

Private Company Council

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Valuation Issues Raised in Comment Letters

In comment letters on proposed Accounting Standards Update, *Business Combination (Topic 805) – Accounting for Identifiable Intangible Assets in a Business Combination*, issued on July 1, 2013, concerns were raised about whether the proposal would significantly reduce the costs and complexity of business combinations for private companies. Three areas of note include:

- Application of the Multi-Period Excess Earnings Method (MPEEM) would still require the valuation of certain intangibles not separately recognizable from goodwill
- Rationale for and difficulty and complexity associated with separating patented technology from unpatented technology
- Complexity and data needs associated with assessing non-cancellable terms of customer contracts and the valuation of those contracts

Overview/Background

Valuation Approaches

- *The Cost Approach:* A valuation technique that reflects the amount that would be required currently to replace the service capacity of an asset (often referred to as current replacement cost).
- *The Market Approach:* A valuation technique that uses prices and other relevant information generated by market transactions involving identical or comparable (that is, similar) assets, liabilities, or a group of assets and liabilities, such as a business.
- *The Income Approach:* Valuation techniques that convert future amounts (for example, cash flows or income and expenses) into a single current (that is, discounted) amount. The fair value measurement is determined based on the value indicated by current market expectations about those future amounts.

Cost Approach for Intangible Assets

- While occasionally appropriate for intangible assets, the cost to create many intangibles has little relationship to the value of the intangible asset.
- The AICPA Practice Aid, “Assets Acquired in a Business Combination to be Used in Research and Development Activities,” discusses that relationship for IPR&D:

“By its very nature, the relationship between cost incurred and value created is tenuous at best for IPR&D projects.

- *Certain R&D projects may go on for years at great expense without ever producing a commercially viable product. In that case, the cost of reproducing the historical development steps may overstate the value of the technology.*
- *Conversely, creation of intangible assets with substantial value may be made for little cost. In this case, the cost of reproducing the historical development steps would be low compared with the value of the resulting asset/technology.”*

Cost Approach for Intangible Assets

- As a result, the Cost Approach is typically only used to value relatively minor intangible assets, such as:
 - Assembled workforce (which is not recognized separately from goodwill, but is often valued because it is necessary to apply the Multi-Period Excess Earnings Method)
 - Internally developed and used software

Market Approach for Intangible Assets

- Since the Market Approach, by its nature, requires available data on transactions involving the same or similar assets, it is seldom applied to value intangible assets.
 - Intangible assets are typically unique (patents, trade names, and so forth are, by definition, unique)
 - There is limited guideline transaction data for intangible assets
 - When intangibles are sold, they are typically sold with other components of a business enterprise
 - If sold individually, transactions are not often subject to public disclosure

Market Approach for Intangible Assets

- As a result, the Market Approach is typically only used to value a small number of assets for which market data is sometimes available:
 - Domain Names (generally, domain names owned but not used and unrelated to the core trade name/brand)
 - Valuation of Operating Rights
 - FCC Licenses
 - Telecom Operating Spectrum

Income Approach for Intangible Assets

- Because the Cost Approach and the Market Approach are often either not appropriate or not feasible, estimating the value of intangible assets is most commonly done through an Income Approach.
- Valuing multiple assets under an income approach typically involves selecting an appropriate valuation method for each asset based on its characteristics and importance to the business.
- The methodologies most commonly used are:
 - Multi-Period Excess Earnings Method (MPEEM)
 - Relief from Royalty Method (RFR)
 - “With and Without” Method (WWM)
 - Greenfield Method
- Typically, a business’ primary asset is valued under the MPEEM, while any secondary intangible assets are valued using one of the other methods.

Multi-Period Excess Earnings Method (MPEEM) May Still Require Valuation of Unrecognized Assets

Overview of Issues Raised in Comment Letters

- Respondents raised concerns that the most commonly used valuation method, the MPEEM, may require the valuation of intangible assets, even if those assets are no longer separately recognizable from goodwill.

MPEEM Overview

- Multi-Period Excess Earnings Method (MPEEM) is an income-based valuation approach (that is, it estimates value based on expected future economic earnings attributable to an asset).
- MPEEM is most commonly used to value the primary or most important asset responsible for the income-generating ability of a business enterprise or a key segment of a business enterprise.
- Typical intangible assets deemed to be primary income-generating assets and valued using MPEEM are:
 - Customer-related intangible assets
 - Enabling (“Key”) Technology (generally sold to third-parties).

Prevalence of the MPEEM

- The majority of acquired going concerns are expected to have at least one asset valued using the MPEEM.
 - A small basic firm may have customer-related intangibles (CRI) requiring valuation using the MPEEM.
 - A multi-national corporation could have hundreds of assets requiring valuation using the MPEEM. Some might be CRI and others might be technology.
- The AICPA Practice Aid, “Assets Acquired in a Business Combination to Be Used in Research and Development Activities,” identifies the MPEEM as the most commonly used valuation method for IPR&D
- Due to the complexities of valuing more than one intangible under the MPEEM when both assets generate the same revenue stream, auditors and the Appraisal Foundation have expressed a preference to limit the use of the method to one asset for any given revenue stream.

Primary Assets

- A primary asset is generally considered to be the asset most responsible for the revenue and profit-making potential for a business. The primary asset often varied depending on the nature of a company and its industry. For example, the primary asset for many consumer products companies is their brands/trade names, while the primary asset of most service businesses is their customer relationships.
- In an Appraisal Foundation Discussion Draft, they discuss this concept as follows:

"In our view, a primary asset of a business is an asset which has significant importance to the business relative to other assets and is a key business driver from an economic perspective (e.g., cash flows). Depending upon the nature of the business, the primary asset(s) may be tangible assets such as real property or intangible assets such as customers, technology, brands, or another asset."

Source: "Discussion Draft – *The Valuation of Customer-Related Assets*", Appraisal Foundation, 2012

Key Elements of the MPEEM

- Identification of asset(s) to be valued using MPEEM
- Revenues
 - Level
 - Remaining economic life
- Development of estimated expenses
- Contributory asset charges
 - Identification and valuation of all contributory assets
 - Rate of return for each
 - Rate of return for subject asset
 - Revenue base

Appraisal Foundation Discussion of MPEEM

1.3 The MPEEM is a method under the income approach. In applying this form of analysis, the starting point is generally Prospective Financial Information (“PFI”) for the entity that owns the subject intangible asset. From this, a stream of revenue and expenses are identified as those associated with a particular group of assets. This group of assets includes the subject intangible asset as well as other assets (contributory assets) that are necessary to support the earnings associated with the subject intangible asset. The prospective earnings of the single subject intangible asset are isolated from those of the group of assets by identifying and deducting portions of the total earnings that are attributable to the contributory assets to estimate the remaining or “excess earnings” attributable to the subject intangible asset. The identification of earnings attributable to the contributory assets is accomplished through the application of CACs in the form of returns “on” and, in some cases, “of” the contributory assets. These CACs represent an economic charge for the use of the contributory assets. The “excess” earnings (those that remain after subtraction of the CACs) are attributable to the subject intangible asset. These excess earnings are discounted to present value at an appropriate rate of return to estimate the fair value of the subject intangible asset. Thus, the MPEEM could be described as an attribution model under the income approach.

Source: “Identification of Contributory Assets and Calculation of Economic Rents: Monograph”, Appraisal Foundation, 2010

Appraisal Foundation Discussion of MPEEM

3.1.12 ...An important attribute of this method is that it provides the ability to reconcile to the entity value and demonstrates that the calculation of the CAC does not create or destroy aggregate asset value. The application of CACs is essentially an attribution of earnings to the contributory assets.

Source: "Identification of Contributory Assets and Calculation of Economic Rents: Monograph", Appraisal Foundation, 2010

MPEEM as a Sanity Check

- One of the key benefits of the MPEEM is its usefulness as a check on the reasonableness of a purchase price allocation.
- The MPEEM allows appraisers (and auditors) to understand the relationship between:
 - Revenue and earnings generated by existing assets
 - Revenue and earnings attributable to unidentified assets
- For most businesses, it is expected that near-term revenue and profits would be generated by already-existing assets.
- The example on the next three slides was included in the Appraisal Foundation's "Identification of Contributory Assets and Calculation of Economic Rents: Toolkit"

Customer Relationships MPEEM: Fixed Asset Contributory Asset Charge Based on Technique B - Level Payment

Exhibit B-13

This exhibit uses the Level Payment technique (Technique B) for the calculation of fixed asset CACs in the valuation of customer relationships using an MPEEM. All other CACs and adjustments discussed in Exhibit B-12 remain the same.

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Residual
Total Revenue		\$ 1,000	\$ 1,050	\$ 1,165	\$ 1,306	\$ 1,456	\$ 1,596	\$ 1,718	\$ 1,823	\$ 1,907	\$ 1,976	\$ 2,035
Customer Relationship Revenue		900	855	770	616	431	259	130	65	33	-	-
Gross Profit	90%	810	770	693	554	388	233	117	59	30	-	-
Operating Expenses:												
Maintenance R&D	0.0%	-	-	-	-	-	-	-	-	-	-	-
R&D - Future IP	0.0%	-	-	-	-	-	-	-	-	-	-	-
Trade name advertising	0.0%	-	-	-	-	-	-	-	-	-	-	-
Current customer marketing	3%	27	26	23	18	13	8	4	2	1	-	-
Future customer marketing		-	-	-	-	-	-	-	-	-	-	-
Total marketing		27	26	23	18	13	8	4	2	1	-	-
Total G&A	7%	63	60	54	43	30	18	9	5	2	-	-
Total Operating Expenses		90	86	77	61	43	26	13	7	3	-	-
EBITDA		720	684	616	493	345	207	104	52	27	-	-
Depreciation		166	303	256	194	131	81	42	20	9	-	-
Amortization - AWF		18	16	13	9	6	3	2	1	-	-	-
EBIT		536	365	347	290	208	123	60	31	18	-	-
less: Trade Name Royalty	5%	45	43	39	31	22	13	7	3	2	-	-
IP Royalty	10%	90	86	77	62	43	26	13	7	3	-	-
Adjusted EBIT		401	236	231	197	143	84	40	21	13	-	-
Taxes	40%	160	94	92	79	57	34	16	8	5	-	-
Debt Free Net Income		241	142	139	118	86	50	24	13	8	-	-
add: Depreciation		166	303	256	194	131	81	42	20	9	-	-
Amortization - AWF		18	16	13	9	6	3	2	1	-	-	-
AWF Growth Investment		10	9	16	14	9	5	2	1	-	-	-
less: Return On Working Capital		8	7	6	5	4	2	1	1	-	-	-
Return On & Of Fixed Assets (1)		292	281	247	192	132	78	40	20	11	-	-
Return On AWF		18	17	15	12	8	5	2	1	1	-	-
Excess Earnings		117	165	156	126	88	54	27	13	5	-	-
Residual Value												-
PV Factor	10%	0.9535	0.8668	0.7880	0.7164	0.6512	0.5920	0.5382	0.4893	0.4448	0.4044	0.4044
PV Excess Earnings		112	143	123	90	57	32	15	6	2	-	-
Total PV Excess Earnings		580										
Tax Amortization Benefit		157										
Fair Value - Customer Relationships		737										

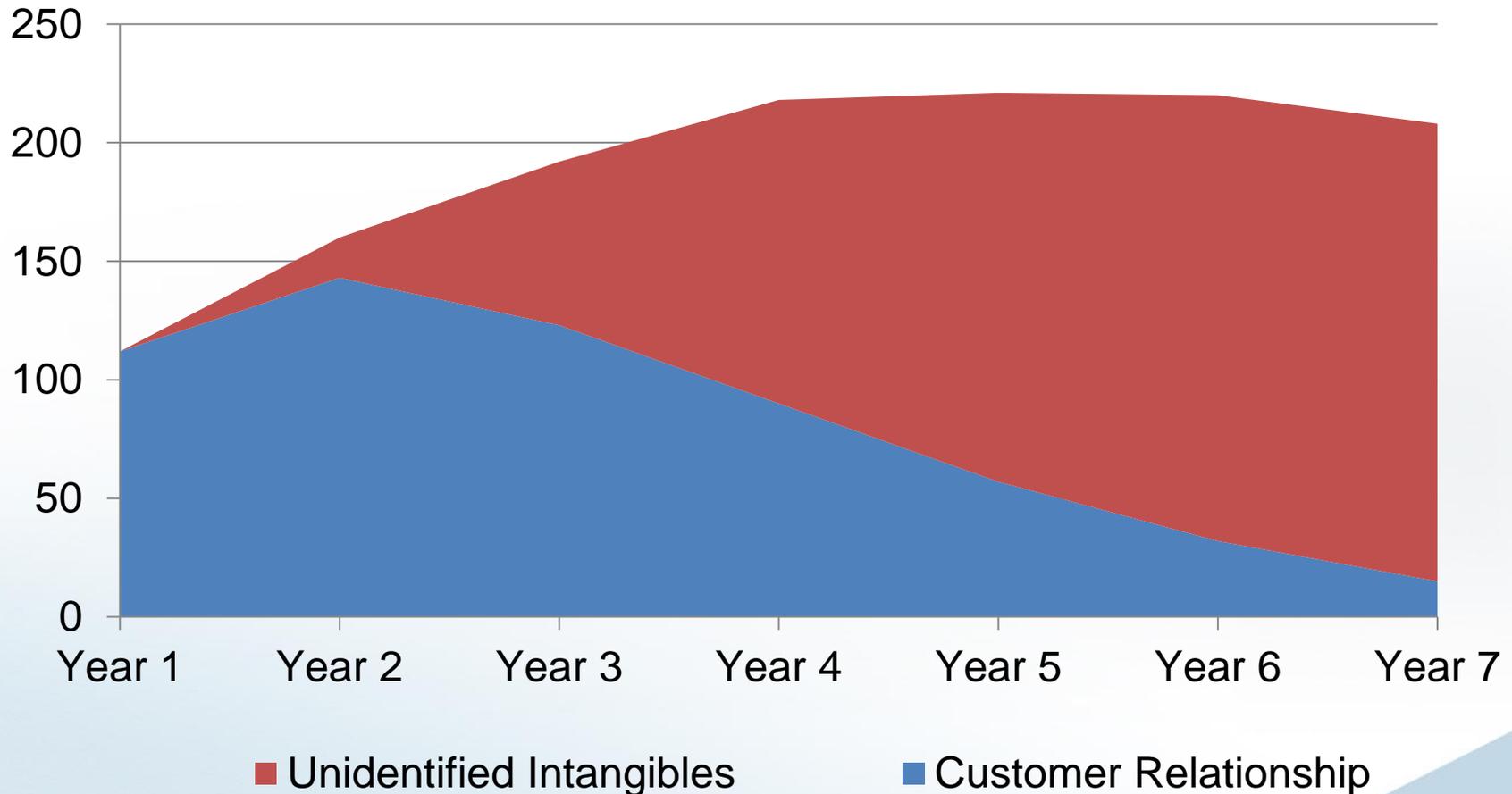
Unidentified Excess Earnings (MPEEM): Fixed Asset Contributory Asset Charge Based on Technique A - Average Annual Balance

Exhibit B-14

This exhibit applies the Average Annual Balance technique (Technique A) to separate the unidentified excess earnings (consisting of the acquiring entity trade name; future IP; and future and other customers) for reconciliation purposes in the context of a financial overlay.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Residual	
Total Revenue	\$ 1,000	\$ 1,050	\$ 1,165	\$ 1,306	\$ 1,456	\$ 1,596	\$ 1,718	\$ 1,823	\$ 1,907	\$ 1,976	\$ 2,035	
Revenue (1)	100	195	395	690	1,025	1,337	1,588	1,758	1,874	1,976	2,035	
Gross Profit	90	175	356	621	922	1,203	1,429	1,582	1,686	1,778	1,832	
Operating Expenses:												
Maintenance R&D (2)	-	-	2	5	6	8	9	9	10	10	10	
R&D - Future IP (2)	25	26	29	33	36	40	43	46	48	49	51	
Trade name advertising (3)	-	-	3	7	7	8	9	9	10	10	10	
Current customer marketing (4)	-	-	-	-	-	-	-	-	-	-	-	
Future customer marketing (5)	18	22	29	40	53	64	73	80	84	89	92	
Total marketing	18	22	32	47	60	72	82	89	94	99	102	
Total G&A (6)	7	14	28	48	72	94	111	123	131	138	142	
Total Operating Expenses	50	62	91	133	174	214	245	267	283	296	305	
EBITDA	40	113	265	488	748	989	1,184	1,315	1,403	1,482	1,527	
Depreciation (6)	18	69	131	218	310	419	515	538	531	562	581	
Amortization - AWF (6)	2	4	7	11	14	17	18	19	20	20	-	
EBIT	20	40	127	259	424	553	651	758	852	900	946	
less: Trade Name Royalty (7)	5	10	(10)	(31)	(22)	(13)	(7)	(3)	(2)	-	-	
IP Royalty (7)	10	4	(7)	(22)	(23)	(21)	(13)	(7)	(3)	-	-	
Adjusted EBIT	5	26	144	312	469	587	671	768	857	900	946	
Taxes	40%	2	10	58	125	188	235	268	307	343	378	
Debt Free Net Income	3	16	86	187	281	352	403	461	514	540	568	
add: Depreciation	18	69	131	218	310	419	515	538	531	562	581	
Amortization - AWF	2	4	7	11	14	17	18	19	20	20	-	
AWF Growth Investment (8)	1	2	8	16	23	25	24	21	18	15	13	
less: Return On Working Capital (9)	0	2	4	6	8	11	13	14	16	17	17	
Return Of Fixed Assets (10)	29	56	109	184	266	343	411	464	510	545	567	
Return On Fixed Assets (10)	5	9	19	33	49	64	76	84	89	94	97	
Return On AWF (8)	2	4	7	13	20	26	31	35	37	39	41	
Excess Earnings	(12)	20	93	196	285	369	429	442	431	442	440	
Residual Value											4,376	
PV Factor (11)	13.05%	0.9405	0.8319	0.7359	0.6510	0.5758	0.5093	0.4505	0.3985	0.3525	0.3118	0.3118
PV Excess Earnings	(12)	17	69	128	164	188	193	176	152	138	1,365	
Total PV Excess Earnings	2,578											
Tax Amortization Benefit (12)	567											
Total Including TAB	3,145											

“Excess Earnings” Attributable to Existing Customer Relationships vs. Unidentified Intangibles



Summary of Comment Letter Issue

- The MPEEM is currently used in nearly every business combination for at least one intangible asset.
- Even if certain intangibles (for example, unpatented technology and cancellable customer relationships) are no longer recognized separately from goodwill, the application of the MPEEM may require their valuation for purposes of calculating contributory asset charges, just as is currently done for assembled workforce.
- If the MPEEM is not used, auditors and appraisers would face challenges gaining comfort with the appraisal, as the MPEEM provides a significant “check” on the valuation’s reasonableness.
- Based on the above, the proposal may not result in the intended cost savings to preparers.

Rationale for and Difficulty and Complexity of Separating Patented Technology from Unpatented Technology

Overview of Issues Raised in Comment Letters

- Respondents raised concerns with several aspects of the proposal to recognize patented technology as an intangible asset, but not unpatented technology:
 - Patented and unpatented technology can be similar from an economic perspective, and some respondents questioned why there would be differences in valuation/recognition.
 - As many companies sell products and services that utilize a mix of patented and unpatented technologies, there may be a significant cost burden associated with separating out the value of patented technology.

Overview of Intellectual Property

- Intellectual property is increasing in significance to the U.S. and global economies.
- While companies in all industries may have intellectual property, the U.S. Patent and Trademark Office estimates that 18.8% of people employed in the U.S. are in industries that are particularly intellectual-property intensive (*Intellectual Property And the U.S. Economy: Industries in Focus*, March 2012).
- Many products and services rely on a portfolio of protected and unprotected intellectual property (patents, trademarks, copyrights, know-how, trade secrets, and so forth)

When are ideas not patented?

- Many companies are cautious about whether and when to patent their developed technology. The process of obtaining a patent can cost upwards of \$25,000. As such, a company may wish to assess commercial viability before undertaking such costs.
- If an idea relates to a method or know-how that is not easily reverse-engineered, many companies choose to keep it a “trade secret,” which may actually increase value, by extending the life of the technology beyond the life of a patent.
- In some fast-moving industries, obtaining patents may not be important, because focus is on developing the next generation of technology rather than using the current technology for a long period.

When are ideas not patented?

- Even for technologies that a company plans to patent, it is often prudent to wait.
- If an idea is patented too early, the patent's scope may be too narrow to provide any protection from competitors.
- While it is important to document and establish the date of the conception of an idea, an inventor has up to one year from the public disclosure of an invention (by, for example, selling a product) to patent that idea.
- By filing a provisional patent application, that deadline may be extended to two years from public disclosure of the invention.

Do Patents Have Value?

- While technology is undoubtedly an important part of many companies' operations, the value of technology generally does not relate specifically to whether it is patented.
- The majority of patents have no commercial value, generally because they apply to processes or products that are not being produced by the patent holder or any potential licensee.
- Ultimately, while a patent may provide useful legal protection, it is not the driver of value for most technologies.
- Economically, there may be circumstances in which patented technology would be worth less than an identical unpatented technology.

Complexity of Separating Patented Technology

- Most companies that hold patents do not license them to third parties. Instead, they hold the patents and use them in their own products and/or services.
- Those companies often also utilize other intellectual property in providing their products and services, including unpatented technology (know-how, trade secrets, and so forth).
- Under current guidance, patented and unpatented technology are often valued together because they represent a reasonably homogenous group under FASB Concepts Statement No. 5.
- For companies that utilize both patented and unpatented technologies, the process of separating the value of patented technology may be costly.

Separating Patented Technology

- In addition to utilizing both unpatented and patented technology, a product or service may use a number of patents with varying importance and expiration dates.
- The proposed guidance may require valuation of patents individually rather than as a group.

Summary of Comment Letter Issues

- While patents are capable of being sold or licensed individually, most companies develop and hold patents for their own use rather than for sale or licensing purposes.
- A company's product/service is often a combination of patented technology and unpatented technology (know-how, trade secrets, and so forth).
- Economically, a patented technology is often no different from unpatented technology.
- In many business combinations, separating the value of patented technology may be more costly than valuing technology as a whole.

Complexity and Data Needs for Assessing Contractual Non-Cancelable Customer Related Intangibles

Overview of Issue Raised in Comment Letters

- Respondents raised concerns that the analysis of contractual, non-cancellable customer contracts may be more costly and time-consuming than current practice.

Customer Relationship Valuation - Current

- Under current guidance, customer relationships are often valued as a group, because many businesses' customers represent a reasonably homogenous group under FASB Concepts Statement No. 5
- For many businesses, customers are sufficiently similar such that the valuation requires only a single valuation model with two primary inputs:
 - Amount of revenue from existing customers in "Year 1"
 - Attrition rate
- Attrition is an area that has received significant scrutiny from auditors and the PCAOB, because many appraisers have historically used management estimates/assertions.
- Best practice requires management/appraisers to gather historical customer information (typically revenue by customer for two to five years) to calculate an attrition rate.

Example of Current Practice

		December 31									
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue (1)		\$ 42,000	\$ 43,260	\$ 44,558	\$ 45,895	\$ 47,271	\$ 48,690	\$ 50,150	\$ 51,655	\$ 53,204	\$ 54,800
Growth		N/A	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Annual Attrition Rate	15.0%										
Annual Retention Factor	85.0%										
Revenue from Existing Customers	% of Revenue	85.0%	72.3%	61.4%	52.2%	44.4%	37.7%	32.1%	27.2%	23.2%	19.7%
Cost of Goods Sold	56.4%	20,145	17,637	15,441	13,519	11,836	10,362	9,072	7,943	6,954	6,088
Gross Profit		15,555	13,618	11,923	10,438	9,139	8,001	7,005	6,133	5,369	4,701
SG&A Expenses	26.3%	9,400	8,229	7,205	6,308	5,522	4,835	4,233	3,706	3,245	2,841
Addback: Selling Expenses for New Customers	3.0%	1,071	938	821	719	629	551	482	422	370	324
Operating Income		7,226	6,327	5,539	4,849	4,246	3,717	3,254	2,849	2,494	2,184
Less: Royalty on Trade Name (2)	5.0%	1,785	1,563	1,368	1,198	1,049	918	804	704	616	539
Pretax Income		5,441	4,764	4,171	3,652	3,197	2,799	2,450	2,145	1,878	1,644
Income Taxes	40.0%	2,177	1,906	1,668	1,461	1,279	1,120	980	858	751	658
After-Tax Earnings		3,265	2,858	2,502	2,191	1,918	1,679	1,470	1,287	1,127	987
After-Tax Capital Charges (3)											
Net Working Capital (Excl. Excess Cash)	0.49%	176	154	135	118	103	90	79	69	61	53
Fixed Assets	1.23%	438	384	336	294	257	225	197	173	151	132
Internal Technology	0.10%	35	30	27	23	20	18	16	14	12	10
Assembled Workforce	0.56%	200	175	153	134	117	103	90	79	69	60
Total Capital Charges	2.38%	848	743	650	569	498	436	382	334	293	256
Income from Customer Relationships		2,417	2,116	1,852	1,622	1,420	1,243	1,088	953	834	730
Partial Period Factor		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Mid-Year Convention	Discount Rate	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5
Present Value Factor	16.0%	0.9285	0.8004	0.6900	0.5948	0.5128	0.4421	0.3811	0.3285	0.2832	0.2441
Present Value		2,244	1,694	1,278	965	728	550	415	313	236	178
Sum of Present Values (4)		8,600									
Plus: Tax Amortization Benefit		1,640									
Fair Value of Customer Relationships		10,240									
Fair Value of Customer Relationships, Rounded		\$ 10,200									

Notes:

(1) Financials based on Management projections.

(2) See Market Comparable Royalty Rate exhibit.

(3) See Capital Charge Analysis exhibit.

(4) Remaining useful life calculated as time to realize 95% of discounted cash flows.

Customer Relationship Valuation - Proposed

- Management and appraisers (and potentially legal counsel) will need to review the subject company's contracts to determine whether they meet the definition of non-cancellable. If all of a company's contracts have uniform terms, this process may be as simple as reviewing a single contract, but it could involve reviewing each contract in some circumstances.
- If the subject company is determined to have non-cancellable contracts, the non-cancellable term of each contract will need to be determined.
- To the extent a company's contracts have varying economics and start/end dates, they may need to be valued individually or in groups with the same terms.
- While an attrition analysis would no longer need to be prepared, the additional time and cost associated with assessing non-cancellable contracts may outweigh the time and cost associated with gathering and analyzing a few years of historical revenue by customer.

Summary of Comment Letter Issue

- For acquisitions of certain targets, the proposed standard would undoubtedly reduce costs:
 - For companies with uniform contract terms and start/end dates, there would be no need to perform an attrition analysis.
 - If a target has no non-cancellable contracts, customer relationships would not be valued.
- For acquisitions involving targets with non-cancellable contracts with varying start and end dates, the proposed standard may increase costs, requiring management and valuation specialists to analyze individual contracts rather than valuing customer-related intangibles as a group.

Questions?