



TO: All Interested Parties

FROM: Gary Taylor, Chair
Appraisal Practices Board

RE: **Discussion Draft – *The Valuation of Customer-Related Assets***

DATE: June 5, 2012

The Appraisal Practices Board (APB) was officially formed by The Appraisal Foundation Board of Trustees on July 1, 2010. The APB has been charged with the responsibility of identifying and issuing voluntary guidance on recognized valuation methods and techniques, which may apply to all disciplines within the appraisal profession. As applied to valuation for financial reporting purposes this responsibility has been extended to best practices. The APB has prioritized topics to offer guidance in areas that appraisers and users of appraisal services have identified as the most pressing issues facing the profession.

Originally facilitated by The Appraisal Foundation, the work of the Valuation for Financial Reporting Work Groups is now formally adopted and published through the Appraisal Practices Board (APB) of The Appraisal Foundation.

The Working Group on Customer-Related Assets has developed this Discussion Draft on proposed *Best Practices for the Valuation of Customer-Related Assets*. This document is a first draft containing questions and discussion points. Following receipt of comments on this Discussion Draft, an Exposure Draft will be provided for comment.

Request for Comments: The intent of this document is to obtain comments from all interested parties. Discussion questions are posed and the Working Group requests that responders send in both their reactions to these specific questions and the document as a whole. Where appropriate, the Working Group would welcome specific numerical examples to illustrate the comment.

All interested parties are encouraged to comment in writing to the APB before the deadline of July 31, 2012. Respondents should be assured that each member of the Working Group will thoroughly read and consider all comments.

Written comments on this Discussion Draft can be submitted by mail, email and facsimile.

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IMPORTANT NOTE: All written comments will be posted for public viewing, exactly as submitted, on the website of The Appraisal Foundation. Names may be redacted upon request.

The Appraisal Foundation reserves the right not to post written comments that contain offensive or inappropriate statements.

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The Appraisal Practices Board and The Appraisal Foundation wish to express our utmost gratitude to the *Working Group on Customer-Related Assets* for volunteering their time and expertise in contributing to this document. Specifically, sincere thanks to the following individuals:

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The views set forth in this exposure draft are the collective views of the members of this Working Group and do not necessarily reflect the views of any of the firms that the Working Group members are associated with.

The Appraisal Foundation served as a sponsor and facilitator of this Working Group. The Foundation is a non-profit educational organization dedicated to the advancement of professional valuation and was established in 1987 by the appraisal profession in the United States. The Appraisal Foundation is not an individual membership organization, but rather, an organization that is made up of other organizations. Today, over 110 non-profit organizations, corporations and government agencies are affiliated with The Appraisal Foundation. The Appraisal Foundation is authorized by the U.S. Congress as the source of appraisal standards and valuation specialist qualifications.



Discussion Draft:

The Valuation of Customer-Related Assets

Date Issued: June 5, 2012

Application: Business Valuation, Intangible Assets

Background: Since the Financial Accounting Standards Board (“FASB”) issued Statement of Financial Accounting Standards No. 157 (FASB Statement No. 157), predecessor to Accounting Standards Codification (“ASC”) 820 *Fair Value Measurement* (ASC 820), and FASB Statement No. 141(R), predecessor to ASC 805 *Business Combinations*, there has been increased interest in the identification and recognition of the fair value of assets and liabilities in financial statements. Furthermore, the FASB and the International Accounting Standards Board (“IASB”) have been working on a convergence project with an objective of having a consistent set of accounting standards that can be used globally. In that regard, the IASB has issued International Financial Reporting Standards 3 (revised) *Business Combinations* (IFRS 3R) and IFRS 13 *Fair Value Measurement*, both of which are largely similar to the same statements issued by the FASB. Accordingly, during the creation of this document, members of the International Valuation Standards Council (“IVSC”) reviewed the document and discussed with members of this Working Group certain topics to try and ensure consistency with both a) valuation concepts in the 2011 International Valuation Standards (“IVS”) and; b) fair value guidance in IFRS 13.

Because of the need for financial statements to be both reliable and relevant, valuation practices must provide reasonably consistent and supportable fair value conclusions. To this end, it is believed that guidance regarding best practices surrounding certain specific valuation topics would be helpful. The topics are selected based on those in which the greatest diversity of practice has been observed. To date, three Working Groups have been sponsored by The Appraisal Foundation. The first Working Group addressed the topic of contributory assets and charges in a document titled *The Identification of Contributory Assets and Calculation of Economic Rents* dated May 31, 2010 (“the CAC Document” now known as “Valuation Advisory #1”). This second Working Group has addressed the general topic of customer-related assets. A third Working Group is addressing the topic of the control premiums as applied in valuations done for financial reporting purposes.

This document is intended to present helpful guidance for those that are preparing fair value measurements of customer-related assets; however, this paper is not intended to be an authoritative valuation standard. The Working Group believes that consideration of the facts and circumstances related to the asset(s) that are being valued may support a departure from the recommendations of this document. It is the belief of the Working Group that the valuation of assets in general and customer-related assets specifically is a complicated exercise that requires significant judgment. This paper seeks to present views on how to approach and apply the valuation process appropriate for customer-related assets.

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1 1.0 INTRODUCTION

2 1.1.1 This document (Valuation Advisory #4), entitled *The Valuation of Customer-Related Assets*, is the
3 result of deliberations by the Working Group on Customer-Related Assets (the second Working Group in the
4 “Best Practices for Valuations in Financial Reporting: Intangible Asset Working Group” series) and input
5 received from interested parties. Customer-related assets include customer lists, order or production backlog,
6 customer contracts and related relationships, and non-contractual customer relationships. The purpose of this
7 Valuation Advisory is to outline best practices in the valuation of customer-related assets for financial reporting
8 purposes.

9 1.1.2 There are multiple situations that require the valuation of customer-related assets for financial reporting
10 purposes, including:

- 11 a. Business combinations;
- 12 b. Asset acquisitions;
- 13 c. Goodwill impairment testing; and
- 14 d. Long-lived asset impairment testing.

15 1.1.3 The approaches and methodologies used to value customer-related assets under each of the situations
16 above are similar. The majority of the accounting guidance is contained in the Financial Accounting Standards
17 Board (“FASB”) Accounting Standards CodificationTM (“ASC”) (formerly contained in the FASB Financial
18 Accounting Standards) and within the International Financial Reporting Standards (“IFRSs”).

19 1.1.4 The following discussion on the valuation of customer-related assets for financial reporting purposes
20 requires an understanding of relevant accounting and valuation concepts. In-depth discussion of these concepts
21 is beyond the scope of this Valuation Advisory and the reader is assumed to have a basic understanding of these
22 concepts. Specifically, the reader is assumed to have knowledge of relevant accounting and valuation concepts
23 as they relate to the valuation of assets and liabilities for financial reporting purposes outlined above in
24 paragraph 1.1.2.

25 1.1.5 The Working Group recognizes professional judgment is critical in effectively planning, performing,
26 and concluding a valuation. Professional judgment requires both competency (appropriate knowledge and
27 experience) and ethical behavior (objectivity and independence). Questioning and skepticism are appropriate
28 because of the nature of judgments. Knowledgeable, reasonable, objective individuals can reach different
29 conclusions for a given set of facts and circumstances. Professional judgment reflects a process of fact-
30 gathering, research, and analysis employed while reaching well-reasoned conclusions based on relevant facts
31 and circumstances available at the time of the conclusion.

32 1.1.6 The following important clarifications regarding this document are also made:

- 33 a. These best practices have been developed with reference to United States (“U.S.”) Generally Accepted
34 Accounting Principles (“GAAP”) and IFRSs effective as of the date this document was published.¹
35 While the Working Group believes the best practices described herein may have application outside of
36 U.S. GAAP and IFRSs, valuation specialists should not apply these best practices to valuations prepared
37 under different standards/statutory requirements without a thorough understanding of the differences
38 between those standards and U.S. GAAP and IFRSs existing as of the date of this publication;

¹ IFRS 13 *Fair Value Measurement* was issued in May 2011 with an effective date of January 1, 2013, although early application is permitted. We have referenced IFRS 13 as if it were already effective.

- 39 b. The Working Group has not used the terms “cash flow,” “earnings,” and “income” as commonly used in
40 the accounting literature. When these and similar terms are used, they will refer to an “economic
41 earnings” concept associated with the netting of expense and other charges against revenue;
- 42 c. The terms “value,” “valuation,” “valuing,” “fair value,” and any other reference to value throughout this
43 document are intended, for the purposes of this document, to be stated in accordance with “fair value” as
44 defined in ASC and IFRSs;
- 45 d. The discussions and examples in this Valuation Advisory make specific assumptions for illustrative
46 purposes only. While general principles have been provided for guidance to assist in the valuation of
47 customer-related assets, assumptions used in the valuation of any asset should be based on facts and
48 circumstances; and
- 49 e. The models used in the sample calculations are for illustrative purposes only and are not intended to
50 represent the only form of model, calculation, or final report exhibit that is generally considered
51 acceptable among valuation specialists.

52 1.1.7 This document provides detail related to valuation techniques that are used to value customer-related
53 assets. The paper includes detailed discussion of the following topics:

- 54 a. Definitions of customer-related assets as set out in accounting literature and an exploration of the
55 economic characteristics of customer-related assets;
- 56 b. Valuation techniques used to estimate the fair value of customer-related assets that are viewed to be
57 representative of best practice; and
- 58 c. How customer-related assets interact with other assets of a business and best practice guidance on how
59 to address these relationships in fair value measurements.

60 1.1.8 The appendices at the end of this Valuation Advisory include examples of several techniques and
61 methodologies relevant to the valuation of customer-related assets. Each example provides a set of facts and
62 circumstances to demonstrate the associated valuation techniques discussed.

64 2.0 ACCOUNTING BACKGROUND AND OVERVIEW

66 2.1 Accounting Standards and the Accounting Standards Codification

67 2.1.1 In 2001, the FASB issued several accounting standards to address business combinations, intangible
68 assets and goodwill, and impairment testing guidance: Statement of Financial Accounting Standards No. 141,
69 *Business Combinations* (“FASB Statement No. 141”), Statement No. 142, *Goodwill and Intangible Assets*
70 (“FASB Statement No. 142”), and Statement No. 144, *Accounting for the Impairment or Disposal of Long-*
71 *Lived Assets* (“FASB Statement No. 144”). FASB Statement No. 141 required that many of the assets and
72 liabilities acquired in a business combination be recorded at fair value. FASB Statement No. 142 and FASB
73 Statement No. 144 address asset impairment.

74 2.1.2 In 2006, the FASB issued Statement No. 157, *Fair Value Measurements* (“FASB Statement No. 157”),
75 to provide a uniform definition of fair value and a framework for developing fair value measurements.
76 Subsequently, in 2007, as part of the joint development project between the FASB and the International
77 Accounting Standards Board (“IASB”) the FASB issued a revised version of FASB Statement No. 141 (FASB
78 Statement No. 141R). FASB Statement No. 141R and International Financial Reporting Standard 3(R),
79 *Business Combinations* (“IFRS 3R”), are largely similar, although some small differences still remain. The
80 FASB and the IASB have been working to converge the IFRS and U.S. GAAP standards. In May 2011, the
81 FASB re-issued via ASU 2011-4, ASC 820, *Fair Value Measurement*, in tandem with the IASB issuing, for the
82 first time, IFRS 13, *Fair Value Measurement*. IFRS 13 is identical to ASC 820, although certain style
83 differences remain.

84 2.1.3 On July 1, 2009, the FASB changed the way accounting standards are organized and accessed. FASB
85 ASC is now the single source of authoritative U.S. GAAP. ASC does not change U.S. GAAP; however, it
86 combines all authoritative accounting standards issued by bodies such as the FASB, the American Institute of
87 Certified Public Accountants (“AICPA”), and the Emerging Issues Task Force (“EITF”) into a topically
88 organized database. ASC supersedes all existing U.S. accounting literature (other than additional guidance
89 issued by the Securities and Exchange Commission [“SEC”]). Primary reference changes relevant to this
90 document due to ASC are as follows:

- 91 a. FASB Statement No. 141R → ASC 805, *Business Combinations*
- 92 b. FASB Statement No. 142 → ASC 350, *Intangibles—Goodwill and Other*
- 93 c. FASB Statement No. 144 → ASC 360, *Property, Plant, and Equipment*
- 94 d. FASB Statement No. 157 → ASC 820, *Fair Value Measurement*

95 2.1.4 ASC 805 and IFRS 3R both require that assets and liabilities acquired in a business combination be
96 measured at fair value with limited exceptions. As mentioned above, under U.S. GAAP and IFRSs, fair value
97 measurement guidance is addressed in ASC 820 and IFRS 13, respectively. As of the date of this Discussion
98 Draft, IFRS 13 is not yet in full effect. IFRS 13 is applicable for annual periods beginning on or after January
99 1, 2013, but with earlier application permitted. Therefore, currently, different definitions of fair value for use
100 under IFRSs are contained in IFRS 3R and IFRS 13, and the definition to be used will depend upon whether
101 earlier application of IFRS 13 has occurred.

102 2.1.5 Both ASC 805 and IFRS 3R pay a significant amount of attention to *intangible* assets in discussion and
103 examples, particularly for customer-related assets. International Accounting Standard 38, *Intangible Assets*

104 (“IAS 38”), addresses the identification of intangible assets under IFRSs and also provides guidance on the
105 nature of customer-related assets.

106

107 **2.2 Business Combinations**

108 2.2.1 In a business combination, ASC 805-20-25-1 requires the recognition and measurement of the fair
109 value (with limited exceptions) of identifiable assets acquired (including financial assets, fixed assets, intangible
110 assets, and contingent assets), liabilities assumed (including financial liabilities and contingent liabilities), and
111 any non-controlling interest in the acquiree.

112 2.2.2 Fair value is defined in the ASC 820 Glossary and IFRS 13 (9) as “the price that would be received to
113 sell an asset or paid to transfer a liability in an orderly transaction between market participants at the
114 measurement date.” IFRS 3 contains an older definition of fair value where “fair value is the amount for which
115 an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length
116 transaction” (IFRS 3R, Appendix A). Once IFRS 13 is effective, (for annual periods beginning on or after
117 January 1, 2013) the IFRS 3R definition of fair value will be amended accordingly, to the IFRS 13 definition of
118 fair value. See Section 9.10 for a discussion of differences in U.S. GAAP and IFRSs with respect to valuations.

119 2.2.3 ASC 805 and IFRS 3R provide identification and recognition criteria for assets. “An asset is
120 identifiable if it is either 1) separable, that is, capable of being separated or divided from the entity and sold,
121 transferred, licensed, rented, or exchanged, either individually or together with a related contract, identifiable
122 asset, or liability, regardless of whether the entity intends to do so; or 2) arises from contractual or other legal
123 rights, regardless of whether those rights are transferable or separable from the entity or from other rights and
124 obligations” (ASC 805-20-55-5, IFRS 3R.B31). An asset may also meet the separable criteria if it cannot be
125 sold, licensed or exchanged individually, but could be when combined with a related contract, asset or liability
126 (ASC 805-20-55). Although ASC 805 and IFRS 3R do not provide specific guidance to determine whether an
127 asset arises from contractual or legal rights, the Working Group believes the criteria for recognition is intended
128 to be broad. Specific examples of intangible assets that meet the separate recognition criteria are discussed in
129 ASC 805-20-55-11 to 55-45 and 55-52 to 55-57, and in paragraphs IE16-44 of IFRS 3R. It should be noted that
130 these lists (which include customer-related assets) are not intended to be all-inclusive.

131 2.2.4 Fair values are estimated using three generally accepted valuation approaches which are set out in ASC
132 820-10-35-29 to 35-35 as the Income Approach, the Cost Approach, and the Market Approach. A
133 determination must be made as to the appropriate methodology or methodologies to estimate the fair value of
134 each type of asset, liability, and non-controlling interest.

135

136 **2.3 Asset Acquisitions**

137 2.3.1 ASC 805 defines a business as “an integrated set of activities and assets that is capable of being
138 conducted and managed for the purpose of providing a return in the form of dividends, lower costs, or other
139 economic benefits directly to investors or other owners, members or participants” (ASC 805-10-20). The
140 definition is further outlined in ASC 805-10-55-4 through 55-9 and in IFRS 3R (B8).

141 2.3.2 ASC 805-50-30-1 to 30-4 addresses the acquisition of assets that do not constitute a business
142 combination (also addressed in IFRS 3R [2b]). An acquisition of assets or groups of assets is initially
143 recognized at its cost to the acquiring entity. Acquiring assets in groups requires not only ascertaining the cost
144 of the asset (or net asset) group but also allocating that cost to the individual assets (or individual assets and
145 liabilities) that make up the group. The cost of a group of assets acquired in an asset acquisition is allocated to
146 the individual assets acquired or liabilities assumed based on their relative fair values and does not give rise to

147 goodwill. Similar to asset valuations performed in relation to a business combination, the fair values of all the
148 individual assets included in an asset acquisition (including customer-related assets) should be determined
149 according to the fair value principles outlined in ASC 820. As goodwill does not arise in a purchase of assets
150 that are not a business, relative fair value adjustments may be required.

151 **2.4 Goodwill and Indefinite-Lived Asset Impairment Testing**

152 2.4.1 ASC 350 addresses impairments for indefinite-lived intangible assets and goodwill. ASC 350 requires
153 a two step impairment test for goodwill, the first of which involves estimating the fair value of a reporting unit.
154 If the test indicates that the fair value of the reporting unit is less than the carrying amount, the second step test
155 follows the guidance set forth in ASC 805 and uses the fair value of the reporting unit as the hypothetical price
156 that would be received to sell the assets net of liabilities at their fair values. Therefore, the business
157 combination valuation process as outlined in ASC 805 (which may involve the valuation of customer-related
158 assets) is applicable to the ASC 350 step two test for goodwill impairment. In September 2011, the FASB
159 issued ASU 2011-08, *Intangibles—Goodwill and Other (Topic 350): Testing Goodwill for Impairment*. This
160 update to ASC 350 allows companies to consider qualitative factors to determine if it is more likely than not
161 that a reporting unit's fair value is less than its carrying amount. If it is more likely than not (i.e., greater than
162 50% probability) that the fair value is less than the carrying amount, the entity would then need to perform the
163 two-step goodwill impairment test.

164 2.4.2 IAS 36, *Impairment of Assets*, addresses goodwill and asset impairment under a different impairment
165 model. A cash-generating unit, as defined in IAS 36, is impaired when the carrying amount exceeds its
166 recoverable amount. The recoverable amount is the greater of its fair value less cost to sell and its value in use.
167 Under IAS 36, impairment is tested at the cash-generating unit level using a one-step test (unlike the U.S.
168 GAAP standards, which require a more complex two step test).

169 2.4.3 While fair value less cost to sell is a fairly straight-forward concept and is used predominantly in
170 practice, value in use is a different measure and is not considered to be a fair value measurement under IFRS 13.
171 As defined in IAS 36 (30-57), value in use is a fairly prescriptive cash flow model that generally considers a
172 maximum of five years of cash flows, unless a longer period of five years can be justified. IAS 36 states that
173 "estimates of future cash flows include: a) projections of cash outflows from the continued use of the asset; b)
174 projections of cash flows that are necessarily incurred to generate the cash inflows from the continued use of the
175 asset (including cash outflows to prepare the asset for use) and can be directly attributed, or allocated on a
176 reasonable and consistent basis, to the asset; and c) net cash flows, if any, to be received or paid for the disposal
177 of the asset at the end of its useful life." The standard notes that future cash flows should not include cash flows
178 that arise from restructuring improvements that have not yet been committed, or improvements or
179 enhancements to the asset or cash generating unit's performance. This last requirement is similar to the cash
180 flow procedures described in ASC 360.

181 2.4.4 ASC 350 and IAS 36 both address impairment of indefinite-lived intangible assets other than goodwill
182 via a single step test where impairment arises when the carrying amount exceeds the fair value (or the greater of
183 fair value less cost to sell or value in use under IAS 36).² Indefinite-lived intangible assets, which are typically
184 trade names, trademarks, and brands, are required to be tested annually or upon the occurrence of a triggering
185 event. In the Working Group's view, customer-related assets typically would not qualify as an indefinite-lived
186 asset.

187 **2.5 Long-Lived Asset Impairment Testing**

² The fair value guidance under either IFRS 3R or IFRS 13 does not apply to the "value in use" measure as described in IAS 36.

188 2.5.1 ASC 360 addresses impairment testing for long-lived assets held and used, or assets held for sale or
189 disposal. ASC 360 uses a recoverability test to determine if the carrying value of a held and used asset or asset
190 group is recoverable. If the asset or asset group is not recoverable, fair value measurements are used to
191 determine the amount of impairment. ASC 360-10-20 defines an asset group as the unit of accounting for a
192 long-lived asset or assets to be held and used, which represents the lowest level for which identifiable cash
193 flows are largely independent of the cash flows of other groups of assets and liabilities. This is typically
194 measured based on cash flows that the asset or asset group would generate over the remaining useful life of the
195 asset or the primary asset in the asset group. The recoverability test compares the sum of the undiscounted cash
196 flows of the asset or asset group to the carrying value of the asset or asset group. If the carrying amount
197 exceeds the undiscounted cash flows, there is a second step test in which the fair value of the asset or assets that
198 comprise the asset group, which may include customer-related assets, is determined for the purpose of
199 estimating the amount of impairment. Unlike the ASC 350 goodwill step two test, where the asset and liability
200 fair values are used solely to determine the impairment amount of goodwill (i.e., the fair values of the non-
201 goodwill assets and liabilities are not booked in the financial statements), the post-impairment fair values under
202 ASC 360 are recorded in the financial statements as part of the impairment.

203 2.5.2 Under U.S. GAAP, there is a prescribed order for impairment testing where indefinite-lived assets
204 should be tested under ASC 350 first, then long-lived assets tested under ASC 360, and lastly goodwill tested
205 under ASC 350 (ASC 350-20-35-31). It is important to use the adjusted balance sheet carrying values as a
206 result of each preceding test. In other words, if an indefinite-lived asset was impaired, the impairment amount
207 may impact the carrying amount of the ASC 360 asset group and/or the ASC 350 goodwill carrying amount.

208 2.5.3 The IAS 36 impairment test model addresses long-lived assets and goodwill in a cash generating unit.
209 If there is impairment, the amount is first applied to goodwill with any remaining impairment applied to other
210 assets on a pro-rata basis. IAS 36 does not permit an asset's carrying amount to be written down below the
211 higher of fair value less cost to sell (if determinable), value in use (if determinable), and zero. Therefore, it is
212 possible that customer-related assets would need to be assessed in an impairment test to make sure they are not
213 impaired below the IAS 36 fair value-related measurements.

214 IAS 36 also requires entities to assess whether there is any indication that an impairment loss recognized in
215 prior periods for an asset other than goodwill or a cash generating unit (not applicable to goodwill) may no
216 longer exist or may have decreased (IAS 36.110-125). If there is an indication that the value of the asset may
217 have increased, the previously recognized impairment may be reversed in full or in part. Where the reversal
218 applies to a cash generating unit, the carrying amounts other than goodwill would be increased on a pro-rata
219 basis, but not to exceed the pre-impairment amount. In practice, property, plant and equipment have been the
220 most common asset types subject to revaluations; however, intangible assets such as customer-related assets
221 could be revalued under the guidance.

223 **3.0 IDENTIFICATION OF CUSTOMER-RELATED ASSETS AND VALUE CONSIDERATIONS**

224 **3.1 Introduction**

225 3.1.1 When valuing customer-related assets, the Working Group believes that asset identification and
226 qualitative considerations are equally as important as the selection of valuation methodology and other
227 quantitative factors. This section provides an overview of issues to consider when identifying customer-related
228 assets and qualitative considerations that will assist in assessing the relative importance of customer-related
229 assets compared to other assets present in an entity. These qualitative factors are critical to the valuation
230 process and should be continually revisited throughout the valuation analysis.

231 **3.2 Identification of Customer-Related Assets**

232 3.2.1 Since the issuance of ASC 805's predecessor standard and ASC 350, customer-related assets have been
233 the subject of additional guidance from the FASB and SEC. Specifically, the FASB's EITF clarified the
234 identification and recognition criteria for customer-related assets in EITF Issue 02-17, *Recognition of Customer*
235 *Relationship Intangible Assets Acquired in a Business Combination* (ASC 805 nullified the EITF and
236 incorporated the guidance in the standard), and FASB Staff Position ("FSP") FAS 142-3, *Determining the*
237 *Useful Life of Intangible Assets* (also nullified and incorporated into ASC 350). In addition, the SEC staff has
238 discussed the topic of customer-related assets in speeches. Although not authoritative, these efforts were aimed
239 at clarifying the implementation guidance in the accounting standards as well as addressing interpretation and
240 practice diversity issues.

241 3.2.2 Customer-related assets, like other intangible assets, must meet certain recognition criteria to be
242 considered identifiable for financial reporting purposes. ASC 805 continues the guidance set forth in prior U.S.
243 GAAP where identifiable assets are recognized if they are contractual, or arise from legal rights, or if they are
244 separable and can be separated and sold, rented, or leased (ASC 805-20-25-10, IFRS 3R Appendix A, and
245 B31). An intangible asset should be separately recognized even if the asset is subject to transfer restrictions or
246 the contract is subject to a cancellation option. However, the impact of these features may affect the fair value
247 of the intangible asset.

248 3.2.3 Certain customer-related intangible assets may not require recognition separate from goodwill since
249 they fail to meet the contractual-legal or separability criteria. Examples of such assets may include walk-up
250 customers or customer service capability.

251 3.2.4 ASC 805 and IFRS 3R identify several types of customer-related intangible assets that require separate
252 recognition in a business combination, including customer contracts and related relationships, non-contractual
253 customer relationships, order or production backlog, and customer lists. These customer-related assets are
254 defined and/or described in ASC 805-20-55-20 to 28 and in IFRS 3R.IE23-IE31 but the definitions in the
255 accounting literature fail to elaborate on the economics that should be measured at fair value.

256 3.2.5 ASC 820 makes a distinction about a fair value measurement in that fair value should represent the
257 attributes of the asset from the perspective of a market participant. For example, if there is a legal restriction on
258 the use or sale of an asset, those facts should be considered in the measurement. However, if the restriction is
259 an attribute of the holder of the asset rather than the asset, such a restriction would be excluded from the fair
260 value consideration if other potential market participants would be able to access and use the asset without
261 restriction.

262 3.2.6 The accounting literature provides guidance related to the different categories of customer-related
263 assets as described in the following paragraphs:

264 3.2.7 A *Customer List* “consists of information about customers, such as their names and contact information.
265 A customer list also may be in the form of a database that includes other information about the customers, such
266 as their order histories and demographic information. A customer list generally does not arise from contractual
267 or other legal rights. However, customer lists are valuable and frequently leased or exchanged. Therefore, a
268 customer list acquired in a business combination normally meets the separability criterion for recognition apart
269 from goodwill” (ASC 805-20-55-21, IFRS 3R IE24).

270 3.2.8 An *Order or Production Backlog* “arises from contracts such as purchase or sales orders. An order or
271 production backlog acquired in a business combination meets the contractual-legal criterion even if the purchase
272 or sales orders are cancelable” (ASC 805-20-55-22, IFRS 3R IE25). As described above, the ability to cancel
273 sale or purchase orders does not impact whether the order or production backlog should be recognized
274 separately as an intangible asset, although it may impact its fair value measurement.

275 3.2.9 *Customer Contracts and the Related Customer Relationships* are identified because “if an entity
276 establishes relationships with its customers through contracts, those customer relationships arise from
277 contractual rights. Therefore, customer contracts and the related customer relationships acquired in a business
278 combination meet the contractual-legal criterion, even if confidentiality or other contractual terms prohibit the
279 sale or transfer of the contract separately from the acquiree” (ASC 805-20-55-23, IFRS 3R IE26). As described
280 above, the ability to cancel a contract or the fact that the contract is subject to transfer restrictions does not
281 impact whether the customer contract should be recognized separately as an intangible asset, although it may
282 impact its fair value measurement.

283 3.2.10 The words “contractual” and “legal rights” are not explicitly defined in ASC 805 or its predecessor.
284 Interpretive guidance was introduced in EITF Issue 02-17 (nullified and incorporated into ASC 805): “The
285 Task Force reached a consensus on Issue 3 that an order or a production backlog arising from contracts such as
286 purchase or sales orders (even if the purchase or sales orders are cancelable) as described in paragraph A19 of
287 FASB Statement No. 141 is considered a contract subject to paragraph A20. The Task Force observed that
288 under that conclusion, if an entity has a customer relationship with customers through those types of contracts,
289 that customer relationship arises from contractual rights and therefore meets the contractual-legal criterion for
290 recognition as an intangible asset apart from goodwill.”

291 3.2.11 A *Customer Relationship* is defined as a relationship that “exists between an entity and its customer if
292 the entity has information about the customer and has regular contact with the customer, and the customer has
293 the ability to make direct contact with the entity” (ASC 805-20-55-25, IFRS 3R IE28). “Customer relationships
294 meet the contractual-legal criterion if an entity has a practice of establishing contracts with its customers,
295 regardless of whether a contract exists at the acquisition date. Customer relationships also may arise through
296 means other than contracts, such as through regular contact by sales or service representatives...Consequently,
297 if an entity has relationships with its customers through these types of contracts, the customer relationships also
298 arise from contractual rights and therefore meet the contractual-legal criterion” (ASC 805-20-55-25, IFRS 3R
299 IE28).

300 3.2.12 The Working Group believes the best practice is the identification of customer-related assets that
301 include the value arising from the existing contractual period as well as any value arising from probability-
302 adjusted post-contract expected renewals.

303 Discussion question regarding paragraph 3.2.9 – 3.2.11:

304 Are there circumstances where the customer contracts and related renewals should be recognized and
305 measured as two separate assets?

306 3.2.13 *Non-Contractual Customer Relationships* are discussed in the following paragraphs, including
307 statements in ASC 805, IFRS 3R, and examples.

308 3.2.14 ASC 805 indicates that “a customer relationship acquired in a business combination that does not arise
309 from a contract may nevertheless be identifiable because the relationship is separable. Exchange transactions
310 for the same asset or a similar asset that indicate that other entities have sold or otherwise transferred a
311 particular type of non-contractual customer relationship would provide evidence that the non-contractual
312 customer relationship is separable. For example, relationships with bank depositors are frequently exchanged
313 with the related deposits and therefore meet the criteria for recognition as an intangible asset separately from
314 goodwill” (ASC 805-20-55-27, IFRS 3R IE31).

315 3.2.15 Other examples of non-contractual customer relationships include instances where consumers frequent
316 retail stores and do not participate in loyalty programs. These customers generally do not meet the definition of
317 a customer-related asset because the entity possesses limited identifying information and the customer does not
318 enter into a contract. These walk-in customers typically are not recognized as assets as they fail to meet the
319 recognition criteria. In some cases, where information is exchanged between the entity and the customer, a
320 customer list may meet the separability criteria and have value. This often occurs with retailers that offer
321 loyalty programs which enable the retailer to retain information about walk-in customers, thus meeting the
322 recognition criteria (separability).

323 3.2.16 Some entities offer loyalty programs to incentivize customers to continue to shop at the store or use
324 services (i.e., airlines and hotels). Under IFRSs, International Financial Reporting Interpretations Committee
325 Interpretation 13, *Customer Loyalty Programmes* (IFRIC 13), addresses customer loyalty programs from the
326 perspective of recognizing revenue or a liability related to an obligation to fulfill the award. However, it does
327 not address whether non-contractual customers of an entity would be recognized as a result of the program.
328 Under U.S. GAAP, there is limited guidance as to whether customers enrolled in loyalty programs represent
329 customer-related assets. The Working Group believes that when the arrangement is with a store, such as a
330 grocery store, the intangible asset would most likely be a customer list. Such lists are generally separable,
331 although each situation should be examined to determine if it meets the appropriate recognition criteria. Other
332 programs that are arranged through credit cards, frequent flyer programs and hotel programs may meet the
333 contractual-legal criteria to have separate recognition. Such a program appears to represent an asset and a
334 conditional obligation (e.g., liability) on the part of an entity to provide additional economic value to its
335 customers beyond the service or goods purchased by the customers.

336 3.2.17 Once general categories of customer relationships are identified, it may be necessary to disaggregate
337 them further according to differences in various customer attributes. For example, customer relationships may
338 differ based on the products they purchase or characteristics such as profit margins, attrition patterns,
339 geographic locations, sizes, etc. In these cases, it may be appropriate to value these customer-related assets
340 separately. Such characteristics may also have an impact on the methodology chosen and inputs used.

341 **3.3 Value Considerations**

342 3.3.1 In valuing customer-related assets, the valuation specialist should consider aspects of both the
343 quantitative and the qualitative importance of the customer-related assets, including the importance and value of
344 the customer-related asset itself, the importance of the customer-related asset to the entity, and the relationship

345 of the subject customer-related asset with the entity’s other assets and liabilities. Such considerations facilitate a
346 better understanding of a market participant’s view of the asset.

347 3.3.2 The existing accounting literature does not explicitly address the economic aspects of customer-related
348 or other non-financial assets. Rather, valuation specialists determine how the economics (cash flows or costs)
349 will be allocated among acquired assets including the customer-related assets. At a basic level, the issue is the
350 nature of the customer-related asset relative to the other assets of the business in question. An example may be
351 what is referred to as purchase order customers. Here, the accounting literature requires recognition (as
352 purchase orders meet the contractual criteria) but it may be reasonable to assume that the customer-related
353 assets are not a driving force of the business (e.g., a primary asset) and their respective fair value presumably is
354 less significant than other intangible assets (e.g., brands, product technologies, etc.). In many cases, the
355 characteristics of the customer-related assets relative to other tangible and intangible assets are fairly clear. In
356 any case, it is critically important to make reasonable assumptions about how the cash flows are allocated
357 among the different assets of a business.

358 3.3.3 It is important to observe that customer-related assets have characteristics that are different from most
359 other assets of a business. Customer-related assets can be viewed as the result of the business assets used to
360 create and sell a product or service (they purchase the goods or services created by a business). Most other
361 assets are typically used to create and sell products or services purchased by the customers. In other words, a
362 company assembles fixed assets, working capital and other intangible assets to produce a product or provide a
363 service. A question arises as to why the customers are paying a company more than a fair return on the actual
364 assets deployed by the company to create and sell the product or service. This is an assessment that needs to be
365 made when considering the relative value of the assets of a business.

366 3.3.4 When valuing customer-related assets in the context of a business combination, the valuation exercise is
367 holistic in nature and must keep in context the relative contributions and values of all the assets being valued.
368 The intent of this section is to focus more closely on considerations that affect the valuation of the customer-
369 related assets; however, these considerations could also be applied to most assets acquired in a business
370 combination. The relative contribution of all the assets to the total cash flow or profit of the business needs to be
371 understood by the valuation specialist. There are a number of ways a valuation specialist can evaluate the
372 relative cash flow or profit allocation associated with the various assets. For example, some of the assets can be
373 benchmarked to observed royalty data. It may also be possible to view the business as one or more businesses,
374 which may allow the valuation specialist to analyze returns to different peer groups that own different asset
375 mixes. Peer company margin analyses may also provide relative indications of proper return allocations for the
376 assets. These considerations, along with the various qualitative characteristics discussed below, will allow the
377 valuation specialist to make a better informed decision regarding the relative importance of each of the assets
378 acquired to the overall business cash flows and profit.

379 3.3.5 In assessing the relative importance of the various assets of a business, it may be useful to identify the
380 “primary asset(s).” While there are no references to primary assets in FASB literature (aside from ASC 360,
381 which uses the term in a different manner), an SEC staff speech³ noted the importance of assessing the
382 characteristics of customers and referenced the concept of a primary asset. In our view, a primary asset of a
383 business is an asset which has significant importance to the business relative to other assets and is a key
384 business driver from an economic perspective (e.g., cash flows). Depending upon the nature of the business, the
385 primary asset(s) may be tangible assets such as real or personal property or intangible assets such as customers,
386 technology, brands, or another asset. Determination of the primary asset(s) also assists the valuation specialist in
387 choosing the appropriate methods to value the assets of the business, including customer-related assets.

³ See SEC Staff speech by Joseph Ucuzoglu from December 2006.

388 3.3.6 The following are factors to be considered for the purpose of gaining a qualitative understanding of the
389 relative importance of the customer-related assets being valued and subsequently selecting appropriate valuation
390 methodologies. They are grouped into four categories: industry characteristics, company characteristics,
391 product/service characteristics, and asset characteristics.

392 3.3.7 *Industry Characteristics:*

- 393 a. Concentration of Firms – Is the industry in which the entity operates highly concentrated or highly
394 fragmented? At one extreme, in a pure monopoly, customers have no choice but to buy products or
395 services from the sole provider. In the absence of choice, it may be reasonable to conclude customer-
396 related assets have nominal value, or that the value of customer-related assets is limited to a simple
397 calculation of the cost to identify and contract with the customers. In such a case, a different asset (e.g.,
398 an exclusive operating right or a unique and protected technology with no meaningful substitutes) is
399 giving rise to excess income in the form of monopoly profits. At the other extreme, given the ability to
400 choose among multiple providers and all else being equal, customers that repeatedly choose the entity
401 may represent an asset of high relative importance compared to other assets. Conceptually, these
402 customers could have their needs equally met by many providers, yet they choose the entity.
- 403 b. Buyer Power – Similar to the factor above, evidence of strong buyer power may indicate the relative
404 importance of customer assets. If customers have power, which is usually a function of choice and/or
405 low switching costs, a demonstrated ability by the target to retain these customers suggests they are an
406 important asset. If customers have little power (e.g., less choice and/or high switching costs), the
407 entity’s demonstrated ability to retain the customers is likely due to a different asset. That said, it may
408 be the nature of the customer contracts that limit choice, which would suggest a higher value for
409 customer-related assets.
- 410 c. Barriers to Entry – Industries with high barriers to entry may enjoy excess economic profits. The source
411 of the barriers to entry should be considered. For example, a unique technology might not be easily
412 replicated, which limits competition and customer choice. This in turn limits customer-related asset
413 value—the valuable asset is the technology.

414 3.3.8 *Company Characteristics:*

- 415 a. Type of Company – As a simple starting place, the type of company may indicate whether customer-
416 related assets will have significant value. For example, a retail operation with largely walk-in business
417 may not have an identifiable customer base. However, a wireless telecommunications company with
418 mostly long-term contractual subscribers may have significant customer-related assets.
- 419 b. Relative Asset Class Spend – Consideration of relative investments made in different asset classes may
420 indicate the relative importance of those assets, including customer-related assets. For example, a
421 company that spends significantly on customer acquisition or retention (selling, marketing, proposals,
422 customer care, etc.) may have important and valuable customer-related assets. If spending on
423 technology and/or brands is comparable, the asset mix may be well balanced. However, if spending on
424 technology and/or brands is significantly more, the customer-related assets might be less valuable.
- 425 c. Marketing Strategy – The marketing strategy of a company may indicate the importance of customer-
426 related assets. For example, if a company references existing customers in its marketing collateral, it
427 likely believes those customers are valuable assets that help generate sales to new customers.

428 3.3.9 *Product/Service Characteristics:*

- 429 a. Product Differentiation – This is a consideration similar to buyer power and barriers to entry. Highly
430 differentiated products may limit customer choice, which reduces customer-related asset value. At the
431 other extreme, less differentiated products may indicate strong relationships if customers choose one

432 company over others. However, the value of such relationships may be low because excess income is
433 low.

434 b. Switching Costs – This factor is similar to barriers to entry, but specific to the company. If switching
435 costs are high, customers may be captive. However, the source of the high switching costs may lead to
436 the most valuable asset(s). For example, if switching costs are high because of onerous contract terms,
437 customer contracts may be valuable. However, if switching costs are high because of geographic
438 proximity issues, the customer contract might have less value.

439 c. Life Cycle Stage – The life cycle of different products may indicate the relative importance of one asset
440 versus another. A leading-edge technology may indicate an important technology-related asset but a
441 less valuable customer-related asset due to customers having limited choice if they want the leading-
442 edge technology.

443 d. Protective Rights – All protective rights should be examined: patents, customer contracts, registered
444 brands, etc. Stronger protective rights may indicate more value for a given asset.

445 3.3.10 *Customer-Related Asset Characteristics:*

446 a. Purchase-Order Based vs. Long-Term Contract Based – The nature of customer contracts can range
447 from purchase-order based to long-term contract based. If purchase-order based, buying patterns can be
448 recurring or non-recurring. These distinctions may inform the valuation specialist about, among other
449 things, a) the relative importance of the customer-related asset, and b) lifing patterns for a customer
450 model. If relationships are long-term contract based, the terms of the contract(s) should be analyzed.
451 These terms include the typical length of a contract and the rights of each party with respect to renewal,
452 termination, price/volume adjustments, take or pay clauses, minimums, etc. This analysis may impact
453 choice of model, lifing assumptions, and other valuation inputs.

454 b. Attrition – Historical and expected attrition patterns should also be discussed with management, which
455 will inform the valuation specialist about possible lifing scenarios and, in turn, affects the relative value
456 of the customer assets. This is a qualitative analysis used to assess the relative importance of customer-
457 related assets at the outset of an engagement. Quantitative analysis of customer attrition would also be
458 completed as part of the actual valuation, as discussed in more detail in Appendix A of this Valuation
459 Advisory.

460 c. Depth of Knowledge – Customer relationships should be examined for depth of knowledge possessed by
461 the business about the customers. For example, walk-in customers at a convenience store may not be
462 identifiable nor do they meet recognition criteria. Conversely, purchase-order based customers in a
463 business-to-business context may be readily identifiable and recurring historical buying patterns may be
464 observable, which would suggest these customer relationships are recognizable and should be
465 considered for valuation.

467 4.0 VALUATION METHODOLOGIES

468 4.1 Introduction

469 4.1.1 There are three standard approaches a valuation specialist may consider in the valuation of customer-
470 related assets: the Income Approach, the Cost Approach, and the Market Approach. A general overview of the
471 three approaches (and variations, where applicable) follows below. The Working Group believes that the
472 methodologies discussed below are representative of best practices for financial reporting valuations.

473 4.1.2 The Income Approach is the most common approach used in the valuation of customer-related assets;
474 therefore, the application of the Income Approach is the primary focus of this Valuation Advisory. However, in
475 the valuation process, methodology or model choice should reflect careful qualitative and quantitative
476 assessment of the asset and the availability of necessary data. In addition, each of these approaches, as well of
477 the inputs used to value the customer-related assets, should be considered from the viewpoint of market
478 participants.

479 4.2 Income Approach

480 4.2.1 The Income Approach is used to estimate fair value based on the future cash flows that an asset can be
481 expected to generate over its useful life. The theory underlying this approach is that the valuation of an
482 investment in income-producing assets is directly related to the future cash flow generated by such assets. Cash
483 flow represents the recovery of the investment and the receipt of income produced by such an investment (a
484 return on that investment).

485 4.2.2 ASC 820 states that “the income approach uses valuation techniques to convert future amounts (for
486 example, cash flows or earnings) to a single present amount (discounted). The measurement is based on the
487 value indicated by current market expectations about those future amounts” (ASC 820-10-20).

488 4.2.3 The methods under the Income Approach that are commonly utilized to value customer related assets
489 are the following:

490 4.2.4 *Multi-Period Excess Earnings Method* – The Multi-Period Excess Earnings Method (MPEEM) is an
491 Income Approach methodology. The Working Group believes the MPEEM is the most common method for
492 valuing customer-related assets because it is used to measure economic benefits when they are difficult to
493 directly identify, but clearly have value. The MPEEM measures economic benefits by calculating the cash flow
494 attributable to an asset after deducting appropriate returns for contributory assets used by the business in
495 generating the customer-related asset’s revenue and earnings (commonly referred to as “contributory asset
496 charges” or CACs).

497 4.2.5 *Distributor Method* – The Distributor Method (also known as the Distributor Model) is a variation of
498 the MPEEM that may be appropriate when the nature of the relationship between an entity and its customers is
499 similar to that of a distribution company and its customers. Specifically, the Distributor Method is appropriate
500 when the customer-related activities and the value added by those activities are similar for the entity and
501 distributors. In these instances, the fact pattern would likely suggest that customer-related assets are not a
502 primary asset of the business. The application of the Distributor Method incorporates distributor-based margins
503 and CACs in the valuation of customer-related assets. Using distributor inputs directly isolates the cash flow
504 attributable to the customer-related assets, similar to how use of a royalty rate isolates cash flow associated with
505 a particular asset.

506 4.2.6 *With-and-Without Method* – The With-and-Without Method (sometimes referred to as the Premium
507 Profits Method, International Valuation Standard 210, *Intangible Assets*) estimates the value of customer-
508 related assets by quantifying the impact on cash flows under a scenario in which the customer-related assets
509 must be replaced (assuming all of the assets required to operate the business are in place except the customer-
510 related assets). The projected revenues, operating expenses, and cash flows are calculated in a “With” and
511 “Without” scenario, and the differential between the cash flows from the two scenarios serves as the basis for
512 estimating the fair value of the customer-related asset.

513 4.2.7 *Differential Cash Flows Method* – The Differential Cash Flows Method estimates the value of
514 customer-related assets by quantifying the incremental sales lost in absence of the existing customer
515 relationship asset. Operating expenses avoided in the absence of the existing customers as well as contributory
516 asset charges are included to determine the cash flows associated with the existing customer-related asset.

517 **4.3 Cost Approach**

518 4.3.1 The Cost Approach uses the concept of replacement as an indicator of fair value. The premise of the
519 Cost Approach is that a prudent investor would pay no more for an asset than the amount for which the utility of
520 the asset could be replaced.

521 4.3.2 ASC 820 defines the cost approach as follows: “The cost approach is a valuation technique based on the
522 amount that currently would be required to replace the service capacity of an asset (often referred to as current
523 replacement cost)” (ASC 820-10-20).

524 4.3.3 The SEC has indicated that in certain instances when using a replacement cost approach, it may also be
525 appropriate to include opportunity costs incurred while replacing the subject asset.⁴ These opportunity costs
526 represent the foregone cash flows during the period required to obtain or recreate the subject asset. In the view
527 of the Working Group, the Cost Approach is best used in circumstances where the customer-related asset can be
528 replaced in a short period of time and is likely to have relatively low opportunity costs or when total
529 replacement costs are easily estimated. In instances where it takes a long time to replace the customer-related
530 asset and opportunity costs may be significant or when replacement costs are not easily estimated, another
531 valuation methodology may be more appropriate.

532 **4.4 Market Approach**

533 4.4.1 The Market Approach is used to estimate fair value based on market prices of comparable assets. The
534 valuation process is essentially that of comparison and correlation between the subject asset and other similar
535 assets. Characteristics of the subject and similar assets and conditions of sale for comparable assets are
536 analyzed and potentially adjusted to indicate a value of the subject asset. For this approach to be reliable, there
537 are two requisites: an active market and an exchange of comparable assets.

538 4.4.2 ASC 820 states that the market approach is “a valuation technique that uses prices and other relevant
539 information generated by market transactions involving identical or comparable assets or liabilities (including a
540 business)” (ASC 820-10-20).

541 4.4.3 The Market Approach is rarely used for the valuation of customer-related assets because such assets
542 typically are not actively traded in observable markets. Instead, they are transacted along with other assets as
543 part of a business combination or an asset acquisition. This makes the Market Approach very difficult to apply
544 in practice. However, there are certain types of customer-related assets that may be valued using the Market

⁴See SEC Staff speech by Sandie Kim from December 2007.

545 Approach. For example, customer or subscription lists (or identifying information for customers) are often sold
546 in large groups and can be valued based on a price per name or price per field basis. In addition, pharmacy
547 prescription data and lists are often transacted and can be relied upon as a starting point to develop market-
548 based fair value assessments.

549 4.4.4 In our view, because transactions of customer-related assets typically are not observable, nor do they
550 occur in an active market, we believe that use of this approach will be rare. Valuation specialists should attempt
551 to use either the Income and/or Cost Approach when market-based indicators of value do not exist or are
552 perceived to be unreliable.

554 5.0 APPLICATION OF THE INCOME APPROACH

555 5.1 Introduction

556 5.1.1 The Income Approach is used to estimate fair value based on the future cash flows that an asset can be
557 expected to generate over its useful life. The theory underlying this approach is that the valuation of an
558 investment in income-producing assets is directly related to the future cash flow generated by such assets. Cash
559 flow represents the recovery of the investment and the receipt of income produced by such an investment (a
560 return on that investment).

561 5.1.2 Generally, the cash flows related to customer-related assets are generated by a group of assets working
562 together (i.e., the customer-related asset together with other assets of the business; for example, working
563 capital, property, plant, and equipment, trademarks, and technology). The use of an Income Approach involves
564 the determination of the following, each of which, as well as the value of the customer-related assets, should be
565 considered from a market participant viewpoint:

- 566 a. The cash flows applicable to the asset being valued;
- 567 b. The economic life of the asset; and
- 568 c. An appropriate discount rate that reflects the risk of the projected cash flows.

569 5.1.3 The following sections outline key assumptions used in the various Income Approach methodologies.

570 5.2 Multi-Period Excess Earnings Method (MPEEM)⁵

571 5.2.1 The MPEEM is a form of Income Approach where cash flows applicable to the asset being valued are
572 determined. Cash flows are based on prospective revenue and earnings, net of taxes and CACs for other assets
573 used in generating the revenue and earnings and other adjustments as applicable (e.g., deferred revenue
574 adjustment). Each of the major inputs to the MPEEM is described in more detail below. As indicated in other
575 sections of this Valuation Advisory, all inputs should be consistent with market participant assumptions.
576 Because the starting point is commonly the PFI prepared by the subject company, care must be taken to ensure
577 this consistency. In the following section, inputs most likely to require a market participant adjustment are
578 highlighted.

579 5.2.2 *Prospective Financial Information* – A financial forecast for the entity should be the starting point for
580 identifying the cash flows associated with customer-related assets. Adjustments to forecasts provided by
581 management may be necessary in order to ensure that the prospective financial information (PFI) used is
582 consistent with market participant assumptions.

583 5.2.3 Market participant revenue and operating expense synergies are included in fair value measurements of
584 intangible assets and should be identified in the customer-related asset forecasts and evaluated against
585 observable market participant data. Buyer-specific synergies are excluded from fair value measurements and
586 should be identified and excluded from customer-related asset forecasts.

587 5.2.4 *Customer Revenue* – The MPEEM begins with an estimation of the revenues associated with customers
588 present at the measurement date and should not include revenue attributable to future customer relationships.
589 Revenues may be based on the overall forecast or may be segmented in order to give consideration to multiple

⁵ This Method and certain of its inputs is discussed in more detail in the CAC Document.

590 groups of non-homogeneous customers. Revenues for each customer group are projected over their estimated
591 economic life based on expected growth and attrition (or probability of loss). The following inputs/factors
592 should be considered when assessing customer revenue.

593 5.2.5 Growth Rate for Existing Customers – Future revenue from existing customers should reflect price
594 and/or volume changes. Price changes represent variation in the price per unit, while volume changes represent
595 variation in the number of units sold. Price and volume projections should be consistent with market participant
596 expectations.

597 5.2.6 Revenue Synergies and Dis-Synergies – In some cases, market participants may believe that revenue
598 synergies or dis-synergies may be derived through an acquisition. Potential revenue synergies (e.g., cross-selling
599 opportunities, entrance into new market opportunities, etc.) or dis-synergies (e.g., revenue lost from buyer/target
600 product cannibalization, customers leaving post-acquisition to avoid supplier over-concentration, etc.) should be
601 reviewed to ensure that they are consistent with market participant assumptions. If they are deemed to reflect
602 market participant assumptions, the revenues should be included (for synergies) or excluded (for dis-synergies)
603 in the customer-related asset valuation. Revenue synergies should be valued in a manner similar to the existing
604 customer revenue (i.e., they should reflect an appropriate level of earnings, taxes and contributory charges).
605 However, in many situations, the profit margin and contributory asset charges related to the revenue synergies
606 will differ from those of the existing customer revenue. For example, if a buyer is projecting revenue synergies
607 from being able to sell a target’s products through the buyer’s existing distribution network, the revenues
608 associated with these sales may have different margins than the target’s overall business and require
609 contributory asset charges that are unique to this revenue stream (e.g., contributory asset charges for the buyer’s
610 distribution network, workforce, etc.).

611 5.2.7 Economic Life – Economic life is defined as “the period of time over which property may generate
612 economic benefits.”⁶ Cash flows are terminated when they or their present values become de minimis and no
613 longer have significant economic value. For backlog-type assets, contract terms or other reliable estimates of
614 order fulfillment may be available to estimate the economic life. For contractual customer relationships, the
615 economic life is generally based on the contractual term plus any expected renewals, which should be consistent
616 with the provisions of the contract and market participant assumptions.

617 5.2.8 For customer-related assets that are not subject to contracts with a defined length, the appropriate
618 economic life is less obvious and typically requires an attrition analysis. The economic life is a function of the
619 growth of existing customer revenue net of attrition. Frequently, the cash flows related to the projected revenue
620 approach, but never arrive at, zero. Such a result would imply an infinite projection period. As a result, a
621 question arises as to when the projections should be truncated in order to determine the economic life of the
622 customer relationship. Several common methods used in practice are outlined below:

623 5.2.9 Method A: The number of periods in the valuation model should be extended for many years until
624 effectively 100% of the cash flows are identified. Cash flows are extended until the inclusion of the last
625 discrete projection year does not materially change the value conclusion. This method is generally mechanical
626 in nature and extends the forecast period many years into the future, with no specified guideline for
627 determination of the point at which cash flows should be truncated.

628 5.2.10 Method B: Under this view, the valuation specialist determines when to truncate the cash flows. Two
629 approaches generally seen in practice are the following:

⁶International Glossary of Business Valuation Terms, which has been adopted by the American Institute of Certified Public Accountants, the American Society of Appraisers, the National Association of Certified Valuation Analysts, the Canadian Institute of Chartered Business Valuators, and the Institute of Business Appraisers.

630 a. Method B1: The number of periods in the valuation model is extended for many years so that
631 effectively 100% of the cash flows are identified, similar to the approach used in View A. However,
632 unlike View A, the number of periods in the valuation model is then truncated at the point where the
633 vast majority of the present value of the total cash flows is captured. Common thresholds used for the
634 vast majority of the present value of the total cash flows are 90%, 95%, or 99%.

635 b. Method B2: The valuation model is extended until the present value of cash flows occurring after the
636 final year is immaterial to the overall value. As a result, cash flows can be truncated at the point where
637 the present value of cash flow generated in a given year is less than a defined percentage of the
638 cumulative cash flows for all years up to and including that year. Common truncation points are where
639 the present value of the last discrete year of projected cash flows is adding 3%, 2%, or 1% to the present
640 value of the total cash flows captured up to that point.

641 5.2.11 Attrition – Attrition is the measurement of the rate of decay/loss of existing customers. Attrition can be
642 measured by reviewing lost customers, revenues, or other reasonable metrics. An attrition analysis is used to
643 assist in projecting the expected cash flows relating to existing customer-related assets. Given the uncertainty
644 in projecting the pattern of future revenues and cash flows to existing customer-related assets, attrition rates
645 based on historical customer data often are used to calculate the historical pattern of customer or revenue loss,
646 which can then be applied to future time periods. The following paragraphs will discuss best practices to
647 determine attrition patterns and apply them to future revenues or customer count.

648 5.2.12 Attrition rates generally are calculated based on an analysis of historical customer data. For customers
649 with similar characteristics (e.g., size and profitability), determining an attrition pattern using historical
650 population data is the generally accepted and most popular methodology used to estimate customer relationship
651 attrition and economic life parameters. In situations where the customer relationships have different size,
652 profitability, or other significant characteristics, it is sometimes necessary to divide the customer relationships
653 into smaller subsets and then utilize standard attrition methodologies. At other times, subsets are not necessary
654 because they have similar amortization patterns and would not derive a significantly different total value
655 conclusion than that derived valuing the customers in one group.

656 5.2.13 The most commonly used approaches to conduct the attrition analysis are outlined below and examples
657 of each are provided in Appendix A.

659 *Table 5.1: Commonly Used Attrition Approaches*

Approach	Description	Most Frequently Used When...	Advantages	Disadvantages
Historical Revenue Attrition	Revenue data for the customer population is available, by customer, for a historical period of time. The revenue data is studied and attrition is calculated using revenue gains and losses from the customer population studied.	<p>Historical revenue data per customer has been maintained by the acquired company.</p> <p>Historical revenue data for a similar customer population, such as the acquiring company, has been maintained and can be used as a proxy set of data.</p> <p>Future attrition expectations are expected to be similar to historical population characteristics.</p>	<p>Can be an objective input if complete data is available.</p> <p>Closest proxy for measuring expected changes in cash flow.</p>	<p>Data may not reflect a full business cycle and can be either overly optimistic or pessimistic.</p> <p>Highly dependent on quality of data and information systems, can be difficult to calculate.</p>
Historical Customer Attrition	Customer count data for the customer population is available for a historical period of time. Customer data is studied and attrition is calculated using customer additions and deletions from the population studied.	<p>Historical customer data has been maintained by the company.</p> <p>Historical customer data for a similar customer population, such as the acquiring company, has been maintained and can be used as a proxy set of data.</p> <p>Revenue per customer is consistent across the population and future revenue per customer can be projected and will be consistent for the population.</p>	<p>Intuitive.</p> <p>Can be a reasonable proxy for cash flow especially if customers generate equal revenue amounts.</p>	<p>Revenue attrition may differ significantly from customer attrition.</p> <p>Applications are limited to instances when individual customers within a sample have similar revenue amounts.</p>

660 5.2.14 In certain instances where there is very good quality historical customer data or very poor historical
661 customer data, it may be possible to use an alternative attrition methodology to those discussed above. High

662 quality data may enable the use of alternative statistical techniques; poor quality data may require the use of
663 management estimates.

664 5.2.15 Statistical techniques study customer account retirement behavior over a fixed historical period in order
665 to determine customer relationship life characteristics. One of the most widely used statistical techniques is the
666 retirement rate method. The retirement rate method starts by gathering open and close date information for both
667 active and retired customers within a population set. The observed historical retirement rates are calculated for
668 individual customer vintages using a time series analysis. These retirement rates are then combined to construct
669 an observed survivor curve for the customer population. Once the observed survivor curve is calculated, it is
670 compared to Iowa or Weibull survivor curve models to smooth the observed retirement pattern and extend the
671 survivor curve. Typically, a least squares regression technique is used to compare the observed curve to the
672 survivor curve models. Using this technique allows one to compare the observed curve to the model survivor
673 curve and determine which model best minimizes the squared differences. However, these techniques are rarely
674 used in practice as sufficient data typically is not available.

675 5.2.16 These other attrition alternatives are outlined below:

676 ***Table 5.2: Other Attrition Approaches***

Approach	Description	Most Frequently Used When...	Advantages	Disadvantages
Retirement Rate Method	Starts by gathering open and close date information for both active and retired customers within a population set. The observed historical retirement rates are calculated for individual customer vintages using time series analysis. These retirement rates are then combined to construct an observed survivor curve for the customer population.	Good historical data on open date and retirement date for the customer population.	Widely recognized statistical technique.	Requires good quality historical data on the customer population. Requires more statistical knowledge and sophistication. Results may be difficult to interpret.
Management Estimate	Management estimates the future attrition of the customer population or estimates the expected future revenue to be derived from the existing customer population.	Limited data has been maintained by the acquired company and information available from the acquiror is not helpful. The acquired company is a start-up and has a limited history of customer attrition. Future attrition expectations are expected to be different than historical population characteristics.	Inputs are based on management's educated estimate and reflect experience and qualitative info.	Lack of objective data.

677 5.2.17 While the above four methods of estimating attrition are useful, there are a number of circumstances in
678 which an analysis of historical attrition may be inadequate when projecting future attrition.

679 a. *Arbitrary or Random Customer Purchases* – Customers may make purchases in a non-predictable or
680 seemingly arbitrary manner. In these cases, the guiding principle remains estimating the cash flow that
681 is attributable to current customers. As such, the analysis should focus on determining a normalized or
682 longer-term expected pattern. It may be that customer purchases are random month-over-month or even
683 year-over-year but exhibit an even longer-term trend, possibly based on economic cycles. In some
684 cases, an analysis of aggregate revenue from a group of customers may be appropriate if the buying
685 patterns are uncorrelated and an increase in purchases by one customer is offset by an unrelated decline
686 in purchases by another customer. Even if purchase levels are considered random, it may be expected
687 that customers would leave over time.

688 b. *Small Number of Customers* – If a small number of historically stable customers account for a
689 significant portion of revenue, historical attrition may understate the true risk of customer loss. In this
690 case, it may be possible to estimate the probability of each customer renewing their purchases using
691 specific customer and contract characteristics. Or, an aggregate customer analysis that views the
692 attrition rate as more of a probability adjustment may be more appropriate.

693 c. *No Observed Historical Attrition* – Sometimes, customers or certain groups of customers with the same
694 vintage have historically exhibited little or no actual revenue attrition, or possibly even revenue growth.
695 This may occur in industries where customers are large and the customer universe is small. This pattern
696 may be expected to persist going forward, but it could also be the result of a period of unsustainable
697 growth, a change in customer characteristics, or simply an entity having a very limited number of
698 customers. If the pattern is expected to persist as observed in the past, historical attrition may be used to
699 project future cash flows. However, in most cases it is likely this pattern would no longer hold and
700 normal attrition would occur at some point in the future. Other methods would need to be explored,
701 including an analysis of a shorter period of time, further customer sampling, or an analysis of economic
702 or other external factors. Detailed guidance from management may be required.

703 d. *Customer Retention is Related to Other Assets* – Customer retention may be driven by another asset
704 (e.g., technology). If the life of the customer is constrained by an asset with a limited life, this factor
705 should be incorporated into the valuation of the customer-related asset. However, if customer attrition is
706 calculated to be low, or even zero, due to the presence of another asset in the business, a question arises
707 as to whether future cash flows should be considered attributable to current customers.

708 5.2.18 When low or zero attrition rates are observed in historical data and customer retention is driven by an
709 asset class other than customer-related assets, there are two views on how the economic lives of customer-
710 related assets should be determined:

711 5.2.19 View A: The low attrition rate is a characteristic of the customer relationship. The value of the
712 customer relationship asset should reflect the unadjusted expected customer attrition.

713 5.2.20 View B: While customers may continue purchasing for a long period of time, their purchases are not
714 entirely attributable to relationships with the subject business but to some other factor, such as the existence of
715 products or technologies that drive customer retention or the ability of the subject business to invest in another
716 asset or adapt to changing markets. In some cases, absent these efforts by the subject business, customers
717 would leave over time. After a certain point in time, cash flow generated through these customers can
718 reasonably be ascribed to post-acquisition efforts of the subject business as opposed to pre-acquisition
719 relationships. The economic life of the customer relationships should be assessed in the context of these post-
720 acquisition considerations and may reasonably be shorter than historical attrition estimates would imply.

721 Discussion questions regarding paragraphs 5.2.18 and 5.2.20:
722 Should the assessment of economic lives of customer relationships include consideration of post-
723 acquisition efforts and their effect on customer buying patterns, or should very low projected attrition
724 imply very long customer lives in all cases? In other words, should the valuation specialist consider
725 factors other than observed or projected attrition when determining customer lives?

726 5.2.21 For some types of businesses (those providing services to customers at a specific location, for instance),
727 attrition can be bifurcated into migration churn and loss churn. Migration churn is typically applicable in
728 situations where customers are identified by location or address and occurs when a customer changes location
729 and must stop and re-start service (for example, a cable customer moves and disconnects service but re-
730 subscribes from a new location). Loss churn refers to the total loss of a customer. The decision as to whether a

731 customer relationship is severed upon the migration of a customer is a subjective one and should be discussed
732 with management. Factors to consider in making this determination include:

- 733 a. The opportunity of the customer to change providers during the move and the ease of doing so;
- 734 b. The length of the period between stopping and re-starting the service; and
- 735 c. Whether the migration is seamless or whether a material selling effort is required to retain the customer.

736 Discussion questions regarding paragraph 5.2.21:

737 Should migration churn be included in customer attrition calculations?

738 5.2.22 Total business revenue is always derived from two sources: customers that existed at the date of value
739 and customers added subsequently. Implicit in this, a valuation specialist could also determine attrition of
740 revenues from customers that existed at the measurement date by studying what portion of total forecasted
741 revenue is assumed to be derived from customers who were added subsequently. The reasonableness of attrition
742 assumptions should be assessed in the context of the overall business revenue projection. This can be
743 accomplished by using the existing customer revenue projection and the total customer revenue projection to
744 imply other assumptions that must be made regarding new customers. For example, what is the implied new
745 market share (i.e., share captured) of potential new customers in each period? What is the implied incremental
746 market share captured each year? The answers to these questions should be assessed for reasonableness.

747 5.2.23 After determination of revenue, the next step in the MPEEM is to estimate the operating margin
748 expected to be earned by the customers being valued.

749 5.2.24 *Expected Profitability/Earnings* – The initial basis for estimating the expected profitability of existing
750 customers should be the PFI. If the PFI includes expenses that are unrelated to the customer relationships being
751 valued, it should be adjusted to exclude these expenses. Examples include the portion of sales and marketing
752 expense associated with the addition of new customers and the portion of research and development (R&D)
753 expense associated with new products that will only be purchased by new customers. In addition, the
754 amortization of intangible assets should not be deducted in arriving at the expected profitability.

755 5.2.25 In circumstances where the buyer is projecting market participant revenue synergies or dis-synergies as
756 part of the transaction, the valuation specialist should ensure consistency when evaluating the incremental profit
757 or loss related to the synergies.

758 5.2.26 When multiple customer groups are present and management does not track operating expenses by
759 customer group, the expenses should be allocated in an economically appropriate manner. Commonly used
760 allocation metrics include customer count, volume, revenue, and gross profit.

761 5.2.27 Certain expense adjustments may also be necessary to be consistent with the CACs being applied.
762 When the assembled workforce CAC is applied such that it captures the initial value of the assembled
763 workforce as well as growth in the workforce over time, the MPEEM should exclude operating expenses related
764 to the growth of the workforce to avoid double counting. It is noted, however, that future operating expenses
765 should include costs related to maintaining the assembled workforce that existed on the measurement date. The
766 Working Group notes that this adjustment is seldom done in practice, possibly due to a lack of materiality.

767 5.2.28 Certain CACs are often applied in the form of a royalty rate (e.g., for trademarks, technology, or other
768 intellectual property). The expenses being applied should be consistent with the assumptions of the selected
769 royalty rate. For example, if the technology royalty rate is inclusive of R&D spending, then R&D expenses
770 should be excluded from operating expenses to avoid double counting. Alternatively, if the royalty payment is

771 for use of current technology only and does not support R&D investments, R&D expenses should be included in
772 the expense projections.

773 5.2.29 For further discussion related to the above CAC-related adjustments, see the CAC Document.

774 5.2.30 *Taxes* – The tax rate used should reflect the tax implications from a market participant perspective. The
775 tax rate should not include entity-specific considerations (e.g., net operating losses or NOLs, tax credits, etc.).
776 While these tax attributes contribute to the value of the entity, they do not affect the value of the customer
777 relationships. A common starting point is the statutory tax rate, which is the rate the company pays on its
778 income prior to any adjustments for NOLs, tax credits, or other similar items. This generally includes both a
779 Federal and state component in the U.S. For non-U.S. companies or companies that are taxed in multiple
780 jurisdictions, the valuation specialist should determine the appropriate rate for the tax jurisdiction(s).

781 5.2.31 *Contributory Asset Charges* – The application of the MPEEM includes the estimation of CACs (also
782 known as capital charges). A CAC represents the return on investment (“ROI”) an owner of the asset would
783 require. The ROI is comprised of a pure investment return (commonly referred to as return on) and, in cases
784 where the contributory asset deteriorates in value over time, a recoupment of the original investment amount
785 (commonly referred to as return of). The distinguishing characteristic of a contributory asset is that it is not the
786 subject income-generating asset itself; rather, it is an asset that is required to support the subject income-
787 generating asset. The CAC represents the charge that is required to compensate for an investment in a
788 contributory asset. In other words, it is a means of allocating a portion of the subject entity’s expected cash
789 flow to each of the contributory assets that support that cash flow, giving consideration to rates of return
790 required by market participants investing in such assets. By including CACs in the valuation of the subject
791 asset, the cash flow related to the subject asset can be isolated and discounted at an appropriate rate of return to
792 estimate fair value. Similar to the revenue and earnings, care must be taken to ensure that the CACs are
793 consistent with the market participant synergy-adjusted PFI. This may include CACs on buyer assets utilized in
794 generating the projected synergies. The issue of preferred methods for determining appropriate CACs for use in
795 the MPEEM is the focus of the CAC Document. Please reference this document for a detailed discussion of this
796 MPEEM component.

797 5.2.32 *Discount Rate* – When valuing customer-related assets using the MPEEM, the discount rate chosen
798 should reflect the risk profile of the customer-related assets from a market participant perspective. The
799 estimated weighted average cost of capital (“WACC”); cost of equity capital; and the internal rate of return
800 (“IRR”) for the overall entity are reference points to determine the discount rate of a customer relationship
801 asset.

802 5.2.33 The WACC is based on an analysis of current market rates of return in the subject industry and
803 represents the *return on* the investment in the subject entity required by market participants, including both debt
804 and equity investments. The WACC represents the required returns on interest-bearing debt and equity capital
805 weighted in proportion to their estimated percentages in an expected industry capital structure. The required
806 return on equity capital for an entity is commonly estimated using the capital asset pricing model (“CAPM”).
807 However, there are other methods that can potentially be utilized to calculate required equity returns, such as
808 the Fama-French three-factor model and the buildup method. Regardless of the method used, the WACC
809 should include risk elements that a market participant would consider when evaluating the subject company or
810 subject assets and liabilities. Judgment must be used to adjust the WACC for the specific risk elements or
811 characteristics of the customer relationship.

812 5.2.34 An IRR typically is calculated in a business combination and represents the discount rate which equates
813 the present value of the PFI to the purchase price. The WACC and the IRR should be compared and reviewed
814 for reasonableness. An IRR that is significantly different from the WACC may warrant a reassessment of both
815 the PFI and the WACC calculation to determine if market participant assumptions are being consistently

816 applied or if adjustments need to be made in either the PFI or WACC. While the purchase price is often the
817 best indication of fair value, the valuation specialist needs to be alert for circumstances when this is not the case
818 and there is evidence of buyer-specific synergies, over-payment, or a bargain purchase.

819 5.2.35 The CAC Document notes that “typically intangible assets necessitate a higher rate of return than the
820 WACC, due to the riskier and less liquid nature of intangible assets relative to working capital and fixed
821 assets...Circumstances can arise where the required return on intangible assets is at or below the WACC,
822 depending on the relative asset mix and the specific nature of the intangible assets.” In deriving an appropriate
823 discount rate for a specific intangible asset, it may be useful to first calculate the average return to intangible
824 assets and goodwill in aggregate. This approach still relies on the WACC or IRR but provides additional
825 insight into the risk profile of the goodwill and intangible assets as a group. Individual intangible asset discount
826 rates can then be determined. Using the WACC, cost of equity capital, IRR, or the average intangible asset and
827 goodwill discount rate as a starting point, a number of customer-related risk issues should be analyzed when
828 determining the appropriate discount rate for customer-related assets relative to these benchmarks, including:

- 829 a. Risk profile of the customer-related asset cash flow (i.e., more or less risky than the overall company
830 cash flow, more or less risky than other fixed/intangible assets);
- 831 b. Source of future business growth (established customer relationships versus new customers);
- 832 c. Presence of significant switching costs;
- 833 d. Nature of relationships (presence or lack of a long term contract);
- 834 e. If a contract is present, length of the contract, strength/enforceability of the contract, and likelihood of
835 renewal;
- 836 f. Reasons customers are retained; and
- 837 g. Stability/volatility of individual relationships and the revenue derived from those relationships.

838 5.2.36 The above is not intended to be an exhaustive list. Further, while certain factors may lead to increased
839 or decreased risk (and therefore higher or lower discount rates), these factors should not be viewed from a
840 mechanical checklist or build-up perspective. Rather, these factors should assist the valuation specialist in
841 choosing an appropriate discount rate by enabling a more complete understanding of the valuation.

842 5.2.37 Once the fair value of the assets and liabilities have been estimated, an analysis is performed to evaluate
843 whether the rates of return (i.e., discount rates) used to estimate the fair values of the individual assets that were
844 valued using an Income Approach and the implied return on goodwill are reasonable in the context of the IRR
845 and the WACC. This analysis is known as the weighted average return on assets (WARA). The WARA is
846 calculated as the sum of the required rates of return for normal working capital, fixed assets, and intangible
847 assets, weighted by each asset's proportionate share of the total sum of those assets.

848 5.2.38 The returns indicated by the three methods (IRR, WACC, and WARA) should be reviewed for
849 reasonableness and any material differences should cause additional analysis. The additional analysis may
850 include material revisions to the fair values that were originally estimated or revisions to the PFI used in the
851 analysis. If the PFI is determined to reflect market participant assumptions and acquirer-specific synergies are
852 not included and the WACC, WARA, and IRR still do not reconcile, it may indicate over-payment or under-
853 payment for the acquired entity. There is additional discussion regarding the WARA analysis and the
854 estimation of asset discount rates in the CAC Document.

855 5.2.39 Tax Amortization Benefit – A Tax Amortization Benefit (TAB) reflects the present value of tax savings
856 relating to the amortization of the intangible asset over its tax life. The TAB is included in the value
857 conclusion, whether the actual or hypothetical transaction is taxable or non-taxable, for all intangible assets that

858 are valued using an income-based technique including the MPEEM. Accounting guidance in U.S. GAAP (such
859 as FASB Statement No. 109, *Accounting for Income Taxes*) requires that fair value should not be net of any
860 deferred tax liability or asset. It is generally believed that the fair value of an asset should not differ because the
861 tax structure of a transaction differed. Generally accepted valuation methodology follows this guidance. The
862 inputs to the TAB calculation include an appropriate discount rate, the tax rate used in the model, and the
863 number of years for which the tax deduction is effective. In the U.S., there is a 15-year statutory life for most
864 intangible assets. In other jurisdictions around the world, there are a variety of conventions ranging from a
865 statutory life to the estimated useful life. In some countries, the amortization of intangible assets for tax
866 purposes is not permitted. The valuation specialist should be cognizant of tax regulations and tax jurisdictions
867 around the world and whether those factors will impact the use of the TAB. The following example outlines
868 how to calculate a TAB (assuming U.S. tax law).

869 **Table 5.3: TAB Calculation**

Assumptions																
Present Value of Customer Relationship Cash Flows Excluding Value of TAB	100.00															
Straight Line Annual Tax Amortization Period in Years (n)	15.0															
Discount Rate (r)	12.5%															
Tax Rate (t)	40.0%															
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	
Present Value of Cash Flows Excluding TAB	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Straight Line Annual Amortization Rate	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%
Tax Rate	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Present Value Factor (1)	0.9428	0.8381	0.7449	0.6622	0.5886	0.5232	0.4651	0.4134	0.3675	0.3266	0.2903	0.2581	0.2294	0.2039	0.1813	
Present Value of TAB Step-Up Factor	2.51	2.23	1.99	1.77	1.57	1.40	1.24	1.10	0.98	0.87	0.77	0.69	0.61	0.54	0.48	
TAB Step-Up Factor	18.76															
Fair Value of Customer Relationship (2)	123.09															
Less: Present Value of Cash Flows Excluding TAB	100.00															
TAB	23.09															
Sample Calculations																
(1) Calculated Using Mid-Year Convention																
(2) Fair Value of Customer Relationship = (Present Value of Cash Flows Excluding TAB / (1 - TAB Step-Up Factor / Present Value of Cash Flows Excluding TAB))																

870 5.2.40 The value of the TAB can also be calculated using the following equation:

871 $TAB = \text{Present Value of Cash Flows Excluding TAB} * (n / (n - (\text{Annuity Factor} * \text{Mid-Year Convention}$
872 $\text{Adjustment Factor} * t)) - 1)$, where:

873 $\text{Annuity Factor} = (1 / r) - ((1 / r) / (1 + r)^n) = PV(r, n, -1)$

874 $\text{Mid-Year Convention Adjustment Factor} = (1 + r)^{0.5}$

875 Where: n = Straight Line Annual Tax Amortization Period in Years

876 t = Tax rate

877 r = Discount Rate

878 Applied to the example above, the TAB equation would be:

879 $TAB = 100 * (15 / (15 - (PV(0.125,15,-1) * (1 + 0.125)^{0.5} * 0.4)) - 1) = 23.09$

880 5.3 Distributor Method

881 5.3.1 The Distributor Method, a subset of the MPEEM, relies upon market-based distributor data or other
882 appropriate market inputs to value customer relationships. The underlying theory is that a business is composed

883 of various functional components (such as manufacturing, distribution, and intellectual property) and that
884 market-based data may be used if available to reasonably isolate the revenue, earnings, and cash flow related to
885 these functional areas. A benefit of using the Distributor Method is that it uses market-based data to support the
886 selection of profitability related to the customer relationship function (similar to selection of a royalty rate in a
887 relief-from-royalty model), thereby allowing the use of the standard MPEEM to value another asset of the
888 business (typically a primary asset). The Distributor Method may not be appropriate if the valuation specialist
889 is not using the standard MPEEM to value a primary asset of the subject business.

890 5.3.2 One example where the Distributor Method may be applied is in valuing the customer relationships of
891 companies who market branded consumer products. Customer relationships in this industry generally have a
892 supporting role and in many cases are extremely stable due to end consumer demand for the company's
893 products. Distributor inputs serve as a reasonable proxy for the inputs used to value customer relationships
894 because the customer relationships of manufacturing companies in the consumer products industry may be
895 similar to those of distributors and have similar rights and obligations. The relationships are generally
896 transactional in nature with minimal switching costs. Additionally, using distributor inputs is appealing when
897 valuing customer relationships because it more directly isolates the cash flow attributable to the customer assets.
898 For example, the cash flows related to the product technology or brand are included in the distributor's cost of
899 goods sold (i.e., product cost). This methodology establishes value for customer relationships and enables the
900 use of the MPEEM to be used to value a primary asset of the business (e.g., brand or technology). The
901 Distributor Method and its variations may be applied to many different industries, including the consumer
902 products industry, a wide range of manufacturing industries, and others.

903 5.3.3 There may be additional situations where a selected group of companies provides an appropriate proxy
904 for the customer relationship function. An example would be an industry in which certain companies have
905 propriety intellectual property ("IP") and others do not. Those that do not have proprietary IP would likely have
906 lower margins and may, for purposes of valuing the customer related asset, provide reasonable inputs in the
907 same manner as a distributor. Similarly, the MPEEM (using company-specific inputs) may then be used to
908 value another asset, which would likely be the IP.

909 5.3.4 Key inputs to the Distributor Method are described below. These inputs should be considered from a
910 market participant perspective.

911 5.3.5 *Comparable Companies* – When applying the Distributor Method, the valuation specialist should select
912 a group of comparable distributors such that the nature of the relationship between the entity and its customers
913 is similar to that of the distribution comparables and their customers. Several types of distributors are typically
914 observed in the marketplace. For example, distributors of branded consumer products have limited margins and
915 although they can distinguish themselves in the marketplace through pricing and service, they have no ability to
916 differentiate through the goods they sell because typically other distributors are selling the exact same products.
917 In contrast, industrial distributors may be able differentiate based on pricing and service as well as breadth of
918 inventory and the related ability to provide specialized products demanded by customers. Finally, value added
919 distributors/resellers may realize higher margins because they are providing additional value in the form of
920 services.

921 5.3.6 *Revenue* – Similar to the earlier description for the MPEEM, revenues projected in the Distributor
922 Method should reflect revenue expected from the acquired customers and should include expected growth and
923 attrition for the subject company, as described previously in Section 5.2 of this Valuation Advisory.

924 5.3.7 *Expected Profitability/Earnings* – When valuing customer-related assets under the Distributor Method,
925 margins used in the MPEEM should be consistent with those realized by distributors or other businesses that
926 share characteristics similar to the customer-related assets being valued. . It is important to understand the
927 nature of the customer relationship so that an appropriate market-based margin may be applied. For instance, if

928 the relationships are purchase order-based (and similar to those of a distributor), a distributor-type margin may
929 be most appropriate. On the other hand, if the company’s relationships with its customers are stronger and the
930 company provides additional services, a value added reseller margin may be more appropriate. The selection of
931 the appropriate margin requires an understanding of the nature of the company’s relationships with its
932 customers and involves judgment in determining the appropriate group of comparable companies and where the
933 subject relationships fit within that group.

934 5.3.8 *Contributory Asset Charges* – The CAC assumptions utilized in the application of the Distributor
935 Method should be consistent with the selection of the distributor margin and will include CACs for assets
936 utilized by a distributor. These assets typically include working capital, fixed assets, corporate trademarks, and
937 workforce. CACs should not be included for assets not typically used by distributors, such as product
938 trademarks or technology. CACs for these assets are not required because their value is captured in the
939 distributor’s cost of goods sold. The Working Group notes that CACs for a distributor in aggregate are
940 typically lower than the CACs for an integrated entity that also performs other non-distribution activities.
941 Please reference the First Working Group Paper for a detailed discussion of CACs.

942 5.3.9 *Discount Rate* – Selection of the appropriate discount rate is generally calculated in a similar manner as
943 described above for the MPEEM, but with one potential additional consideration. In addition to the market-
944 based WACC or transaction-based IRR, it is also possible to calculate a WACC using distributor inputs. The
945 distributor WACC calculation would incorporate distributor betas and capital structures. As there are typically
946 more publicly traded companies in a given industry than publicly traded distributors in the same industry, the
947 information required for the distributor WACC calculation may be limited and the result should be viewed as an
948 additional or corroborating input rather than a primary input. Regardless of the method used, the selected
949 discount rate should appropriately match the risk characteristics of the customer-related asset being valued.

950 5.3.10 *Other Considerations* – Other considerations, such as calculating the TAB and determining the
951 economic life are consistent with the general form of the MPEEM as described earlier.

952 **5.4 With-and-Without (or Premium Profits) Method**

953 5.4.1 The With-and-Without Method is a specific application of the Income Approach. This method
954 estimates the value of customer-related assets by quantifying the impact on cash flows under a scenario in
955 which the customer-related assets must be replaced and assuming all of the assets required to operate the
956 business are in place except the customer-related assets.

957 5.4.2 This method requires two models to be used to value the customer-related asset. The “With Scenario”
958 (also referred to as the “Base Case”) captures the estimated cash flows from the business if all of the assets were
959 in place *including* the customer-related assets. In forecasting the cash flows of the business with the customer-
960 related assets in place (the With Scenario), the information used should be consistent with or a component of
961 the overall PFI for the business. The “Without Scenario” captures the estimated cash flows from the business if
962 *all* of the assets were in place *except* the customer-related assets. The forecasted cash flow includes the impact
963 of re-establishing the customer-related assets (i.e., the cost to recreate the customer-related assets). The key
964 adjustments made in developing the Without Scenario are detailed below.

965 5.4.3 *Revenue* – The Without Scenario revenue projection involves estimating the sales levels generated if
966 the customer-related assets did not exist at the measurement date and had to be established with the benefit of
967 all other assets in place. To estimate the impact on revenue, the following key factors should be considered:

- 968 a. Expected time to recreate customer-related assets and achieve revenue levels projected in the With
969 Scenario;
- 970 b. Historical time it took to build the customer-related assets to current revenue levels;

- 971 c. Typical sales cycle;
- 972 d. Length of time it takes to establish a new relationship with a prospect;
- 973 e. Typical length of time between a sales proposal and a customer placing an order;
- 974 f. Level of competition in the industry; and
- 975 g. Switching costs for the customer once they have accepted and started using the vendor's product. For
- 976 example, if products are typically designed into a customer's end product specifications for an entire
- 977 product cycle, it may take more time to establish the initial customer relationship.

978 5.4.4 *Cost of Goods Sold* – If there are high fixed costs associated with manufacturing/servicing the product

979 and/or low market pricing is required to gain market share, the costs of goods sold assumption should be

980 adjusted to reflect the lower gross margins that would be generated.

981 5.4.5 *Operating Expenses/Replacement Costs* – The PFI also should be adjusted to include the additional

982 direct and indirect costs that would be incurred to re-establish the customer-related assets. Examples of

983 replacement costs that may be required to establish relationships include:

- 984 a. Additional selling costs associated with headcount, travel, etc., that would be required to reestablish
- 985 customer relationships. As a benchmark, it is helpful to understand what portion of the subject business
- 986 headcount and expenses support the generation of new customers; and
- 987 b. R&D and other engineering costs associated with customizing products to re-establish customer
- 988 relationships.

989 5.4.6 *Additional Assets and Expenditures* – The PFI should also consider the impact of any additional assets

990 or expenditures necessary to achieve the incremental economics associated with re-building the existing

991 customer base.

992 5.4.7 *Determining Fair Value* – The fair value of the customer-related asset is determined as follows:

- 993 a. Determine the With Scenario fair value;
- 994 b. Develop the Without Scenario fair value;
- 995 c. Subtract the With Scenario fair value from the Without scenario fair value; and
- 996 d. Add the TAB to conclude on the fair value for the customer-related asset.

997 ***Example 5.1: With-and-Without Method***

998 Company A acquires Company B, a developer of software technology solutions. Company A acquired
999 Company B primarily for its technology and all other assets were thought to be easily replaceable. Company
1000 B's customer-related assets were valued using the With-and-Without Method. Based on a review of Company
1001 B's operations, it is believed that the customer-related assets could be replaced ratably over a period of two
1002 years. The discount rate is 12.5% and the tax rate is 40%. The fair value of the customer-related assets is
1003 determined to be \$354.5 million, as calculated below:

With-and-Without Method (With Scenario)				
	Year 0	Year 1	Year 2	Year 3
Revenue With Existing Customers	\$ 750.0	\$ 1,000.0	\$ 1,200.0	\$ 1,500.0
Less: Cost of Goods Sold	<u>(375.0)</u>	<u>(500.0)</u>	<u>(600.0)</u>	<u>(750.0)</u>
Gross Profit	375.0	500.0	600.0	750.0
Less: Operating Expenses	(150.0)	(200.0)	(240.0)	(300.0)
Less: Incremental "Re-Creation" Expenses	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Pre-tax Income	225.0	300.0	360.0	450.0
Less: Income Taxes (40.0%)	<u>(90.0)</u>	<u>(120.0)</u>	<u>(144.0)</u>	<u>(180.0)</u>
Net Income	135.0	180.0	216.0	270.0
Plus: Depreciation		50.0	60.0	75.0
Less: Changes in NWC		(20.0)	(16.0)	(24.0)
Less: CAPEX		<u>(50.0)</u>	<u>(60.0)</u>	<u>(75.0)</u>
Net Returns on Customer-related Assets		\$ 160.0	\$ 200.0	\$ 246.0
Midpoint		0.5	1.5	2.5
Present Value Factor		0.9428	0.8381	0.7449
Present Value of Cash Flows		<u>\$ 150.8</u>	<u>\$ 167.6</u>	<u>\$ 183.3</u>
Sum of Present Value of Cash Flows (With Scenario)		\$ 501.7		
Sum of Present Value of Cash Flows (Without Scenario)		213.8	See schedule on next page.	
Difference Between Scenarios		288.0		
TAB		<u>66.5</u>		
Fair Value		<u>\$ 354.5</u>		
TAB Calculation:				
Tax Life (n)	15			
Tax Rate (t)	40.0%			
Discount Rate (r)	12.5%			
Annuity Factor	6.63	= PV(r, n, 1)		
Mid-Year Adj Factor	1.06	= (1 + r) ^ 0.5		
TAB Factor	23.1%	= (n / (n - (Annuity Factor * Mid-Year Adj Factor * t)) - 1)		

Working Capital (WC) Calculation					
		Year 0	Year 1	Year 2	Year 3
Accounts Receivable (% of Rev.)	7.5%	56.3	75.0	90.0	112.5
Inventory (% of CoGS)	15.5%	58.1	77.5	93.0	116.3
Accounts Payable (% of CoGS)	14.5%	54.4	72.5	87.0	108.8
Total WC		60.0	80.0	96.0	120.0
WC / Revenue		8.0%	8.0%	8.0%	8.0%
WC Investment			20.0	16.0	24.0

With-and-Without Method (Without Scenario)				
	Year 0	Year 1	Year 2	Year 3
Revenue Without Existing Customers	\$ 750.0	\$ 200.0	\$ 800.0	\$ 1,500.0
Less: Cost of Goods Sold	<u>(375.0)</u>	<u>(100.0)</u>	<u>(400.0)</u>	<u>(750.0)</u>
Gross Profit	375.0	100.0	400.0	750.0
Less: Operating Expenses	(150.0)	(40.0)	(160.0)	(300.0)
Less: Incremental "Re-Creation" Expenses	<u>-</u>	<u>(100.0)</u>	<u>(100.0)</u>	<u>(100.0)</u>
Pre-tax Income	225.0	(40.0)	140.0	350.0
less: Income Taxes (40.0%)	<u>(90.0)</u>	<u>16.0</u>	<u>(56.0)</u>	<u>(140.0)</u>
Net Income	135.0	(24.0)	84.0	210.0
Plus: Depreciation		50.0	60.0	75.0
Less: Changes in NWC		1.4	(5.4)	(56.0)
Less: CAPEX		<u>(10.0)</u>	<u>(40.0)</u>	<u>(75.0)</u>
Net Returns on Customer-related Assets		\$ 17.4	\$ 98.6	\$ 154.0
Midpoint		0.5	1.5	2.5
Present Value Factor		<u>0.9428</u>	<u>0.8381</u>	<u>0.7449</u>
Present Value of Cash Flows		<u>\$ 16.4</u>	<u>\$ 82.7</u>	<u>\$ 114.7</u>
Sum of Present Value of Cash Flows (Without Scenario)		<u>\$ 213.8</u>		

Working Capital (WC) Calculation					
	Year 0	Year 1	Year 2	Year 3	
Accounts Receivable (% of Rev.)	7.5%	56.3	15.0	60.0	112.5
Inventory (Max of % of CoGS & Starting Inv.)	15.5%	58.1	58.1	62.0	116.3
Accounts Payable (% of CoGS)	14.5%	54.4	14.5	58.0	108.8
Total WC		60.0	58.6	64.0	120.0
WC / Revenue		8.0%	29.3%	8.0%	8.0%
WC Investment			-1.4	5.4	56.0

Comments:

- > Cost of Goods Sold and Operating Expenses are a stable % of revenue. As such, their levels reflect revenue levels.
- > The Incremental "Re-Creation" Expenses are those required to re-create the lost customer relationships.
- > The Pre-Tax Income reflects the offsetting effects of lower CoGS and Operating Expenses in conjunction with higher Re-Creation expenses.
- > Working capital was projected by modeling A/R, Inventory and A/P.
 - A/R is modeled as a constant percent of revenue, as such it declines when revenue declines.
 - Inventory is modeled as the greater of a % of CoGS or starting Inventory. This reflects the expectation management would not liquidate inventory they could sell after a modest period of time.
 - A/P is modeled as a constant percent of CoGS, as such it declines when CoGS declines.
- The overall working capital source/use reflects the contrasting impacts of these items.
- > Depreciation is the same as the With Scenario as it is assumed there are no changes to the fixed asset base.
- > Capex is lower in the mid-term as it is assumed to be a percent of revenue.

1004 Discussion questions regarding Section 5.4:

1005 What is the most appropriate discount rate for the Without Scenario?

- 1006 – A higher discount rate than in the With Scenario
- 1007 – The same discount rate as used in the With Scenario
- 1008 – A lower discount rate than used in the With Scenario

1009 If a different discount rate is used in the With Scenario and the Without Scenario, what discount rate
1010 should be used in the Weighted Average Return on Assets (“WARA”) calculation in a business
1011 combination?

1012 5.5 Differential Cash Flow Method

1013 5.5.1 Under this technique, the differential cash flows associated with the existing customer-related asset
1014 (i.e., the difference in the cash flows resulting from the existing customer-related assets being in place versus
1015 not being in place) are estimated. If the target company has multiple sales channels and/or groups of customers
1016 with different characteristics (i.e., cost and time to build the relationships, profitability, etc.), it may be
1017 appropriate to value the various classes of customers separately. The key assumptions made in developing the
1018 differential PFI are detailed below.

1019 *Revenue* – The revenue projection involves estimating the incremental sales lost in absence of the existing
1020 customer relationship asset. To estimate the impact on revenue, the following key factors should be considered:

- 1021 a. Expected time to recreate customer-related assets;
- 1022 b. Historical time it took to build the customer-related assets to current revenue levels;
- 1023 c. Typical sales cycle considerations;
- 1024 d. Length of time it takes to establish a new relationship with a prospect;
- 1025 e. Typical length of time between a sales proposal and a customer placing an order;
- 1026 f. Level of competition in the industry; and
- 1027 g. Switching costs for the customer once they have accepted and started using the vendor’s product. For
1028 example, if products are typically designed into a customer’s end product specifications for an entire
1029 product cycle, it may take more time to establish the initial customer relationship.

1030 5.5.2 *Cost of Goods Sold* – Cost of goods sold not required by the business enterprise due to absence of the
1031 existing customer base and/or associated with the lost customer relationships should be subtracted from the
1032 incremental revenue lost.

1033 5.5.3 *Operating Expenses* – The PFI should also include all expenses avoided in the absence of the existing
1034 customers including:

- 1035 a. Maintenance sales and marketing expenses and
- 1036 b. R&D and other engineering costs associated with developing and maintaining products expected to be
1037 sold to the existing customer related asset.

1038 5.5.4 *Contributory Asset Charges* – The CAC assumptions utilized in the application of the Differential Cash
1039 Flow Method should be consistent with the premise that the PFI isolates the economics lost in absence of the

1040 existing customer relationship asset. As a result, CACs should not be included for other income generating
1041 intangible assets. CACs for these assets are not required because the PFI already isolates the economics lost due
1042 to just the loss of the existing customer relationship asset. While CACs are not required for other intangible
1043 assets for which an income stream can be identified, CACs are required for the assets that are assumed to be in
1044 place but for which a specific income stream cannot be identified. These assets typically include working
1045 capital, fixed assets, and workforce.

1046 Discussion questions regarding Section 5.5:
1047 Should contributory asset charges be considered for all contributory assets or only those for which an
1048 income stream cannot be readily identified, such as fixed assets, net working capital, or the assembled
1049 workforce?
1050

1051 5.5.5 *Discount Rate* – When valuing customer-related assets using the Differential Cash Flow Method, the
1052 discount rate chosen should reflect the risk profile of the customer-related assets from a market participant
1053 perspective. The estimated weighted average cost of capital (“WACC”); cost of equity capital; and the internal
1054 rate of return (“IRR”) for the overall entity are reference points to determine the discount rate of a customer
1055 relationship asset.

- 1056 5.5.6 *Determining Fair Value* – The fair value of the customer-related asset is determined as follows:
- 1057 a. Determine the revenue lost in absence of the existing customers;
 - 1058 b. Determine the appropriate expense structure to re-establish the customer-related assets;
 - 1059 c. Consider the impact of any additional assets and expenditures required to re-establish the customer-
1060 related assets;
 - 1061 d. Determine net differential cash flows;
 - 1062 e. Discount the incremental cash flows using an appropriate discount rate; and
 - 1063 f. Add the TAB to conclude on fair value.

1064 **Example 5.2: Differential Cash Flow Method**
1065 Company A acquires Company B, a developer of software technology solutions. Company A acquired
1066 Company B primarily for its technology and all other assets were thought to be easily replaceable. Company
1067 B’s customer-related assets were valued using the Differential Cash Flow Method. Based on a review of
1068 Company B’s operations, it is believed that the customer-related assets could be replaced ratably over a period
1069 of three years. The discount rate is 12.5% and the tax rate is 40%. The fair value of the customer-related assets
1070 is determined to be \$311.7 million, as calculated below:

Differential Cash Flow Method

	Year 1	Year 2	Year 3
Incremental Revenue Lost in Absence of Existing Customers	\$ 1,000.0	\$ 650.0	\$ 300.0
COGS	(500.0)	(325.0)	(150.0)
Maintenance Sales & Marketing	(40.0)	(26.0)	(12.0)
Research & Development	<u>(80.0)</u>	<u>(52.0)</u>	<u>(24.0)</u>
less: Incremental Expenses	<u>(620.0)</u>	<u>(403.0)</u>	<u>(186.0)</u>
Pre-tax Income	380.0	247.0	114.0
less: Income Taxes (40.0%)	<u>(152.0)</u>	<u>(98.8)</u>	<u>(45.6)</u>
Net Income	228.0	148.2	68.4
Returns On Contributory Assets:			
Fixed Assets	(20.0)	(13.0)	(6.0)
Net Working Capital	(10.0)	(6.5)	(3.0)
Assembled Workforce	<u>(50.0)</u>	<u>(32.5)</u>	<u>(15.0)</u>
Net Returns on Customer-related Assets	\$ 148.0	\$ 96.2	\$ 44.4
Midpoint	0.5	1.5	2.5
Present Value Factor	<u>0.9428</u>	<u>0.8381</u>	<u>0.7449</u>
Present Value of Incr. Cash Flows	<u>\$ 139.5</u>	<u>\$ 80.6</u>	<u>\$ 33.1</u>
Sum of Present Value of Incr. Cash Flows	\$ 253.2		
TAB	<u>58.5</u>		
Fair Value	<u>\$ 311.7</u>		

TAB Calculation:

Tax Life (n)	15	
Tax Rate (t)	40.0%	
Discount Rate (r)	12.5%	
Annuity Factor	6.63	= PV(r, n, 1)
Mid-Year Adj Factor	1.06	= (1 + r) ^ 0.5
TAB Factor	23.1%	= (n / (n - (Annuity Factor * Mid-Year Adj Factor * t)) - 1)

1071 **6.0 APPLICATION OF THE COST APPROACH**

1072 **6.1 Introduction**

1073 6.1.1 The Cost Approach uses the concept of replacement as an indicator of fair value. The premise of the
1074 Cost Approach is that a prudent investor would pay no more for an asset than the amount for which the utility of
1075 the asset could be replaced.

1076 6.1.2 The application of the Cost Approach to value customer-related assets should consider the following
1077 items:

- 1078 a. Direct costs (e.g., materials, labor, advertising, direct selling, etc.);
- 1079 b. Indirect costs (e.g., general and administrative overhead);
- 1080 c. Developer’s profit; and
- 1081 d. Opportunity costs.

1082 6.1.3 The exclusion of indirect costs, developer’s profit, and/or opportunity costs may be appropriate or
1083 inappropriate based on the specific facts and circumstances and inputs used to value the customer-related asset.
1084 The goal is to factor in all costs (direct, indirect, opportunity) and profit elements that a market participant
1085 would consider in the valuation of the customer-related asset.

1086 6.1.4 The use of a Cost Approach to value customer-related assets may be appropriate in situations where
1087 customer-related assets are not a primary asset of the business (as defined earlier) and can be recreated in a
1088 short period of time. The time period is critical because if a significant amount of time is required to recreate
1089 the customer-related assets this may point to a value estimate that is greater than the accumulation of costs.

1090 6.1.5 The Cost Approach may also be utilized to value customer-related assets for early stage companies that
1091 are unable to forecast revenues with reasonable certainty and/or are unable to forecast the specific sources of
1092 expected growth. In addition, the Cost Approach may be an alternative when the application of other
1093 methodologies is difficult or not possible.

1094 6.1.6 The following sections outline key assumptions used in the Cost Approach.

1095 **6.2 Cost Approach**

1096 6.2.1 Key inputs to the Cost Approach are described below:

1097 6.2.2 *Direct Costs* – Direct costs are expenses that can be linked to the creation of the existing customer-
1098 related asset. Examples may include sales staff time, company-specific marketing expenses, and customer
1099 entertainment. Although direct costs should reflect the current costs that would be incurred to re-create
1100 customer-related assets of equal utility, historical costs may be a reasonable proxy.

1101 6.2.3 *Indirect Costs* – Indirect costs are expenses that cannot be directly linked to the creation of a specific
1102 existing customer-related asset. These costs are typically proportionally allocated to all the customer-related
1103 assets. Examples would include advertising campaign costs, public relations expenses, broad media campaigns,
1104 and general printing costs. Indirect costs generally also include general and administrative costs that were
1105 needed to oversee the creation of the customer-related asset. Similar to direct costs, indirect costs to develop
1106 customer-related assets should be accumulated.

1107 6.2.4 Direct and indirect costs should be inclusive of all costs associated with developing the customer base,
1108 including those costs that did not result in the successful addition of a new customer. Inclusion of only costs
1109 related to successfully developing an existing customer relationship would lead to “survivorship bias.”

1110 6.2.5 *Developer’s Profit* – Developer’s profit reflects the expected return on the investment (direct plus
1111 indirect costs). Developer’s profit can be calculated based on a reasonable profit margin on the development
1112 activities. This profit margin should be based on a market participant data, as available.

1113 6.2.6 The developer’s profit can be estimated by reviewing market participant margins on similar activities.
1114 For instance, in deriving the developer’s profit on sales and marketing activities a reasonable metric may be to
1115 review margins of value added resellers or value added distributors. The actual margins of the subject business
1116 may also be reflective of an appropriate margin.

1117 6.2.7 *Opportunity Costs* – Opportunity costs reflect the profits that are lost while the asset is being created.
1118 Opportunity costs are only present if the asset cannot be utilized while being created. Opportunity costs may be
1119 calculated based on a reasonable rate of return on the expenditures while the asset is being created. If these are
1120 significant, application of the Cost Approach might not be applicable.

1121 6.2.8 A reasonable rate of return on the costs may be estimated similar to the rates of return determined in
1122 valuing customer-related assets or other assets. Although consistent with deriving market rates of return on
1123 other intangible assets, direct market evidence typically is not available. A reasonable rate of return may be
1124 estimated by reviewing the WACC, company discount rate, IRR and other similar metrics.

1125 6.2.9 Although, developer’s profit and opportunity costs both reflect an element of profit while the customer
1126 asset is being constructed, they relate to different elements. From a practical perspective, the developer’s profit
1127 is the level of profit required on the creation of the customer asset—i.e., the level of profit a third party would
1128 require if they were engaged in the activities of creating the customer-related assets. In contrast, opportunity
1129 costs reflect the return on the portion of the asset that is idle while the entire asset is being created.

1130 6.2.10 *Taxes* – The conclusion of the Cost Approach is, in most situations, not tax-affected or adjusted for the
1131 TAB. This is because market participants would consider the fair value of the asset to be equal to the costs to
1132 recreate an asset of similar utility and expect to be compensated for those costs plus indirect and opportunity
1133 costs and a reasonable profit on those activities without adjustment for taxes.

1134 Discussion questions regarding paragraph 6.2.10:
1135 Should the cost approach be tax-affected (in which case it would be adjusted for a TAB) or not?
1136 If there is more than one type of key input (direct cost, indirect cost, developer’s profit, and opportunity
1137 cost) reflected in the Cost Approach, does the answer differ for each different input?

1138 ***Example 6.1: Cost Approach***

1139 Company A acquires Company B, a manufacturer of branded consumer electronics. Company A acquired
1140 Company B primarily for its brand and all other assets were thought to be easily replaceable. The purchase
1141 price is \$500 million (on a cash-free, debt-free basis). There are 1,000 customers. Company B’s customer-
1142 related assets were valued using a Cost Approach. Based on a review of Company B’s operations, the
1143 customer-related assets were created ratably over the past three years at a cost of \$21 million (direct costs of
1144 \$15 million and indirect costs of \$6 million). The developer’s profit margin was estimated based on market
1145 observations of profit margins earned by companies that perform similar activities. Opportunity costs were
1146 calculated using a 12% rate of return and an average three month lead time between when the company first

1147 invests in a new customer when and the first purchase is made. This reflects the profit that could otherwise be
1148 earned on an investment of commensurate risk during the three month period. There are various metrics that
1149 may be appropriate indications of required return for purposes of calculating an opportunity cost; in this case
1150 the WACC was viewed to be the most appropriate as it reflects the overall risk-adjusted rate of return for the
1151 business.

1152 The fair value of the customer-related assets is determined to be \$26.9 million, as calculated on the next page:

Cost Approach		
Figures in millions unless otherwise indicated		
		% of Total Value
Direct & Indirect Costs		
Direct Costs	\$ 15.0	55.8%
Indirect Cost	6.0	22.3%
Total Costs	21.0	
Developer's Profit		
Developer's Profit Margin	20% ⁽¹⁾	
Developer's Profit	5.3	19.5%
Opportunity Cost		
# of Customers	1,000	
Average Lead Time (Months)	3	
Required Return	12%	
Investment per Customer (000s)	21.0 ⁽²⁾	
Opportunity Cost per Customer (000s)	630.0 ⁽³⁾	
Total Opportunity Costs	0.6 ⁽⁴⁾	2.3%
Total Cost	\$ 26.9	100.0%

(1) Calculated as: $(\text{Cost} / (1 - \text{Margin}) * \text{Margin})$, such that the margin earned on the the cost is 20%. In this case, $(\text{Developer's Profit}) / (\text{Developer's Revenue consisting of Costs plus Developer's Profit}) = 5.25 / (21.0 + 5.25) = 20\%$ margin.

(2) Calculated as: $\text{Total Costs} / \# \text{ of Customers}$

(3) Calculated as: $\text{Lead Time in Years} * \text{Required Return} * \text{Investment per Customer}$

(4) Calculated as: $\text{Opportunity Cost per Customer} * \# \text{ of Customers}$

1154 **7.0 APPLICATION OF THE MARKET APPROACH**

1155 **7.1 Introduction**

1156 7.1.1 The Market Approach is used to estimate fair value based on market prices of comparable assets. The
1157 valuation process is essentially that of comparison and correlation between the subject asset and similar assets.
1158 Characteristics and conditions of sale for comparable assets are analyzed and potentially adjusted to indicate a
1159 value of the subject asset. For this approach to be reliable, there are two requirements: an active market and an
1160 exchange of comparable assets.

1161 7.1.2 The Market Approach is infrequently used to estimate the fair value of customer-related assets.
1162 Customer-related assets are rarely transacted on a stand-alone basis; rather, they are typically acquired as part of
1163 a business or group of assets. Therefore, information on market transactions of customer-related assets
1164 generally is not available. A further limitation of the Market Approach is that if observable transactions exist,
1165 the uniqueness of customer-related assets typically results in a lack of comparability with the subject asset.
1166 However, this approach may be appropriate for certain types of customer lists such as prescription files,
1167 subscriber lists, or frequent flyer/shopper lists when reasonable transaction data exist.

1168 **7.2 Methodology**

1169 7.2.1 *Valuation Multiples* – Similar to conducting a market approach for the purpose of valuing a business
1170 enterprise or an equity interest in a business, a valuation multiple should be derived based on comparable
1171 market transaction information. To the extent possible, the valuation multiple should be adjusted for
1172 differences between the subject asset and the comparable assets. The related rights, obligations, and risk
1173 profiles of the assets should also be considered when selecting an appropriate multiple.

1174 7.2.2 *Taxes* – Market approach estimates of value are typically not adjusted for taxes, nor is a TAB typically
1175 applied, as the price paid in a market transaction theoretically includes consideration of relevant tax issues.

1176 ***Example 7.1: Market Approach***

1177 Company A acquires Company B, a regional pharmacy chain. Company B generates \$1.0 million in revenue
1178 per year and has 20,000 individual records. Market transactions indicate that pharmacy records sell for \$5 per
1179 record. The comparable pharmacy records are sufficiently similar to the records of Company B that no
1180 adjustments to the observed valuation multiple are necessary. The value of the customers is \$100,000, as
1181 calculated below:

1182 20,000 records x \$5 per record = \$100,000

1184 **8.0 VALUATION METHODOLOGY SELECTION**

1185 8.1.1 The choice of an appropriate valuation methodology is critical to appropriately valuing customer-
1186 related assets. As previously indicated, there are a number of methodologies that may be used. While certain
1187 approaches are more commonly used and/or more broadly appropriate than others, all approaches have positive
1188 and negative attributes. The facts and circumstances specific to the customer-related asset being valued will
1189 drive methodology selection.

1190 8.1.2 Another issue to consider in relation to intangible assets in general is whether assemblage value is
1191 embedded in the fair value of the asset and whether or not it should attach to the asset. Many believe that use of
1192 an excess earnings method or with-and-without method can lead to assemblage value or going concern value
1193 being included in the residual cash flows because contributory charges for those elements of goodwill are not
1194 generally determinable. Please see the CAC Document for further discussion related to this topic.

1195 8.1.3 The valuation specialist should choose the methodology that are most appropriate and provide the best
1196 indication of fair value:

1197 8.1.4 *MPEEM* – The MPEEM is a broadly-used approach and is best employed when the customer-related
1198 asset being valued is a primary asset or when a different asset is the primary asset and can be appropriately
1199 valued using another valuation methodology. While commonly used and often preferred because it incorporates
1200 PFI, there are a number of limitations. In some cases, use of the MPEEM may overstate the value of the
1201 customer-related cash flow due to the inclusion of cash flow relating to goodwill. Additionally, use of the
1202 MPEEM requires a significant number of assumptions and subjective judgments including CACs, attrition, and
1203 lifing, among others.

1204 8.1.5 *The Distributor Method* – The Distributor Method is most appropriate when the customer related asset
1205 is a non-primary asset of the entity and another asset is more appropriately valued using the MPEEM. The
1206 Distributor Method, a subset of the MPEEM, can best be applied when the nature of the relationship between an
1207 entity and its customers is similar to that of a distribution company and its customers. Specifically, the
1208 Distributor Method is appropriate when the customer-related activities and the value added by those activities
1209 are similar for the entity and distributors. As with the MPEEM, this method requires a significant number of
1210 assumptions and subjective judgments, including comparable distribution company selection, CACs, attrition,
1211 and lifing, among others.

1212 8.1.6 *The With-and-Without Method* – While theoretically it could be used for both primary and non-primary
1213 assets, due to the practical limitations of developing appropriate inputs, the With-and-Without Method is most
1214 appropriate for valuing non-primary customer-related assets for which reasonable estimates can be made for the
1215 time and resources required to recreate the asset. The With-and-Without model conclusion may include some
1216 elements of going concern value and, therefore, is best used in cases where the going concern value is deemed
1217 to be relatively immaterial and the time to recreate the asset is relatively short. In some cases, use of the With-
1218 and-Without Method may overstate the value of the customer-related cash flow due to the inclusion of cash
1219 flow relating to other assets of the business, including goodwill and its components. While theoretically
1220 appropriate, the method requires significant judgment in quantifying the impact of the absence of the subject
1221 asset upon the cash flows of the business. By using the With-and-Without Method to value customer-related
1222 assets, the MPEEM may then be used to value a primary asset. For instance, when technology is a primary
1223 asset, its fair value can be estimated using the MPEEM, net of a CAC for the customer-related assets. Its use is
1224 advantageous because it allows for use of the MPEEM to value a primary asset of the business.

1225 8.1.7 *Differential Cash Flow Method* – The Differential Cash Flow Method is most appropriate for valuing
1226 non-primary customer-related assets for which reasonable estimates can be made for the incremental revenues
1227 lost in absence of the existing customer base as well as the expenses associated with this incremental revenue
1228 stream. Similar to the With-and-Without Method, this model is best used in cases where the going concern
1229 value is deemed to be relatively immaterial and the time to recreate the asset is relatively short. It also may
1230 overstate the value of the customer-related asset due to the inclusion of cash flows related to other assets of the
1231 business, including goodwill and its components.

1232 8.1.8 *The Cost Approach* – The Cost Approach is most appropriate for valuing non-primary assets which can
1233 be recreated in a short duration assuming sufficient resources. Although intuitive and objective, the Working
1234 Group believes that the Cost Approach suffers from a number of limitations that restrict its usefulness. The Cost
1235 Approach may understate the value of customer relationships which are not easily replaceable or which create
1236 an economic benefit that exceeds the historical cost of developing the relationship. Additionally, due to
1237 survivorship bias, inconsistencies with other approaches, and other challenges in estimating the required inputs,
1238 the Cost Approach may not yield a reasonable value. There are limited situations where other approaches may
1239 be considered too difficult, inappropriate, or subjective, and in these cases a Cost Approach may provide a
1240 reasonable indication of value. This is most likely the case when customer relationships are not a primary asset.

1241 Discussion questions regarding paragraph 8.1.7:
1242 Under what circumstances should the Cost Approach be employed to value customer-related assets?

1243 8.1.9 *The Market Approach* – The Market Approach is most appropriate for valuing customer-related assets
1244 when there have been market transactions of comparable assets and the market data is available. Although
1245 intuitive and objective, the Working Group believes that the Market Approach suffers from a number of
1246 limitations that restrict its usefulness. Customer-related assets are rarely transacted on a standalone basis, and in
1247 most cases any observable historical transactions will not be comparable. However, in limited situations, such
1248 as when valuing certain types of customer lists, historical transactions may exist and provide an objective
1249 indication of value.

1250

1251 **9.0 OTHER CONSIDERATIONS**

1252 **9.1 Introduction**

1253 9.1.1 This section addresses other technical issues not previously covered in this document that may be
1254 relevant to the valuation of customer-related assets depending on the facts and circumstances.

1255 **9.2 Backlog**

1256 9.2.1 Backlog typically represents a subset of the customer-related asset. As previously defined, backlog
1257 represents products or services that have been contracted but have not been delivered or invoiced as of the
1258 measurement date. Conversely, the value of customer relationships is affected by revenues and earnings that
1259 arise from future orders placed by existing customers. In estimating the fair value of customer relationship
1260 assets, backlog (if material) should be valued separately. The need for separate treatment is driven by
1261 differences in the characteristics of backlog and typical customer relationship assets (such as life, risk profile,
1262 profitability).

1263 9.2.2 When backlog is valued separately from the customer relationship asset, care must be taken to ensure
1264 that customer value is not double counted. Typically, the value of the backlog should be excluded from the
1265 value of the customer relationship asset. The valuation of both assets using an MPEEM approach is commonly
1266 accomplished by excluding backlog revenue and operating profit from the customer relationship valuation. An
1267 additional concern (though it is an accounting consideration rather than a valuation consideration) is the
1268 treatment of amortization. When straight-line amortization is used, it is common to begin amortizing all assets
1269 in the first period. This may lead to concurrent amortization in the first period.

1270 **9.3 Deferred Revenue**

1271 9.3.1 Deferred revenue is typically a liability (either current or non-current) that arises from the accounting
1272 for transactions in which a customer has already paid for goods and service and cash has been received but the
1273 obligation has not been delivered. A common example is computer service contracts or extended service
1274 contracts where the contract is paid at inception but the service obligation will be delivered over the term of the
1275 contract.

1276 9.3.2 Many valuation specialists believe it may be appropriate to adjust income-based customer relationship
1277 valuation approaches for deferred revenue considerations. There are two questions that should be asked related
1278 to this topic. First, should an income-based customer relationship model be adjusted if the company has a
1279 deferred revenue liability on the balance sheet? Second, if you believe there should be an adjustment, how
1280 should this adjustment be made? There are several existing views on how deferred revenue adjustments should
1281 be made, if at all:

1282 9.3.3 View A: If a strictly cash-based forecast is used in the estimation of the value of a customer-related
1283 asset, no adjustments for deferred revenue are necessary. The forecast provided by management reflects the
1284 actual cash inflows and outflows expected from the business in the projection period.

1285 9.3.4 View B: If an accrual-based customer-related asset forecast is provided and deferred revenue is
1286 present, the projected deferred revenue does not represent a positive cash inflow (the cash has already been
1287 received) and it is therefore subtracted from revenue in the customer relationship model in the years associated
1288 with the deferred revenue run-off. In this view, fulfillment expenses related to the deferred revenue liability
1289 remain in the customer relationship projection as this remains a future cash outflow of the business.

1290 9.3.5 View C: If an accrual-based customer-related asset forecast is provided and deferred revenue is
1291 present, the projected deferred revenue does not represent a positive cash inflow (the cash has already been
1292 received) and it is therefore subtracted from the customer relationship model in the years associated with the
1293 deferred revenue run-off. Said another way, revenue in each year of the forecast should be adjusted to represent
1294 cash revenue received. For a business in which the collection of deferred revenue is a normal part of
1295 operations, the forecasted deferred revenue for year two will likely be received in year one. This results in a
1296 year two deferred revenue liability and a year one forecast that is effectively cash-based. Likewise, some of the
1297 forecasted revenue for year three will actually be received in year two. This results in a year three deferred
1298 revenue liability and a cash-based forecast for year two. The pattern continues until the end of the customer-
1299 related asset forecast, at which point deferred revenue should be removed for the forecast in the last projected
1300 year.

1301 9.3.6 View D: If an accrual-based customer-related asset forecast is provided and deferred revenue is
1302 present, in addition to subtracting the projected deferred revenue from the customer relationship model, the
1303 corresponding fulfillment expense associated with deferred revenues must also be removed from the customer
1304 relationship model.

1305 Discussion questions regarding paragraphs 9.3.1 to 9.3.6:
1306 Which view do you feel is most appropriate?
1307 What other views exist regarding how to adjust for deferred revenue considerations?

1308 9.3.7 The treatment of working capital and the calculation of the working capital CAC are critical to the
1309 deferred revenue discussion. The calculation of working capital and the related CAC should be consistent with
1310 the treatment of deferred revenue in the customer relationship valuation model.

1311 **9.4 Step-Up Considerations for Inventory**

1312 9.4.1 When valuing customer-related assets using the MPEEM, it is generally accepted practice to calculate
1313 CACs based on the fair value of the contributory assets used in generating the revenue, earnings and cash flows
1314 relating to the asset being valued. With the exception of inventory, CACs are calculated based on the fair value
1315 of all assets of the business utilized to generate revenue and cash flow. For inventory, the CAC as well as the
1316 cost of goods sold is based on the cost of the inventory rather than the fair value of the inventory. The reason
1317 for this is that the fair value of inventory includes the manufacturing cost and a return on/of the manufacturing
1318 assets. As such, a CAC on the fair value of the inventory together with a CAC on manufacturing assets would
1319 double count the return on/of these assets.

1320 **9.5 Overlapping Customers**

1321 9.5.1 Overlapping customers exist when an acquirer purchases an acquiree that has many of the same
1322 customers. For example, Company A sells football equipment to Retailers L, M and O. Company A acquires
1323 Company B, a maker of soccer equipment, in a business combination and Company B also sells its products to
1324 L, M and O. Under previous U.S. GAAP, some entities argued that Company B's customers should not be
1325 recognized at fair value because Company A already had established relationships with L, M and O and it did
1326 not gain new customer relationships. The counterargument that was highlighted in an SEC speech⁷ stated that
1327 Company A had likely gained shelf space at the retailers and enhanced its economic relationships as it would

⁷Remarks made by SEC professional accounting fellow Pamela Schlosser at the 2005 AICPA National Conference on Current SEC and PCAOB Developments.

1328 now receive incremental cash flows resulting from Company B's relationships. The key take away from the
1329 speech is that the economics of customer-related assets from a market participant perspective are the most
1330 important consideration (assuming they meet the contractual-legal or separable criteria) rather than the nature of
1331 the relationships on an entity specific basis.

1332 **9.6 Pre-Existing Relationships in a Business Combination**

1333 9.6.1 ASC paragraph 805-10-25-20 (equivalent discussion in IFRS 3R B51-B53) states that an “acquirer and
1334 the acquiree may have a pre-existing relationship or other arrangement before negotiations for the business
1335 combination began, or they may enter into an arrangement during the negotiations that is separate from the
1336 business combination. In either situation, the acquirer shall identify any amounts that are not part of what the
1337 acquirer and the acquiree (or its former owners) exchanged in the business combination, that is, amounts that
1338 are not part of the exchange for the acquiree. The acquirer shall recognize as part of applying the acquisition
1339 method only the consideration transferred for the acquiree and the assets acquired and liabilities assumed in the
1340 exchange for the acquiree. Separate transactions shall be accounted for in accordance with the relevant
1341 generally accepted accounting principles (GAAP).”

1342 9.6.2 In addition to the language above, ASC 805 provides the following example for the effective settlement
1343 of a supply contract as a result of a business combination (use of the word “Target” in the quote below indicates
1344 the acquiree):

1345 9.6.3 “Acquirer purchases electronic components from Target under a five-year supply contract at fixed rates.
1346 Currently, the fixed rates are higher than rates at which Acquirer could purchase similar electronic components
1347 from another supplier. The supply contract allows Acquirer to terminate the contract before the end of the initial
1348 5-year term only by paying a \$6 million penalty. With 3 years remaining under the supply contract, Acquirer
1349 pays \$50 million to acquire Target, which is the fair value of Target based on what other market participants
1350 would be willing to pay.” (ASC 805-10-55-30)

1351 9.6.4 “Included in the total fair value of Target is \$8 million related to the fair value of the supply contract
1352 with Acquirer. The \$8 million represents a \$3 million component that is at-market because the pricing is
1353 comparable to pricing for current market transactions for the same or similar items (selling effort, customer
1354 relationships, and so forth) and a \$5 million component for pricing that is unfavorable to Acquirer because it
1355 exceeds the price of current market transactions for similar items. Target has no other identifiable assets or
1356 liabilities related to the supply contract, and Acquirer has not recognized any assets or liabilities related to the
1357 supply contract before the business combination.” (ASC 805-10-55-31)

1358 9.6.5 “In this Example, Acquirer recognizes a loss of \$5 million (the lesser of the \$6 million stated settlement
1359 amount and the amount by which the contract is unfavorable to the acquirer) separately from the business
1360 combination. The \$3 million at-market component of the contract is part of goodwill.” (ASC 805-10-55-32)

1361 **9.7 Asset Life and Amortization**

1362 9.7.1 The life of an asset can be defined in two ways: economic life and useful life. Economic life is a
1363 valuation concept, while useful life is an accounting estimate. Economic life and useful life are discussed
1364 further below.

1365 9.7.2 *Economic Life* – Economic life has various (albeit similar) definitions in existing valuation literature.
1366 For the purposes of this document, economic life is defined as “the period of time over which property may

1367 generate economic benefits.”⁸ In an Income Approach, the economic life is equal to the period over which cash
1368 flows are projected and are based on a perspective of a market participant. The fair value of an asset is equal to
1369 the sum of the present value of cash flows expected to be generated by the asset over its economic life.

1370 9.7.3 For backlog-type assets, management will often have contract terms or other reliable estimates of order
1371 fulfillment to estimate the economic life. For contractual customer relationships, the economic life is generally
1372 based on the contractual term plus any expected renewals, which should be consistent with the provisions of the
1373 contract and market participant assumptions. For non-contractual relationship assets, the economic life is less
1374 obvious and its determination typically requires further analysis, such as an attrition analysis.

1375 9.7.4 *Useful Life* – ASC 350 (and IAS 38 88-96) states that “the accounting for a recognized intangible asset
1376 is based on its useful life to the reporting entity” (ASC 350-30-35-1). ASC 350 defines the useful life of an
1377 intangible asset as “the period over which the asset is expected to contribute directly or indirectly to the future
1378 cash flows of that entity” (ASC 350-30-35-2). While this definition is similar to that of economic life, the
1379 Working Group believes there could be differences between economic life and useful life since the useful life
1380 determination is an entity-specific determination and the economic life relates to market participant assumptions
1381 contained in the valuation model. ASC 350 provides additional guidance for evaluating useful life by stating
1382 that “the useful life of an intangible asset shall reflect the period over which it will contribute to the cash flows
1383 of the reporting entity, not the period of time that it would take that entity to internally develop an intangible
1384 asset that would provide similar benefits” (ASC 350-30-35-2). ASC 350 also provides guidance on what
1385 factors one should consider when determining the useful life of an asset for a given entity (ASC 350-30-35-3).

1386 9.7.5 The useful life of an intangible asset is categorized as either finite or indefinite. An indefinite-lived
1387 intangible asset is not amortized; rather, it is tested annually for impairment. Intangible assets with a finite life
1388 are amortized. ASC 350 specifies that “the method of amortization shall reflect the pattern in which the
1389 economic benefits of the intangible asset are consumed or otherwise used up. If that pattern cannot be reliably
1390 determined, a straight-line amortization method shall be used” (ASC 350-30-35).

1391 9.7.6 Depending on the methodology used to select a useful life, the useful life may differ significantly from
1392 the economic life. The following example illustrates the relationship between the economic life and potential
1393 useful lives of an asset and the resulting possible annual amortization schedules based on the pattern of benefits
1394 and straight-line methodologies. The pattern of benefits amortization is based on the pattern of annual
1395 undiscounted cash flows relative to the sum of all undiscounted cash flows over the economic life of the asset.
1396 The straight line amortization is based on the value of the asset, a qualitative assessment of the useful life, and
1397 constant annual amortization through the useful life of the asset.

1398 ***Example 9.1: Amortization Patterns***

1399 9.7.7 Company A, an international manufacturer and marketer of widgets, acquires Company B, a regional
1400 marketer of widgets. The primary acquisition rationale is access to the target’s customer base. Company B has
1401 significant market penetration in the southeastern U.S. The customer relationships are transactional (i.e.,
1402 purchase order-based and no long term contracts exist). Customer attrition is estimated to be 10% per year,
1403 offset by an assumption of 3% annual growth in cash flow from the customer relationships being valued. The
1404 value of the customer relationships, assuming a 15% discount rate, is \$480 over a 20-year economic life. The
1405 economic life ends when the discounted cash flows occurring after the economic life are immaterial to the fair
1406 value conclusion.

⁸International Glossary of Business Valuation Terms, which has been adopted by the American Institute of Certified Public Accountants, the American Society of Appraisers, the National Association of Certified Valuation Analysts, the Canadian Institute of Chartered Business Valuators, and the Institute of Business Appraisers.

1407 9.7.8 Based on guidance provided in ASC 350, the customer relationships would be amortized in a manner
 1408 that would reflect the pattern in which the economic benefits of the intangible asset are consumed or otherwise
 1409 used up. However, in practice many companies use a straight-line amortization method that approximates the
 1410 amortization method based on pattern of benefits. The table below summarizes the undiscounted cash flow,
 1411 discounted flow, amortization over the expected pattern of benefits, and the straight-line amortization over 12,
 1412 14 and 16 years. This table is intended to show the differences between possible amortization methodologies.
 1413 Although the table below displays a comparison of the different amortization methodologies, the method
 1414 selected is an accounting issue that is determined by management and reviewed/discussed with their auditors.

1415 **Table 9.1: Economic versus Useful Life**

	Economic Life		Useful Life			
	Undiscounted Cash Flows	Discounted Cash Flows	Pattern of Benefits Amortization	Straight-Line Amortization		
				12 Years	14 Years	16 Years
Year 1	100.00	93.25	43.92	40.04	34.32	30.03
Year 2	93.00	75.41	40.85	40.04	34.32	30.03
Year 3	86.49	60.98	37.99	40.04	34.32	30.03
Year 4	80.44	49.32	35.33	40.04	34.32	30.03
Year 5	74.81	39.88	32.86	40.04	34.32	30.03
Year 6	69.57	32.25	30.56	40.04	34.32	30.03
Year 7	64.70	26.08	28.42	40.04	34.32	30.03
Year 8	60.17	21.09	26.43	40.04	34.32	30.03
Year 9	55.96	17.06	24.58	40.04	34.32	30.03
Year 10	52.04	13.79	22.86	40.04	34.32	30.03
Year 11	48.40	11.16	21.26	40.04	34.32	30.03
Year 12	45.01	9.02	19.77	40.04	34.32	30.03
Year 13	41.86	7.30	18.39		34.32	30.03
Year 14	38.93	5.90	17.10		34.32	30.03
Year 15	36.20	4.77	15.90			30.03
Year 16	33.67	3.86	14.79			30.03
Year 17	31.31	3.12	13.75			
Year 18	29.12	2.52	12.79			
Year 19	27.08	2.04	11.89			
Year 20	25.19	1.65	11.06			
Total	1,093.94	480.47	480.47	480.47	480.47	480.47

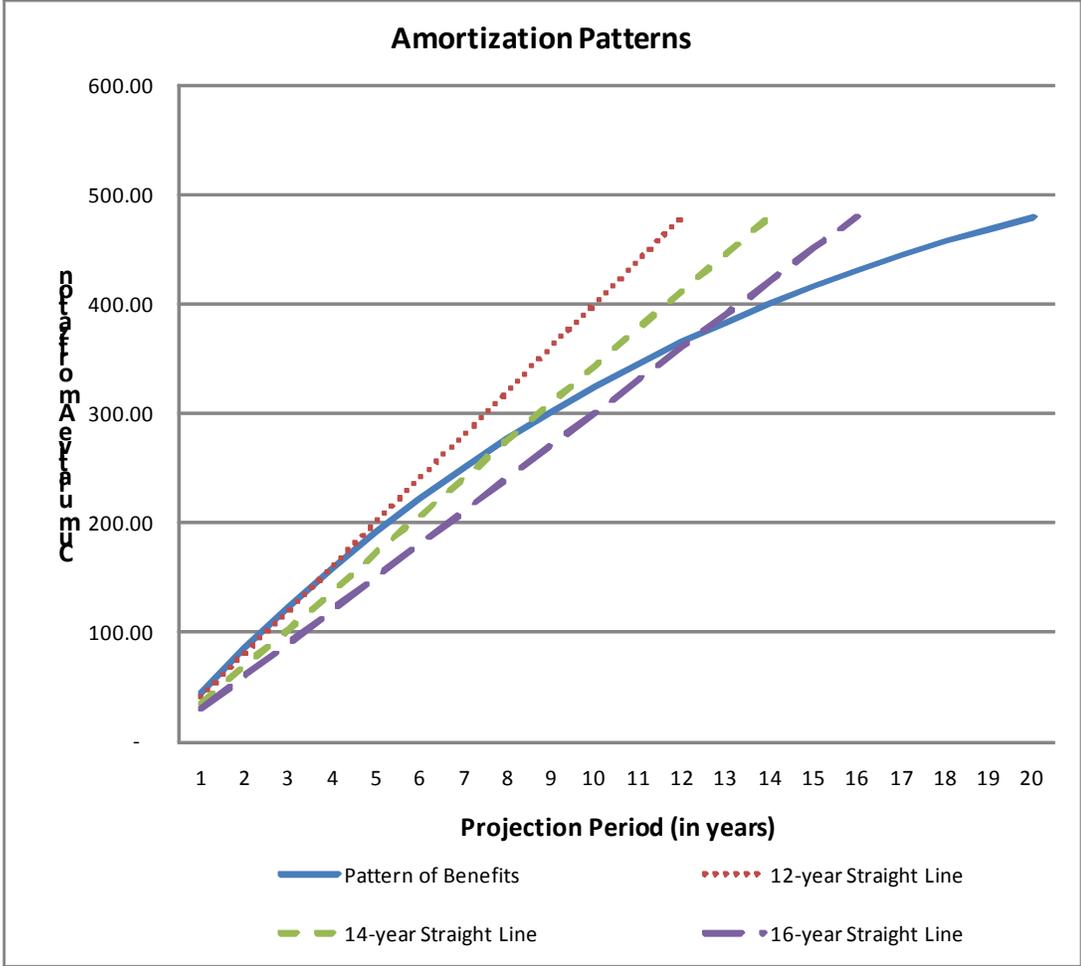
1416 Notes:

1417 (1) Pattern of Benefits = Undiscounted Cash Flow in Year / Total Undiscounted Cash Flow x Total Present
 1418 Value. Year 1 example calculation: $100.00 / 1,093.94 \times 480.47 = 43.92$.

1419 (2) Straight-Line Amortization = Total Present Value / Number of Years of Straight-Line Amortization.
 1420 Year 1 example calculation: $480.47 / 12 = 40.04$.

1421 9.7.9 The graph below illustrates the cumulative sum of amortization using the pattern of benefits method
 1422 and straight-line amortization over 12, 14 and 16 years. In this example, a 12-year straight-line amortization
 1423 appears to be the closest proxy to the pattern of benefits in the earlier years while the 16-year straight-line
 1424 amortization appears to be the best proxy in the later years. This chart indicates that certain amortization
 1425 methods may be more appropriate than others depending on facts and circumstances. As mentioned above, this
 1426 determination should be made by management and reviewed/discussed with their auditors.

1427 **Figure 9.1: Amortization Patterns**



1428 **9.8 Testing Outputs**

1429 9.8.1 In the context of the estimation of asset values in a business combination, there are several ways to
 1430 “test” the output of a customer-related asset valuation for reasonableness. The following high-level procedures
 1431 can be helpful in assessing the value of customer relationships.

1432 9.8.2 *Output versus Expectation* – A customer value should be assessed relative to qualitative expectations at
 1433 the outset of an engagement. Given our qualitative view, does the quantitative answer make sense? Can we
 1434 compare the output to prior experience (i.e., customer value as a percentage of purchase consideration and/or
 1435 total intangible asset value including goodwill)? How does the customer value compare to the value of other
 1436 assets in the context of the qualitative considerations discussed above? Is the value derived for the customer
 1437 relationship consistent with press releases discussing the transaction? Is it a primary or secondary asset and are
 1438 the approaches used consistent with management’s view of the customer relationship asset?

1439 9.8.3 *Implied New Customer Assumptions* – Given forecasts of overall revenue for the subject business and
1440 forecasts of revenue attributable to existing customers, a forecast of revenue attributable to future customers can
1441 be implied. This future customer revenue forecast should be assessed for reasonableness. For instance, are
1442 implied growth rates realistically attainable given the sales and marketing expense assumptions? The total
1443 industry customer population can be used to calculate implied incremental market share captured each year.
1444 Are these results reasonable?

1445 9.8.4 *Reconciliation* – A number of reconciliation tests can be performed, which will assist with the
1446 assessment of customer value and, in some cases, other asset values. Profit margins for existing and new
1447 customers should reconcile to the margins associated with the business enterprise. Does the profit margin
1448 reconciliation make sense and tie back to the total? Sales and marketing expenses for existing and new
1449 customers should tie to the total sales and marketing expense assumptions used by the business. Do these
1450 assumptions tie together?

1451 9.8.5 A reconciliation of total business cash flow will highlight overall allocation of cash flow to existing
1452 assets. Although an over-allocation may be appropriate (e.g., if business cash flow is burdened by significant
1453 investments in new assets), it is important to be able to explain the reasons for it.

1454 9.8.6 *Other Assumptions* – Certain other assumptions in a customer model may infer information about the
1455 value of existing customers, and the resulting customer value should be assessed relative to these inferences.
1456 For example, in the MPEEM it may be appropriate to add back expenses associated with new customer
1457 acquisitions (see discussion above). All else equal, if new customer acquisition costs are relatively high, it may
1458 be reasonable to expect a relatively higher value for existing customers because of the implied higher
1459 investment required to have attracted them. Given new customer costs, does the value for existing customers
1460 make sense? Does the revenue contribution or profit contribution from existing versus new customers make
1461 sense?

1462 **9.9 Convergence of U.S. GAAP and IFRSs**

1463 9.9.1 The FASB and the IASB have been working on converging accounting standards for several years and
1464 have detailed plans to continue this endeavor.⁹ The most significant element of the convergence project with
1465 respect to the valuation of intangible assets is the release of ASC 805 and IFRS 3R (released in 2008).
1466 Although differences related to the accounting in the post-acquisition period continue to exist (i.e., recognition
1467 and measurement of impairment losses as discussed in sections 2.4 and 2.5), ASC 805 and IFRS 3R have
1468 converged the guidance for initial recognition of intangible assets acquired in a business combination. One of
1469 the more significant areas of convergence relates to the elimination of the recognition criteria in IFRSs that an
1470 intangible asset be “reliably measured” in order to be recognized separately. IFRSs now presume that all
1471 intangible assets meeting the contractual-legal or separability criteria will be measured at fair value. Generally,
1472 these two standards cover business combinations and are nearly identical with only a limited number of
1473 differences. None of the existing differences affect the recognition and fair value measurement of acquired
1474 assets and liabilities.

1475 **9.10 Differences in U.S. GAAP and IFRSs Regarding the Measurement of Fair Value of Intangible**
1476 **Assets**

1477 9.10.1 This section discusses differences that exist between U.S. GAAP and IFRSs in respect of the valuation
1478 of customer-related intangible assets. As mentioned previously, the IASB issued IFRS 13 *Fair Value*
1479 *Measurement* in May 2011, which is virtually identical to ASC 820. IFRS 13 is not effective until January 1,

⁹ Further discussion of the convergence plans is available at www.ifrs.org and www.fasb.org.

1480 2013; however, early application is permitted. We note that under IFRS 8, *Operating Segments*, preparers are
1481 permitted to look to other GAAP when a specific situation is not addressed in a standard or elsewhere in the
1482 IFRSs.

1483 9.10.2 The convergence project eliminated many differences between the two business combination and fair
1484 value standards. Key areas of the fair value concept that generally appear to be converged include: 1) unit of
1485 account/unit of valuation; 2) exit price; and 3) market participant and highest and best use principles. From a
1486 practical perspective, we do not believe that there are real differences in the concept of fair value as set out in
1487 US GAAP and IFRSs.

1488 9.10.3 *Unit of Account and Unit of Valuation* – A unit of account is the level for which assets and liabilities
1489 are aggregated or disaggregated and represents what is being valued. A unit of valuation arises when more than
1490 one unit of account are grouped together to yield the highest and best use for the group of assets from the
1491 perspective of market participants. ASC 820 includes an example that describes a fact pattern for the unit of
1492 valuation concept, however IFRS 13 does not address unit of valuation at all. In general, the highest and best
1493 use for a group or unit of valuation must be a greater valuation than the sum of the fair value of each unit of
1494 account. In other words, there may be synergies by combining the units of account that would exceed the
1495 values of the individual units of account because they lack such synergies. In our view, the unit of valuation
1496 concept should not cause differences with IFRSs and we understand that valuation practice using IFRSs
1497 generally supports this view (see IFRS 13, paragraphs 14 and 32).

1498 9.10.4 *Exit Price and Entry Price* – ASC 820 states that fair value of an asset is based on the price to sell the
1499 asset (i.e., the exit price). IFRS 13 uses the same definition as in ASC 820. As IFRS 13 is not fully effective as
1500 of the date of this Valuation Advisory, the fair value definition in IFRS 13 still incorporates an exchange
1501 principle (i.e., the fair value of an acquired asset or liability should reflect the price paid if the asset or liability
1502 were acquired and transferred on a standalone basis), which can be viewed to be similar to ASC 820 in that
1503 every transaction has both an exit and an entry. For intangible assets for which there is not an active market, it
1504 is largely viewed in practice that under U.S. GAAP and IFRSs the exit price and an entry price will be the same.

1505 9.10.5 *Market Participants and Highest and Best Use* – Current IFRSs discuss market participant concepts,
1506 however IFRS 13 includes guidance and examples that are virtually identical to ASC 820.

1507 9.10.6 IFRS 13 also contains guidance that is consistent with ASC 820 with respect to highest and best use. In
1508 our view, we believe that the converged fair value measurement standards will not result in any true valuation
1509 differences, instead differences in valuation are more likely to arise as a result of practice diversity (i.e.,
1510 selection of methodology and assumptions).

1511

1512 **10.0 SUMMARY**

1513 10.1.1 There are multiple situations that require the valuation of customer-related assets for financial reporting
1514 purposes, including:

- 1515 a. Business combinations;
- 1516 b. Asset acquisitions;
- 1517 c. Goodwill impairment testing; and
- 1518 d. Long-lived asset impairment testing.

1519 10.1.2 The Working Group believes that asset identification and qualitative considerations are equally as
1520 important as the selection of valuation methodology and quantitative factors/considerations.

1521 10.1.3 Customer-related assets, like other intangible assets, must meet certain recognition criteria to be
1522 considered identifiable for financial reporting purposes. ASC 805 continues the guidance set forth in prior U.S.
1523 GAAP where identifiable assets are recognized if they are contractual, or arise from legal rights, or if they are
1524 separable and can be separated and sold, rented, or leased (ASC 805-20-55, IFRS 3R Appendix A).

1525 10.1.4 There are three standard approaches a valuation specialist may consider in the valuation of customer-
1526 related assets: the Income Approach, the Cost Approach, and the Market Approach. The Income Approach is
1527 the most common approach used in the valuation of customer-related assets and is viewed by the Working
1528 Group as the preferred methodology in most situations. However, in the valuation process, methodology or
1529 model choice should reflect careful qualitative and quantitative assessment of the asset.

1530 10.1.5 Factors to consider for the purpose of gaining a qualitative understanding of the customer-related asset
1531 include: industry characteristics, company characteristics, product/service characteristics, and asset
1532 characteristics.

1533 10.1.6 The Income Approach is used to estimate fair value based on the cash flows that an asset can be
1534 expected to generate over its useful life. The three most widely used income approach methodologies include
1535 the MPEEM, the Distributor Method (a subset of the MPEEM), the With-and-Without Method and the
1536 Differential Cash Flow Method. The Working Group believes the MPEEM is the most common method for
1537 valuing customer-related assets because it measures economic benefits utilizing the PFI and can be used when
1538 cash flows are difficult to directly identify, but clearly have value.

1539 10.1.7 Many implementation issues arise in the valuation of customer-related assets. This document seeks to
1540 highlight these issues and set forth the Working Group's view of best practices. The Working Group notes that
1541 professional judgment is necessary in the valuation of any asset and that the purpose of this document is to
1542 assist in reducing diversity of practice in the specific topics addressed by the Valuation Advisory. It is the goal
1543 of the Working Group that the guidance set forth in this Valuation Advisory, combined with the application of
1544 professional judgment, will result in measurements of fair value that represent the highest level of professional
1545 practice and that are consistent with the goals of fair value measurement for financial reporting.

1547 **11.0 LIST OF ACRONYMS USED**

1548	AICPA	American Institute of Certified Public Accountants
1549	ASC	Accounting Standards Codification TM
1550	CAC	Contributory Asset Charge
1551	CAPM	Capital Asset Pricing Model
1552	EITF	Emerging Issues Task Force
1553	FAS	Financial Accounting Standard
1554	FASB	Financial Accounting Standards Board
1555	FSP	FASB Staff Position
1556	GAAP	Generally Accepted Accounting Principles
1557	IAS	International Accounting Standard
1558	IASB	International Accounting Standards Board
1559	IFRIC	International Financial Reporting Interpretations Committee
1560	IFRSs	International Financial Reporting Standards
1561	IPR&D	In-Process Research & Development
1562	IRR	Internal Rate of Return
1563	IVSC	International Valuation Standards Council
1564	MPEEM	Multi-Period Excess Earnings Method
1565	NOL	Net Operating Loss
1566	PFI	Prospective Financial Information
1567	R&D	Research and Development
1568	ROI	Return on Investment
1569	RUL	Remaining Useful Life
1570	SEC	Securities and Exchange Commission
1571	SG&A	Selling, General & Administrative
1572	TAB	Tax Amortization Benefit
1573	WACC	Weighted Average Cost of Capital
1574	WARA	Weighted Average Return on Assets

1576 **12.0 REFERENCES**

1577 The Appraisal Foundation Best Practices for Valuations in Financial Reporting: Intangible Asset Working
1578 Group—Contributory Assets, *The Identification of Contributory Assets and the Calculation of Economic Rents*,
1579 May 31, 2010

1580 Financial Accounting Standards Board, Financial Accounting Series, *Statement of Financial Accounting*
1581 *Standards No. 141 (Revised 2007) – Business Combinations*

1582 Financial Accounting Standards Board, Financial Accounting Series, *Statement of Financial Accounting*
1583 *Standards No. 142 – Goodwill and Other Intangible Assets*

1584 Financial Accounting Standards Board, Financial Accounting Series, *Statement of Financial Accounting*
1585 *Standards No. 157 – Fair Value Measurements*

1586 Financial Accounting Standards Board, EITF 01-3, *Accounting in a Business Combination for Deferred*
1587 *Revenue of an Acquiree*

1588 Financial Accounting Standards Board, EITF 02-17, *Recognition of Customer Relationship Intangible Assets*
1589 *Acquired in a Business Combination*

1590 Financial Accounting Standards Board, Staff Position No. FAS 142-3, *Determination of the Useful Life of*
1591 *Intangible Assets*

1592 Financial Accounting Standards Board, *Accounting Standards Codification*TM

1593 International Accounting Standard 38, *Intangible Assets*

1594 International Accounting Standards Board, International Financial Reporting Standard 3 (2008), *Business*
1595 *Combinations*

1596 International Glossary of Business Valuation Terms as adopted by the following professional societies and
1597 organizations:

- 1598 American Institute of Certified Public Accountants
- 1599 American Society of Appraisers
- 1600 National Association of Certified Valuation Analysts
- 1601 The Canadian Institute of Chartered Business Valuators
- 1602 The Institute of Business Appraisers

1603 Kim, Sandie E., Speech by SEC Staff: Remarks Before the 2007 AICPA National Conference on Current SEC
1604 and PCAOB Developments

1605 Schlosser, Pamela R., Speech by SEC Staff: Remarks Before the 2005 AICPA National Conference on Current
1606 SEC and PCAOB Developments

1607 Ucuzoglu, Joseph B., Speech by SEC Staff: Remarks Before the 2006 AICPA National Conference on Current
1608 SEC and PCAOB Developments

1610 **13.0 GLOSSARY**

1611 **13.1 Glossary of Terms**

1612 **Backlog**

1613 Arises from contracts such as purchase or sales orders. An order or production backlog acquired in a business
1614 combination meets the contractual-legal criterion even if the purchase or sales orders are cancelable.

1615 [Source: Financial Accounting Standards Board *Accounting Standards Codification Topic 805, Business*
1616 *Combinations* (formerly Statement of Financial Accounting Standards No. 141 [Revised 2007])]

1617 **Business Enterprise**

1618 A commercial, industrial, service, or investment entity (or combination thereof) pursuing an economic activity.
1619 [Source: International Glossary of Business Valuation Terms]

1620 **Capital Charge**

1621 A fair return on an entity’s *contributory assets*, which are tangible and intangible assets used in the production
1622 of income or cash flow associated with an intangible asset being valued. In this context, *income or cash flow*
1623 refers to an applicable measure of income or cash flow, such as net income, or operating cash flow before taxes
1624 and capital expenditures. A capital charge may be expressed as a percentage return on [sic]¹⁰ an economic rent
1625 associated with, or a profit split related to, the contributory assets.

1626 [Source: AICPA Statement on Standards for Valuation Services, Appendix C, Glossary of
1627 Additional Terms]

1628 **Contributory Asset Charge (CAC)**

1629 See Capital Charge.

1630 **Customer List**

1631 Consists of information about customers, such as their names and contact information. A customer list also
1632 may be in the form of a database that includes other information about the customers, such as their order
1633 histories and demographic information. A customer list generally does not arise from contractual or other legal
1634 rights.

1635 [Source: Financial Accounting Standards Board *Accounting Standards Codification Topic 805, Business*
1636 *Combinations* (formerly Statement of Financial Accounting Standards No. 141 [Revised 2007])]

1637 **Customer Relationship**

1638 A relationship that exists between an entity and its customer if the entity has information about the customer
1639 and has regular contact with the customer, and the customer has the ability to make direct contact with the
1640 entity.

1641 [Source: Financial Accounting Standards Board *Accounting Standards Codification Topic 805, Business*
1642 *Combinations* (formerly Statement of Financial Accounting Standards No. 141 [Revised 2007])]

1643 **Deferred Revenue**

1644 Deferred revenue is a liability that is created when monies are received by a company for goods and services
1645 not yet provided. Revenue will be recognized, and the deferred revenue liability eliminated, when the services
1646 are performed. Deferred revenue stems from the accounting concept of revenue recognition, under which
1647 revenues are recognized only when the earnings process is complete. If funds are received and no goods or

¹⁰ The word “or” would be more appropriate.

1648 services have yet been provided, the process is not complete; thus revenue cannot be recognized, and a deferred
1649 revenue liability is recorded. Specifically, the deferred revenue account is credited, and cash (or other assets)
1650 are debited. Deferred revenue is recorded in specific industries under particular circumstances. For instance, a
1651 software company might post deferred revenue for a maintenance agreement under which services will be
1652 provided over several years.
1653 [Source: www.investorglossary.com]

1654 **Economic Life**

1655 The period of time over which property may generate economic benefits for one or more users.
1656 [Source: International Glossary of Business Valuation Terms]

1657 **Fair Value**

1658 Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly
1659 transaction between market participants at the measurement date.
1660 [Source: Financial Accounting Standards Board *Accounting Standards Codification Topic 820, Fair Value*
1661 *Measurements* (formerly Statement of Financial Accounting Standards No. 157)]

1662 **Fixed Asset**

1663 Assets with a physical manifestation. Examples include land and buildings, plant and machinery, fixtures and
1664 fittings, tools and equipment, and assets in the course of construction and development.
1665 [Source: International Valuation Standards, 7th Ed]

1666 **Goodwill**

1667 An asset representing the future economic benefits arising from other assets acquired in a business combination
1668 that are not individually identified and separately recognized.
1669 [Source: Financial Accounting Standards Board *Accounting Standards Codification Topic 805, Business*
1670 *Combinations* (formerly Statement of Financial Accounting Standards No. 141 [Revised 2007])]

1671 **Going Concern**

1672 A business enterprise that is expected to continue operations for the foreseeable future.
1673 [Source: International Glossary of Business Valuation Terms]

1674 **In-Process Research and Development (IPR&D)**

1675 Research and development project that has not yet been completed. Acquired IPR&D is a subset of an
1676 intangible asset to be used in R&D activities.
1677 [Source: AICPA Practice Aid – *Assets Acquired in a Business Combination to Be Used in Research and*
1678 *Development Activities: A Focus on Software, Electronic Devices, and Pharmaceutical Industries*, 2001,
1679 Appendix A, Glossary of Terms]

1680 **Intangible Assets**

1681 Nonphysical assets such as franchises, trademarks, patents, copyrights, goodwill, equities, mineral rights,
1682 securities and contracts (as distinguished from physical assets), that grant rights and privileges, and have value
1683 for the owner.
1684 [Source: International Glossary of Business Valuation Terms]

1685 **Internal Rate of Return (IRR)**

1686 A discount rate at which the present value of the future cash flows of the investment equals the cost of the
1687 investment.
1688 [Source: International Glossary of Business Valuation Terms]

1689 **Market Participant**

1690 Market participants are buyers and sellers in the principal (or most advantageous) market for the asset or
1691 liability that are:
1692 a. Independent of the reporting entity; that is, they are not related parties
1693 b. Knowledgeable, having a reasonable understanding about the asset or liability and the transaction
1694 based on all available information, including information that might be obtained through due
1695 diligence efforts that are usual and customary
1696 c. Able to transact for the asset or liability
1697 d. Willing to transact for the asset or liability; that is, they are motivated but not forced or otherwise
1698 compelled to do so.
1699 [Source: Financial Accounting Standards Board *Accounting Standards Codification Topic 820, Fair Value*
1700 *Measurements* (formerly Statement of Financial Accounting Standards No. 157)]

1701 **Non-Contractual Customer Relationship**
1702 A customer relationship acquired in a business combination that does not arise from a contract but may
1703 nevertheless be identifiable because the relationship is separable.
1704 [Source: Financial Accounting Standards Board *Accounting Standards Codification Topic 805, Business*
1705 *Combinations* (formerly Statement of Financial Accounting Standards No. 141 [Revised 2007])]

1706 **Order Production**
1707 See Backlog.

1708 **Prospective Financial Information (PFI)**
1709 A forecast of expected future cash flows.
1710 [Source: AICPA Practice Aid – *Assets Acquired in a Business Combination to Be Used in Research and*
1711 *Development Activities: A Focus on Software, Electronic Devices, and Pharmaceutical Industries*, 2001,
1712 paragraph 5.2.07]

1713 **Rate of Return**
1714 An amount of income (loss) and/or change in value realized or anticipated on an investment, expressed as a
1715 percentage of that investment
1716 [Source: International Glossary of Business Valuation Terms]

1717 **Remaining Useful Life**
1718 See Useful Life.

1719 **Tax Amortization Benefit**
1720 The cash flow generated to an owner of an asset as a result of being able to write-off the full fair value of that
1721 asset for tax purposes.
1722 [Source: Tjon-Hing, Cheryl K., Speech by SEC Staff: Remarks Before the 2006 AICPA National Conference
1723 on Current SEC and PCAOB Developments]

1724 **Useful Life**
1725 The period over which the asset is expected to contribute directly or indirectly to the future cash flows of an
1726 entity.
1727 [Source: Financial Accounting Standards Board *Accounting Standards Codification Topic 350, Intangibles—*
1728 *Goodwill and Other*]

1729 **Weighted Average Cost of Capital (WACC)**
1730 The cost of capital (discount rate) determined by the weighted average, at market value, of the cost of all
1731 financing sources in the business enterprise’s capital structure.
1732 [Source: International Glossary of Business Valuation Terms]

1733 **13.2 Glossary of Entities Referred to in Document**

1734 **American Institute of Certified Public Accountants (AICPA)**

1735 The national, professional organization for Certified Public Accountants in the US. Provides members with
1736 resources, information, certification, and licensing. Established in 1887.

1737 [Source: Derived from the AICPA’s website, www.aicpa.org]

1738 **Emerging Issues Task Force (EITF)**

1739 Assists the FASB in improving financial reporting through the timely identification, discussion, and resolution
1740 of financial accounting issues within the framework of the FASB ASC. Task Force members are drawn from a
1741 cross section of the FASB’s constituencies, including auditors, preparers, and users of financial statements.
1742 Established in 1984.

1743 [Source: Derived from the FASB website, www.fasb.org]

1744 **International Accounting Standards Board (IASB)**

1745 London-based independent standard-setting body responsible for the development and publication of IFRSs and
1746 for approving Interpretations of IFRSs as developed by the IFRS Interpretations Committee.

1747 [Source: Derived from the IFRS Foundation website, www.ifrs.org]

1748 **IFRS Interpretations Committee (IFRIC)**

1749 Interpretive body with mandate to review on a timely basis widespread accounting issues that have arisen within
1750 the context of current IFRS. Work is aimed at reaching consensus on the appropriate accounting treatment
1751 (IFRIC Interpretations) and providing authoritative guidance on those issues.

1752 [Source: Derived from the IFRS Foundation website, www.ifrs.org]

1753 **Financial Accounting Standards Board (FASB)**

1754 The designated organization in the private sector for establishing standards of financial accounting and
1755 reporting. Those standards govern the preparation of financial reports and are officially recognized as
1756 authoritative by the SEC and AICPA.

1757 [Source: Derived from the FASB’s website, www.fasb.org]

1758 **Securities and Exchange Commission (SEC)**

1759 Mission is to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation in
1760 the United States. Established in 1934.

1761 [Source: Derived from the SEC website, www.sec.gov]

1762

1763 **APPENDIX A: ATTRITION RATE CALCULATION EXAMPLES**

1764 Attrition is discussed in Section 5.0 (Application of the Income Approach). The three most widely used
1765 approaches are outlined in Table 5.1 and examples are provides in this Appendix.

1766 *Example A.1: Historical Attrition Calculation*

1767 Attrition analyses using historical customer or revenue data begin with the collecting of historical customer or
1768 revenue losses or gains over a historical period of time. Since the attrition data determined through the
1769 historical analysis is considered to be consistent across relationship vintages and year groups, the survivor curve
1770 developed has the general characteristics of an exponential distribution. When an exponential decay pattern is
1771 assumed, the average life expectancy of new customers should be equal to the average life expectancy of the old
1772 customers used in the historical analysis. The following basic examples demonstrate the calculation of an
1773 attrition rate using historical customer data as well as customer revenue data. Revenue attrition incorporates two
1774 factors: the level of revenue lost due to customer attrition and the level of growth that occurs in retained
1775 customers. As such, it can be measured in an aggregated or disaggregated manner. The disaggregated method
1776 measures the customer attrition and revenue growth aspects separately. The aggregated method views them
1777 together by measuring the level of revenue attributable to customers present at the start of the measurement
1778 period.

Customer #	Time -5	Time -4	Time -3	Time -2	Time -1
1	\$ 50,689	\$ 51,196	\$ 53,244	\$ 54,575	\$ 55,666
2	25,896	\$ 24,601	\$ 25,339	\$ -	\$ -
3	14,589	\$ 14,881	\$ 15,030	\$ 14,729	\$ -
4	5,452	\$ 5,507	\$ 5,396	\$ 5,612	\$ 5,781
5	9,416	\$ 9,887	\$ -	\$ -	\$ -
6	9,256	\$ -	\$ -	\$ -	\$ -
7	22,902	\$ 23,589	\$ 23,825	\$ 22,634	\$ 23,086
8	14,580	\$ 14,872	\$ 15,169	\$ 15,624	\$ 16,249
9	987	\$ -	\$ -	\$ -	\$ -
10	11,569	\$ 10,412	\$ -	\$ -	\$ -
11	9,856	\$ 9,659	\$ 9,369	\$ 9,838	\$ -
12	8,905	\$ 9,350	\$ 9,537	\$ 9,442	\$ -
13	2,774	\$ 2,885	\$ 2,972	\$ 3,031	\$ 3,061
14	12,683	\$ 13,063	\$ 13,325	\$ 13,725	\$ 14,136
15	4,914	\$ 4,963	\$ 5,062	\$ 5,012	\$ 4,811
16	13,498	\$ -	\$ -	\$ -	\$ -
17	11,782	\$ 12,489	\$ 13,113	\$ 13,900	\$ 14,456
18	-	33,569	\$ 32,898	\$ 31,582	\$ 32,213
19	-	-	30,569	\$ 33,320	\$ 31,987
20	-	-	-	-	25,698
Total Revenue	\$ 229,748	\$ 240,923	\$ 254,848	\$ 233,023	\$ 227,146

1781 *Table A.1.a: Historical Attrition Calculation (continued)*

Revenue Attrition - Lost Revenue					
	Time -5	Time -4	Time -3	Time -2	Time -1
Lost Revenue	N/A	\$ 23,741	\$ 20,985	\$ 25,896	\$ 33,350
Lost Revenue Attrition		= 23,741 / 229,748 = 10.33%	= 20,985 / 229,748 = 9.13%	= 25,896 / 229,748 = 11.27%	= 33,350 / 229,748 = 14.52%
Geometric Average	14.0%		Arithmetic Average	11.3%	
Revenue Attrition - Revenue Growth					
Revenue from Retained	125,776	128,564	132,106	134,112	137,247
Revenue Growth		2.2%	2.8%	1.5%	2.3%
Geometric Average	2.2%		Arithmetic Average	2.2%	
Aggregate Revenue Attrition					
Revenue from Initial Cust.	229,748	207,354	191,381	168,121	137,247
Revenue Growth with Attrition		-9.7%	-7.7%	-12.2%	-18.4%
Geometric Average	12.1%		Arithmetic Average	12.0%	
Customer Attrition					
Total Customers	17	15	14	13	11
Customer Losses	N/A	3	2	1	3
Customer Loss Attrition		= 3 / 17 = 17.65%	= 2 / 17 = 11.76%	= 1 / 17 = 5.88%	= 3 / 17 = 17.65%
Geometric Average	17.2%		Arithmetic Average	13.2%	

1782 The attrition rates calculated above can be utilized to project revenue from existing customer relationships (as
 1783 shown below). Note that an Arithmetic or Geometric average may be calculated. Typically, a Geometric
 1784 average is viewed as appropriate when applied to multiple periods. An Arithmetic average is viewed as most
 1785 appropriate when applied to a single period. In addition, the calculation above reflects a base year of Time -5;
 1786 further insight may be provided by performing the calculation starting in a different year.

1787 *Table A.1.b: Using Historical Revenue Attrition – Disaggregated Components*

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Revenue (A)	\$200,000	\$175,830	\$154,581	\$135,900	\$119,476	\$105,038	\$ 92,344
Revenue Growth (B)	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
Lost Revenue Attrition (C)	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%
Ending Revenues = A x (1 + B) x (1 - C)	\$175,830	\$154,581	\$135,900	\$119,476	\$105,038	\$ 92,344	\$ 81,184

1788 *Table A.1.c: Using Historical Revenue Attrition – Aggregated Components*

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Revenue (A)	\$200,000	\$175,830	\$154,581	\$135,900	\$119,476	\$105,038	\$ 92,344
Aggregate Revenue Attrition (B)	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%
Ending Revenues = A x (1 - B)	\$175,830	\$154,581	\$135,900	\$119,476	\$105,038	\$ 92,344	\$ 81,184

1789 **Table A.1.d: Using Historical Customer Count Attrition**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Starting Customers	200	166	137	113	94	78	65
Customer Attrition	17.2%	17.2%	17.2%	17.2%	17.2%	17.2%	17.2%
Ending Customers (A)	166	137	113	94	78	65	54
Growth in Sales from Existing Base	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Revenue per Customer (B)	\$ 1,000	\$ 1,030	\$ 1,061	\$ 1,093	\$ 1,126	\$ 1,159	\$ 1,194
Ending Revenues = A x B	\$166,000	\$141,110	\$119,882	\$102,716	\$ 87,790	\$ 75,353	\$ 64,479

1790 **Example A.2: Management Estimates**

1791 Attrition analyses using management estimates generally take two forms: management’s estimation of future
 1792 attrition or management’s direct estimate of future revenues from the existing customer base. Care should be
 1793 taken using these methods to understand exactly what information management is including in their forecast.
 1794 For example, if they are providing attrition estimates, does their estimate include or exclude expected revenue
 1795 growth from the existing customer base. The following examples demonstrate the calculation of an attrition rate
 1796 using the two primary forms of management estimates: management’s estimation of future attrition and
 1797 management’s direct estimate of future revenues from the existing customer base.

1798
 1799 **Table A.2.a: Using Management Provided Revenue Attrition**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Revenue (A)	\$ 200,000	\$ 175,100	\$ 153,300	\$ 134,214	\$ 117,505	\$ 102,875	\$ 90,067
Attrition per Management (B)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Growth in Sales from Existing Base (C)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Ending Revenues = A x (1 – B) x (1 + C)	\$ 175,100	\$ 153,300	\$ 134,214	\$ 117,505	\$ 102,875	\$ 90,067	\$ 78,854

1800 **Table A.2.b: Using Management Estimate of Total Revenues**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Total Revenue	\$ 200,000	\$ 220,000	\$ 242,000	\$ 266,200	\$ 292,820	\$ 322,102	\$ 354,312
Percentage from Existing Base (A)	90.0%	75.0%	60.0%	45.0%	30.0%	15.0%	5.0%
Total Revenue from Existing Base = A x B	\$ 180,000	\$ 165,000	\$ 145,200	\$ 119,790	\$ 87,846	\$ 48,315	\$ 17,716

1801 **Example A.3: Irregular Attrition Patterns**

1802 The valuation specialist should take care in measuring the rate of decay relating to the customer relationships.
 1803 Frequently, customer relationship attrition patterns demonstrate irregular patterns that are not linear or do not
 1804 demonstrate a “smooth” geometric pattern. In some cases customer related revenue, and in turn cash flow, may
 1805 initially increase before decreasing. In other cases customer revenue, and in turn cash flow, may decline
 1806 significantly before leveling off to a normalized rate. The table below presents three scenarios where attrition
 1807 rates change over time:

1808 *Table A.3.a: Irregular Attrition Patterns*

Attrition Rate By Year	Scenario 1 - Base Case	Scenario 2 - Growth Then Decline	Scenario 3 - Significant Decline Then Stable
Year 1	-10.0%	20.0%	-50.0%
Year 2	-10.0%	-20.0%	-10.0%
Year 3	-10.0%	-20.0%	-10.0%
Year 4	-10.0%	-20.0%	-10.0%
CAGR	-10.0%	-11.5%	-22.3%

1809 The valuation specialist needs to adjust the calculated attrition rates to account for differing perspectives
 1810 between the data used to calculate the rate and where the data is applied. For instance, the attrition rate and
 1811 percent surviving for Scenario 1 could be viewed as follows:

1812 *Table A.3.b: Percent Surviving Attrition Calculation – Scenario 1*

	Attrition Rate	Percent Surviving	Calculation
Year 1	-10.0%	95.0%	Beginning of year = 100%; end of year = 90%; therefore average % surviving is 95%
Year 2	-10.0%	85.5%	Beginning of year = 90%; end of year = 81%; therefore average % surviving is 85.5%
Year 3	-10.0%	77.0%	Beginning of year = 81%; end of year = 72.9%; therefore average % surviving is 77%
Year 4	-10.0%	69.3%	Beginning of year = 73%; end of year = 65.6%; therefore average % surviving is 69.3%

1813 For instance the attrition rate and percent surviving for Scenario 2 case could be viewed as follows:

1814 **Table A.3.c: Percent Surviving Attrition Calculation - Scenario 2**

	Attrition Rate	Percent Surviving	Calculation
Year 1	20.0%	110.0%	Beginning of year = 100%; end of year = 120%; therefore average % surviving is 110%
Year 2	-20.0%	108.0%	Beginning of year = 120%; end of year = 96%; therefore average % surviving is 108%
Year 3	-20.0%	86.4%	Beginning of year = 96%; end of year = 76.8%; therefore average % surviving is 86.4%
Year 4	-20.0%	69.1%	Beginning of year = 76.8%; end of year = 61.4%; therefore average % surviving is 69.1%

1815 For instance the attrition rate and percent surviving for Scenario 3 case could be viewed as follows:

1816 **Table A.3.d: Percent Surviving Attrition Calculation - Scenario 3**

	Attrition Rate	Percent Surviving	Calculation
Year 1	-50.0%	75.0%	Beginning of year = 100%; end of year = 50%; therefore average % surviving is 75%
Year 2	-10.0%	47.5%	Beginning of year = 50%; end of year = 45%; therefore average % surviving is 47.5%
Year 3	-10.0%	42.8%	Beginning of year = 45%; end of year = 40.5%; therefore average % surviving is 42.8%
Year 4	-10.0%	38.5%	Beginning of year = 40.5%; end of year = 36.5%; therefore average % surviving is 38.5%

1817 **Example A.4: Partial Period Issues Related to Attrition**

1818 Care should be taken in applying an attrition rate to partial periods. Table A.4.a below provides an example of
 1819 estimated attrition rates and percent surviving for a scenario where the attrition rate is estimated to be 10% and
 1820 there is no adjustment needed for a partial period in year one. Table A.4.b below shows the percent surviving
 1821 calculations assuming that year one of the forecast is a partial period with 25% of year one cash flows used to
 1822 value the customer relationships.

1823 *Table A.4.a: Percent Surviving Assuming No Partial Period*

Scenario 1 - No Partial Period	Attrition Rate (A)	Percent Surviving - Beginning of Year (B)	Percent Surviving - End of Year $C = B * (1 - A)$	Average Percent Surviving for the Year $D = (B + C) / 2$
Year 1	10.0%	100.0%	90.0%	95.0%
Year 2	10.0%	90.0%	81.0%	85.5%
Year 3	10.0%	81.0%	72.9%	77.0%

1824 *Table A.4.b: Percent Surviving Assuming Partial Period Adjustment*

Scenario 2 - Partial Period when Year 1 is 25% of a Full Year	Attrition Rate (A)	Partial Period Percentage (B)	Percent Surviving - Beginning of Year (C)	Percent Surviving - End of Year $D = C * (1 - B * A)$	Average Percent Surviving for the Year $= (C + D) / 2$
Year 1	10.0%	25.0%	100.0%	97.5%	98.8%
Year 2	10.0%	100.0%	97.5%	87.8%	92.6%
Year 3	10.0%	100.0%	87.8%	79.0%	83.4%

1825 **APPENDIX B: CASE STUDY EXAMPLES**

1826 The following examples were developed to illustrate a set of facts and circumstances and the related valuation
1827 of the customer relationship asset. Professional judgment must be utilized in the valuation process.
1828 Additionally, as the case studies are simplified examples, in practice a full analysis would be substantially more
1829 robust and would include the valuation of other assets and liabilities, supporting exhibits, and a comprehensive
1830 narrative.

1831 The following assumptions relate to each of the examples.

- 1832 a. As a simplifying assumption, depreciation is considered to be a reasonable estimate of the *return of* capital related
1833 to fixed assets.
- 1834 b. The determination of contributory asset charges is consistent with the methodology in the First Working Group
1835 Exposure Draft.
- 1836 c. Certain inputs, such as the Return on Working Capital, normally have supporting calculations. These
1837 calculations are outside the scope of this document.

1838 ***Example B.1: Consumer Branded Product Company***

1839 *Transaction*

1840 On March 15, 20x9, AcquireCo purchased TargetCo for a purchase price of \$500 million in cash in a stock deal.
1841 The transaction was competitive with two additional companies interested in purchasing TargetCo.

1842 AcquireCo’s rationale for undertaking the transaction included the following:

- 1843 a. Immediate entry into TargetCo’s markets.
- 1844 b. TargetCo’s portfolio of regionally dominant brands.
- 1845 c. Significant cost synergies.
- 1846 d. The ability to sell TargetCo’s brands in adjacent regions.
- 1847 e. Prevent AcquireCo’s competitors from obtaining TargetCo’s brands and market dominance.

1848 *Acquirer Profile*

1849 AcquireCo is a publicly-held multinational food & beverage producer. Its strategy is to maintain a portfolio of
1850 strong brands catering to various segments of the market. The brands are typically longstanding brands with
1851 strong market share and superior brand equity in their respective markets and regions. Some brands were
1852 developed in-house over a period of many decades while others are long-standing brands which were acquired.
1853 In recent years, the company has refocused its strategy and exited non-core areas.

1854 *Target Description*

1855 TargetCo is a leading producer of branded snack products in the Southeast. Founded in 1905, its brands have
1856 achieved near iconic status and virtually all consumers in its region are familiar with them. TargetCo is
1857 headquartered in Atlanta and conducts business in the surrounding region. The company differentiates itself by
1858 producing fresh products using high quality ingredients.

1859 *Assets Acquired*

1860 Assets acquired as a part of the transaction included fixed and intangible assets. Fixed assets consisted largely
1861 of machinery and working capital. Intangible assets consisted of trademarks and related recipes (collectively
1862 referred to as brands) and customer relationships.

1863 *Customer Characteristics*

1864 Customers consist of wholesalers and retailers of the company's products. While the customers enable
1865 TargetCo to reach its customers, they are not a key business driver. The key driver of revenue is consumer
1866 demand for the product. The strength of this consumer demand is witnessed in a recent event. One retailer, a
1867 supermarket, decided to stop carrying the brands after a disagreement over pricing. Two days later the
1868 supermarket decided to resume selling TargetCo brands as those sales had largely been lost rather than
1869 transitioning to other brands and private label products as expected.

1870 An analysis of historical customer sales indicated average customer attrition of approximately 7.6% and
1871 revenue attrition of approximately 4.1%. This is in line with expectations of low attrition with smaller
1872 customers turning over more often. Based on the expectation that historical results are indicative of future
1873 attrition, the estimated attrition rate is 5.0%. Revenue growth at retained customers is expected to be
1874 approximately 1% per year

1875 *Facts and Circumstances Leading to the Methodology Selection*

1876 Based on discussions with management it was determined that there are two intangible assets present: brands
1877 and customer relationships. The brands were determined to be the company's primary asset. The brands have
1878 dominant positions and strong brand equity. The retailer carries the brand based on the knowledge that there is
1879 significant customer demand. As such, the relationships with the wholesaler or retailer enable the company to
1880 reach the consumer but are not primary drivers of the consumer purchasing decision.

1881 Based on the factors above, the valuation specialist determined that the company specific multi-period excess
1882 earnings method was most appropriately used to value the brands and the Distributor Model was most
1883 appropriate to value the customer relationships.

1884 The rationale for the selected method is that the customer-related activities and the value added by those
1885 activities are similar for the entity and distributors. TargetCo and distributors maintain customer relationships
1886 by providing the desired product in a cost effective and timely manner. As such, distributors which have
1887 economic characteristics that are representative of the relationship between the company and its customers were
1888 chosen to serve as a proxy for the valuation of the customer-related assets. In particular, the selected companies
1889 distribute food products to various retail establishments including grocery, discount and convenience stores.
1890 The operating margin is believed indicative of the margin earned by the customer relationship function and the
1891 contributory asset charges reflect the assets required to service the customer sales function.

1892 ***Table B.1: Consumer Branded Product Company***

		Year 1	Year 2	Year 3	Year 4	Year 5
Revenue at Acquisition	(1)	360,652				
Revenue Adjusted for Growth		360,652	364,259	367,901	371,580	375,296
Remaining After Attrition	(2)	100.0%	95.0%	90.3%	85.7%	81.5%
Revenue After Attrition		360,652	346,046	332,031	318,584	305,681
EBITA		14,787	14,188	13,613	13,062	12,533
Less: Income Taxes		5,915	5,675	5,445	5,225	5,013
Debt Free Net Income		8,872	8,513	8,168	7,837	7,520
Debt Free Net Income Margin		2.5%	2.5%	2.5%	2.5%	2.5%
Returns on Supporting Assets						
Normal Working Capital	(3)	(2,597)	(2,492)	(2,391)	(2,294)	(2,201)
Property, Plant & Equipment	(3)	(902)	(865)	(830)	(796)	(764)
Workforce	(3)	(469)	(450)	(432)	(414)	(397)
Return on Supporting Assets		(3,967)	(3,807)	(3,652)	(3,504)	(3,362)
		-1.1%	-1.1%	-1.1%	-1.1%	-1.1%
Net After Tax Cash Flow to Customer Relationships		4,905	4,706	4,516	4,333	4,157
Implied Royalty Rate		1.4%	1.4%	1.4%	1.4%	1.4%
Partial Period Adjustment		1,000	1,000	1,000	1,000	1,000
Period		0.500	1.500	2.500	3.500	4.500
Discount Factor		0.933	0.811	0.705	0.613	0.533
PV of Cash Flow		4,574	3,816	3,184	2,657	2,216
PV of Cash Flows		<u>26,873</u>				
Tax Benefit=L/(L-(Fa*T))						
Tax Life	15 Years					
Tax Rate	40.0%					
Discount Rate	15.0%					
Amortization Factor	6,2706					
Tax Benefit	20.1%	5,396				
Fair Value		32,269				
Fair Value (Rounded)	(4)	<u>32,000</u>				
Assumptions						
EBITA Margin	(3)	4.1%	4.1%	4.1%	4.1%	4.1%
Growth of Retained Customers	(2)	1.0%	1.0%	1.0%	1.0%	1.0%
Attrition	(2)	5.0%	5.0%	5.0%	5.0%	5.0%
Tax Rate	(3)	40.0%	40.0%	40.0%	40.0%	40.0%
WC to Revenue Ratio	(3)	9.0%	9.0%	9.0%	9.0%	9.0%
Return on WC	(3)	8.0%	8.0%	8.0%	8.0%	8.0%
PP&E to Revenue Ratio	(3)	2.5%	2.5%	2.5%	2.5%	2.5%
Return on PP&E	(3)	10.0%	10.0%	10.0%	10.0%	10.0%
Workforce	(3)	0.1%	0.1%	0.1%	0.1%	0.1%
Discount Rate	(5)	15.0%				

1893 Notes:

1894 (1) Initial revenue is based on the market participant PFI.

1895 (2) Attrition is based on the historical attrition analysis.

1896 (3) The fixed asset and working capital levels are based on observable market inputs for distributors. The
1897 workforce charge is based on the value of the workforce. The workforce was valued based on its cost to
1898 recreate. A low charge is consistent with the expectation that a distributor would achieve significant
1899 revenue per employee.

1900 (4) The customer relationship asset was valued over its 20 year life. Five years are shown for display
1901 purposes.

1902 (5) The selected discount rate is based on valuation specialist’s assessment of risk. Though not displayed, it
1903 is assumed the discount rate is reasonable when viewed within the context of the overall analysis.

1904 *Testing Outputs*

1905 As part of a standard customer relationship valuation, it is important that the valuation practitioner tests the
1906 outputs of their analysis. The Working Group believes that this is a critical step that needs to occur in order for
1907 the valuation to be considered complete. The following paragraph is an example of some of the elements that
1908 can be addressed as it pertains to the case study. It exists as an illustration of a simple example and practical
1909 application in a valuation engagement would likely need to be more robust.

1910 The value of the customer relationships was determined to be \$32 million or approximately 6.4% of the total
1911 purchase price. Additionally, when valuing the customer relationships, the cash flow attributed to the customer
1912 relationships is a low portion of the total margin. This is reasonable given the following factors. The customers
1913 are highly transactional and driven by a need to provide consumers with the desired product. The brands owned
1914 by the company are the key driver of sales and were the primary acquisition rationale. They are iconic in their
1915 region and consumers seek out retailers which carry the brands.

1916 ***Example B.2: Defense Company***

1917 *Transaction*

1918 On March 15, 20x9, AcquireCo purchased TargetCo for a purchase price of \$125 million in cash in a stock deal.
1919 AcquireCo approached TargetCo with an offer. While the transaction was not competitive, investment bankers
1920 did reach out to other potential acquirers. The transaction occurred at a multiple which appears in line with
1921 other transactions within the industry.

1922 AcquireCo’s rationale for undertaking the transaction included the following:

- 1923 a. TargetCo has approximately 15 long-standing relationships with agencies and departments within the
1924 US military and defense communities.
- 1925 b. TargetCo has a highly qualified workforce consisting of engineers and programmers, most of whom
1926 have security clearances.

1927 *Acquirer Profile*

1928 AcquireCo is a mid cap publicly traded defense firm. It provides information technology, information systems,
1929 systems integration, and related engineering services to the military and intelligence communities. It enters into
1930 multi-year contracts which often have multiple potential extensions. AcquireCo was founded in 1982 and is
1931 headquartered in Falls Church, Virginia.

1932 *Target Description*

1933 TargetCo is a provider of information technology and related services to certain intelligence related agencies
1934 and offices. The company was founded in 1999 by a former intelligence officer and has achieved rapid growth
1935 since its founding. It currently has nearly 30 customers, approximately half of whom have been customers for at
1936 least five years. TargetCo is located in Fairfax, Virginia.

1937 *Assets Acquired*

1938 Assets acquired as a part of the transaction included fixed and intangible assets. Fixed assets consisted largely
1939 of working capital. Fixed assets were minimal and consisted mainly of furniture and computers. The only
1940 identifiable intangible acquired was customer relationships. Another key acquisition rationale, the assembled
1941 workforce, is not a recognized intangible asset.

1942 *Customer Characteristics*

1943 TargetCo enters into multi-year contracts with customers. These contracts may be cost-plus, time-and-materials
1944 or firm fixed price. The company earns margins that are higher than typically observed among market
1945 participants. There are several factors. First, the company has a higher portion of contracts that are fixed price
1946 than most market participants. Since these contracts offer a fixed price for the service performed, they are
1947 higher risk but also potentially higher margin. Additionally, TargetCo performs primarily high end work. While
1948 publicly traded market participants are sufficiently large that they have both high and low margin contracts,
1949 TargetCo has limited low margin contracts.

1950 A five year revenue forecast was provided on a customer-by-customer basis. Management estimated the
1951 revenue by customer by adjusting for expected pricing and contract renewals. Low attrition has been
1952 experienced previously and is expected in the future. Management indicated that the company occasionally
1953 performs small projects for non-core customers which tend to turn over more. Core customers are extremely
1954 stable. Long-standing relationships between multiple individuals at TargetCo and its customers, as well as
1955 engineers who are “embedded” at customer sites lead to strong retention rates. While all contracts and
1956 extensions are cost competitive, management indicates they are typically the preferred provider.

1957 *Facts and Circumstances Leading to the Methodology Selection*

1958 Based on discussions with management it was determined that the only identifiable intangible asset present is
1959 the customer relationship asset. As the unique asset, the value of the customer relationship asset was estimated
1960 utilizing the Multi-Period Excess Earnings Approach. Company specific inputs were utilized as the above
1961 average margins reflect the profitability of the contracts and relationships in place. A market participant would
1962 obtain the same level of profitability from these relationships.

1963 **Table B.2: Defense Company**

		Year 1	Year 2	Year 3	Year 4	Year 5
Revenue After Attrition	(1)	100,000	99,132	95,532	86,679	85,985
EBITA	(2)	12,000	11,896	11,464	10,402	10,318
Adjustments						
Sales & Marketing Add-Back	(3)	1,000	991	955	867	860
Adjusted EBITA		13,000	12,887	12,419	11,268	11,178
Less: Income Taxes		5,200	5,155	4,968	4,507	4,471
Debt Free Net Income		7,800	7,732	7,452	6,761	6,707
Debt Free Net Income Margin		7.8%	7.8%	7.8%	7.8%	7.8%
Returns on Supporting Assets						
Normal Working Capital	(4)	(1,200)	(1,190)	(1,146)	(1,040)	(1,032)
Property, Plant & Equipment	(4)	(150)	(149)	(143)	(130)	(129)
Workforce	(5)	(3,000)	(2,974)	(2,866)	(2,600)	(2,580)
Return on Supporting Assets		(4,350)	(4,312)	(4,156)	(3,771)	(3,740)
		-4.4%	-4.4%	-4.4%	-4.4%	-4.4%
Net After Tax Cash Flow to Customer Relationships		3,450	3,420	3,296	2,990	2,966
Implied Royalty Rate		3.5%	3.5%	3.5%	3.5%	3.5%
Partial Period Adjustment		1,000	1,000	1,000	1,000	1,000
Period		0.500	1.500	2.500	3.500	4.500
Discount Factor		0.933	0.811	0.705	0.613	0.533
PV of Cash Flow		3,217	2,773	2,324	1,834	1,582
PV of Cash Flows		18,814				
Tax Benefit=L/(L-(Fa*T))						
Tax Life	15 Years					
Tax Rate	40.0%					
Discount Rate	15.0%					
Amortization Factor	6.2706					
Tax Benefit	20.1%	3,778				
Fair Value		22,592				
Fair Value (Rounded)	(6)	23,000				
Assumptions						
EBITA Margin	(2)	12.0%	12.0%	12.0%	12.0%	12.0%
Sales & Marketing Add-Back	(3)	1.0%	1.0%	1.0%	1.0%	1.0%
Tax Rate		40.0%	40.0%	40.0%	40.0%	40.0%
WC to Revenue Ratio	(4)	15.0%	15.0%	15.0%	15.0%	15.0%
Return on WC	(4)	8.0%	8.0%	8.0%	8.0%	8.0%
PP&E to Revenue Ratio	(4)	1.5%	1.5%	1.5%	1.5%	1.5%
Return on PP&E	(4)	10.0%	10.0%	10.0%	10.0%	10.0%
Workforce	(5)	3.0%	3.0%	3.0%	3.0%	3.0%
Discount Rate	(7)	15.0%				

1964 Notes:

1965 (1) Revenue attributable to customers present at acquisition was provided by management. Subsequent to
1966 the five year forecast provided by management, 5% annualized attrition was applied. This is based on
1967 historical and expected results.

1968 (2) The margin is based on the projected margin. It is believed to be representative of the margin market
1969 participants would earn through use of customer relationship asset.

1970 (3) Sales and marketing expenses related to the addition of new customers were added back. No charge was
1971 taken for use of the corporate name as the customers are already in place and the relationships do not
1972 benefit from use of the corporate name. Additionally, the business is contract and relationship driven.

1973 (4) The fixed asset and working capital levels are based on historical levels.

- 1974 (5) The workforce charge is based on the value of the workforce. The workforce was valued based on its
1975 cost to recreate. A significant charge is viewed as reasonable. The workforce is highly sophisticated and
1976 substantial time and effort would be required to reassemble it.
- 1977 (6) The customer relationship asset was valued over its 20 year life. Five years are shown for display
1978 purposes.
- 1979 (7) The selected discount rate is based on valuation specialist's assessment of risk. Though not displayed, it
1980 is assumed the discount rate is reasonable when viewed within the context of the overall analysis.

1981 *Testing Outputs*

1982 The value of the customer relationships was determined to be \$23 million or approximately 18.4% of the total
1983 purchase price. Additionally, the cash flow margin attributed to the customer relationships is approximately half
1984 of the tax affected EBITA margin. This is reasonable given the following factors. The customer relationships, in
1985 conjunction with the workforce, were the primary acquisition rationale. The company has multi-year contracts
1986 with government agencies. Additionally, due to the skill set of its workers and its understanding of customer
1987 needs, it has a strong track record of winning contract extensions. Externally, the importance of the customer
1988 relationships is emphasized in that the company publishes a press release when it wins significant contracts.

1989 ***Example B.3: Packaging Solutions Provider***

1990 *Transaction*

1991 On June 30, 20x9, FinancialBuyer partnered with key members of management to undertake a management
1992 buyout of TargetCo. The purchase price was \$200 million and the transaction was structured as a stock
1993 purchase. The transaction was competitive with multiple financial buyers bidding.

1994 FinancialBuyer's rationale for undertaking the transaction included the following:

- 1995 a. FinancialBuyer co-invests with management in well-run mid-size companies.
- 1996 b. TargetCo is the leading packaging solutions provider in its region.
- 1997 c. The company is well known and respected within its market niche. Its reputation for high quality
1998 products and timely service drives strong sales.
- 1999 d. The company's customers are highly recurring and stable. They are recurring due to high quality
2000 products provided in a timely and cost effective manner.

2001 *Acquirer Profile*

2002 FinancialBuyer is a private equity firm investing in family and management owned businesses. It typically co-
2003 invests with management in mid-sized specialty firms that operate in defensible niches having high barriers to
2004 entry. It seeks to acquire strong operating companies with management that have demonstrated a commitment
2005 to growth and profitability.

2006 *Target Description*

2007 TargetCo is a leading provider of packaging solutions in its region. Founded in 1978, it has highly recurring
2008 relationships with a variety of companies that utilize its packaging solutions. The company has several national
2009 competitors and one regional competitor. Due to the scale necessary to operate profitably, competition from
2010 new entrants is considered unlikely. The company is highly regarded in its market niche for providing high
2011 quality products in a timely and cost-effective manner.

2012 *Assets Acquired*

2013 Assets acquired as a part of the transaction included fixed and intangible assets. Fixed assets consist largely of
2014 machinery and working capital. Intangible assets consist largely of customer relationships and the corporate
2015 trade name. Additionally, there is limited proprietary technology.

2016 *Customer Characteristics*

2017 Customers consist of a variety of companies which utilize TargetCo's packaging solutions. The customers have
2018 historically been highly recurring. The recurring nature of the customers is based on the quality of products and
2019 service provided. Management believes that were the company to deliver lower quality service or raise prices
2020 significantly, customers would be lost to competitors. The company is a preferred provider to its customer base
2021 and though customers have several choices for their packaging needs, they prefer to utilize TargetCo.

2022 An analysis of historical customer sales indicated average customer attrition of approximately 6.8% and
2023 revenue attrition of approximately 4.5%. This is in line with expectations of low attrition with smaller
2024 customers turning over more often. Based on the expectation that historical results are indicative of future
2025 attrition, the estimated attrition rate is 5.0%. Revenue growth at retained customers is expected to be
2026 approximately 1% per year.

2027 *Facts and Circumstance Leading to the Methodology Selection*

2028 Based on discussions with management it was determined that there are three intangible assets present:
2029 customer relationships, the corporate trade name and proprietary technology. Customer relationships are the
2030 unique asset and the corporate name and proprietary technology are contributory assets. As such, the MPEEM
2031 was utilized to value the customer relationships and contributory asset charges were taken for use of the
2032 working capital, fixed assets, corporate trade name and proprietary technology.

2033 **Table B.3: Packaging Solutions Provider**

		Year 1	Year 2	Year 3	Year 4	Year 5
Revenue at Acquisition	(1)	250,000				
Revenue Adjusted for Growth		250,000	252,500	255,025	257,575	260,151
Remaining After Attrition	(2)	100.0%	95.0%	90.3%	85.7%	81.5%
Revenue After Attrition		250,000	239,875	230,160	220,839	211,895
EBITA	(3)	35,750	34,302	32,913	31,580	30,301
Pretax Returns on Supporting Assets						
Trademark	(4)	(5,000)	(4,798)	(4,603)	(4,417)	(4,238)
Technology	(4)	(1,250)	(1,199)	(1,151)	(1,104)	(1,059)
Adjusted EBITA		29,500	28,305	27,159	26,059	25,004
Less: Income Taxes		11,800	11,322	10,864	10,424	10,001
Debt Free Net Income		17,700	16,983	16,295	15,635	15,002
Debt Free Net Income Margin		7.1%	7.1%	7.1%	7.1%	7.1%
Returns on Supporting Assets						
Normal Working Capital	(5)	(3,000)	(2,879)	(2,762)	(2,650)	(2,543)
Property, Plant & Equipment	(5)	(5,000)	(4,798)	(4,603)	(4,417)	(4,238)
Workforce	(5)	(1,250)	(1,199)	(1,151)	(1,104)	(1,059)
Return on Supporting Assets		(9,250)	(8,875)	(8,516)	(8,171)	(7,840)
		-3.7%	-3.7%	-3.7%	-3.7%	-3.7%
Net After Tax Cash Flow to Customer Relationships		8,450	8,108	7,779	7,464	7,162
Implied Royalty Rate		3.4%	3.4%	3.4%	3.4%	3.4%
Partial Period Adjustment	(6)	0.500	1.000	1.000	1.000	1.000
Period		0.250	1.000	2.000	3.000	4.000
Discount Factor		0.966	0.870	0.756	0.658	0.572
PV of Cash Flow		4,080	7,050	5,882	4,908	4,095
PV of Cash Flows		<u>45,277</u>				
Tax Benefit=L/(L-(Fa*T))						
Tax Life	15 Years					
Tax Rate	40.0%					
Discount Rate	15.0%					
Amortization Factor	6.2706					
Tax Benefit	20.1%	9,091				
Fair Value		54,368				
Fair Value (Rounded)	(7)	<u>54,000</u>				
Assumptions						
EBITA Margin	(3)	14.3%	14.3%	14.3%	14.3%	14.3%
Growth of Retained Customers	(2)	1.0%	1.0%	1.0%	1.0%	1.0%
Attrition	(2)	5.0%	5.0%	5.0%	5.0%	5.0%
Royalty Rate - Trademark	(4)	2.0%	2.0%	2.0%	2.0%	2.0%
Royalty Rate - Technology	(4)	0.5%	0.5%	0.5%	0.5%	0.5%
Tax Rate		40.0%	40.0%	40.0%	40.0%	40.0%
WC to Revenue Ratio	(5)	15.0%	15.0%	15.0%	15.0%	15.0%
Return on WC	(5)	8.0%	8.0%	8.0%	8.0%	8.0%
PP&E to Revenue Ratio	(5)	20.0%	20.0%	20.0%	20.0%	20.0%
Return on PP&E	(5)	10.0%	10.0%	10.0%	10.0%	10.0%
Workforce	(5)	0.5%	0.5%	0.5%	0.5%	0.5%
Discount Rate	(8)	15.0%				

2034 Notes:

2035 (1) Initial revenue is based on the market participant PFI.

2036 (2) Attrition is based on the historical attrition analysis.

- 2037 (3) The margin is based on the market participant PFI.
- 2038 (4) The corporate trade name and the proprietary technology were valued utilizing the relief from royalty
2039 approach and the royalty rate was used as the pre-tax contributory asset charge. The selected royalty rate
2040 reflects the relative importance of the intangible asset to the business and market transaction data
2041 obtained from a third party source.
- 2042 (5) The fixed asset and working capital levels are based on the company's historical and expected fixed
2043 asset and working capital requirements. Additionally, they appear reasonable when viewed relative to
2044 comparable companies. The workforce charge is based on the value of the workforce. The workforce
2045 was valued based on its cost to recreate.
- 2046 (6) The partial period assumes the first period is half a year.
- 2047 (7) The customer relationship asset was valued over its 20 year life. Five years are shown for display
2048 purposes.
- 2049 (8) The selected discount rate is based on valuation specialist's assessment of risk. Though not displayed, it
2050 is assumed the discount rate is reasonable when viewed within the context of the overall analysis.

2051 *Testing Outputs*

2052 The value of the customer relationships was determined to be \$54 million or approximately 25% of the total
2053 purchase price. Additionally, the cash flow margin attributed to the customer relationships is approximately
2054 40% of the tax affected EBITA margin. This is reasonable given the following factors. The customer
2055 relationships were a primary acquisition rationale. Customers are highly recurring and it has taken a number of
2056 years for the company to develop the level of relationships it has in place. Though the market is highly cost
2057 competitive, customers prefer to use the TargetCo as their packaging provider.

2058 ***Example B.4: Hardware Company***

2059 *Transaction*

2060 On January 1, 2011, TechCo purchased TargetTechCo for a purchase price of \$2.1 billion and the transaction
2061 was structured as a stock purchase. The transaction was competitive with multiple strategic buyers bidding.

2062 TechCo's rationale for undertaking the transaction included the following:

- 2063 a. Strong existing technology platform
- 2064 b. Strong development pipeline of new projects
- 2065 c. Ongoing and recurring purchases of components by manufacturers integrating them into larger systems

2066 *Acquirer Profile*

2067 TechCo is a publicly-traded technology company that focuses on developing hardware and software products.
2068 They are considered by many to be one of the largest market participants in their industry segment and have
2069 traditionally made acquisitions a large part of their growth strategy. Acquisitions are considered by TargetCo
2070 management as a necessary way to accelerate their technology roadmap.

2071 *Target Description*

2072 TargetTechCo is a leading provider of hardware components which other manufacturers integrate into
2073 assembled systems. They spend a significant amount each year on research and development and their
2074 management philosophy has always been to develop state of the art technologies that would “speak for
2075 themselves” in the marketplace. They, unfortunately, have spent too little on sales and marketing and,
2076 consequently, sales have dropped in recent years, even though many of their competitors agree that they
2077 develop a high quality solution.

2078 *Assets Acquired*

2079 Assets acquired as a part of the transaction included fixed and intangible assets. Fixed assets are relatively
2080 immaterial to the total purchase price. Intangible assets consist largely of technology, in-process research and
2081 development, and customer relationships.

2082 *Customer Characteristics*

2083 Customers consist of a variety of companies which utilize TargetTechCo’s hardware components. While market
2084 participants would likely also expect to leverage the acquired business’s established customer relationships to
2085 sell existing and new products, the continuation of the customer relationships is largely dependent on the
2086 technological capabilities offered by the business’s products.

2087 *Facts and Circumstance Leading to the Methodology Selection*

2088 Based on discussions with management it was determined that there are three intangible assets present:
2089 customer relationships, existing technology, and in-process research and development. Technology and in-
2090 process research and development were the primary assets identified. Customer relationships were determined
2091 to be a secondary asset. As such, the MPEEM was utilized to value the technology and in-process research and
2092 development. A with-and-without model was used to value the customer relationships.

2093 **Table B.4.1: Hardware Company With Approach**

	2010	2011	2012	2013
Revenue With Existing Customers	\$ 600.0	\$ 750.0	\$ 1,000.0	\$ 1,200.0
Less: Cost of Goods Sold	<u>(300.0)</u>	<u>(375.0)</u>	<u>(500.0)</u>	<u>(600.0)</u>
Gross Profit	300.0	375.0	500.0	600.0
Less: Operating Expenses	(120.0)	(150.0)	(200.0)	(240.0)
Less: Incremental "Re-Creation" Expenses	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Pre-tax Income	180.0	225.0	300.0	360.0
less: Income Taxes (40.0%)	<u>(72.0)</u>	<u>(90.0)</u>	<u>(120.0)</u>	<u>(144.0)</u>
Net Income	108.0	135.0	180.0	216.0
Plus: Depreciation		37.5	50.0	60.0
Less: Changes in NWC		(6.0)	(10.0)	(8.0)
Less: CAPEX		<u>(37.5)</u>	<u>(50.0)</u>	<u>(60.0)</u>
Net Returns on Customer-related Assets		\$ 129.0	\$ 170.0	\$ 208.0
Midpoint		0.5	1.5	2.5
Present Value Factor		<u>0.9325</u>	<u>0.8109</u>	<u>0.7051</u>
Present Value of Cash Flows		<u>\$ 120.3</u>	<u>\$ 137.8</u>	<u>\$ 146.7</u>
Sum of Present Value of Cash Flows (With Scenario)		\$ 404.8		
Sum of Present Value of Cash Flows (Without Scenario)		<u>370.5</u>	See schedule on next page.	
Difference Between Scenarios		34.3		
TAB		<u>6.9</u>		
Fair Value		<u>\$ 41.2</u>		
TAB Calculation:				
Tax Life (n)	15			
Tax Rate (t)	40.0%			
Discount Rate (r)	15.0%			
Annuity Factor	5.85	= PV(r, n, 1)		
Mid-Year Adj Factor	1.07	= (1 + r) ^ 0.5		
TAB Factor	20.1%	= (n / (n - (Annuity Factor * Mid-Year Adj Factor * t)) - 1)		

Working Capital (WC) Calculation					
	2010	2011	2012	2013	
Accounts Receivable (% of Rev.)	5.0%	30.0	37.5	50.0	60.0
Inventory (% of CoGS)	10.0%	30.0	37.5	50.0	60.0
Accounts Payable (% of CoGS)	12.0%	36.0	45.0	60.0	72.0
Total WC		24.0	30.0	40.0	48.0
WC / Revenue		4.0%	4.0%	4.0%	4.0%
WC Investment			6.0	10.0	8.0

2094 **Table B.4.2: Hardware Company Without Approach**

	2010	2011	2012	2013
Revenue Without Existing Customers	\$ 600.0	\$ 400.0	\$ 900.0	\$ 1,200.0
Less: Cost of Goods Sold	(300.0)	(200.0)	(450.0)	(600.0)
Gross Profit	300.0	200.0	450.0	600.0
Less: Operating Expenses	(120.0)	(80.0)	(180.0)	(240.0)
Less: Incremental "Re-Creation" Expenses	-	(10.0)	(10.0)	(5.0)
Pre-tax Income	180.0	110.0	260.0	355.0
less: Income Taxes (40.0%)	(72.0)	(44.0)	(104.0)	(142.0)
Net Income	108.0	66.0	156.0	213.0
Plus: Depreciation		50.0	60.0	75.0
Less: Changes in NWC		(2.0)	(10.0)	(12.0)
Less: CAPEX		(20.0)	(45.0)	(60.0)
Net Returns on Customer-related Assets		\$ 94.0	\$ 161.0	\$ 216.0
Midpoint		0.5	1.5	2.5
Present Value Factor		0.9325	0.8109	0.7051
Present Value of Cash Flows		\$ 87.7	\$ 130.6	\$ 152.3
Sum of Present Value of Cash Flows (Without Scenario)		\$ 370.5		

Working Capital (WC) Calculation					
	2010	2011	2012	2013	
Accounts Receivable (% of Rev.)	5.0%	30.0	20.0	45.0	60.0
Inventory (Max of % of CoGS & Starting Inv.)	10.0%	30.0	30.0	45.0	60.0
Accounts Payable (% of CoGS)	12.0%	36.0	24.0	54.0	72.0
Total WC		24.0	26.0	36.0	48.0
WC / Revenue		4.0%	6.5%	4.0%	4.0%
WC Investment			2.0	10.0	12.0

Comments:

- > Cost of Goods Sold and Operating Expenses are a stable % of revenue. As such, their levels reflect revenue levels.
- > The Incremental "Re-Creation" Expenses are those required to re-create the lost customer relationships.
- > The Pre-Tax Income reflects the offsetting effects of lower CGS and Operating Expenses in conjunction with higher Re-Creation expenses.
- > Working capital was projected by modeling A/R, Inventory and A/P.
A/R is modeled as a constant percent of revenue, as such it declines when revenue declines.
Inventory is modeled as the greater of a % of CGS or starting Inventory. This reflects the expectation management would not liquidate inventory they could sell after a modest period of time.
A/P is modeled as a constant percent of CoGS, as such it declines when CoGS declines.
The overall working capital source/use reflects the contrasting impacts of these items.
- > Depreciation is the same as the With Scenario as it is assumed there are no changes to the fixed asset base.
- > Capex is lower in the mid-term as it is assumed to be a percent of revenue.

2095 Testing Outputs

2096 The value of the customer relationships was determined to be \$41.2 million, or approximately 2% of the total
2097 purchase price. This is reasonable given the following factors:

- 2098 a. The customers are attracted and retained due to the technology (i.e., the technology is a primary asset
2099 and the customers are not a primary asset).

2100 b. The company manufactures components which are used by customers in assembled systems.
2101 c. Manufacturers purchase these components due to their quality and their ability to meet rigorous
2102 specifications.
2103 If, hypothetically, the company were to no longer have its customers, it would quickly regain them due to the
2104 need for its hardware components. Use of the With-and-Without Method is consistent with the nature of these
2105 relationships. It appears reasonable in that it returns a value which is a relatively small portion of the purchase
2106 price. A customer-relationship asset that has a longer life may be considered a more significant asset to the
2107 business economics. A more substantial portion of the purchase price was ascribed to the technology, both
2108 developed and in-process, which is consistent with the business drivers and the purchase rationale.