

# TABLE OF CONTENTS

Chapter	Page
1 Identification of Intangible Assets	1
Introduction	1
Definition of an Intangible Asset	1
Characteristics of an Intangible Asset	2
Intangible Assets as Property	3
Tangible Evidence of Intangible Assets	4
Economic Phenomena That Do Not Qualify as Intangible Assets	5
Economic Phenomena That May Indicate Intangible Asset Value	7
The Distinction Between Tangible Assets and Intangible Assets	9
The Relationship Between Tangible Assets and Intangible Assets	10
Four Categories of Business Assets	12
Real Estate Assets	13
Tangible Personal Property Assets	13
Intangible Real Property Assets	14
Intangible Personal Property Assets	14
Business Enterprise Intangible Assets	14
Summary	16
2 Identification of Intellectual Property Assets	19
Introduction	19
Intellectual Property	19
Patents	20
Trademarks	28
Copyrights	35
Trade Secrets	37
Intellectual-Property-Related Intangible Assets	40
The Intellectual Property Development Process	40
The Intellectual Property Commercialization Process	41
Common Terms of Intellectual Property License Agreements	42
Common Terms of Other Intellectual Property Contract Agreements	42
Common Types of Intellectual Property Ownership	42
Common Types of Intellectual Property Rights	42
Typical Parties to the Intellectual Property Commercialization Process	43
Factors That the Analyst Should Consider	43
Summary	44
3 Reasons to Conduct an Intangible Asset Valuation	45
Introduction	45
Purpose of the Valuation	45

Chapter	Page
3 Reasons to Conduct an Intangible Asset Valuation—continued	
Reasons to Value an Intangible Asset	46
Allocation of an Acquisition Purchase Price for Financial Accounting Purposes	48
Fair Value Impairment Testing for Financial Accounting Purposes	49
Allocation of a Business Purchase Price for Income Tax Accounting Purposes	49
Assessment of Target Company Business Value	49
Purposes Related to the Purchase of Selected Intangible Assets	50
Capital Formation Through Debt Financing Purposes	50
Bankruptcy and Reorganization Analysis Purposes	50
Determination of the Appropriate Arm’s-Length Royalty Rates for Intangible Asset Licenses	51
Determination of a Fair, Arm’s-Length Intercompany Transfer Price	51
Federal Income Taxation Planning and Compliance Purposes	52
State and Local Ad Valorem Property Tax Purposes	52
Litigation Support and Dispute Resolution Purposes	52
Business Formation and Business Dissolution Purposes	52
Strategic Planning and Corporate Governance Purposes	53
Contribution of an Intangible Asset to a Business Entity	53
Audience for the Intangible Asset Valuation	54
Analyzing an Intangible Asset as a Component of a Going-Concern Business Enterprise	55
Analyzing an Intangible Asset as an Independent Economic Unit	56
Summary	56
4 Reasons to Conduct an Intangible Asset Damages Analysis	59
Introduction	59
Types of Damages Against Intangible Asset Owners/Operators	59
The Purpose of Damages Analysis	61
Common Measurements of Intangible Assets Damages	62
Lost Profits Method	62
Lost Value or Cost to Cure Method	63
Reasonable Royalty Rate Method	64
Reasons to Measure Intangible Asset Damages	65
Damages Analysis for the Injured Party	65
Damages Analysis for the Alleged Injuring Party	65
Damages Analyst as—or for—the Finder of Fact	66
Damages Analyses Related to Insurance Claims	66
Other Intangible Asset Damages Issues	66
Summary	69

Chapter	Page
5 Intangible Asset Valuation Principles	71
Introduction	71
Defining and Documenting the Valuation Engagement	71
Defining the Valuation Assignment	73
The Objective of the Analysis	73
The Purpose of the Analysis	73
Selecting the Appropriate Standard of Value	74
Selecting the Appropriate Premise of Value	78
Highest and Best Use Analysis	78
Alternative Premises of Value	79
Describing the Intangible Asset	81
Describing the Bundle of Legal Rights	85
Selecting the Appropriate Valuation Date	86
Communicating the Valuation Assignment in the Client Engagement Letter	87
Summary	97
6 Intellectual Property Valuation Principles	99
Introduction	99
Objectives of Intellectual Property Analyses	99
Intellectual Property Alternative Standards of Value	100
Alternative Ownership Interests	101
Alternative Terms of Ownership	102
Intellectual Property Identification	103
Transaction, Notation, and Controversy Valuations	104
Types of Intellectual Property Opinions	105
Considerations for Litigation Valuations	106
Considerations for Accounting Valuations	107
Considerations for Taxation Valuations	107
Considerations for Transaction Valuations	108
Considerations for Financing Valuations	108
Considerations for Bankruptcy Valuations	108
Valuation as a Single Asset or as an Assemblage of Assets	109
Summary	109
7 Intangible Asset Damages Principles	111
Introduction	111
Differences Between Damages Analyses and Valuations	111
Objective of the Damages Analysis	112
The Damages Period and the Damages Dates	113
Purpose of the Damages Analysis	115
Damages Analysis Terminology	116

Chapter	Page
7 Intangible Asset Damages Principles—continued	
Types of Damages Measurement	117
Lost Profits	118
Damages	118
Cost to Restore Value	124
Reasonable Royalty Rate	125
Other Methods	126
Intangible Asset Damages Considerations	126
The Damages Award as a Taxable Event	127
Intangible Asset Damages Not Equal to Value	128
Intangible Asset Damages—Illustrative Example	129
Summary	132
8 Valuation Data Gathering and Due Diligence Analysis	133
Introduction	133
Owner/Operator Data Gathering	134
Intangible Asset Data Gathering	135
Due Diligence Procedures for Owner/Operator Data	136
Information Sources Regarding Guideline Companies	137
Information Sources Regarding Owner/Operator Industries	138
Strategic and Competitive Analysis	140
Information Sources Regarding Intangible Asset Sale and License Transactions	141
Due Diligence Inquiries	143
Due Diligence Caveats	145
Summary	146
9 Damages Due Diligence Procedures	147
Introduction	147
Due Diligence of Relevant Legal Claims	148
Due Diligence of Relevant Legal Documents	149
Due Diligence of Relevant Discovery Documents	149
The Basis for the Causation Claims	151
The Basis for the Damages Claims	152
Lost Profits Documents	152
Reasonable Royalty Rate Documents	154
Cost to Cure Documents	156
Mitigation Documents	156
Conference With Counsel Regarding Damages Methods	157
An Analyst’s Reliance on Judicial Precedent	158
Summary	158

Chapter	Page
10 Structuring the Intangible Asset Analysis Assignment	161
Introduction	161
Understand the Analysis Purpose and Objective	161
Consider the HABU	163
Document the Elements of the Analysis in an Engagement Letter	163
Determine the Appropriate Type of Report	164
Consider Applicable Professional Standards	165
Assemble and Supervise Appropriately Trained Staff	166
Collect and Confirm Sufficient Data to Perform the Analysis	167
Select and Perform the Appropriate Analysis Methodology	167
Reach a Replicable and Well-Supported Analysis Conclusion	168
Prepare a Well-Documented and Well-Reasoned Analysis Report	168
Summary	169
11 Intangible Asset Valuation Process	171
Introduction	171
The Nature of the Valuation Process	172
Identification of the Valuation Problem	174
Highest and Best Use	174
Data Collection and Due Diligence	175
Generally Accepted Valuation Approaches	176
Contingent and Limiting Conditions	176
Value Conclusion	177
Reporting the Value Conclusion	177
Summary	178
12 Intangible Asset Economic Damages Process	179
Introduction	179
Economic Damages Analysis	180
Legal Reasons to Conduct a Damages Analysis	181
Common Intangible Asset Damages Measures	182
Patents	182
Copyrights, Trademarks, and Trade Secrets	185
Lost Profits—Historical Perspective	188
Lost Current Value—Current Perspective	189
Lost Future Income—Future Perspective	190
Royalty Rate—Compensation for Continuing Damages	190
Lost Profits Measurement	193
Alternative Lost Profits Measures	193
Benchmarks for Measuring Lost Profits	194
Lost Profits Damages Methods	194
The Ex Post Damages Estimation Methods	195
The Ex Ante Damages Estimation Methods	196

Chapter	Page
12 Intangible Asset Economic Damages Process—continued	
Other Damages Methods	198
Before and After Method	198
Projections Method ("But For" Method)	199
Yardstick Method	200
Market Share Method	200
Damages Methods Illustrative Examples	201
Projections Method Illustrative Example	201
Before and After Method Illustrative Example	202
Yardstick Method Illustrative Example	204
Use of Royalty Rates to Measure Damages	205
Royalty Rate Damages Analysis Illustrative Example	207
Summary	208
13 Highest and Best Use Analysis	209
Introduction	209
HABU Alternatives for Various Property Types	210
HABU Definition	211
The Intangible Asset HABU Considerations	212
1. Assignment Assumption	212
2. Current Use	212
3. Type of Industry	213
4. Comparable Uncontrolled Transactions	213
5. Type of Intangible Asset	213
6. Intangible Asset Functional Relationships	214
7. Any Legal Instruction	214
8. Type of Intangible Asset Analysis	215
9. Document the HABU Analysis	215
10. Report the HABU Conclusion	216
Effect of HABU on the Analysis Conclusion	216
Summary	218
14 Cost Approach Methods and Procedures	219
Introduction	219
Application of the Cost Approach	220
Types of Cost	221
Generally Accepted Cost Components	223
When Does Cost Indicate Value?	226
Comparison of Historical Cost, Replacement Cost New, and Value	228
Data Verification With Regard to a Cost Approach Analysis	230
Current Cost Trend Factors	232
Identification and Quantification of Obsolescence	233
Summary	236

Chapter	Page
15 Cost Approach Valuation Illustrative Example	237
Introduction	237
Illustrative Example Facts and Circumstances	237
Data Sources and Due Diligence Procedures	238
Illustrative Cost Approach Valuation Analysis	242
Cost Approach Value Conclusion	253
Summary	255
16 Market Approach Methods and Procedures	257
Introduction	257
Collecting, Classifying, and Verifying Data	258
Establishing and Applying Pricing Metrics	260
Frequency of Use	261
Market Potential	261
Market Approach Valuation Methods	261
The Sales Comparison Method	263
Relief From Royalty Method	269
Comparable Profit Margin Method	277
Comment on So-Called Rules of Thumb	285
Consideration of Alternative Standards of Value	286
Summary	286
17 Market Approach Valuation Illustrative Example	287
Introduction	287
Illustrative Example Facts and Circumstances	288
Data Sources and Due Diligence Procedures	289
Target Company Description	290
Descriptions of the Acquired Intangible Assets	290
Trademark Valuation Analysis	290
Value Conclusion	294
Summary	294
18 Income Approach Methods and Procedures	295
Introduction	295
Estimating Intangible Asset Income	296
Income Component	296
Income Approach Methods	300
Incremental Income Analyses	302
Royalty Rate Analyses	304
Profit Split Analyses	304
Income Measures	305
Income to Whom?	306
Alternative Income Measures	306

Chapter	Page
18 Income Approach Methods and Procedures—continued	
Income Projection Period	311
Time Period	311
Estimating the Capitalization Rate	315
The Yield Capitalization Procedure	317
Yield Capitalization Procedure Example	317
The Direct Capitalization Procedure	319
Direct Capitalization Procedure Example	320
Income Capitalization Rates	322
Which Capitalization Rate?	324
Income Approach Analytical Strengths and Weaknesses	330
Discrete Valuation Versus Collective Valuation	332
Differences Between Intangible Asset Valuation and Business Valuation	333
Sensitivity Analysis	334
Income Approach Illustrative Examples	336
Tax Amortization Benefit Adjustment	354
Tax Amortization Benefit Formula	358
Tax Amortization Benefit Caveats	358
TAB Summary	360
Contributory Asset Charge	361
The Appraisal Foundation CAC Documents	362
Contributory Asset Charge Illustrative Example	363
Analyst Caveats	365
CAC Summary	365
Summary	367
19 Income Approach Valuation Illustrative Example	369
Introduction	369
Illustrative Fact Set	370
Description of the Management Contracts	370
Management Contracts Valuation Analysis	371
Management Contracts Valuation Variables	372
Management Contracts and Expected Contract Renewals Value Conclusion	378
Summary	401
20 Valuation Synthesis and Conclusion	403
Introduction	403
Criteria for the Selection of Valuation Approaches and Methods	404
Quantity and Quality of Available Data	405
Access to Available Data	405
Supply of Relevant Transactional Data	405
Type and Nature of the Intangible Asset	405
Industry Conditions in Which the Intangible Asset Operates	406



Chapter	Page
20 Valuation Synthesis and Conclusion—continued	
The Subject Bundle of Rights	406
Statutory, Judicial, Contractual, and Administrative Considerations	406
Informational Needs of the Intended Audience	407
Purpose and Objective of the Analysis	407
Compliance With Any Relevant Professional Standards	407
Professional Judgment of the Analyst	407
Criteria for the Synthesis of Multiple Value Indications	408
Income Approach Methods	409
Cost Approach Methods	410
Market Approach Methods	410
Reconciling an Inconsistency of Results Among Valuation Approaches and Methods	412
Summary	413
21 ASC 820 and Fair Value Accounting	415
Introduction	415
Accounting Standards	416
The Fair Value Standard	417
How to Measure Fair Value for Financial Accounting Purposes	418
Unit of Account	420
Highest and Best Use	420
When to Measure Fair Value for Financial Reporting Purposes	422
Remaining Useful Life	422
Impairment	423
Fair Value Hierarchy	424
Valuation Approaches and Methods	425
Premiums and Discounts	425
Disclosures	426
Differences Between ASC 820 and IFRS 13	426
Summary	427
22 ASC 805 and Acquisition Accounting	429
Introduction	429
Accounting Standards Related to Business Combinations	429
Acquisition Accounting Principles	430
Criteria for Recognition as an Identifiable Intangible Asset Apart from Goodwill	431
Categories of Intangible Assets	432
Marketing-Related Intangible Assets	432
Trademarks, Trade Names, Service Marks, Collective Marks, and Certification Marks	432
Internet Domain Names	433

Chapter	Page
22 ASC 805 and Acquisition Accounting—continued	
Customer-Related Intangible Assets	433
Customer Lists	433
Order or Production Backlog	434
Customer Contracts and the Related Customer Relationships	434
Noncontractual Customer Relationships	434
Artistic-Related Intangible Assets	435
Contract-Based Intangible Assets	435
Servicing Contracts Such As Mortgage Servicing Contracts	436
Employment Contracts	436
Use Rights	436
Technology-Based Intangible Assets	436
Computer Software and Mask Works	436
Databases, Including Title Plants	437
Trade Secrets Such As Secret Formulas, Processes, Recipes	437
Measurement of Goodwill under Acquisition Accounting	437
Example of an Acquisition Accounting Valuation—Illustrative Fact Set	438
Hypothetical Transaction Overview	438
Company Background	438
Example of an Acquisition Accounting Intangible Asset Valuation	439
Management Contracts (and Expected Contract Renewals)	439
Proprietary Technology	443
Trademarks and Trade Names	445
Noncompete Agreement	448
Trained and Assembled Workforce	452
Leasehold Interests	454
Example of an Acquisition Accounting Goodwill Valuation	456
Summary	458
23 Fair Value of Intangible Assets Not Acquired in a Business Combination	459
Introduction	459
Intangible Assets Acquired Individually or With a Group of Other Assets	460
Intangible Assets Developed Internally	460
Measuring Fair Value of Acquired Intangible Assets	461
Present Value Methods	462
Option Pricing Models	463
Multiperiod Excess Earnings Method	464
Contributory Asset Charges	464
Reliance on Management Projections	465
Auditor Responsibilities	466
Intangible Asset Amortization	469
Summary	470

Chapter	Page
24 Fair Value Accounting Goodwill	471
Introduction	471
Fair Value of Goodwill	472
Negative Goodwill Is Not Recorded	472
Contingent Consideration	472
Assigning Goodwill to a Reporting Unit	473
Testing for the Impairment of Goodwill	474
Steps to Measuring the Fair Value of a Reporting Entity for Goodwill Impairment	474
Step Zero	474
Step One	475
Step Two	476
Deferred Income Taxes	476
Example 1—The Goodwill Impairment Test When Either a Taxable or Nontaxable Transaction Is Feasible	477
Testing for the Impairment of a Long-Lived Intangible Asset	480
Summary	483
25 Intellectual Property	485
Introduction	485
Types of Intellectual Property	485
Reasons to Analyze Intellectual Property	486
Valuation Methods	487
Damages Methods	488
Transfer Price Methods	491
Data Sources	496
Valuation Example	496
Iota Trademarks Overview	496
Intellectual Property Valuation Analysis	497
Iota Trademarks Value Conclusion	502
Transfer Price Example	503
Purpose and Objective of the Analysis	503
Section 482 Regulations	504
Selecting the Best Method	506
Subject Trademarks Overview	507
Application of the CUT Method	508
Intercompany Transfer Price Conclusion	512
Summary	513
26 Contract Intangible Assets	515
Introduction	515
Types of Contracts	516
Reasons to Analyze Contract Intangible Assets	518

Chapter	Page
26 Contract Intangible Assets—continued	
Valuation Methods	520
Damages Methods	521
Transfer Price Methods	523
Factors to Consider in the Contract Analysis	523
Internal and External Data Sources	524
Valuation Example	526
The Example Fact Set	526
Valuation Analysis	527
Value Conclusion	535
Summary	535
27 Customer Intangible Assets	537
Introduction	537
Components of the Customer Intangible Asset	539
Types of Customer Intangible Assets	539
Types of Customers	541
Reasons to Analyze Customer Intangible Assets	542
Valuation Methods	543
Damages Methods	545
Transfer Price Methods	546
Factors to Consider in the Customer Analysis	547
Elements of the Customer Analysis	548
Valuation Illustrative Example	549
Purpose and Objective of the Analysis	549
Illustrative Fact Set	550
Valuation Analysis	550
Business Market Group	550
Mass Market Group	557
Wholesale Market	564
Affiliates	571
Value Conclusion	578
Summary	578
28 Data Processing Intangible Assets	579
Introduction	579
Different Types of Data Processing Intangible Assets	580
Different Types of Computer Software	581
Components of Data Processing Intangible Assets	582
Reasons to Analyze Data Processing Intangible Assets	583
Valuation Methods	585
Damages Methods	586
Transfer Price Methods	586

Chapter	Page
28 Data Processing Intangible Assets—continued	
Factors to Consider in the Analysis	587
Valuation Illustrative Example	588
Summary	588
Appendix A — Software Development Effort Estimation Models	590
Appendix B — Computer Software Valuation Example	600
29 Human Capital Intangible Assets	627
Introduction	627
Human Capital Intangible Assets	627
Assembled Workforce Components	629
Human Capital Intangible Asset Components	631
Reasons to Analyze Human Capital	632
Valuation Methods	633
Damages Methods	633
Transfer Price Methods	634
Factors to Consider	635
Valuation Example	637
Purpose and Objective of the Valuation	637
Illustrative Fact Set	637
Value Conclusion	641
Summary	641
30 Licenses and Permits	643
Introduction	643
Examples of Licenses and Permits	644
Typical Reasons to Value Licenses and Permits	645
Factors That Affect License and Permit Value, Damages, or Price	645
Income Approach License Valuation Example	646
Cost Approach Permit Valuation Example	651
Valuation of Other Types of Licenses	656
Professional Licenses	656
Professional Licenses—Enhanced Future Earnings Valuation Method	657
Factors in Assessing License and Permit Damages	659
Summary	659
31 Technology	661
Introduction	661
Definition of Technology Intangible Assets	661
Technology Intangible Asset Attributes	662
Factors That Influence Value, Damages, or Transfer Price	663

Chapter	Page
31 Technology—continued	
Factors to Consider in Assessing a Technology Intangible Asset	665
Assessing Damages	665
Assessing Transfer Price	666
Assessing RUL	668
Valuation Example	668
Fact Set and Analysis Assumptions	669
Valuation Approaches and Methods	669
Summary	678
32 Engineering	679
Introduction	679
Types of Engineering Intangible Assets	680
Components of Engineering Drawings	680
Components of Engineering Intangible Assets	682
Reasons to Analyze Engineering Intangible Assets	683
Valuation Methods	684
Damages Methods	686
Transfer Price Methods	688
Factors to Consider in the Analysis	689
Valuation Example	691
Purpose and Objective of the Analysis	691
Description of the Engineering, Electrical, and Mechanical Drawings	691
Valuation Analysis	694
Value Conclusion	695
Summary	695
33 Goodwill	697
Introduction	697
Goodwill Components	697
The Residual Interpretation of Goodwill	698
The Income Interpretation of Goodwill	699
Types of Goodwill	699
Reasons to Analyze Goodwill	701
How Different Goodwill Types Are Valued	703
The Goodwill Analysis	704
Valuation Approaches and Methods	704
The Cost Approach	704
The Market Approach	705
The Income Approach	706
Goodwill Under Alternative Premises of Value	709
Goodwill-Related Data Sources	710
Internal Data Sources	710

<b>Chapter</b>	<b>Page</b>
33 Goodwill—continued	
External Data Sources	711
Valuation Example	713
Summary	717
34 Reporting the Results of the Intangible Asset Analysis	719
Introduction	719
Attributes of an Effective Report	720
Common Errors to Avoid in Reports	724
Reasonableness Test	727
Summary	727
Selected Bibliography	729
Index	737