## Contents

**Preface**

**Dedication and Acknowledgments**

### PART I  Introduction

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Winning through Mergers and Acquisitions</td>
<td>3</td>
</tr>
<tr>
<td>Critical Values Shareholders Overlook</td>
<td>5</td>
</tr>
<tr>
<td>Stand-Alone Fair Market Value</td>
<td>6</td>
</tr>
<tr>
<td>Investment Value to Strategic Buyers</td>
<td>8</td>
</tr>
<tr>
<td>Win–Win Benefits of Merger and Acquisition</td>
<td>10</td>
</tr>
<tr>
<td>Computation of Cavendish's Stand-Alone, Fair Market Value</td>
<td>11</td>
</tr>
<tr>
<td>Investment Value to Strategic Buyer</td>
<td>12</td>
</tr>
</tbody>
</table>

### PART II  Building Value

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Building Value and Measuring Return on Investment in a Private Company</td>
<td>17</td>
</tr>
<tr>
<td>Public Company Value Creation Model</td>
<td>17</td>
</tr>
<tr>
<td>Computing Private Company Value Creation and ROI</td>
<td>19</td>
</tr>
<tr>
<td>Analyzing Value Creation Strategies</td>
<td>35</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Market and Competitive Analysis</td>
<td>41</td>
</tr>
<tr>
<td>Linking Strategic Planning to Building Value</td>
<td>43</td>
</tr>
<tr>
<td>Assessing Specific Company Risk</td>
<td>48</td>
</tr>
<tr>
<td>Competitive Factors Frequently Encountered in Nonpublic Entities</td>
<td>53</td>
</tr>
<tr>
<td>Financial Analysis</td>
<td>54</td>
</tr>
<tr>
<td>Conclusion</td>
<td>59</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Merger and Acquisition Market and Planning Process</td>
<td>61</td>
</tr>
<tr>
<td>Common Seller and Buyer Motivations</td>
<td>64</td>
</tr>
<tr>
<td>Why Mergers and Acquisitions Fail</td>
<td>65</td>
</tr>
</tbody>
</table>
Sales Strategy and Process 67
Acquisition Strategy and Process 78
Due Diligence Preparation 86

CHAPTER 5
Measuring Synergies 91
Synergy Measurement Process 92
Key Variables in Assessing Synergies 95
Synergy and Advance Planning 96

PART III Measuring Value 99
CHAPTER 6
Valuation Approaches and Fundamentals 101
Business Valuation Approaches 101
Using the Invested Capital Model to Define the Investment Being Appraised 103
Why Net Cash Flow Measures Value Most Accurately 104
Frequent Need to Negotiate from Earnings Measures 106
Financial Statement Adjustments 109
Managing Investment Risk in Merger and Acquisition 112
Conclusion 117

CHAPTER 7
Income Approach: Using Expected Future Returns to Establish Value 119
Why Values for Merger and Acquisition Should Be Driven by the Income Approach 119
Two Methods within the Income Approach 121
Three-Stage DCF Model 128
Establishing Defendable Long-Term Growth Rates and Terminal Values 131
DCF Challenges and Applications 133

CHAPTER 8
Cost of Capital Essentials 135
Cost of Debt Capital 136
Cost of Preferred Stock 138
Cost of Common Stock 138
Fundamentals and Limitations of the Capital Asset Pricing Model 139
Modified Capital Asset Pricing Model 142
Build-Up Model 143
## Contents

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Summary of Rate of Return Data</td>
<td>151</td>
</tr>
<tr>
<td>2</td>
<td>Private Cost of Capital</td>
<td>153</td>
</tr>
<tr>
<td>3</td>
<td>International Cost of Capital</td>
<td>156</td>
</tr>
<tr>
<td>4</td>
<td>How to Develop an Equity Cost for a Target Company</td>
<td>157</td>
</tr>
<tr>
<td>5</td>
<td>Reconciling Discount Rates and P/E Multiples</td>
<td>159</td>
</tr>
<tr>
<td>6</td>
<td>Conclusion</td>
<td>161</td>
</tr>
<tr>
<td>7</td>
<td>Appendix 8A Using Specific Company Risk Strategically</td>
<td>162</td>
</tr>
</tbody>
</table>

### CHAPTER 9

<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted Average Cost of Capital</td>
<td>169</td>
</tr>
<tr>
<td>Iterative Weighted Average Cost of Capital Process</td>
<td>170</td>
</tr>
<tr>
<td>Shortcut Weighted Average Cost of Capital Formula</td>
<td>174</td>
</tr>
<tr>
<td>Common Errors in Computing Cost of Capital</td>
<td>176</td>
</tr>
</tbody>
</table>

### CHAPTER 10

<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Approach: Using Guideline Public Companies and M&amp;A Transactions</td>
<td>181</td>
</tr>
<tr>
<td>Transaction Multiple Method</td>
<td>182</td>
</tr>
<tr>
<td>Guideline Public Company Method</td>
<td>186</td>
</tr>
<tr>
<td>Selection of Valuation Multiples</td>
<td>190</td>
</tr>
<tr>
<td>Commonly Used Market Multiples</td>
<td>191</td>
</tr>
</tbody>
</table>

### CHAPTER 11

<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Approach</td>
<td>199</td>
</tr>
<tr>
<td>Book Value versus Market Value</td>
<td>200</td>
</tr>
<tr>
<td>Premises of Value</td>
<td>201</td>
</tr>
<tr>
<td>Use of the Asset Approach to Value Noncontrolling Interests</td>
<td>201</td>
</tr>
<tr>
<td>Adjusted Book Value Method</td>
<td>202</td>
</tr>
<tr>
<td>Specific Steps in Computing Adjusted Book Value</td>
<td>207</td>
</tr>
</tbody>
</table>

### CHAPTER 12

<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting Value through Premiums and Discounts</td>
<td>209</td>
</tr>
<tr>
<td>Applicability of Premiums and Discounts</td>
<td>210</td>
</tr>
<tr>
<td>Application and Derivation of Premiums and Discounts</td>
<td>211</td>
</tr>
<tr>
<td>Apply Discretion in the Size of the Adjustment</td>
<td>213</td>
</tr>
<tr>
<td>Control versus Lack of Control in Income-Driven Methods</td>
<td>215</td>
</tr>
<tr>
<td>Fair Market Value versus Investment Value</td>
<td>215</td>
</tr>
</tbody>
</table>

### CHAPTER 13

<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconciling Initial Value Estimates and Determining Value Conclusion</td>
<td>217</td>
</tr>
<tr>
<td>Essential Need for Broad Perspective</td>
<td>217</td>
</tr>
<tr>
<td>Income Approach Review</td>
<td>220</td>
</tr>
</tbody>
</table>
PART IV  Specialty Issues  241

CHAPTER 14  Exit Planning  243

Why Is Exit Planning So Difficult?  244
Why Should Exit Planning for Your Private Company Begin Now?  249
Exit Planning Process  250
Step 1: Setting Exit Goals  252
Step 2: Owner Readiness  254
Step 3: Type of Exiting Owner  256
Step 4: Exit Options  258
Step 5: Range of Values  263
Step 6: Execution of Exit Plan  265

CHAPTER 15  Art of the Deal  269

Unique Negotiation Challenges  269
Deal Structure: Stock versus Assets  271
Asset Transaction  276
Terms of Sale: Cash versus Stock  279
Personal Goodwill  282
Bridging the Gap  283
See the Deal from the Other Side  286

CHAPTER 16  Fairness Opinions  289

Why Are Fairness Opinions Obtained?  291
The Use of Fairness Opinions by Private Companies  294
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PART 1</strong></td>
<td><strong>Parties Who Prepare Fairness Opinions</strong></td>
<td>295</td>
</tr>
<tr>
<td></td>
<td>Components of a Fairness Opinion</td>
<td>297</td>
</tr>
<tr>
<td></td>
<td>What Fairness Opinions Are Not</td>
<td>301</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>302</td>
</tr>
<tr>
<td></td>
<td>Appendix 16A Sample Fairness Opinion Letter</td>
<td>303</td>
</tr>
<tr>
<td><strong>CHAPTER 17</strong></td>
<td>M&amp;A and Financial Reporting</td>
<td>309</td>
</tr>
<tr>
<td></td>
<td>U.S. GAAP and IFRS</td>
<td>310</td>
</tr>
<tr>
<td></td>
<td>Relevant FASB and IFRS Statements</td>
<td>311</td>
</tr>
<tr>
<td></td>
<td>Reviews by the Audit Firm</td>
<td>312</td>
</tr>
<tr>
<td></td>
<td>ASC 820: Fair Value Measurements</td>
<td>313</td>
</tr>
<tr>
<td></td>
<td>ASC 805: Business Combinations</td>
<td>315</td>
</tr>
<tr>
<td></td>
<td>ASC 350: Goodwill and Other Intangible Assets</td>
<td>325</td>
</tr>
<tr>
<td></td>
<td>Incorporating ASC 805 into the Due Diligence Process</td>
<td>326</td>
</tr>
<tr>
<td></td>
<td>References</td>
<td>329</td>
</tr>
<tr>
<td><strong>CHAPTER 18</strong></td>
<td>Intangible Asset Valuation</td>
<td>331</td>
</tr>
<tr>
<td></td>
<td>Approaches to Valuing Intangible Assets</td>
<td>332</td>
</tr>
<tr>
<td></td>
<td>Key Components to Intangible Asset Valuation</td>
<td>334</td>
</tr>
<tr>
<td></td>
<td>Intangible Asset Valuation Methods</td>
<td>343</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>352</td>
</tr>
<tr>
<td><strong>CHAPTER 19</strong></td>
<td>Measuring and Managing Value in High-Tech Start-Ups</td>
<td>353</td>
</tr>
<tr>
<td></td>
<td>Why Appraisals of High-Tech Start-Ups Are Essential</td>
<td>353</td>
</tr>
<tr>
<td></td>
<td>Key Differences in High-Tech Start-Ups</td>
<td>355</td>
</tr>
<tr>
<td></td>
<td>Value Management Begins with Competitive Analysis</td>
<td>356</td>
</tr>
<tr>
<td></td>
<td>Stages of Development</td>
<td>358</td>
</tr>
<tr>
<td></td>
<td>Risk and Discount Rates</td>
<td>360</td>
</tr>
<tr>
<td></td>
<td>Start-Ups and Traditional Valuation Methods</td>
<td>361</td>
</tr>
<tr>
<td></td>
<td>QED Survey of Valuation Methods Used by Venture Capitalists</td>
<td>367</td>
</tr>
<tr>
<td></td>
<td>A Probability-Weighted Scenario Method to Value Start-Ups</td>
<td>372</td>
</tr>
<tr>
<td></td>
<td>Equity Allocation Methods</td>
<td>377</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>380</td>
</tr>
<tr>
<td><strong>CHAPTER 20</strong></td>
<td>Cross-Border M&amp;A</td>
<td>381</td>
</tr>
<tr>
<td></td>
<td>Strategic Buy-Side Considerations</td>
<td>381</td>
</tr>
<tr>
<td></td>
<td>Due Diligence</td>
<td>390</td>
</tr>
<tr>
<td></td>
<td>Sell-Side Considerations</td>
<td>395</td>
</tr>
</tbody>
</table>
PART V  

Case Studies  

CHAPTER 21  
Merger and Acquisition Valuation Case Study – Distribution Company  
History and Competitive Conditions  
Potential Buyers  
General Economic Conditions  
Specific Industry Conditions  
Growth  
Computation of the Stand-Alone Fair Market Value  
Risk and Value Drivers  
Summary and Conclusion of Stand-Alone Fair Market Value  
Computation of Investment Value  
Suggested Considerations to Case Conclusion  

CHAPTER 22  
Merger and Acquisition Valuation Case Study – Professional Services Firm  
Characteristics  
Valuation Methods  
Case Study Introduction  
Potential Buyer  
Historic Financial Performance  
Future Expectations  
Risk and Value Drivers  
Discounted Cash Flow Method  
Other Valuation Methods to Consider  
Suggested Considerations to Case Conclusion  

About the Authors  

Glossary  

Index
Winning through Mergers and Acquisitions

Buyers and sellers can create substantial value through merger and acquisition (M&A). Both can win from a transaction. That is the beauty of deal making. And that is much of the allure that has driven the tremendous volume of M&A activity worldwide over the past three decades.\(^1\) Despite this volume, most businesses are not salable. M&A advisors disqualify roughly 65% to 75% of prospective sellers and, according to a U.S. Chamber of Commerce study, only 20% of the businesses that are for sale will successfully transfer hands to another owner. This would imply that only 5% to 7% of companies actually get sold!\(^2\)

This book focuses on private company business value, with particular focus on private (or closely held) companies in the lower end of the middle market (i.e. those generating between $3 million and $250 million in value).\(^3\) What creates value? How do we measure it? How does a management team build it? How do they preserve it? How do they maximize it through a transaction? It is this focus that will improve the chances of selling a business. These concepts are equally important to buyers and sellers because both

---

\(^1\) Chapter 5 presents a very necessary second view of the potential results of M&A.  
\(^2\) Looked at another way, the Tax Foundation reported in 2013, based on corporate tax return filings with the IRS, that there were approximately 9.1 million corporations in the United States (1.7 million C Corporations and 7.4 million S Corporations, plus another 23 million sole proprietorships). As noted at the beginning of Chapter 4, Mergerstat reported a total of 97,093 transaction announcements over the course of 10 years between 2007 and 2016, which represents approximately 1.1% of total S and C corporations.  
\(^3\) For purposes of this book, we define the middle market as companies with a total enterprise value of $250 million to $1 billion, lower middle market at $10 million to $250 million, lower-lower middle market at $3 million to $10 million, and small-cap or micro companies under $3 million.
can and should benefit from a deal. But different results frequently occur. Sellers may sell under adverse conditions or accept too low a price due to lack of preparation or knowledge. And every buyer runs the risk of purchasing the wrong business or paying too much. As seen during the Great Recession of 2007–2009, transactions during adverse economic times create their own sets of challenges. That is why understanding value – and what drives it – is critical in mergers and acquisitions.

Wise shareholders and managers do not, however, confine their focus on value to only M&A. They should be building value in their business while still running it. If you do not grow, you will ultimately decline. As Will Rogers famously said, “Even if you’re on the right track, you’ll get run over if you just sit there.”

Value creation drives the strategic planning of shareholders and managers and, in the process, creates focus and direction for their company. Their M&A strategy supports and complements their broader goal of building shareholder value, and they buy and sell only when a given deal creates value for them.

This brings us back to the purpose of this book. It explains how to create, build, measure, manage, preserve, and maximize value in mergers and acquisitions in the context of the broader business goal of building value. Senior managers in most public companies focus on value every day because it is reflected in the movement of their stock price – the daily scorecard of their performance relative to other investment choices. Private companies, however, lack this market feedback and direction. Their shareholders and executives seldom understand what their company is worth or clearly see what drives its value. For this reason, many private companies – and business segments of public companies as well – lack direction and underperform.

Managing the value of a private company, or a division of a public corporation, is particularly difficult because that value is harder to compute and justify. Yet most business activity – and value creation or destruction – occurs at this operational level.

Being able to accurately measure and manage the value of smaller businesses or business segments is critical in the value-creation process. And this skill will pay off in M&A as well because most transactions involve smaller entities. Although we read and hear about the big deals that involve large corporations with known stock prices, the median M&A transaction size in the United States between 2012 and 2016 was approximately $43 million. Smaller deals involving closely held companies or segments of public companies are the scene for most M&A activity.

Therefore, every value-minded shareholder and executive must strive to maximize value at this smaller-entity level where daily stock prices do not exist. The concepts and techniques that follow explain how to measure and manage value on a daily basis and particularly in M&A. The discussion begins with an understanding of what value is.
Critical Values Shareholders Overlook

When buyers see a potential target, their analysis frequently begins by identifying and quantifying the synergies they could achieve through the acquisition. They prepare a model that forecasts the target’s potential revenues if they owned it, the adjusted expense levels under their management, and the resulting income or cash flow that they anticipate. They then discount these future returns by their company’s cost of capital to determine the target’s value to them. Armed with this estimate of value, they begin negotiations aimed at a deal that is intended to create value.

If the target is not a public company with a known stock price, frequently no one even asks what the target is worth to its present owners. However, the value the business creates for the present owners is all that they really have to sell. Most, and sometimes all, of the potential synergies in the deal are created by the buyer, rather than the seller, so the buyer should not have to pay the seller for most of the value the buyer creates. But in the scenario just described, the buyer is more likely to do so because his or her company does not know what the target is worth as a stand-alone business. Consequently, the buyer also does not know what the synergies created by his or her company through the acquisition are worth, or what the company’s initial offer should be.

Sellers are frequently as uninformed or misinformed as buyers. Many times the owners of the target do not know if they should sell, how to find potential buyers, which buyers can afford to pay the most to acquire them, what they could do to maximize their sale value, or how to go about the sale process. After all, many sellers are involved in only one such transaction in their career. They seldom know what their company is currently worth as a stand-alone business, what value drivers or risk drivers most influence its value, or how much more, if any, it would be worth to a strategic buyer. Typically none of their team of traditional advisors – their controller, outside accountant, banker, or attorney – is an expert in business valuation. They certainly have not seen as many businesses as an experienced business appraiser. Few of these professionals understand what drives business value or the subtle distinction between the value of a company as a stand-alone business versus what it could be worth in the hands of a strategic buyer.

The seller could seek advice from an intermediary, most commonly an investment banker or business broker. But these advisors typically are paid a commission – if and only if they achieve a sale. Perhaps current owners could achieve a higher return by improving the business to position it to achieve a greater value before selling. This advice is seldom popular with many intermediaries because it postpones or eliminates their commission.

With sound advice so difficult to find, sellers frequently postpone sale considerations. Delay is often the easier emotional choice for many entrepreneurs who identify personally with their company. But with delay,
opportunities are frequently lost. External factors — including economic, industry, and competitive conditions that may dramatically affect value — can change quickly. Consolidation trends, technological innovations, or regulatory and tax reforms also can expand or contract M&A opportunities and value.

Procrastination also can hamper estate planning and tax strategies because delays reduce options. And the bad consequences are particularly acute when value is rapidly increasing.

Thus, buyers and sellers have very strong incentives to understand value, manage what drives it, measure it, and track it to their mutual benefit.

Stand-Alone Fair Market Value

With a proper focus on maximizing shareholder value, buyers and sellers begin by computing the target company's stand-alone fair market value, the worth of what the sellers currently own. This value reflects the company's size, access to capital, depth and breadth of products and services, quality of management, market share and customer base, levels of liquidity and financial leverage, and overall profitability and cash flow as a stand-alone business.

With these characteristics in mind, “fair market value” is defined by Revenue Ruling 59-60 of the Internal Revenue Service as “the price at which the property would change hands between a willing buyer and a willing seller when the former is not under compulsion to buy and the latter is not under any compulsion to sell, both parties having reasonable knowledge of the relevant facts.”

Fair market value includes these assumptions:

- Buyers and sellers are hypothetical, typical of the market, and acting in their own self-interest.
- The hypothetical buyer is prudent but without synergistic benefit.
- The business will continue as a going concern and not be liquidated.
- The hypothetical sale will be for cash.
- The parties are able as well as willing.
- The hypothetical seller is not forced to sell (i.e. accept an offer that represents a “distress sale”) and a buyer is not compelled to buy (i.e. necessary to earn a living).
- The reference is to “price” rather than “proceeds.”
- The parties operate at arm’s length, or independent of each other.
- Both parties have reasonable knowledge of the relevant facts.
- The seller must be willing to accept the price available under prevailing economic, industry, and market conditions as of the effective date.
The buyer under fair market value is considered to be a “financial” rather than a “strategic” buyer. The buyer contributes only capital and management of equivalent competence to that of the current management. This excludes the buyer who, because of other business activities, brings some value-added benefits to the company that will enhance the company being valued and/or the buyer's other business activities (e.g. being acquired by other companies in the same or a similar industry). Also excluded is the buyer who is already a shareholder, creditor, or related or controlled entity who might be willing to acquire the interest at an artificially high or low price due to considerations not typical of the motivation of the arm's-length financial buyer.

The seller in the fair market value process is also hypothetical and possesses knowledge of the relevant facts, including the influences on value exerted by the market, the company's risk and value drivers, and the degree of control and lack of marketability of that specific interest in the business.

While fair market value is impersonal in nature, investment value reflects the value to a particular buyer based on that buyer's circumstances and investment requirements. This standard of value includes the synergies or other advantages the strategic buyer anticipates will be created through the acquisition.

Fair market value should represent the minimum price that a financially motivated seller would accept because the seller, as the owner of the business, currently enjoys the benefits this value provides. The controlling shareholder in a privately held company frequently possesses substantial liquidity because he or she can harvest the cash flow the company generates or sell the company. The noncontrolling or minority shareholder generally possesses far less liquidity. As a result, the value of a noncontrolling interest is usually materially less than that interest's proportionate ownership in the value of the business on a control basis.

Prospective buyers who have computed stand-alone fair market value should also recognize that this is the base value from which their negotiating position should begin. The maximum value the buyer expects to create from the deal is the excess of investment value over fair market value. In practice, any premium the buyer pays above fair market value reduces the buyer's potential gain because the seller receives this portion of the value created.

In practice, the term *intrinsic value* is sometimes used. *Graham and Dodd's Security Analysis* (Cottie, Murray, and Block, 5th edition, New York: McGraw-Hill, 1988, p. 41) defines intrinsic value as “the value which is justified by assets, earnings, dividends, definite prospects, and the factor of management.” Intrinsic value is more broadly defined than fair market value, but is similar in that it reflects characteristics relating to the asset being valued, but not those related to a particular buyer that is part of investment value.
As discussed further in Chapter 14, sellers frequently are motivated by nonfinancial considerations, such as their desire to pass ownership of the company on to their children or long-term qualified employees, or, if they work in the company, to retire or do something else. When these nonfinancial considerations exist, it is particularly important for shareholders to understand the financial effect of decisions made for personal reasons. Opportunistic buyers can take advantage of sellers, particularly those who are in adverse personal circumstances. Once again, this fact stresses the need for a continual focus on value and implementation of a strategic-planning process that routinely considers sale of the company as a viable option to maximize shareholder value. This process accommodates shareholders’ nonfinancial goals and provides the time and structure to achieve them and manage value as well.

Investment Value to Strategic Buyers

The investment value of a target is its value to a specific strategic buyer, recognizing that buyer’s attributes and the synergies and other integrative benefits that can be achieved through the acquisition. Also known as strategic or synergistic value, the target’s investment value is probably different to each potential buyer because of the different synergies that each can create through the acquisition. For example, one buyer may have a distribution system, product line, or sales territory in which the target would fit better than with any other potential buyer. Generally this is the company to which the target is worth the most. Well-informed buyers and sellers determine these strategic advantages in advance and negotiate with this knowledge.

The difference between fair market value and investment value is portrayed in Exhibit 1.1, which shows an investment value for two potential buyers. The increase in investment value over the company’s fair market value is most commonly referred to as a control premium, but this term is somewhat misleading. Although the typical buyer does acquire control of the target through the acquisition, the premium paid is generally to achieve the synergies that the combination will create. Thus, this premium is more accurately referred to as an acquisition premium because the primary force driving it is synergies, rather than control, which is only the authority necessary to activate the synergy.5

5 To address the diversity in practice among business appraisers in adjusting value to reflect benefits of control, the Appraisal Foundation developed a working group, which published The Measurement and Application of Market Participant Acquisition Premiums in 2017, intended mostly for valuations completed for financial reporting purposes, but containing perhaps the most comprehensive explanation of such premiums to date.
EXHIBIT 1.1  Fair Market Value versus Investment Value

<table>
<thead>
<tr>
<th>Investment Value – 2</th>
<th>Investment Value – 1</th>
<th>Acquisition Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fair Market Value</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The obvious questions this discussion generates are:

- Why should a buyer pay more than fair market value?
- If the buyer must pay an acquisition premium to make the acquisition, how much above fair market value should the buyer pay (i.e. how large should the acquisition premium be, either as a dollar amount or as a percentage of fair market value)?

The median acquisition premiums for purchases of public companies in the United States have been about 33% over the last 10 years. These figures are not presented as a guideline or as a target. Premiums paid are based on competitive factors, consolidation trends, economies of scale, and buyer and seller motivations – facts that again emphasize the need to thoroughly understand value and industry trends before negotiations begin. For example, a company with a fair market value of $10 million has a much stronger bargaining position if its maximum investment value is $20 million than if it is only $12 million. To negotiate the best possible price, however, the seller should attempt to determine what its maximum investment value is, which potential buyer may have the capacity to pay the most in an acquisition, and what alternatives each buyer has, and then negotiate accordingly.

Generally speaking, buyers should begin their negotiations based on fair market value. Before they enter the negotiation process, where emotional factors and the desire to “do the deal” take over, buyers should establish their walk-away price. This is the maximum amount above fair market value that they are willing to pay to make the acquisition. Establishing the maximum price in advance encourages buyers to focus on value rather than on winning the deal. Naturally, the farther the price moves above fair market value toward that buyer’s investment value, the less attractive the deal becomes. Value-oriented buyers recognize that acquisitions at a price close to their investment value require them to fully achieve almost all forecasted synergies – on time – to achieve the forecasted value. And the closer the acquisition price gets to their investment value, the less value the acquisition can create for the buyer’s shareholders and the smaller the buyer’s potential margin of error. When a seller demands too high a price, the buyer’s better option is often to decline that deal and look for one with a better potential to create value.
This fact illustrates a fundamental but essential lesson in making any investment: Identify the distinction between a good company and a good investment. While a good company may possess many strengths, it will prove to be a bad investment if the price paid for it is too high. Conversely, a company with weaknesses may offer a good investment opportunity if the price is adequately low relative to the forecasted returns, particularly to the strategic buyer who possesses the strengths to compensate for the target’s weaknesses.

Win–Win Benefits of Merger and Acquisition

In order for there to be a successful M&A transaction, three things need to be in line. First, the business itself must be ready. This means addressing many of the concepts discussed in the four chapters within Section II, Building Value. Next, the owner himself must be ready, as discussed with the mental readiness concept within Chapter 14. Finally, there needs to be a buyer ready to pay a multiple that the business owner will accept. That means that the business owner must have an understanding of what his business is worth, as covered in the eight chapters within Section III, Measuring Value.

To illustrate the win–win benefits of M&A to buyers and sellers, the next discussion summarizes the valuation of Cavendish Seafood Distributors, which is presented in detail in Chapter 21. Many of the technical steps in this illustration are explained only briefly. Each step is described in detail in the chapters that follow. Various technical issues will be introduced in italicized print with a reference to the chapter that explains how to handle these matters.

Cavendish was founded about 20 years ago by Lou Bertin, who had enjoyed a successful career as a restaurateur. Bertin, who had an MBA and always wanted to run his own business but was tired of the demands of running a restaurant, recognized a need for better distribution of seafood to restaurants in his home state. Armed with his entrepreneurial spirit, substantial expertise in running restaurants, $1.7 million of his and two 10% minority investors’ equity cash, and a well-conceived business plan, he founded Cavendish.

As with most small companies, however, several major risks and constraints weighed heavily on Bertin. He is looking to retire or at least reduce his hours. And although Cavendish has been a successful venture, Bertin has seen his personal wealth increasingly tied to the fate of the company at a time in his life when he knows diversification is the much wiser investment strategy. Should Bertin’s 80% equity interest in Cavendish be valued, or some other investment? Would the valuation process or computation be different if he owned a 100% interest and there were no minority shareholders, or if all of the stock were owned by minority shareholders? (See Chapters 12 and 14.)
Sales for Cavendish’s latest year top $75 million, and earnings before interest and taxes (EBIT) adjusted to reflect ongoing operations will be about $7.5 million. Is EBIT the best measure of return for Cavendish? Would it be more accurate to use revenue or net income before or after taxes or cash flow? (See Chapter 6.) Cavendish is heavily leveraged. To move toward long-term stability, significant additional capital spending is required. Does the financial leverage affect value, and if so, how? (See Chapter 9.) Does the anticipated capital spending affect value, and if so, how do we account for it? (See Chapter 6.)

The company’s product line is narrow by industry standards, although it has developed a loyal and rapidly growing base of restaurants and grocery stores. Cavendish’s profit margins are negatively impacted by forces outside its control, such as increases in fuel prices and drops in demand from restaurants during economic downturns. How can the valuation reflect these various risk drivers and value drivers? What if the buyer can eliminate some of these weaknesses? (See Chapters 3 and 8.) Bertin’s staff is comprised primarily of family members and people like him who had burned out of working in restaurants and were looking for a career switch to an industry with normal working hours. Bertin himself has lost the enthusiasm for the strategic planning the company would need to continue its historical growth performance. Should an adjustment be made if some of these individuals do not materially contribute to the success of the company? Should an adjustment be made if anyone is paid above- or below-market compensation? (See Chapter 6.)

Bertin has been routinely approached by investment bankers, private equity firms, and contacts within the food distribution industry about a sale of the company, and he is especially concerned about a possible recession in coming years given how long it has been since the economy was last in recession. In addition, one of Cavendish’s major competitors, a company that is five times its size, is using its leverage to push Cavendish out of some of the urban markets in Cavendish’s core territory. This more intense competition, coupled with concerns about economic conditions in the near future, has led Bertin to postpone planned price increases. Can these competitive issues be identified by reviewing Cavendish’s financial statements? What additional research, if any, is required? How are these competitive factors reflected in the valuation? (See Chapters 3 and 8.)

### Computation of Cavendish’s Stand-Alone, Fair Market Value

As a lower middle market size company, Cavendish carries many risks, including limited capital, high financial leverage, a narrow product line, and very limited management. When combined with the company’s loyal
customer base, rapid sales growth, high product quality, and average profitability, these factors generate Cavendish’s weighted average cost of capital rate of 19%, which reflects its risk profile and growth prospects.

*Is a weighted average cost of capital the same as a discount rate? Is this the same as a capitalization rate? (See Chapters 7 and 9.)* When the company’s normalized net income to invested capital of $5.84 million for this year is divided by a 15% weighted average cost of capital (WACC) capitalization rate, the fair market value on a stand-alone basis of the enterprise is determined to be $40.5 million. Is this the value of equity? (See Chapter 6). *Why is only one year of earnings used to compute value? How does this reflect future year growth? (See Chapter 7.)*

### Investment Value to Strategic Buyer

A larger public company that wants to quickly acquire a presence in Cavendish’s market recognizes its strengths and weaknesses. Because the larger buyer frequently can eliminate many of Cavendish’s limitations, it can increase Cavendish’s sales growth and profits much more rapidly. Cavendish is also much less risky as a segment of the large company that possesses a broad array of market strengths. *How are these changes in risk reflected in the valuation? Who gets this value? (See Chapter 3 and Appendix 13A.) Is the transaction fair from a financial point of view? Should be invest in a fairness opinion so that be and the Company’s two noncontrolling shareholders are comfortable with the transaction consideration? (See Chapter 16.)*

When owned by the strategic buyer, Cavendish’s stand-alone EBIT could be increased over the next several years through more efficient operations and access to a broader market and an extensive distribution system. In the terminal period following the forecast, Cavendish’s growth should be similar to that consistent with expectations for the food distribution industry. *How should the forecast and the years thereafter be used in computing value? (See Chapter 7.)*

After the deal is closed, the buyer will have to allocate the purchase price for financial reporting purposes. Part of this process will involve identifying and valuing Cavendish’s intangible assets. *What financial reporting considerations will have to be made? (See Chapter 17.) What are the intangible assets owned by Cavendish, and how are they valued? (See Chapters 17 and 18.)*

While Cavendish has a WACC capitalization rate of 15%, Omni Distributors, the buyer, a large, well-known public company, has a WACC discount rate of about 12%. *How are capitalization rates and discount rates different, and when should each be used? (See Chapters 7 through 9.)* Because Cavendish operates in a new market for this buyer, has limited management
and increasing competition, the buyer adjusted its discount rate for the added risk of Cavendish. Should the buyer use its own discount rate to compute the investment value of Cavendish? If not, how should it be adjusted? How should this rate be affected by Cavendish’s high financial leverage? (See Chapter 9.) The discounting of Cavendish’s expected future net cash flow to invested capital adjusted for synergies determined that Cavendish’s invested capital is worth $69.7 million to one strategic buyer. What is net cash flow to invested capital, how is it computed, and how many years should be discretely forecasted? (See Chapter 6.) How does this discounting process reflect the potential adjustments to the return and the rate of return for the risk drivers and value drivers that have been considered? (See Chapters 7 and 8.) The $31.3 million excess of the $69.7 million investment value of invested capital over Cavendish’s $38.4 million fair market value means this buyer could pay up to $31.3 million over stand-alone fair market value to acquire Cavendish. What should be the minimum value considered by both the buyer and the seller to start the negotiations? How much above $38.4 million should this buyer be willing to pay to acquire Cavendish? Should this decision be influenced by competitors also bidding to acquire Cavendish? If the buyer ultimately pays $69.7 million to acquire Cavendish, is the buyer better off? How? (See Chapters 1, 4, and 5.)

Cavendish’s balance sheet shows assets of almost $44 million and equity of $15 million. How do these affect its value? (See Chapters 11 and 12.) Public companies in Cavendish’s industry are selling at EBIT multiples ranging from 3 to 18, with a mean of 8. Should these be considered, and how? Do the EBIT multiples generate equity value? (See Chapter 10.) Another public food distributor recently sold for a 72% premium over its market value. Should this transaction be considered in determining value? (See Chapter 10.)

Since Cavendish is not a public company, should there be a discount for lack of marketability? Since Cavendish has noncontrolling shareholders, is a control premium or discount for lack of control applicable? (See Chapter 12.)

Can a buyer employ strategies to reduce risk in an acquisition? (See Chapters 4 and 18.) How can buyers most effectively evaluate synergies? (See Chapter 5.)

Can sellers employ a strategy to build value? Can they effectively plan in advance for a sale? (See Chapters 2 and 4.)

Buyers and sellers clearly have opportunities to gain through mergers and acquisitions. In order to create value, however, they must be able to measure and manage it. This process begins with the ability to identify and quantify those factors that create value. Most often, this must be done in a privately held company or a division of a public corporation where stock prices do not exist.

As you will see in this book, there are many factors that go into the valuation of a business. Valuation is both an art and a science. It is both
a quantitative and a qualitative assessment of a business. But to boil it all down into one sentence: Business valuation is about the risk of achieving a company’s expected future cash flows. Or even more simply, it is about risk and return. The chapters to come explain how to build operating value in a private company and how to create, build, measure, manage, preserve, and maximize value in mergers and acquisitions.
Accountants, 69, 251. See also Professional advisors
Accounting Alternative for private companies, 311, 316, 325
Accounting standards
U.S. GAAP. See Generally accepted accounting principles (GAAP)
Accounting Standards Codification (ASC)
ASC 350 Goodwill and Other Intangible Assets, 311, 325–326
ASC 718 Stock Compensation, 354
ASC 805 Business Combinations, 311, 312, 315–329, 331
ASC 820, Fair Value Measurements, 311, 313–315, 320, 323, 326, 327, 334, 336
Accounts receivable, 55, 202
Accrual basis of accounting, 109
Acquisition method of accounting, 323
Acquisition premium, 9
Acquisition team, 80, 81, 85, 383, 384
Acquisitions
described, 78
planning for. See Planning for merger and acquisition process
and shareholder value, 91
and strategic plan, 91
target companies, 82–85
types of, 79
Activity ratios, 53–57
Adjusted book value method, 102, 202–208, 231, 418
Adjustments
assets (adjusted book value method), 202–207
control adjustments, 110–112, 117, 215–216, 224
financial statements, 109–112, 117, 188, 221, 222
premiums and discounts. See Discounts; Premiums
Advertising capacity, 147
Advisory team, 69–71. See also Professional advisors
Alliances, 78
Alpha, 142
Alternatives to sale/transfer of business, 71–73
Altman, Edward, 59
American Institute of Certified Public Accountants (AICPA), 312
Valuation of Privately-Held Company Equity Securities Issued as Compensation (Practice Aid), 358–390
Amortization, 335, 336
Angel investors, 355, 359, 360
Appraisal Foundation, 312
Appraisals, 200, 217, 218, 226, 353–354
Appraisers, 232, 251, 312, 313
Artistic-related intangible assets, 318. See also Intangible assets
ASC. See Accounting Standards Codification (ASC)
Assembled workforce, 317, 328, 333, 340, 349–351
Asset (cost) approach
accounts receivable, 202
adjusted book value method, 102, 202–208, 231, 418
appraisals, 200, 220
asset surpluses or shortages, 207
book value versus market value, 200
as check to value, 231
defined, 101, 102
in economic or industry downturns, 201, 202
and fair market value, 202
going concern value, 201
high-tech start-ups, 364
holding companies, 201
and income approach, 120, 207, 208
intangible assets, 333, 349–352
liquidation value method, 102, 201, 202
and market approach, 120, 207, 208
Asset (cost) approach (contd.)
methods, 102
and noncontrolling interests, 201, 202,
206, 227
nonoperating assets, 120, 204–207
off-balance sheet assets and liabilities,
202, 206–208
replacement cost method (RCM), 333,
343, 349–350
reproduction cost, 333
use of, 103, 199, 200, 208, 218, 219, 226,
333
value conclusion, review of, 226, 227

Asset sales, 185, 271–279
Asset turnover, 35–38, 57

Assets
contingent, 324
crowdutory, 335, 340, 343, 344
highest and best use, 315
intangible. See Intangible assets
surpluses or shortages, 207
value of and measure of investment, 20
and value of company, 23
value of in income approach, 120.
See also Income approach
value of in market approach, 120. See also
Market approach

ASU-2014-18 (customer relationship and
non-compete non-recognition), 317
ASU-2014-2 (goodwill amortization), 317, 325
@Risk, 113

Attorneys, 69, 70, 81, 89, 251. See also
Professional advisors

Auditing standards
AU-C Section 540–Auditing Accounting
Estimates, Including Fair Value
Accounting Estimates, and Related
Disclosures, 313
AU-C Section 500–Audit Evidence, 313

Audits
fair value estimates, 312, 313
legal audit, 71, 72

Balance sheet
adjustments, 110, 111, 202–208
off-balance sheet assets, 202, 206–207

Bankruptcy, 58, 59. See also Solvency
measures

Bargain purchase, 324
Beta (β), 140–143, 152, 157, 223
BIZCOMPS, 182
BizMiner, 176
Black-Scholes Option Pricing Model
(BSOPM), 115–117, 213, 357
Bloomberg, 387
Book value, 20, 35, 57, 110, 136, 170, 177,
200, 231
Bottom fishers, 200
Bring-along rights, 281

Brokers. See Business brokers
Build-up model
described, 143
Duff & Phelps Risk Premium Report Size
Study (D&P report), 149, 150
equity risk premium, 143, 144
formula for, 144
risk-free rate, 143, 144
small-company risk premium, 142–145,
157
specific-company risk premium,
143–149
use of, 223
Business broker method, 231
Business brokers, 5, 84, 185. See also
Professional advisors
Business combinations
ASC 805 Business Combinations, 311, 312,
315–329, 331
defined, 316
financial reporting, 315–329. See also
Financial reporting
forms of, 78, 79
Business Exit Readiness Index™ (BERI),
257–259
Business owners. See also Buyers; Exit
planning; Sellers
divorce, disability, and death, impact of,
249, 250
and financial planning, 247–249
investment versus employment in
company, 245, 246
multiple owners, 244, 247, 250, 253
succession planning, 63, 65, 69, 71, 199,
200, 266, 287
Buy-sell agreements, 354
Buy-side considerations
cross-border transactions, 381–390
entry price, 313

Buyers
bottom fishers, 200
financial, 7, 23
motives, 65
strategic, 7–10, 12, 13, 23, 357
walk-away price, 9

Capital, access to, 146
Capital Adequacy Opinion, 290
Capital, cost of. See Cost of capital
Capital asset pricing model (CAPM)
assumptions, 139, 140, 157
beta, 140, 141
and closely-held businesses, 140, 141
cost of equity computation, 141
formula for, 140
modified capital asset pricing model, 142,
143, 156, 223
use of, 139, 223
Capital expenditures, 21, 31, 105, 106, 147
Capital IQ, 182, 187, 448
Capital leases, 206
Capital structure, 31, 146, 354
Capitalization of cash flow in single-period
capitalization method (SPCM), 102
Capitalization of earnings in single-period
capitalization method (SPCM), 102
Capitalization rate
discounted cash flow (DCF), 126, 128,
132, 135
single-period capitalization method
(SPCM), 121–123
Cash basis of accounting, 109
Cash burn rate, 355, 356
Cash terms, 279
Cavendish Seafood Distributors, valuation/example
adjusted book value method, 418
background information, 10, 11, 399–401
economic conditions, 402, 403
fair market value, calculation of, 11
growth forecast, 404
impairment testing example, 325–326
investment value computation, 420–427
investment value to strategic buyer, 12, 13
owner’s concerns, 11
potential buyers, 401, 402
purchase price allocation, 324, 325
specific industry conditions, 403
stand-alone fair market value, 404–418
value conclusion considerations, 427, 428
Certified in Entity and Intangible Valuations
(CEIV), 312
Chakrabarti, Rajesh, 393
Change-in-control provisions, 281, 286
Charitable remainder trusts, 266
Checks to value, 218–220, 231, 232
Chicago Mercantile Exchange, 387
Closely-held businesses
and capital asset pricing model (CAPM),
140, 141
and WACC computation, 170, 171
Contingent consideration. See Earn-outs
Coefficient of variation, 113, 118
Collars, 275, 276
Common stock, 138, 139
Company analysis, 52, 53. See also
Competitive analysis; Financial analysis
Compensation
control adjustments, 110–112, 117,
215–216, 224
employment agreements, 285
stock options. See Stock options
Competitive analysis. See also High-tech
start-ups
company analysis, 52, 53
competitive factors for nonpublic entities,
53, 54
financial analysis, 54–59
industry analysis, 49–52
and macroenvironmental risk, 49–53
overview, 59, 60
qualitative versus quantitative
assessments, 41
risk and value drivers, analysis of, 42
specific-company risk, assessment of,
48–53
strategic planning and value creation,
43, 44
and value creation, 41
Competitive Strategy (Porter), 50, 132
Consultants, 69
Contiguous acquisitions, 79
Contingent consideration, 324
Continuum of value, 264–265
Contract-based intangible assets, 318, 332
Contractual backlog. See Order backlogs
Contributory asset charges, 335, 340, 343, 344
Control adjustments, 109, 110, 215–216, 224
Control premium, 8, 158, 211–212, 215, 216
Controlling interests
control adjustments, 109, 110, 215–216,
224
described, 209
valuation considerations, 227
Convertible debt, 22
Corporate culture, 66, 97
Corporate practices and procedures, 332
Cost approach. See Asset (cost) approach
Cost of capital. See also WACC (weighted
average cost of capital)
build-up model, 143–151
capital asset pricing model, 139–142, 156
common errors in computing, 176–179
common stock, cost of, 138, 139
debt capital, cost of, 136–138, 169
described, 135, 136
discount rate, 22, 135
Cost of capital. See also WACC (contd.)
equity cost for target company, example of determining, 157–158
equity cost versus debt cost, 136, 137
Ibbotson SBBI 2009 Valuation Yearbook (SBBI), 135, 144
international cost of capital, 156, 387–390
preferred stock, cost of, 138
private cost of capital, 153–156
required rate of return, 20, 22, 24, 34, 135
Cost reductions, 93, 94, 120
Covenant not to compete. See Non-compete agreements
Coverage ratios, 53, 57, 58
Cross-border transactions
acquisition team, 383, 384
buy-side considerations, 381–390
cultural issues, 383, 390, 393
currency conversion, 384–387, 395
customs, 384
due diligence, 390–395
disclosure, 384
due diligence, 384–395
disclosure, 384
financial reporting issues, 391
financing issues, 383, 384, 386
geopolitical issues, 385
hold-back clauses, 395
information technology (IT) issues, 393
intellectual property issues, 391
international cost of capital, 387–390
labor laws, 384, 391, 392
language translation, 391, 395
letter of intent, 390, 395
negotiations, 383, 390, 394
overview, 381
regulatory and legal compliance, 394, 395
representations and warranties, 395
security issues, 385
sell-side considerations, 395
synergies, 386
tax considerations, 384, 393, 395
valuation issues, 385, 386
CRSP Decile Size Premia Study, 149, 152
Crystal Ball, 113
Cultural issues in cross-border transactions, 383, 390, 393
Currency conversion, 386–387, 395
Current ratio, 54
Customer-related intangible assets, 316–319, 324, 333. See also Intangible assets
Customers
access to, 148
concentration of, 147
reaction of, 66
Damodaran, Aswath, 362, 388
Days in accounts payable, 55
Days in inventory, 56
Days in receivables, 55
Days in working capital, 56
DCF method compared, 124
Deal negotiation. See Negotiations
Deal size, 4
Deal structure
as part of offering memorandum, 75, 78
stock versus assets, 271–279
and transaction multiples, 185
Deal terms
cash, 279
negotiations, 279–282
as part of offering memorandum, 74, 75
statistics on M&A payment terms, 64
Debt and equity capital providers,
return to, 22
Debt capital, 22, 23, 136–138, 169. See also Cost of capital; WACC (weighted average cost of capital)
Debt financing, effect of on ROI, 28–31, 33, 34
Debt ratio, 58
Debt to equity ratio, 58
Debt to total capital ratio, 59
Decision trees, 113, 118
Deferred tax liabilities, 204–206, 208
Department of Labor, 295, 305
Depreciation, 106, 109, 110
Differential value method (DVM), 332, 343, 346, 348, 350
Direct capitalization method, 332
Disability, 249
Disclosures, financial reporting for business combinations, 323
Discount for lack of control (DLOC), 159, 201, 209–214, 224. See also Control adjustments
Discount for lack of marketability (DLOM), 201, 211–215, 224
Discount rate
and cost of capital, 22, 135
high-tech start-ups, 360, 361
intangible assets, 335, 340–343, 345
review of, 223
Discounted cash flow (DCF) analysis
capitalization rate, 121, 122, 132
described, 123, 124
discounted cash flow (DCF) analysis, 102, 124, 126, 127
discounted future earnings (DFE) analysis, 102, 124
early-stage companies, 128, 355, 356.
See also High-tech start-ups
Earn-outs, 83, 284, 285, 324, 328, 349, 385,
386, 395
Earnings before interest, taxes, depreciation and amortization (EBITDA).
See EBITDA
Earnings before interest and taxes (EBIT).
See EBIT
Earnings measures, 106–108
EBIT (earnings before interest and taxes) and distortion of value, 107, 108 and high-tech start-up valuations, 364
MVIC/EBIT multiple, 191, 192, 196
and profitability measures, 57
and solvency measures, 58
EBITDA (earnings before interest, taxes, depreciation and amortization)
and distortion of value, 107, 108 and high-tech start-up valuations, 364
MVIC/EBITDA multiple, 191–193, 196
Economic or industry downturns
asset (cost) approach, 201, 202 and earn-outs, 284, 285
Economic value added, 38
Economies of scale, 147
EDGAR (Electronic Data Gathering and Retrieval), 186
Effective termination clause, 285
Employee Retirement Income Security Act (ERISA), 261
Employee stock ownership plan (ESOP), 259–266, 272, 292, 295, 305, 432, 458, 459
Employees, key. See Key employees
Employment agreements, 285
End-of-year convention, 125
Enterprise value, 169. See also Invested capital
Entity structure, 146, 384
Entry price (buy-side), 313
Equity allocation methods, high-tech start-ups, 377–380
Equity capital
common stock, 138
and cost of capital, 22, 23. See also Cost of capital
cost of versus debt cost, 136, 137
preferred stock, 138
target company, example of determining cost of capital, 157–158
and WACC. See WACC (weighted average cost of capital)
Equity risk premium (ERP), 138, 140, 142, 143, 157
end-of-year convention, 125
forecast period, reasonableness of, 222
formula for, 124, 127
high-tech start-ups, 361, 363, 365, 366
intangible assets, 332–334
leases, 320
and long-term growth rate, 131–133
and management flexibility, 115
midyear discounting convention, 127
order backlogs, 322
and risk, 124, 136
single-period capitalization method compared, 124
terminal value, 124, 126–128, 131, 222	hree-stage model, 128–130, 363
two-stage model, 128, 363
use of, 134
value reconciliation process, 229
and WACC, 174. See also WACC (weighted average cost of capital)
Discounted future earnings (DFE) analysis, 102, 124
Discounts
applicability of, 210, 211
control adjustments, 215, 216
determining, 213
discretion in size of, 213, 214
and fair market value, 209
lack of control, 159, 201, 209–214, 224
lack of marketability, 201, 211–213, 224
professional judgment required, 216
trademarks, 346
Distress ratios, 58
Distribution capability, 148
Distribution networks, 333
Dividends, 17, 21, 137
Divorce, 249
DoneDeals, 182
Due diligence
in asset sales, 277
cross-border transactions, 390–395
and deal timetable, 76, 77
and financial reporting requirements, 326–329
inadequate, as cause of failed M&As, 66
intangible assets, 318–323
and preparing for M&A, 73, 86–89
professional advisors, need for, 324
request list, 86, 87
Due Diligence for Global Deal Making (Rosenbloom), 391
Duff & Phelps Risk Premium Report Size Study (D&P report), 149–151
DuPont analysis, 35–36, 52, 53
European Union (EU), 394
Evergreen provisions, 285
Executive summary in offering memorandum, 74
Existing technology, 317, 319–320, 328, 332, 341, 343, 345, 346
Exit planning
barriers to, 243–247
considerations for, 244–247
employee stock ownership plan, 260, 262, 266
and financial planning, 245, 247–248
gifting strategies, 262, 263
high-tech start-ups, 357, 373
importance of, 243, 247
liquidation, 262, 264
management buyout (MBO), 261, 262, 265
options, evaluating (step 4), 252, 258–262
owner, identifying type of (step 3), 252, 256, 257
owner’s exit goals, setting (step 1), 252–245
owner’s financial and mental readiness, assessing (step 2), 252, 254, 256
plan execution (step 6), 252, 265, 267
private equity group (PEG) recapitalization, 260, 264
process, 243, 250–267
professional advisors, 251–252, 267
and strategic plan, 251
third party, sale to, 259
timing of, 249, 250
value, preserving, protecting, and increasing, 265, 266
values, range and applicability of (step 5), 252, 263–265
written plan, 250, 253
Exit price (sell-side), 313
Exit strategy, high-tech start-ups, 357, 373
Expected value, 112, 118

Facilities, 147–148
Failure of M&As, reasons for, 65, 67
Fair market value
in asset (cost) approach, 202
assumptions, 6
buyers, 6, 23
and continuum of value, 264, 265
defined, 6
and income approach, 220
investment value compared, 9, 23, 33.
See also Investment value

Financial analysis
activity measures, 53–57
coverage ratios, 53
financial leverage, 53
liquidity ratios, 53–55
profitability measures, 53, 54, 57
purpose of, 59
solvency measures, 53, 54, 57–59
Financial buyers, 7, 23
Financial distress prediction, 59. See also Solvency measures
Financial economies and synergy, 93–95
Financial leverage, 28–31, 53, 57, 58, 169, 170. See also Debt financing, effect of on ROI
Financial planning, 245, 247–249, 251
Financial reporting
acquisition method, 323
ASC 350 Goodwill and Other Intangible Assets, 311, 325–326
ASC 805 Business Combinations, 311, 312, 315–329, 331
ASC 820, Fair Value Measurements, 311, 313–315, 320, 323, 326, 327, 334, 336
and auditing standards, 312, 313
audits of fair value estimates, 312, 313

Fairness Opinion, 12, 289–307, 459
Fair value
ASC 820, Fair Value Measurements, 311, 313–315, 320, 323, 326, 327, 334, 336
AU-C Section 500–Audit Evidence, 313
AU-C Section 540–Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures, 313
audits, 312, 313
fair value accounting, 312
hierarchy, 315, 334
Fiduciary, 289–297, 305–307, 455
FIFO (first in, first out), 203, 204
Financial Accounting Standards Board (FASB), 310
Accounting Standards Codification (ASC). See Accounting Standards Codification (ASC)
Statements on Auditing Standards (SAS), 313
website, 329

Premiums and discounts. See Discounts;
Premiums sellers, 6, 7
stand-alone value, 5–8, 11, 13, 53, 60, 66, 67, 120, 404–419

Expected value, 112, 118
bargain purchase, 324
business combinations, 316–329
changes in, 310
contingent assets and liabilities, 324
contingent consideration, 324
cross-border transactions, 391
disclosures, 323
and due diligence process, 326–329
equity securities, 324
generally accepted accounting principles (GAAP), 310, 311
IAS 36, Impairment of Assets, 311
IAS 38, Intangible Assets, 311
and intangible assets, 316–323, 331
International Financial Reporting Standards (IFRS), 310, 311
Norwalk Agreement, 310, 312
overview, 309
partial acquisitions, 324
post-transaction, 309
references, 329, 330
restructuring costs, 323
transaction costs, 323
Financial statements
adjustments, 109–112, 117, 188
and intangible assets, 352
preparing for sale of company, 72
Financing issues in cross-border transactions, 383, 384, 386
Finished goods, 203
FINRA Rule 2290, 295
First Chicago method (FCM), 367–370
Fixed asset turnover, 56, 57
Fixed assets, adjusted book value method, 205
Fixed stock exchange ratio, 280
Fixed stock price, 280
Foreign competition, 149
Foreign Corrupt Practices Act, 383
Foreign Investment and National Security Act of 2007, 394
Form 10-K, 186
Form 10-Q, 186
Form 8594, 278
Franchises, 334, 346
Free cash flow, 21
Fundamental method for high-tech start-ups, 367, 370, 371

Generally accepted accounting principles (GAAP), 310, 326, 335
Geopolitical issues in cross-border transactions, 385
GF Data, 182
Gifting strategies, 262, 263
Going concern value, 103, 201, 336. See also Value in use
Goodwill
in adjusted book value method, 204, 205
ASC 350 Goodwill and Other Intangible Assets, 311, 325–326
in business combination financial reporting, 317
and customer relationships, 319
impairment testing, 320–326, 328
and measure of investment, 20
and measure of value, 23
Grabowski, Roger, 139, 145, 150
Greenfield analysis, 346
Growth-in-perpetuity method, 345, 346
Guideline companies
analysis of, 188, 189
beta, 157
financial statement adjustments, 188
lack of, 188
selection of, 107, 187, 225
sources of public company data, 186, 188
Guideline public company method
benefits of, 189, 195, 196
described, 186–189
guideline companies. See Guideline companies
and high-tech start-ups, 363, 375
and market approach, 181, 182
market multiples, 102, 186–189, 195, 198, . See also Multiples
public company data, sources of, 186
use of, 218, 219, 228
value conclusion, review of, 225–228
value reconciliation process, 229, 230
Gupta-Makherjee, Swasti, 393
Hart-Scott-Rodino Act, 394
Hedging foreign currencies, 387, 395
Hierarchy of value, 315, 334
High-tech start-ups
angel investors, 355, 359, 360
apraisals, need for, 353–354
asset (cost) approach, 365–366
characteristics of, 355, 356
compared to other industries, 355, 356
development, stages of, 353, 358–360
discount rates, 360, 361
discounted cash flow (DCF) analysis, 361, 365, 365, 366
equity allocation methods, 377–380
exit strategy, 357, 371
external analysis, 356, 357
Index

High-tech start-ups (contd.)
First Chicago method (FCM), 367–370
fundamental method, 367, 370–371
income approach, 361–363
initial public offerings (IPOs), 353, 354,
359–360, 362, 364, 368, 369, 371,
373–376, 378, 379
internal analysis, 357
liquidation scenarios, 358, 366, 373, 374,
376, 378
market approach, 334
mezzanine financing, 359
Monte Carlo simulation (MCS), 366
option-pricing method (OPM), 378–380
overview, 353, 380
probability-weighted expected return
method (PWERM), 378–380
probability-weighted scenario method
(PWSM), 372–377
real options analysis (ROA), 366, 367
revenue multipliers, 367, 372
risk, 356, 358, 360, 361, 366, 380
shareholder value, maximizing, 353–354,
358, 361
single-period capitalization method
(SPCM), 361
and stock options, 353, 354, 357, 377
strategic planning, 353–354, 357–358, 361
valuation methods, 361–380
venture capital funding, 354–356,
359–360, 366
venture capital valuation method (VC
method), 367, 368, 377
venture capitalists, valuation methods
used by, 367–372
Highest and best use, 315
Hold-back clauses, 395
Holding companies, 201
Horizontal acquisitions, 79

Ibbotson Equity Risk Premium Series studies, 151
IFRS. See International Financial Reporting
Standards (IFRS)
Impairment testing, 311, 320–326, 328, 356
In-process research and development
(IPR&D), 318, 320, 333, 341
Income approach
adjustments, 222, 224. See also Control
adjustments
defined, 101
differential value method, 332
direct capitalization method, 332
fair market value, 145, 221
high-tech start-ups, 361–363
intangible assets, 332–333. See also
Intangible assets
invested capital model, 103, 104, 220.
See also Invested capital
investment value, 120, 220, 221
market approach compared, 119, 120,
227, 228
methods, 102, 121
multi-period excess earnings method
(MPEEM), 319–321, 332
overview, 119, 220
profit split method, 332
rate of return, 119, 223
real options analysis, 120
relief from royalty method, 320, 332, 334.
See also Relief from royalty method
(RFRM)
single-period capitalization method. See
Single-period capitalization method
(SPCM)
stand-alone fair market value, 120
use of, 103, 119, 120, 134, 218, 219, 227,
228, 333
value conclusion, review of, 220–225,
227, 228
and value of assets, 120, 207, 208
yield capitalization method, 332
Income statement, adjustments to, 111, 112
Increment/cost decrement analysis, 346
Industry analysis, 49–52, 356, 357
Industry life cycle, 132
Information technology (IT) issues in
cross-border transactions, 393
Initial public offerings (IPOs), 353, 354,
359–360, 362, 364, 368, 369, 371,
373–376, 378, 379
Insurance, 251, 260, 274
Intangible assets
adjusted book value method (asset
approach), 205
amortization, 275–276
ASC 350 Goodwill and Other Intangible
Assets, 311, 325–326
assembled workforce, 317, 328, 333, 340,
349–352
contract-based, 318, 332
contributory asset charges, 335, 340, 343,
344
corporate practices and procedures, 332
cost approach, 333, 349–352
customer relationships, 317–319, 329, 333,
335, 337, 340, 341, 343–344
differential value method (DVM), 332, 343, 346, 348, 350
direct capitalization method, 332
discount rate, 335, 340–341, 346
distribution networks, 333
existing technology, 317, 319–320, 328, 332, 341, 343, 345, 346
expenses, 337
and financial reporting, 316–323, 331
and financial statements, 352
franchises, 334, 346
goodwill. See Goodwill
IAS 38, Intangible Assets, 311
impairment testing, 320–326, 328, 336
in-process research and development (IPR&D), 318, 320, 333, 341
income approach, 120, 332–333
intellectual property, 148, 391
licensing agreements, 78, 321, 333, 345, 346
liquor licenses, 334
market approach, 120, 334
multi-period excess earnings method (MPEEM), 332, 334, 343–344, 350
non-compete agreements, 321, 333, 346, 348
order backlogs, 317, 318, 321, 322, 333, 341, 342
patents, 317, 318, 320–322, 328, 333, 334, 336, 345
profit split method, 332
proprietary technology, 341, 349
and purchase price allocation, 316, 319, 331, 357, 343, 346
profit from royalty method (RFRM), 334, 344–346, 350
remaining useful life, 332, 335–337, 346
replacement cost method (RCM), 333, 343, 349–350
revenues, 337
royalty agreements, 333
royalty rate, 334, 337, 344, 345
software, 317, 318, 322, 333, 345
tax amortization benefit, 335, 342–345
trademarks and trade names, 322–323, 326, 333, 334, 336, 337, 341, 345–347
valuation approaches, 332–334
valuation methods, 332, 343–352
and value of company, 20, 23
WACC (weighted average cost of capital), 341, 342, 344
WARA (weighted average return on assets), 341, 344
yield capitalization method, 332
Integra, 176
Intellectual property, 148–149, 391. See also Intangible assets
Intermediaries, use of, 5, 69, 70, 73, 82–85, 89, 185, 192, 287. See also Business brokers; Investment bankers
Internal controls, 149
Internal development versus acquisitions, 79
Internal Revenue Code (IRC)
section 197(a), tax amortization benefit, 342. See also Tax amortization benefit
section 336, stepped-up basis election, 275
section 409A, deferred compensation, 354
Internal Revenue Service (IRS)
Form 8594, 278
International Accounting Standards Board (IASB), 310, 312
International Accounting Standards (IAS)
IAS 36, Impairment of Assets, 311
IAS 38, Intangible Assets, 311
International cost of capital, 387–390
International Fisher Effect, 386
International Financial Reporting Standards (IFRS)
countries adopting, 310
IFRS 3, Business Combinations, 311, 312, 316, 324, 331
International Fisher Effect, 386
International mergers and acquisitions. See Cross-border transactions
International Monetary Fund (IMF), 387
International Organization for Standardization, 392
International Valuation Standards Council, 312
Intrinsic value, 7, 232, 237, 460
Inventory
adjusted book value method (asset approach), 203–204
turnover, 56, 204
Invested capital, 103–104, 117, 169, 170, 190, 220. See also Net cash flow to invested capital (NGFIC)
Investment
and improving ROI, 31
invested capital model, 103, 104, 220. See also Invested capital
measuring for ROI, 17, 19–21
Investment bankers, 5, 70, 185, 390, 395
Investment opportunities, 10
Investment risk, assessing, 112–117
Investment theory and exit planning, 247. 
See also Exit planning
Investment value
computation, Cavendish Seafood Distributors example, 420–427
and continuum of value, 263–265
fair market value compared, 8, 9, 23
income approach, 120, 220. See also Income approach
premiums and discounts, 215, 216.
See also Discounts; Premiums
to strategic buyers, 8–10, 12–14, 23, 33
IPO. See Initial public offerings (IPOs)
ISO 9000/9001, 392
Jayaraman, Narayanan, 393
Joint ventures, 78
Justification of purchase test, 232
Key employees, 147, 254, 349, 354, 357
Key executives, 244, 248
Labor laws and cross-border transactions, 384, 393
Lack of control. See Discount for lack of control (DLOC); Minority interests; Noncontrolling interests
Lack of marketability. See Discount for lack of marketability (DLOM)
Language translation in cross-border transactions, 391, 395
Leases, 206, 320–321
Legal audit, 71
Legal compliance. See Regulatory and legal compliance
Leonetti, John, 243, 252
Letter of intent, 80, 390, 395
Leverage ratios, 58
Leveraged buyout analysis, 231–232
Liabilities
and asset transactions, 276, 277
contingent, 324
defered tax liabilities, 204–206, 208
nonrecurring, 205
off-balance sheet, 206–208
Licensing agreements, 79, 321, 333, 345
LIFO (last in, first out), 203, 204
Liquidation
and exit planning, 262, 264
high-tech start-ups, 358, 366, 373, 374, 376, 378
premise of value, 102, 201
valuation, 103
Liquidation value method, 102, 201, 202
Liquidity ratios, 53–55
Liquor licenses, 334
Long-term growth rate
macroeconomic factors, 131, 132
selection of, 222
in single-period capitalization method (SPCM), 121–123, 131–134
Macroeconomic factors and long-term growth rate, 131, 132
Macroeconomic risk, 49–53
Majority interest, 209. See also Controlling interests
Management
depth and breadth of, 146–147
flexibility, 115
retention of, 83
Management buyout (MBO), 261–262, 264
Mark to market, 202
Market analysis as part of offering memorandum, 74
Market approach
defined, 101
guideline public company method. See Guideline public company method
high-tech start-ups, 334
income approach compared, 119–120, 227–228
intangible assets, 334
judgment required, 181
M&A transaction data method. See Merger and acquisition transaction data method
methods, 102
multiples, 119, 120
principle of substitution, 181
use of, 103, 219, 227–228
value conclusion, review of, 225–226
and value of assets, 119, 207, 208
Market multiples. See Multiples
Market participants, 313–315, 317, 320, 326, 327, 336
Market share, 146
Market value of invested capital (MVIC), 190–192, 196, 197
Marketing capacity, 147
Marketing-related intangible assets, 318. See also Intangible assets
Memorandum of understanding, 390. See also Letter of intent
Merger and acquisition transaction
data method benefits of, 196, 197
and changes in economic cycle, 191
deal structure, 185–186
described, 182–185
and high-tech start-ups, 364, 374
and market approach, 102, 181–182
market multiples, 102, 182, 189, 190.
See also Multiples
review of value conclusion, 220–221
use of, 217, 228
value reconciliation process, 229, 230
Mergerstat, 3, 61–64
Mergers, described, 78
Mezzanine financing, 359
Midyear discounting convention, 127
Minority interests. See also Noncontrolling
interests
control adjustments, 110
degree of marketability, 224
described, 209
and fair market value, 7
and value, 24
Mission statements, 43
Modified capital asset pricing model
(MCAPM), 142, 143, 223
Monte Carlo simulation (MCS), 113, 114, 366
Moody’s, 388, 389
Morningstar, Inc., 135
Most advantageous market, 314
Motives for selling, 64–65
MPEEM. See Multi-period excess earnings
method (MPEEM)
MSCI, 388
Multi-period excess earnings method
(MPEEM), 319–321, 338, 343–344
Multiples
and checks to value, 251–252
commonly used multiples, 190
examples of, 193
in high-tech start-up valuations, 364
in market approach, 119, 120
market value of invested capital (MVIC), 191
MVIC/EBIT, 192, 196
MVIC/EBITDA, 192, 196
MVIC/revenue (MVIC/R), 193, 197
price/book value (P/BV), 193, 197
price/cash flow (P/CF), 193
price/earnings (P/E), 192, 195, 369
selection of, 190–191
use of, 181, 182
MVIC/EBIT, 192, 196, 233
MVIC/EBITDA, 192, 196, 233, 415, 417
MVIC/revenue (MVIC/R), 191, 197
Negotiations
consideration of other side’s needs and
goals, 286
cross-border transactions, 383, 391
deal structure, 271–276
fair market value as beginning point, 9
overview, 269
and price, 270, 271
and professional advisors, use of, 270
purchase price allocation, 278
skills required, 269
terms of sale, 279–282
value, 270, 282–283
Net book value, 200
Net cash flow, 13, 17–23, 25, 26, 31, 33, 37, 38, 41, 104, 105, 117
Net cash flow return to debt and equity
capital, 22
Net cash flow to invested capital (NCFIC), 13, 22, 23, 25, 27, 32, 38, 105, 106, 108
Net income to invested capital (I/C), 35
Non-compete agreements, 168, 282, 317, 318, 321, 324, 328, 333, 346, 348
Noncontrolling interests
and asset (cost) approach, 201, 202, 205, 226–228
degree of marketability, 224
and minority interests, 209. See also Minority interests
Nonfinancial issues, 67, 68
Nonfinancial motivations of sellers, 8
Nonoperating assets, 120, 205–206
Nonrecurring assets and liabilities, 205
North American Industry Classification System (NAICS) codes, 187
Norwalk Agreement, 310, 312
Off-balance sheet assets and liabilities, 206
Offering memorandum, 73–74
Operating leases, 206
Operations
integration of, 66
operating strategy, 97
Opportunity cost, 136. See also Cost of capital
Option-pricing method (OPM), 378–380
Options. See Black-Scholes Option Pricing
Model (BSOPM); Real options analysis
(ROA); Stock options
Order backlogs, 317, 321–322, 333, 341, 342
Orderly transactions, 313
Owners. See Business owners
Paglia, John, 153
Partial acquisitions, 324
PCOC. See Private cost of capital (PCOC)
Pepperdine Private Capital Market Required
Rates of Return, 154, 155
Pepperdine Private Capital Market Line, 156
Performance measures, 284
Personal Goodwill, 270, 282–283, 430, 432
Pinnacle Equity Solutions, 243
Planning for merger and acquisition process
acquisition process, 80–86
acquisition strategy, 78–80
due diligence, 86–89
failure of M&As, reasons for, 65–67
importance of, 61
sales strategy and process, 67–78
statistics on M&A activity. See Statistics
on M&A activity
Porter, Michael E., 50, 51
Portfolio planning, 247–249. See also Exit
planning
Post-transaction accounting. See Financial
reporting
Pratt's Stats, 182, 448
Preferred stock, 22, 138, 354
Premise of value, 201
Premiums
acquisition premium, 8
applicability of, 210–211
company size, 223
control, 8, 180, 181, 210–211, 215, 216
discretion in size of adjustment, 214
equity risk, 145, 150–152
existing technology, 346
and fair market value, 209
professional judgment required, 216
size of adjustment, 213–214
small-company, 142, 145, 152
specific-company risk premium, 140, 143,
145, 162,
and synergies, 91, 92, 97, 209
Prepaid expenses, 204
Preparing for merger and acquisition
process. See Planning for merger and
acquisition process
Price/book value (P/BV), 193, 197
Price/cash flow (P/CF), 193
Price/earnings (P/E)
and cost of capital, 159
in high-tech start-up valuations, 364
in market approach, 119, 120, 191, 195
multiples, 191, 195
past earnings, issues with, 18
Principal market, 314
Principle of substitution, 181
Private capital market, 19, 153–156, 162, 187
Private Capital Markets (Slee), 153
Private companies, stock of as payment
for target, 281
Private cost of capital (PCOC), 153–156
Private equity buyout, 232, 233
Private equity group (PEG) recapitalization,
260, 264
Probability analysis, 112–118, 222, 357,
363, 372
Probability-weighted expected return
method (PWERM), 368, 372, 378
Probability-weighted scenario method
(PWSM), 372–377
Process improvements, 93, 94, 120
Products and services, evaluating, 147, 382
Professional advisors accountants, 60, 97
acquisition team, 81, 85, 383, 384
appraisers, 251
attorneys, 69, 251
business brokers, 5, 84, 185
consultants, 69
exit planning, 243–267
experience of in M&A transactions, 107
fees, 248
financial planners, 251
insurance, 251
intermediaries, 5, 82, 84, 185, 192, 287
investment bankers, 5, 70, 185, 192, 289,
296, 395
need for, 324
in negotiations, 269
target identification services, 84
Professional judgment
in application of premiums and discounts,
211
in market approach, 181
in value reconciliation and conclusion,
228–230
Profit margin, 35–38
Profit split method, 332
Profitability measures, 57, 59. See also
DuPont analysis
Proprietary technology, 341
Public companies
guideline companies. See Guideline
companies; Guideline public company
method
as source of merger and acquisition
transactional data, 182, 183. See also
Merger and acquisition transaction
data method
value, market measurements of, 17–19, 39
Public Company Accounting Oversight
Board (PCAOB), 312, 313
### Purchase price allocation
- Cavendish Seafood Distributors, case study example, 324, 325
- and goodwill, 20
- and intangible assets, 316–318, 331, 337, 343, 344
- preliminary, 278

Puts, 281

PWERM. See Probability-weighted expected return method (PWERM)
PWSM. See Probability-weighted scenario method (PWSM)

QED Report on Venture Capital Financial Analysis (QED Research), 360, 372

Qualitative versus quantitative assessments, 41

Quick ratio, 54

### Rate of return
- historical data, 108
- in income approach, 119. See also Income approach
- and net cash flow, 108
- return on investment (ROI), 17, 19–34
- review of selection of, 222
- in single-period capitalization method (SPCM), 122, 123, 131–134, 136

Raw materials, 203, 207

Real options analysis (ROA), 114–116, 120, 366, 367

Reasonableness check (rules of thumb), 220

Recapitalization, 260, 264

Receivables turnover, 55

Recessions, 3. See also Economic or industry downturns

Regulatory and legal compliance
- cross-border transactions, 381, 382
- preparing for sale, 73
- risk assessment, 149

Relief from royalty method (RFRM), 320, 322, 332, 343–346, 350

Remaining useful life, 332, 334–338, 343

Replacement cost method (RCM), 322, 333, 343, 349–351

Representations and warranties, 377, 395

Reproduction cost, 333

Required rate of return, 20, 22–24, 26, 34, 135. See also Cost of capital; WACC (weighted average cost of capital)

Research and development (R&D), 320.
- See also In-process research and development (IPR&D)

Restructuring costs, 323

### Return
- and improving ROI, 32
- in income approach, 119. See also Income approach
- measuring for ROI, 17–39

Return on assets (ROA), 35–36, 57

Return on capital employed (ROCE), 20

Return on equity (ROE)
- calculation of, 28
- debt, effect of, 22, 28–31, 34
- and profitability measures, 57
- volatility, 30

Return on investment (ROI)
- calculation of, illustration, 24–27
- common questions and concerns, 32–34
- debt financing, effect of, 22, 28–31, 34
- for equity, 28. See also Return on equity (ROE)
- improving, strategies for, 35, 36
- investment, measuring, 17, 19
- and profitability measures, 47
- public company value creation model, 17–19
- rate of return, 17, 19, 22, 37
- return, measuring, 17, 19, 22
- value, 17–19

Return on revenues, 57

Return on sales, 35. See also Profit margin

Reuters, 387

Revenue enhancements, 93, 120

Revenue multipliers, 387

Revenue Ruling 59-60, 6

### Risk
- and discount rate. See Discount rate
- high-tech start-ups, 356, 358, 360, 361, 367, 379
- macroenvironmental, 49–53
- quantifying, 18, 19, 33
- and rate of return, 22–23, 32. See also Rate of return
- and return, 17, 18, 22–23
- specific-company risk, assessment of, 48–53
- SWOT analysis. See SWOT analysis
- systemic, 140–142
- and terms of sale, 279–282
- unsystematic, 48

@Risk, 113

Risk analysis
- and causes of M&A failures, 67
- investment risk, 120–117
- and stock versus asset purchase, 271

Risk drivers, 44

Risk-free rate, 143–145, 151, 158
Risk reduction, 93, 95
RMA Annual Statement Studies, 176, 177
ROI. See Return on investment (ROI)
Royalty agreements, 333
Royalty rate, 334, 337, 344, 345, 347
Rule 144, 279
Rules of thumb, 220, 231, 433
S corporations, 266
SCP. See Small-company premium (SCP)
SCRP. See Specific-company risk premium (SCRP)
Search process, 82
Section 338 Election, 278
Securities and Exchange Commission (SEC) and audit standards, 313
EDGAR database, 186
Form 10-K, 186
Form 10-Q, 186
and high-tech start-up valuations, 353
Rule 144, 279
Security issues, cross-border transactions, 385
Sell-side considerations
  cross-border transactions, 395
  exit price, 313–314
Sellers
  and fair market value, 6–8
  inexperience of, 67
  lost opportunity, 67
  motives for selling, 63
  nonfinancial motivations of, 8
  planning for M&A process. See Planning for merger and acquisition process
  value of company to current owners, 5–6
Selling brochure. See Offering memorandum
Shareholder value
  high-tech start-ups, 353–355, 358, 361
  increase in as goal of acquisition, 91, 92
Shareholders in private companies, 248
Single-period capitalization method (SPCM)
  assumptions, 122, 123
  capitalization of cash flow, 102
  capitalization of earnings, 102
  capitalization rate, 121, 122
  formula for, 121, 122
  high-tech start-ups, 361
  and long-term growth rate, 121–123, 127, 131–133
  and rate of return, 122, 123, 134, 136, 138
  use of, 134, 223
  and WACC, 174–176. See also WACC (weighted average cost of capital)
Sirower, Mark L., 65, 92, 93, 96
Slee, Rob, 153
Small-company premium (SCP), 142–145, 152, 157
Software
  intangible asset value, 316, 317, 344
  Monte Carlo simulation, 113–114
  valuation of for internal use, 332
  valuation of in business combinations, 315–325, 331
Solvency measures, 46, 57–59
Solvency Opinion, 235, 290, 299
SPCM. See Single-period capitalization method (SPCM)
Specific-company risk premium (SCRP), 142, 143, 145, 149, 157, 158, 162, 164, 223, 420
Stand-alone fair market value. See Fair market value
Standard & Poor’s, 388–389
Standard deviation, 112, 113, 118
Standard Industry Classification (SIC) codes, 187
Start-ups, high-tech. See High-tech start-ups
Statistical tools for assessing risk, 112–113, 118
Statistics on M&A activity, 3, 4, 61, 243
Stock
  appreciation, 18, 21, 32
  common stock, 138–139
  dividends, 18, 21, 32, 137
  as payment for target, 279
  preferred stock, 22, 138, 354
  transfer restrictions, 146, 248
Stock options
  Black-Scholes Option Model, 115–117
  high-tech start-ups, 353, 354, 357, 358, 377
Stock sales, 271–276, 285
Strategic buyers
  and fair market value, 6–8, 23
  and high-tech start-ups, 357
  and investment value, 7–11, 23, 33
Strategic planning
  high-tech start-ups, 353–355, 357, 358, 361
  importance of, 8
  and value creation, 4, 35–38
Strategic value, 8, 24. See also Investment value
Strategic vision, 96–97
Strategies for improving ROI, 31
Strengths, weaknesses, opportunities, and threats (SWOT) analysis. See SWOT analysis
Subsequent events, deal provisions for, 286, 287
Index

479

Successor to business owner, 63, 65, 69, 71, 199, 200, 250. See also Exit planning
Sunk cost, 18, 20
Supervisory control and data administration (SCADA), 392
Suppliers, 147, 148
SWOT analysis
   acquisition planning, 80
   in competitive analysis, 48, 52, 53, 60
   and value creation strategies, 35–38
Synergies
   assessing, 95–96
   “bounce-back” benefits, 80, 93
   and causes of M&A failure, 65, 66
   cornerstones of, 96
   cross-border transactions, 385
   defined, 92, 93
   and investment value, 7–11, 23
   measuring, 91–97
   and planning process, 96–97
   and premiums, 91, 92, 96
   sources of, 93–94
   and value creation, 4
The Synergy Trap: How Companies Lose the Acquisition Game (Sirower), 65, 92, 93
Systematic risk, 140–142
Systems integration, 97

Tangible assets. See Assets
Target companies
   initial contact with, 84, 85
   search criteria, 82–85
   search process, 82
Tax amortization benefit, 335, 339, 342–348
Tax considerations
   asset sales versus stock sales, 271–279
   cross-border transactions, 384, 395
   and deal negotiations, 279
   deferred tax liabilities, 205–206
   and exit planning, 266
   fixed assets (adjusted book value), 205
   stock sales, 280
   tax adjustments, 204, 205, 208
   terms of sale, 279
Technology
   ability to keep pace with, 148
   existing, 319–320, 322, 328, 341, 345, 346
   improvements to and synergy, 93, 94
   information technology issues in
      cross-border transactions, 393
proprietary, 341, 349
technology-based intangible assets, 316–317
unpatented, 317, 318
Technology-based intangible assets, 316–317. See also Intangible assets
Terminal value, 124, 126–128, 131–133
Terms of sale. See Deal terms
Third party, sale to, 259–260, 373
Times interest earned, 58
Timetable for deal, 75–76
Total asset turnover, 57
Total debt to equity, 58
Trade secrets, 148, 318, 320, 349
Trademark Act of 1946, 322
Trademarks and trade names, 323–324
Transaction costs, 323
Transfer pricing, 384, 393
Turnarounds, 83

Underperforming companies, 20
Unpatented technology, 317–318
Unsystematic risk, 48, 142
U.S. GAAP. See Generally accepted accounting principles (GAAP)
Useful life, 326, 332, 334–338

Valuation
   approaches. See Valuation approaches consultants, 69
   continuum of value, 264
   value conclusion. See Value conclusion
Valuation approaches
   asset (cost) approach. See Asset (cost) approach
   going concern, 103, 201, 335
   income approach. See Income approach intangible assets, 326–328. See also Intangible assets
   liquidation, 103
   market approach. See Market approach selection of, 227–228
   use of, 103
Valuation Handbook–U.S. Guide to Cost of Capital, 19, 144, 152, 177
Valuation methods
   high-tech start-ups, 361–380
   intangible assets, 332–334. See also Intangible assets
   overview, 102, 103
Value of Privately-Held Company Equity
Securities Issued as Compensation
(AICPA Practice Aid), 358, 360

Value
to current owners of private companies, 4
and exit planning, 265–267
external factors affecting, 6
fair market value. See Fair market value
and growth, 33
and ROI, 17, 19–34
whole versus fractional interest, 23–24

Value conclusion
accuracy in calculations, 217
appraisal assignment, review of, 217–218
and appraiser’s expertise, 232
asset approach review, 225–226
averaging of results, 228
broad perspective, need for, 217–220
Cavendish Seafood Distributors, case
study example, 406, 407
checks to value, 231–232
income approach review, 220–225
market approach review, 225–226
reasonableness check (rules of thumb),
220
valuation approaches employed, 218–219
value reconciliation, 228–230

Value creation
and competitive analysis, 41, 44, 48
components of, 38
private companies, 4, 19–34
public company model, 17–19
and strategic planning, 4, 43
strategies for, analyzing, 35–38
and synergies, 5
through M&A, 3, 4, 10

Value drivers
asset turnover, 37
and competitive analysis, 42–43
and continuum of value, 264
identifying and quantifying, 35
profit margin, 35
useful life, 336

Value in use, 201, 208. See also Going
concern value

Value Opportunity Profile (VOP), 146, 162,
163, 165, 166

Value reconciliation, 217, 228–230
Variance, 112, 118
Vendors, 148
Venture capital funding, 354–356, 359, 366
Venture capital valuation method (VC
method), 367, 368, 377
Venture capitalists, valuation methods used
by, 367–372
Vertical acquisitions, 72
Vistage, 255

WACC (weighted average cost of capital)
closely-held businesses, 171
common errors in computing, 176–179
in computation of private company ROI,
ilustration, 24, 27
debt, effect of, 32, 169
intangible asset valuations, 341, 343
iterative process, 171
overview, 170
private companies, 23
and risk, 31, 32, 37, 38
shortcut formula, 174–176
Walk-away price, 9
WARA (weighted average return on assets),
341, 346
Warranty obligations, 206
Websites
Damodaran, Aswath, 388
FASB, 313
IASB, 310
International Monetary Fund (IMF), 387
Weighted average cost of capital (WACC).
See
WACC (weighted average cost of capital)
Weighted average return on assets (WARA),
341, 346
Win-win benefits of M&A, 10–11
With or without analysis, 348
Work in progress, 203
Working capital, 276
Working capital turnover, 56

Yield capitalization method, 332
Z-score, 59