantage
2.4 The Sustainability of ROIC
2.5 Drivers of Revenue Growth
2.6 Growth and Value Creation
2.7 The Difficulty of Sustaining Growth
2.8 Conclusion

Unit 3 Framework and Organisation of Valuation

3.1 Introduction
3.2 Enterprise Discounted Cash Flow Model
3.3 Economic Profit Valuation Model
3.4 Adjusted Present Value Model
3.5 Reorganising the Accounting Statements
3.6 Conclusion

Unit 4 Performance Analysis

4.1 Introduction
4.2 Analysing ROIC
4.3 Analysing Growth
4.4 Credit Health and Capital Structure

Unit 1 introduces the foundations of value creation. You will learn how a long-run perspective supports value creation for companies and the economy. You will also study how the return on invested capital and growth rate affect a company's cash flow, and how the expectations treadmill affects managers' ability to deliver total returns to shareholders.

Unit 2 examines two drivers of value creation – the returns on invested capital, and growth. In this unit you will study a detailed analysis of returns on invested capital. The unit considers how the return on invested capital is driven by corporate strategy and competition among firms in a similar industry. You will also examine the importance of growth and what determines the sustainability of growth across firms and industries.

Unit 3 introduces the core valuation techniques. You will examine a step-by-step procedure for valuing a company. The unit discusses three valuation techniques: enterprise discounted cash flow, discounted economic profit, and adjusted present value method, and when to use them. The unit also includes a consideration of how to reorganise the financial statements for an analysis of economic performance.

In **Unit 4** you will study how to analyse historical performance and identify sources of value. You will learn the steps involved in analysing the return on invested capital, revenue growth and financial health. The unit then focuses on the mechanics of forecasting over an explicit forecast period, and estimating and interpreting continuing value.

Unit 5 discusses how to define the weighted average cost of capital (WACC) so that it correctly measures the opportunity cost of investment. We describe the components of WACC and discuss how to estimate the cost of equity, cost of debt, and target capital structure. You will then learn how to estimate enterprise value, equity value, and value per share, based on core operating value and an understanding of capital structure.

Unit 6 illustrates ways of checking the robustness of the valuation methods. It explains how to use key uncertainties that affect the company's future to construct a range of alternative forecasts using scenario analysis. The unit also describes multiple analysis, where critical firm ratios – for example, the ratio of enterprise value to next year's projected EBITA (earnings before interest, taxes and amortisation) are compared to those of similar firms to identify differences in forecast performance.

Unit 7 discusses to what extent stock market valuations are related to fundamental values both in the long run and in the short term. It also explains how stock market valuation is related to measures of real value creation, such as ROIC and growth, rather than to such indicators of cash flows as earnings per share.

Unit 8 critically examines the view that stock markets are informationally efficient. It analyses the empirical evidence on deviations of stock market valuations from intrinsic values and considers alternative forms of market mispricing, which could result in bubbles and bursts. It discusses the main principles of behavioural finance and its managerial implications for investors.

5 Learning Outcomes

When you have completed your study of this module, you will be able to:

- discuss the importance of value to the performance of companies and economies, and differentiate between activities that create value and those that do not
- explain how to calculate the Return On Invested Capital (ROIC), why a high ROIC can be sustained by a competitive advantage, and the role of pricing advantages and cost advantages in value creation
- provide a proper assessment and organisation of financial statements
- analyse ROIC and revenue growth and assess the financial health of a company with respect to its ability to take on short-term and long-term projects
- construct forecasts for an explicit forecast period, and estimate continuing value
- denote the properties of WACC, how to estimate it, and alternative ways to calculate its components, and its limitations
- provide a verification of valuation results and sensitivity analysis which helps confirm the value drivers of a company under a broad set of conditions
- identify the economic fundamentals of value – the return on invested capital and expected revenue growth
- explain what is meant by behavioural finance, distinguish between informed investors and noise traders and discuss the main managerial implications of market efficiency.