

Contents

| | |
|--|-----------|
| Foreword | VII |
| Preface | IX |
| Executive summary | XI |
| Brief contents | XIII |
| Contents..... | XV |
| List of figures | XIX |
| List of tables | XXI |
| Notations and abbreviations..... | XXIII |
| 1 Introduction | 1 |
| 1.1 Motivation | 1 |
| 1.2 Research idea..... | 5 |
| 1.2.1 Research questions for the theoretical part..... | 5 |
| 1.2.2 Research questions for the empirical part | 7 |
| 1.2.3 Research design of the empirical study | 10 |
| 1.3 Outline of the book..... | 11 |
| 2 Literature review..... | 13 |
| 2.1 Coverage in standard literature..... | 13 |
| 2.2 Empirical research..... | 15 |
| 2.2.1 Valuation accuracy of the multiples valuation method | 15 |
| 2.2.2 Selection of value relevant measures | 16 |
| 2.2.3 Identification of comparable firms | 17 |
| 2.2.4 Industry-preferred multiples | 19 |
| 2.2.5 Combination of multiples | 19 |
| 2.3 Contribution to prior research | 20 |

| | |
|--|-----------|
| 3 Theoretical foundations | 22 |
| 3.1 Theoretical concept of fundamental equity valuation models..... | 22 |
| 3.1.1 Dividend discount model | 23 |
| 3.1.2 Discounted cash flow model..... | 24 |
| 3.1.3 Residual income valuation model..... | 27 |
| 3.1.4 Abnormal earnings growth model | 29 |
| 3.2 Derivation of intrinsic multiples | 31 |
| 3.2.1 Intrinsic P/E multiple derived from the DDM | 32 |
| 3.2.2 Intrinsic EV/EBIT multiple derived from the DCF model | 33 |
| 3.2.3 Intrinsic P/B multiple derived from the RIV model | 35 |
| 3.3 Market multiples | 38 |
| 3.3.1 Definition and categorization of market multiples | 38 |
| 3.3.2 Common equity value and entity value multiples | 41 |
| 3.3.3 Alternative multiples..... | 43 |
| 3.3.4 Trailing and forward-looking multiples..... | 47 |
| 4 Comprehensive multiples valuation..... | 48 |
| 4.1 The standard multiples valuation method and its criticism | 48 |
| 4.1.1 Concept of the multiples valuation method | 48 |
| 4.1.2 Four step valuation process..... | 49 |
| 4.1.3 Strengths and weaknesses of the standard multiples method | 53 |
| 4.2 Selection of value relevant measures..... | 56 |
| 4.2.1 Equity value versus entity value multiples | 57 |
| 4.2.2 Industry specific multiples..... | 62 |
| 4.2.3 Time reference of value drivers | 65 |
| 4.2.4 Criteria for the selection of value relevant measures..... | 66 |
| 4.3 Identification of comparable firms | 68 |
| 4.3.1 Industry classification systems | 69 |
| 4.3.2 Assessment of comparability | 70 |
| 4.3.3 Size of the peer group | 72 |
| 4.3.4 Criteria for the identification of comparable firms..... | 73 |
| 4.4 Estimation of synthetic peer group multiples | 74 |

| | | |
|----------|--|-----------|
| 4.5 | Actual valuation | 76 |
| 4.5.1 | Ratio analysis..... | 76 |
| 4.5.2 | Adjustment factor | 78 |
| 4.6 | Two-factor multiples valuation model | 80 |
| 4.6.1 | Decision relevant multiples and hedging multiples..... | 80 |
| 4.6.2 | Combination of two decision relevant multiples..... | 81 |
| 5 | Design of the empirical study | 84 |
| 5.1 | The concept of value relevance | 84 |
| 5.1.1 | Definition, interpretation, implementation | 84 |
| 5.1.2 | The link between value relevance and market efficiency | 86 |
| 5.2 | Research hypotheses..... | 88 |
| 5.3 | Research methodology | 89 |
| 5.3.1 | Methodology using single multiples | 90 |
| 5.3.2 | Methodology using combined multiples | 92 |
| 5.4 | Data and sample | 93 |
| 6 | Empirical results | 98 |
| 6.1 | Cross-sectional analysis | 98 |
| 6.1.1 | Absolute valuation accuracy..... | 98 |
| 6.1.2 | Equity value versus entity value multiples..... | 101 |
| 6.1.3 | Knowledge-related versus traditional multiples..... | 104 |
| 6.1.4 | Forward-looking versus trailing multiples | 106 |
| 6.1.5 | The effect of industry fineness | 110 |
| 6.2 | Industry analysis..... | 113 |
| 6.2.1 | Industry-preferred multiples | 114 |
| 6.2.2 | Single versus combined multiples | 117 |
| 6.3 | Evaluation of empirical results..... | 121 |
| 6.3.1 | Validation using U.S. data..... | 121 |
| 6.3.2 | Limitations..... | 124 |

| | |
|--|------------|
| 7 Conclusion | 127 |
| 7.1 Summary of findings | 127 |
| 7.2 Implications for practice | 129 |
| 7.3 Research outlook..... | 130 |
| Appendix A: ICB industry classification structure | 131 |
| Appendix B: U.S. evidence | 135 |
| Appendix C: Definition of variables..... | 151 |
| References | 155 |