

*Education Session
to the
Financial Accounting Standards Board
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Some of the material in this presentation is from:

*Valuation for Financial Reporting: Intangible Assets,
Goodwill, and Impairment Analysis, SFAS 141 and 142*

by

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Agenda

- Valuation Methodology
- Example: Purchase Price Allocation
- Example: Goodwill Impairment
- Implementation of SFAS Nos. 141 and 142:
Controversial Issues
- Examples: Valuation Reports
- Tools to Perform a Valuation Analysis

Valuation Methodology

AICPA Statement on Standards for
Valuation Services No. 1

Intangible Assets

Present Value vs. Future Value

Prospective Financial Information

Valuation Approaches



AICPA Statement on Standards for Valuation Services No. 1

History

Ongoing Process

Section 1. General Standards

Purpose; Applicability; Effective Date; Definitions; Jurisdictional Exception; Record Keeping; General Principles Relating to a Valuation Engagement or a Consulting Valuation Engagement; Remuneration; Terms of the Engagement; Use of An Expert



AICPA Statement on Standards for Valuation Services No. 1

Section 2. Performance Standards and Procedures for a Comprehensive Valuation Analysis

Applicability; Use, Purpose and Scope; Due Diligence; Standard of Value; Premise of Value; Valuation Approaches and Methods; Key Parameters and Assumptions; Sufficient Evidence; Prospective Financial Information; Representation Letter; Documentation; Minority, Majority and Control Issues; Other Discounts; Analysis and Understanding of the Business Interest Being Valued; Analysis and Understanding of the Economic, Industry and Other Relevant Data

(continued)



AICPA Statement on Standards for Valuation Services No. 1

Section 2. Performance Standards and Procedures for a Comprehensive Valuation Analysis

Classes of Stock and Their Rights; Valuation Date; Scope of Work; Restrictions on the Scope of Work; Extraordinary and Hypothetical Assumptions; Existence of Relationship Between the Valuation analyst and the Business; Financial Information; Fundamental Financial Information; Business Valuation Methods and Analyses; Business Valuation Conclusion



AICPA Statement on Standards for Valuation Services No. 1

Section 3. Reporting Standards

Purpose; Applicability; Classifications of Valuation Reports; Comprehensive Valuation Report; Certification and Signature of the Valuation Analyst(s); Summary Reports of Value; Other Valuation Reports; Oral Reports

Intangible Assets

Exhibit 2.3

The income approach is heavily relied on when valuing intangibles. Typically, two of three elements are known or can be computed thus leading to a solution for the third.

$$\text{If} \quad \frac{\$ \text{ Return}}{\text{Rate of Return}} = \text{Value for Intangible Asset}$$

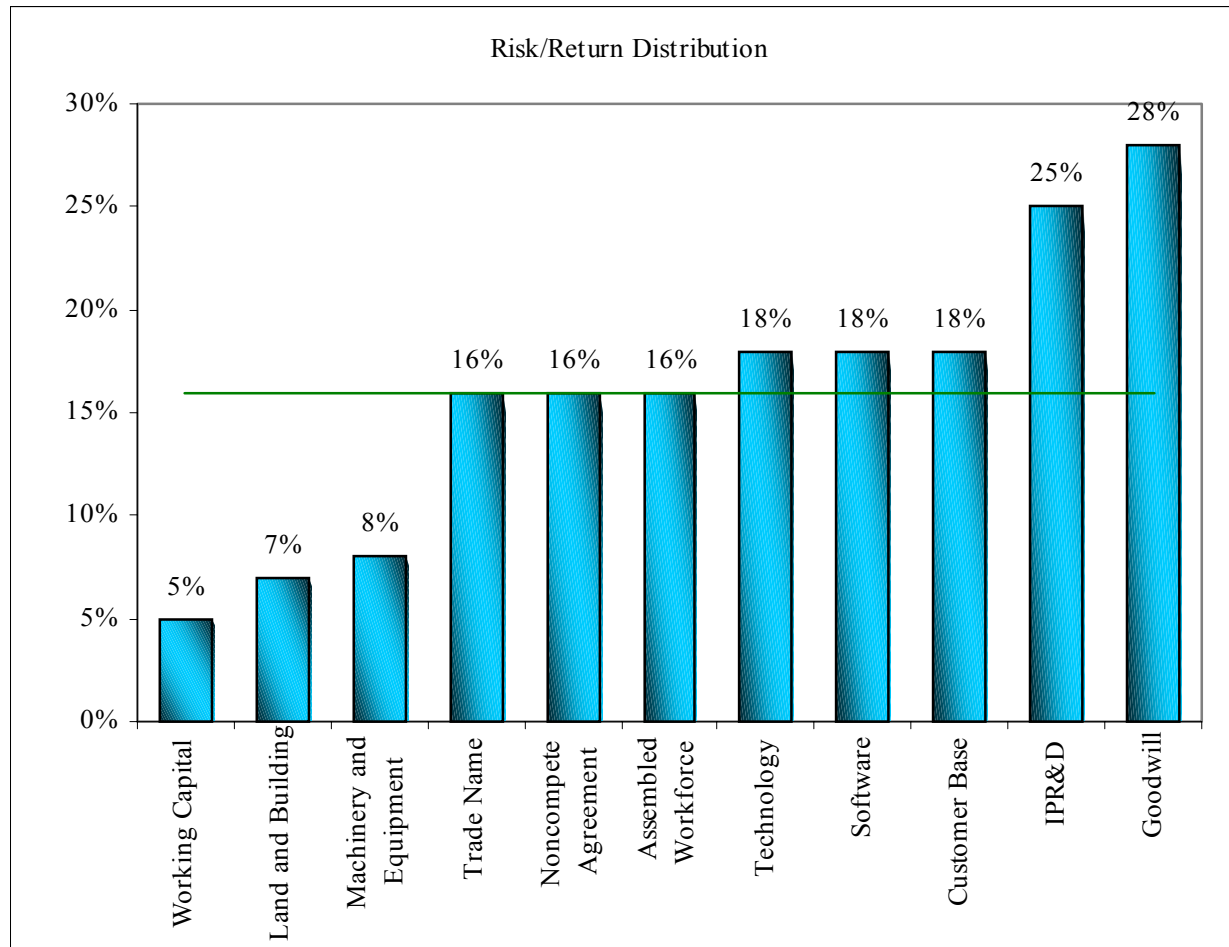
$$\text{Then} \quad \frac{\$ \text{ Return}}{\text{Value}} = \text{Rate of Return}$$

$$\text{And} \quad \begin{array}{c} \text{Rate of Return} \\ \times \\ \text{Value} \end{array} = \$ \text{ Return}$$

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Exhibit 2.4

A company's tangible and intangible rates of return can be presented as:



Where:

1. The midline of the distribution represents the *company's* discount rate,
2. Items below the midline represent returns on tangible assets (such as working capital: 5%
3. Items above the midline represent returns on intangible assets (such as IPR&D: 25% and
4. The highest rate of return represents the riskiest asset, goodwill.

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Intangible Assets

The Statement notes five elements of a present value measurement, which taken together capture the economic differences among assets:

1. An estimate of the future cash flow, or in more complex cases, series of future cash flows at different times
2. Expectations about possible variations in the amount or timing of those cash flows
3. The time value of money, represented by the risk-free rate of interest



Intangible Assets

The Statement notes five elements of a present value measurement, which taken together capture the economic differences among assets:

4. The price for bearing the uncertainty inherent in the asset or liability
5. Other sometimes unidentifiable factors, including illiquidity and market imperfections¹

¹ Financial Accounting Standards Board, Statement of Financial Concepts No. 7, *Using Cash Flow Information and Present Value in Accounting Measurements*, (February 2000), at 39.



Intangible Assets

Estimates of future cash flows are subject to a variety of risks and uncertainties, especially related to new product launches, such as:

- The time to bring the product to market
- The market and customer acceptance
- The viability of the technology
- Regulatory approval



Intangible Assets

Estimates of future cash flows are subject to a variety of risks and uncertainties, especially related to new product launches, such as:

- Competitor response
- The price and performance characteristics of the product²

² Randy J. Larson, et al, *Assets Acquired in a Business Combination to Be Used in Research and Development Activities: A Focus on Software, Electronic Devices, and Pharmaceutical Industries*, (New York: AICPA, 2001), p. 91.

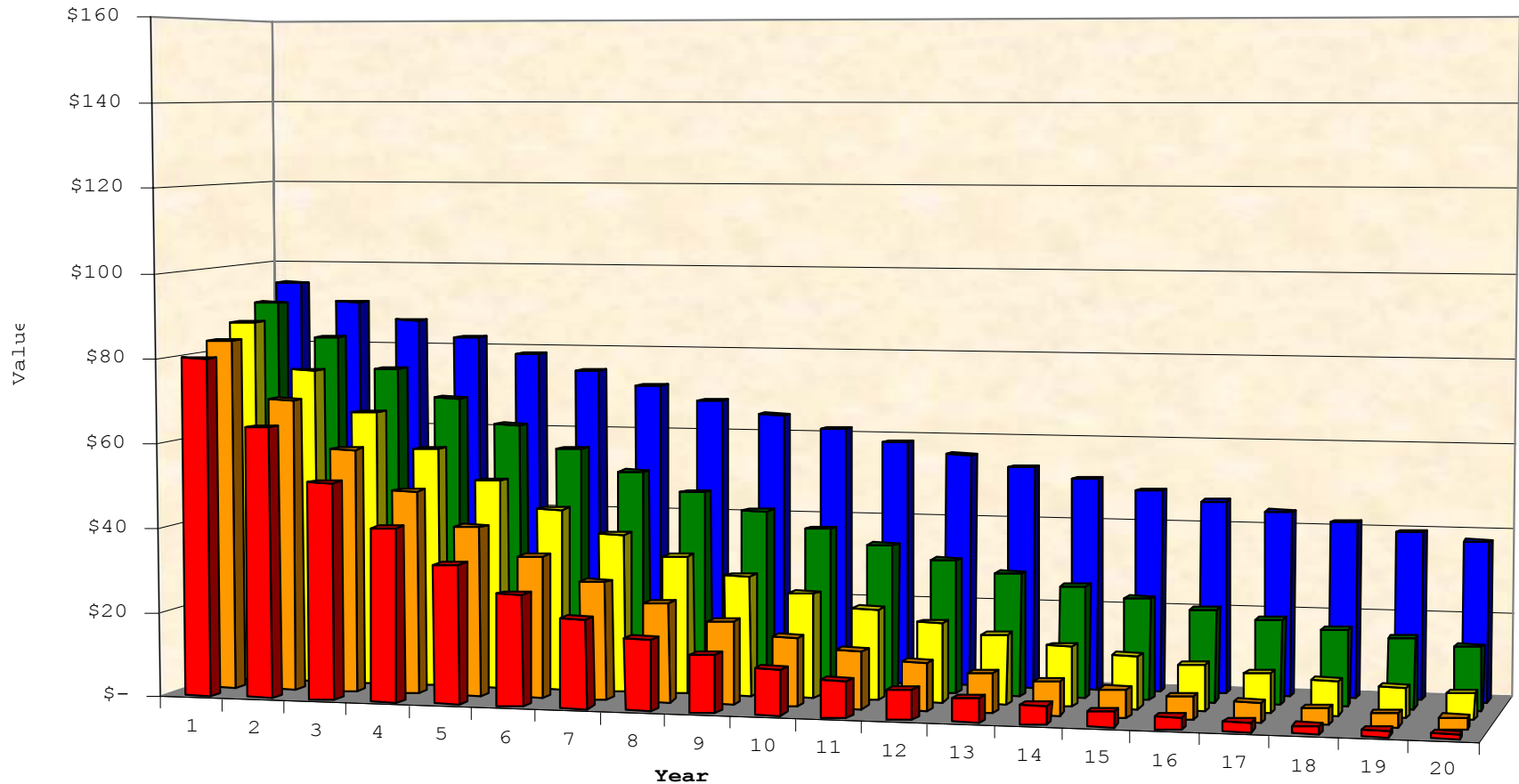


Intangible Assets

The risk premium assessed in a discount rate should decrease as a project successfully proceeds through its continuum of development, since the uncertainty about accomplishing the necessary first step and each subsequent step diminishes.

Present Value vs. Future Value

Risk Value of Future Payments

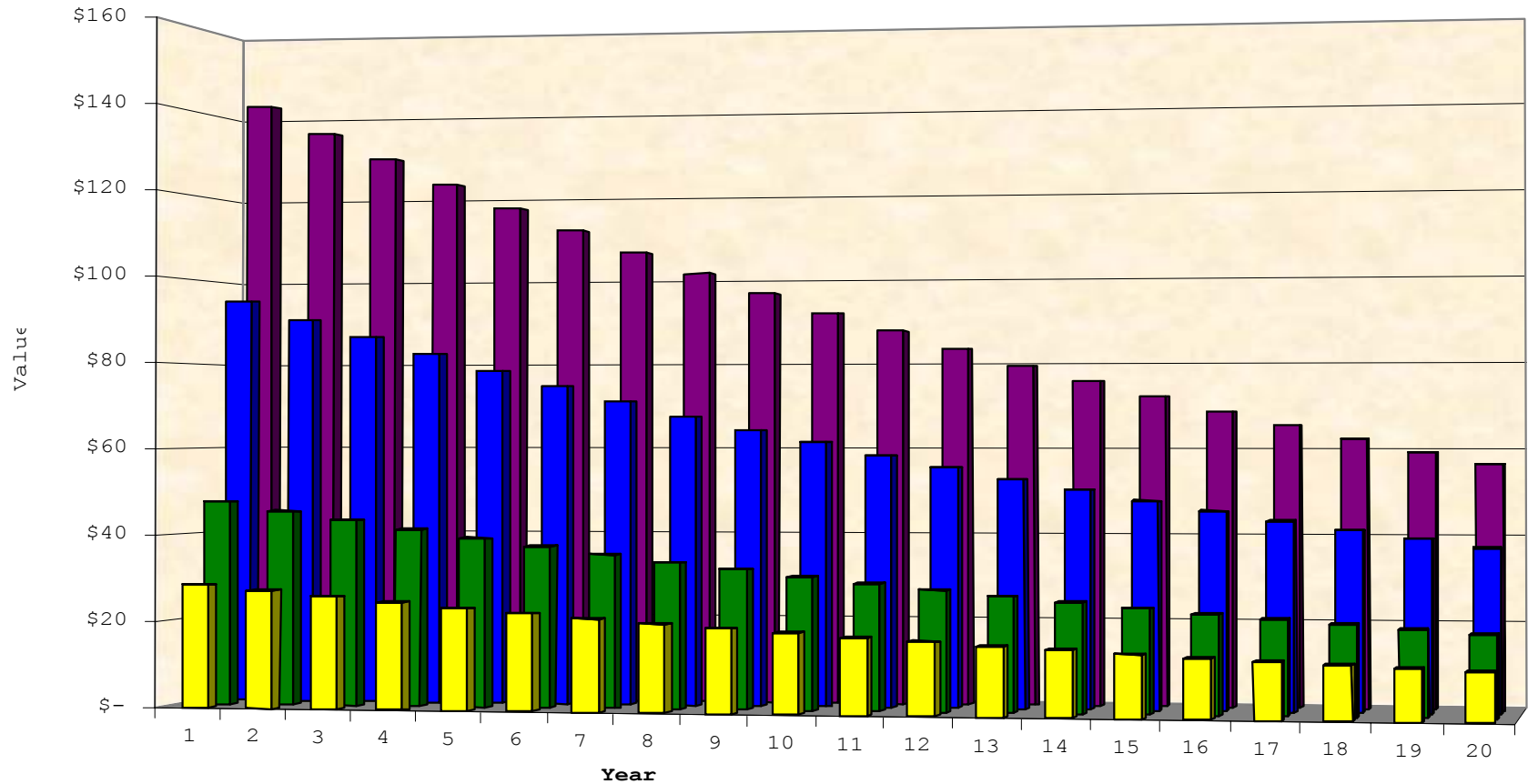


Present Value of Payments of \$100 over 20 years at Rate of Return of:

■ 25% - \$395.39 ■ 20% - \$486.96 ■ 15% - \$625.93 ■ 10% - \$851.36 ■ 5% - \$1,246.22

Present Value vs. Future Value

Guaranteed Return of Future Payments

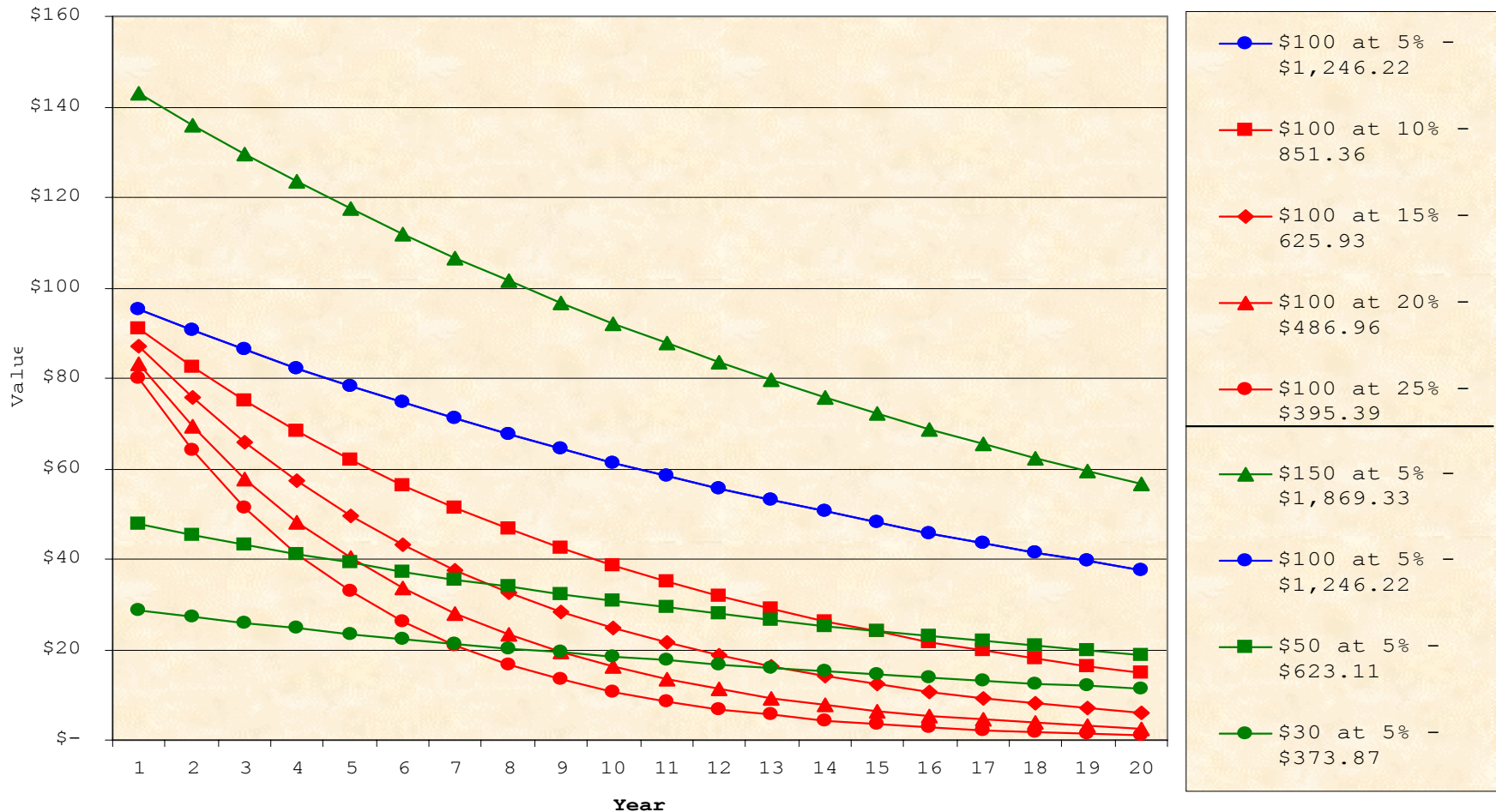


Guaranteed Return on Future Payments at 5% Rate of Return over 20 years, assuming Payments of:

■ \$30 - \$373.87
 ■ \$50 - \$623.11
 ■ \$100 - \$1,246.22
 ■ \$150 - \$1,869.33

Present Value vs. Future Value

Guaranteed Return vs. Risk Value of Future Payments





Prospective Financial Information (PFI)

“...PFI provided by management that is accepted by the valuation specialist without having been subjected to validating procedures by the valuation specialist would contradict the performance of best practices....”³

“The valuation specialist does not simply accept PFI from management without investigating its suitability for use in the valuation analysis. The valuation specialist is responsible for evaluating the methodology and assumptions used by management in preparing the PFI and concluding whether the PFI is appropriate for use in valuing the assets acquired.”⁴

³ Ibid., at 5.2.08.

⁴ Ibid., at 5.3.11.



Prospective Financial Information (PFI)

The following represents specific elements of PFI for the valuation specialist to verify and suggested sources of objective evidence that support each material assumption underlying the specific elements of PFI:

- Revenue
- Costs of sales
- Sales and marketing expense
- General and administrative expense
- Technical support expense



Prospective Financial Information (PFI)

The following represents specific elements of PFI for the valuation specialist to verify and suggested sources of objective evidence that support each material assumption underlying the specific elements of PFI (continued):

- R&D expense
- Tax expense
- Required levels of net working capital
- Required levels of tangible assets
- Required levels of intangible assets



Valuation Approaches

- Cost Approach
- Market Approach
- Income Approach



Example: Purchase Price Allocation



Adjusted Purchase Price:

Cash paid*	\$150,000,000
Liabilities assumed	
Current liabilities**	25,000,000
Current maturities of long-term debt	4,000,000
Long-term debt	30,000,000
Adjusted Purchase Price	<u><u>\$209,000,000</u></u>

	<u>Carrying Value</u>
Cash	\$ 1,500,000
Marketable securities	4,000,000
Accounts receivable	17,000,000
Inventory	12,000,000
Prepaid expenses	3,000,000
Land and building	10,000,000
Machinery and equipment	15,000,000
Organization costs and other intangibles	<u>5,000,000</u>
Total current and tangible assets	<u><u>\$ 67,500,000</u></u>

	<u>Carrying Value</u>	<u>Fair Value</u>
Cash	\$ 1,500,000	\$ 1,500,000
Marketable securities	4,000,000	8,000,000 (a)
Accounts receivable	17,000,000	17,000,000
Inventory	12,000,000	12,000,000
Prepaid expenses	3,000,000	3,000,000
Land and building	10,000,000	22,000,000 (b)
Machinery and equipment	15,000,000	19,000,000 (c)
Organization costs and other intangibles	<u>5,000,000</u>	<u>0 (d)</u>
Total current and tangible assets	<u><u>\$ 67,500,000</u></u>	<u><u>\$ 82,500,000</u></u>

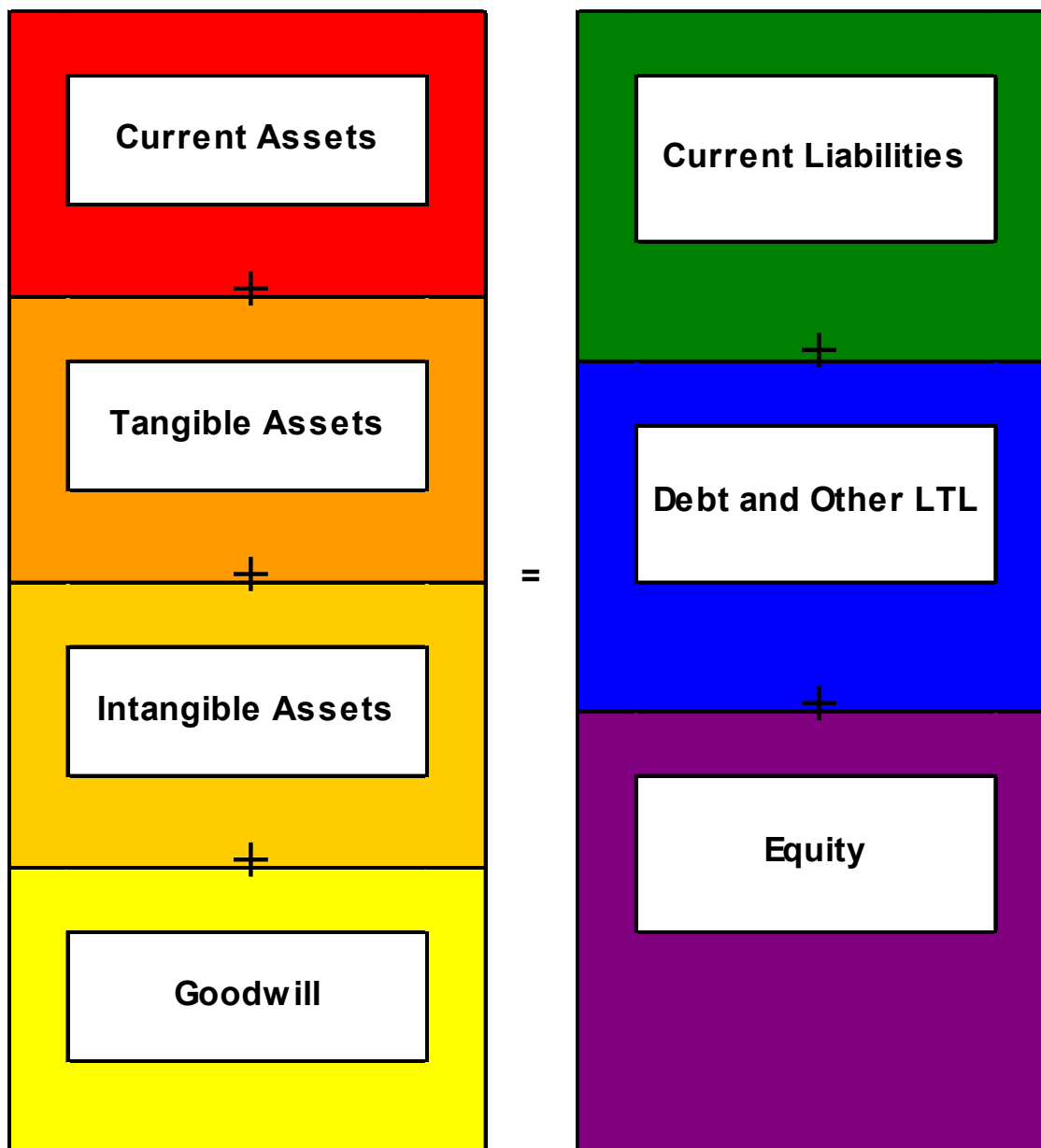
(a) As marked to market.

(b) Per real estate appraisal.

(c) Per machinery and equipment appraisal.

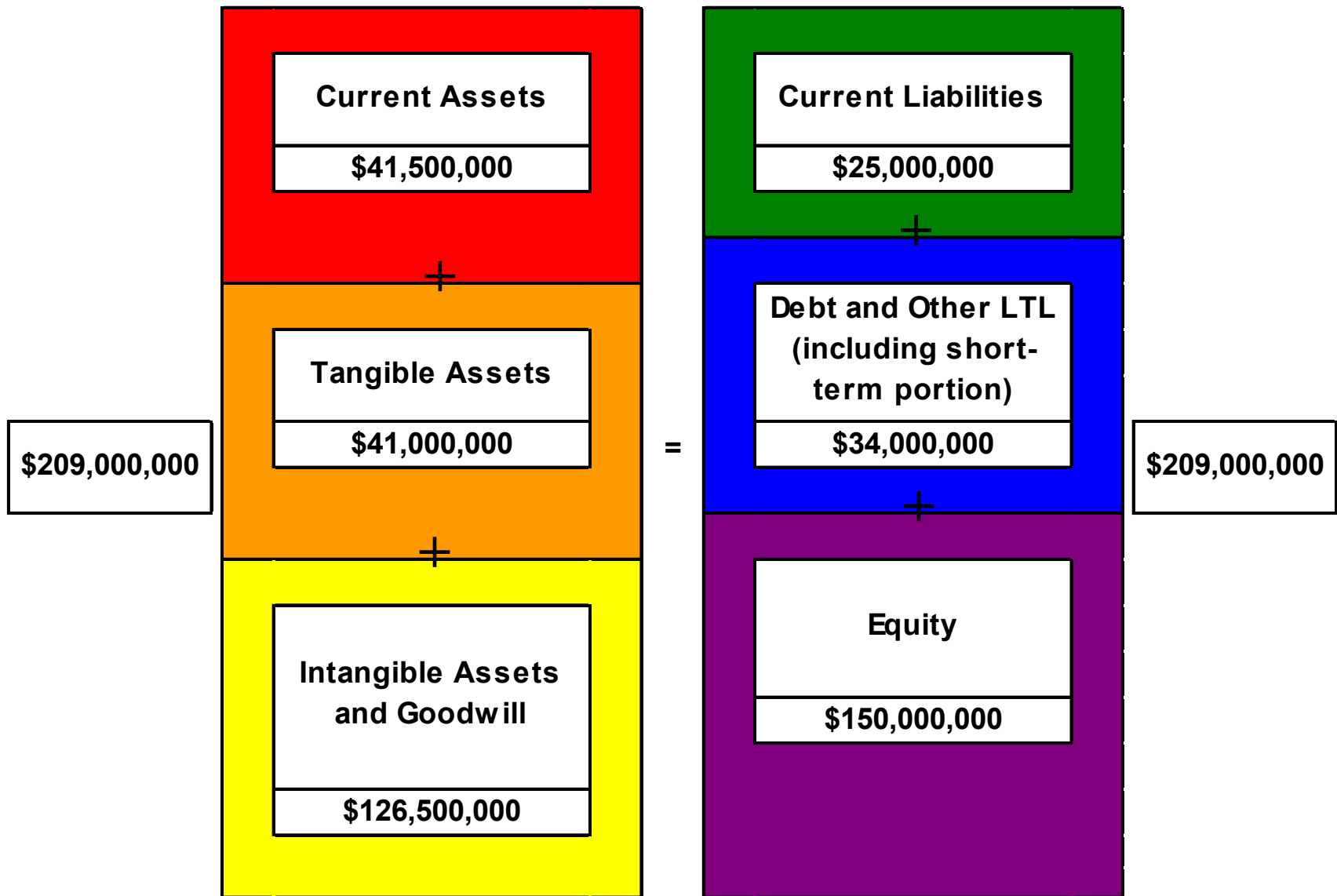
(d) Written off.

Exhibit 3.1 - General Allocation Formula



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Exhibit 3.2 - General Allocation Formula

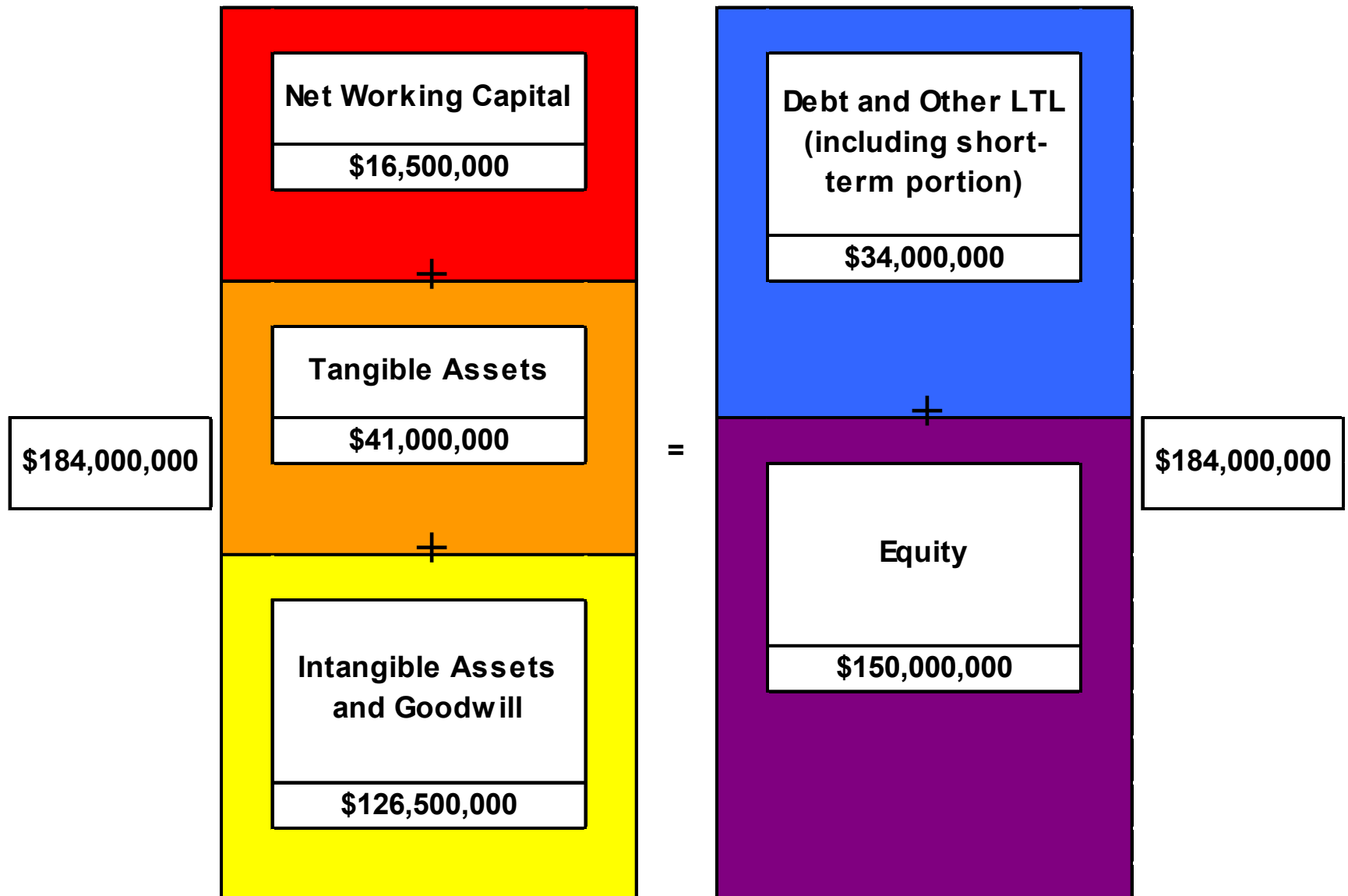


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<u>Asset</u>	<u>Type</u>	<u>Valuation Approach (Method)</u>
Software	Technology-based	Cost approach (cost to recreate)
Customer relationships	Customer-related	Cost approach (coast to recreate)
Assembled workforce*	Goodwill	Cost approach (coast to recreate)
Noncompete agreements	Contractual-based	Income approach (before and after DCF)
Technology	Technology-based	Income approach (multi-period excess earnings)
In-process research and development	Technology-based	Income approach (multi-period excess earnings)
Trade Name	Marketing-related	Income approach (relief from royalties)
Goodwill	N/A	Residual

•* SFAS No. 141 prohibits Assembled Workforce from recognition as an intangible asset apart from goodwill. However, the asset is valued here to provide a basis for a return in the excess earnings methodology. Its value is included in Goodwill in the final analysis.

Exhibit 3.3 - General Allocation Formula - Invested Capital



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TARGET COMPANY
 BUSINESS ENTERPRISE VALUE - ASSUMPTIONS
 AS OF DECEMBER 31, 2001
 (\$ 000s)

Exhibit 3.4

	<u>ACTUAL</u> 2001	<u>FORECAST</u> 2011
<u>1. SALES</u>		
Sales Growth Percentage		7.5%
Net Sales	\$ 60,000	\$ 155,070
<u>2. EXPENSES</u>		
Cost of Sales	\$ 24,000	\$ 60,477
Cost of Sales Percentage	40.0%	39.0%
Operating Expenses	\$ 18,000	\$ 44,970
Operating Expenses Percentage	30.0%	29.0%
Depreciation (MACRS)	\$ 1,750	\$ 1,551
Other Income (Expense), net	0.0%	0.0%
<u>3. CASH FLOW</u>		
Capital Expenditures		\$ 1,551
Capital Expenditures Percentage		1.0%
Projected Working Capital as Percent of Sales		15.0%
Projected Working Capital Balance (1)	\$ 16,500	\$ 23,260
Projected Working Capital Requirement		1,623
<u>4. OTHER</u>		
Effective Tax Rate	40.0%	40.0%
Required Rate of Return	16.0%	

(1) Balance at December 31, 2001s tated at fair value.

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
BUSINESS ENTERPRISE VALUE - ASSUMPTIONS
AS OF DECEMBER 31, 2001
(\$ 000s)

Exhibit 3.4

AMORTIZATION OF INTANGIBLES (TAX)

Assumption: Intangibles receive 15-year tax life per Sec. 197

Purchase Price	\$ 150,000
Plus: Liabilities Assumed	<u>59,000</u>
Adjusted Purchase Price	209,000
Less: Tangible Assets	<u>(82,500)</u>
Amortizable Intangible Assets	\$ 126,500
Divide: Tax Life (years)	<u>15</u>
Annual Amortization, Rounded	<u><u>\$ 8,433</u></u>

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
 BUSINESS ENTERPRISE VALUE - CASHFLOW FORECAST
 AS OF DECEMBER 31, 2001
 (\$ 000s)

Exhibit 3.5

	<u>ACTUAL</u>	<u>FORECAST</u>	
	<u>2001</u>	<u>2002</u>	<u>2011</u>
Sales Growth Percentage		15.0%	7.5%
Net Sales	\$60,000	\$69,000	\$155,070
Cost of Sales	24,000	27,600	60,477
Gross Profit	36,000	41,400	94,593
Operating Expenses	18,000	20,700	44,970
Depreciation (MACRS)	1,750	3,097	1,551
Amortization of Intangibles (Tax)	0	8,433	8,433
Total Operating Expenses	19,750	32,230	54,955
Taxable Income	16,250	9,170	39,638
Income Taxes	6,500	3,668	15,855
Net Income	\$9,750	\$5,502	\$23,783
Net Cash Flow			
Net Income		\$5,502	\$23,783
Capital Expenditures		(690)	(1,551)
Change in Working Capital		6,150	(1,623)
Depreciation		3,097	1,551
Amortization of Intangibles (Tax)		8,433	8,433
Net Cash Flow		22,492	30,594
Present Value Factor, where Discount Rate =	16.0%	0.9285	0.2441
Present Value of Net Cash Flow		\$20,883	\$7,469

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
 BUSINESS ENTERPRISE VALUE - CASHFLOW FORECAST
 AS OF DECEMBER 31, 2001
 (\$ 000s)

Exhibit 3.5

	<u>ACTUAL</u> 2001	<u>FORECAST</u> 2002
2011 Cash Flow		\$30,594
Less: Tax Benefit of Amortization		<u>(3,373)</u>
2011 Cash Flow, net of Benefit		\$27,220
2012 Cash Flow, Assuming Growth of Residual Capitalization Rate	5.0%	\$28,581 <u>11.0%</u>
Residual Value, 2012		\$259,830
Present Value Factor		<u>0.2441</u>
Fair Value of Residual		<u><u>\$63,436</u></u>
Net Present Value of Net Cash Flow, 2002 - 2011		\$118,459
Net Present Value of Residual Cash Flow		63,436
Present Value of Amortization Tax Benefit, 2012-2016		<u>2,697</u>
Total Invested Capital, Rounded		<u><u>\$185,000</u></u>

Note: Some amounts may not foot due to rounding.

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The weighted average cost of capital is expressed in the following formula:

$$\text{WACC} = (K_e \times W_e) + (k_p \times W_p) + (k_{d(\text{pt})}[1-t] \times W_d)$$

Where: WACC = Weighted average cost of capital

K_e = Cost of common equity capital

W_e = Percentage of common equity in the capital structure, at market value

k_p = Cost of preferred equity

W_p = Percentage of preferred equity in the capital structure, at market value

$k_{d(\text{pt})}$ = Cost of debt (pretax)

t = Tax rate

W_d = Percentage of debt in the capital structure, at market value⁵

⁵ Shannon P. Pratt, *Cost of Capital, Estimation and Applications*, John Wiley & Sons, Inc., (New York: 1998), p. 46.



Substituting values into the WACC formula provides the following:


$$\begin{aligned}\text{WACC} &= (20.00\% \times 75.00\%) + (6.50\%[1-40.00\%] \times 25.00\%) \\ &= 15.00\% + (3.90\% \times 25.00\%) \\ &= 15.00\% + 0.97\% \\ &= 15.97\%\end{aligned}$$

Rounded to, 16%

The rates of return on the other intangibles are similarly selected with reference to the WACC.

The rates for the intangible assets are:

Software	18%
Customer base	18%
Assembled workforce	16%
Trade name	16%
Noncompete agreement	16%
Existing technology	18%
In-process research and development	25%



The formula for the tax amortization benefit is:

$$AB = PVCF * (n / (n - ((PV(Dr, n, -1) * (1 + Dr)^{0.5}) * T)) - 1)$$

Where:

AB = Amortization benefit

PVCF = Present value of cash flows from the asset

n = 15 year amortization period

Dr = Discount rate

$PV(Dr, n, -1) * (1 + Dr)^{0.5}$ = Present value of an annuity of \$1 over 15 years, at the discount rate

T = Tax rate

TARGET COMPANY
VALUATION OF ACQUIRED SOFTWARE
AS OF DECEMBER 31, 2001

All software was developed internally by Company for its own use. Rights to software were transferred at acquisition.

The software is written in C++ programming language.

Valuation is based on cost to replace less obsolescence. Costs are based on internally developed Company metrics for software development productivity.

Source: Leonard Riles, Director of Product Development

<u>IN PLACE</u>	<u>LINES OF CODE</u>	<u>PRODUCTIVITY RATING (1)</u>	<u>RATE (1)</u>	<u>HOURS TO RECREATE</u>
Module 1	26,400	2	3.0	8,800
Module 2	32,600	3	2.0	16,300
Module 19	7,000	2	3.0	2,333
Module 20	54,000	3	2.0	27,000
Total Number of Lines	294,980			
Total Number of Hours to Recreate				112,507

(1) Lines of code per hour, based on productivity assessment for average module of programming.

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
VALUATION OF ACQUIRED SOFTWARE
AS OF DECEMBER 31, 2001

Total Number of Hours to Recreate		112,507
Times: Blended Hourly Rate (see below)		<u>\$119</u>
Reproduction Cost		\$13,388,333
Less: Obsolescence (2)	25.0%	<u>(3,347,083)</u>
Replacement Cost		\$10,041,250
Less: Taxes @	40.0%	<u>(4,016,500)</u>
After Tax Value Before Amortization Benefit		\$6,024,750
Amortization Benefit		
Discount Rate	18.0%	
Tax Rate	40.0%	
Tax Amortization Period	<u>15</u>	
Amortization Benefit		<u>1,042,321</u>
Fair Value of Software, Rounded		<u><u>\$7,070,000</u></u>

(2) Estimate based on number of lines of redundant/extraneous code and effective age and remaining economic lives of system.

Note: Some amounts may not foot due to rounding.

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SOFTWARE DEVELOPMENT COSTS - ESTIMATED
PROJECT TEAM

<u>FUNCTION</u>	<u>NUMBER</u>	<u>BURDENED HOURLY RATE</u>
Project Manager	1	\$200.00
Systems Analyst	2	150.00
Technical Writer	1	125.00
Programmer	4	115.00
Support	2	<u>50.00</u>
Blended Hourly Rate, Rounded		<u><u>\$119.00</u></u>

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
 VALUATION OF CUSTOMER BASE
 AS OF DECEMBER 31, 2001

Exhibit 3.7

HISTORICAL CUSTOMER DATA

<u>YEAR</u>	<u>TOTAL SELLING COSTS</u>	<u>PERCENT OF REVENUE FROM NEW CUSTOMERS</u>	<u>NEW CUSTOMER SELLING COSTS</u>	<u>NUMBER OF NEW CUSTOMERS</u>
2001	\$5,010,000	2.46%	\$123,246	4
2000	5,307,000	2.26%	119,938	5
1999	4,848,000	4.46%	216,221	4
	<u>\$15,165,000</u>		<u>\$459,405</u>	<u>13</u>

CALCULATION OF FAIR VALUE

Total Pretax Selling costs - New Customers		\$459,405
Less: Taxes @	40.0%	(183,762)
After Tax Selling Costs - New Customers		\$275,643
Divide by: Number of New Customers, 1999-2001		13
Replacement Cost per New Customer		\$21,203
Times: Number of Acquired Customers		261
Replacement Cost of Customer Base		\$5,533,983
Amortization Benefit		
Discount Rate	18.0%	
Tax Rate	40.0%	
Tax Amortization Period	15	
Amortization Benefit		957,415
Fair Value of Customer Base, Rounded		\$6,490,000

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
VALUATION OF ASSEMBLED WORKFORCE
AS OF DECEMBER 31, 2001

Exhibit 3.8

(\$ 000s)

NO.	JOB TITLE	SALARY	20% BENEFITS	TOTAL	(1) TRAIN. PER.		33.3% COST	(2) 27.5% INTERVIEW		TOTAL
					CL.	YRS.		RECRUIT.	& H.R.	
1	Member of Technical Staff	\$90,000	\$18,000	\$108,000	1	0.125	\$4,500	\$24,750	\$375	\$29,625
2	Member of Technical Staff	80,250	16,050	96,300	2	0.375	12,038	22,069	750	34,857
64	Member of Technical Staff	73,350	14,670	88,020	2	0.375	11,003	20,171	750	31,924
65	Member of Technical Staff	99,465	19,893	119,358	3	0.750	29,840	27,353	1,500	58,693
Total 65		\$6,134,752	\$1,226,950	\$7,361,702			\$771,073	\$1,687,060	\$41,625	\$2,499,758

Replacement Cost of Assembled Workforce \$2,499,758
Less: Taxes 40.0% (999,903)

Interview & H.R. Costs Avoided, Net of Tax \$1,499,855

(1) Qualified Replacement Training Months	Hours	Rate	Amortization Benefit	Rate of Return	Tax Rate	Tax Amortization Period
1 = < 3 months	5	\$75.00		16.0%		
2 = 3-6 months	10	\$75.00		40.0%		
3 = 6-12 months	20	\$75.00				15

(2) Source: Karl Malloney, Recruiter Amortization Benefit 285,967

Fair Value of Assembled Workforce, Rounded \$1,790,000

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
 VALUATION OF TRADE NAME
 AS OF DECEMBER 31, 2001
 (\$ 000s)

		<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Net Sales from Business Enterprise Valuation (1)		\$69,000	\$79,350	\$89,269	\$98,196	\$108,015
Pretax Relief from Royalty	4.0%	\$2,760	\$3,174	\$3,571	\$3,928	\$4,321
Income Tax Liability	40.0%	1,104	1,270	1,428	1,571	1,728
After-Tax Royalty		1,656	1,904	2,142	2,357	2,592
Present Value Income Factor	16.0%	0.9285	0.8004	0.6900	0.5948	0.5128
Present Value Relief from Royalty		\$1,538	\$1,524	\$1,478	\$1,402	\$1,329
Sum of Present Value Relief from Royalty, 2002-2006			\$7,271			
Residual Calculation:						
2006 After-Tax Royalty		<u>\$2,592</u>				
2007 After-Tax Royalty, Assuming Growth of Residual Capitalization Rate	5.0%	\$2,722				
		<u>11.0%</u>				
Residual Value, 2007		\$24,742				
Present Value Factor		<u>0.5128</u>				
Fair Market Value of Residual			<u>12,687</u>			
Present Value of Trade Name Royalty Flows			\$19,959			
Amortization Benefit						
Discount Rate	16.0%					
Tax Rate	40.0%					
Tax Amortization Period	<u>15</u>					
Amortization Benefit			<u>3,805</u>			
Fair Value of Trade Name, Rounded			<u><u>\$23,760</u></u>			

(1) Figures shown from Business Enterprise Valuation (Exhibit 3.5)

Note: Some amounts may not foot due to rounding.

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Noncompete agreement assumptions:

	BEV <u>Without Competition</u> Exhibit 3.5	BEV <u>With Competition</u> Exhibit 3.10
Net Sales Growth Rate		
Year one	15%	10%
Year two	15%	10%
Operating Expenses		
Year one	30%	32%
Year two	29%	30%

TARGET COMPANY
 VALUATION OF NONCOMPETE
 AS OF DECEMBER 31, 2001
 (\$ 000s)

Exhibit 3.10

<u>CASH FLOWS (WITHOUT NONCOMPETE IN PLACE)</u>	<u>ACTUAL</u>	<u>FORECAST</u>	
	<u>2001</u>	<u>2002</u>	<u>2011</u>
Sales Growth Percentage (1)		10.0%	7.5%
Net Sales	\$60,000	\$66,000	\$14,879
Cost of Sales Percentage (1)	40.0%	40.0%	39.0%
Cost of Sales	\$24,000	\$26,400	\$55,333
Gross Profit	36,000	39,600	86,546
Operating Expense Percentage (1)	30.0%	32.0%	29.0%
Operating Expenses	\$18,000	\$21,120	\$41,145
Depreciation (MACRS)	1,750	3,097	1,551
Amortization of Intangibles (Tax)	0	8,433	8,433
Total Operating Expenses	19,750	32,650	51,129
Taxable Income	16,250	6,950	35,417
Income Taxes	6,500	2,780	14,167
Net Income	\$9,750	\$4,170	\$2,250
Net Cash Flow			
Net Income		\$4,170	\$2,250
Capital Expenditures		(660)	(1,419)
Change in Working Capital		6,600	(1,485)
Depreciation		3,097	1,551
Amortization of Intangibles (Tax)		8,433	8,433
Net Cash Flow		21,640	28,331
Present Value Factor, where Discount Rate =	16.0%	0.9285	0.2441
Present Value of Net Cash Flow		\$20,092	\$6,917

(1) Percentages based on assumption of competition.

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY

VALUATION OF NONCOMPETE

AS OF DECEMBER 31, 2001


(\$ 000s)

2011 Cash Flow		\$28,331
Less: Tax Benefit of Amortization		(3,373)
2011 Cash Flow, net of Benefit		<u>\$24,958</u>
2012 Cash Flow, Assuming Growth of	5.0%	\$26,205
Residual Capitalization Rate		<u>11.00%</u>
Residual Value, 2012		\$238,231
Present Value Factor		<u>0.2441</u>
Fair Value of Residual		<u>\$58,163</u>
Net Present Value of Net Cash Flow, 2002 - 2011		\$111,055
Net Present Value of Residual Cash Flow		58,163
Present Value of Amortization Tax Benefit, 2012-2016		<u>2,697</u>
Total Invested Capital with Competition , Rounded		\$172,000
Business Enterprise Value (Exhibit 3.5)		<u>185,000</u>
Difference = Gross Value of Noncompete		\$13,000
Times: Probability Factor (2)		<u>60.0%</u>
Probability Adjusted Value of Noncompete		\$7,800
Amortization Benefit		
Discount Rate	16.0%	
Tax Rate	40.0%	
Tax Amortization Period	<u>15</u>	
Amortization Benefit		<u>1,486</u>
Fair Value of Noncompete Agreement, Rounded		<u><u>\$9,300</u></u>

(2) To account for likelihood of competing absent an agreement and likelihood of success.

Note: Some amounts may not foot due to rounding.

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The following table from the IPR&D Practice Aid provides examples of assets typically treated as contributory assets, and suggested bases for determining the fair return. Generally, it is presumed that the *return of* the asset is reflected in the operating costs when applicable (for example, depreciation expense). The contributory asset charge is the “product of the asset’s fair value and the required rate of return on the asset.”⁶

⁶ American Institute of Certified Public Accountants, *Assets Acquired in a Business Combination to Be Used in Research and Development Activities: A Focus on Software, Electronic Devices, and Pharmaceutical Industries*, (New York, NY: 2001), at 5.3.64.



Asset

Basis of Charge

Working capital

Short-term lending rates for market participants (for example, working capital lines or short-term revolver rates)

Fixed assets (for example, property, plant, and equipment)

Financing rate for similar assets for market participants (for example, terms offered by vendor financing), or rates implied by operating leases, capital leases, or both (typically segregated between returns of [that is, recapture of investment] and returns on).

Workforce (which is not recognized separate from goodwill), customer lists, trademarks, and trade names

Weighted average cost of capital (WACC) for young, single-product companies (may be lower than discount rate applicable to a particular project)



Asset

Basis of Charge

Patents

WACC for young, single-product companies (may be lower than discount rate applicable to a particular project). In cases where risk of realizing economic value of patent is close to or the same as risk of realizing a project, rates would be equivalent to that of the project.

Other intangibles, including base (or core) technology

Rates appropriate to the risk of the subject intangible. When market evidence is available it should be used. In other cases, rates should be consistent with the relative risk of other assets in the analysis and should be higher for riskier assets.⁷

⁷ American Institute of Certified Public Accountants, *Assets Acquired in a Business Combination to Be Used in Research and Development Activities: A Focus on Software, Electronic Devices, and Pharmaceutical Industries*, (New York, NY: 2001), at 5.3.64.

TARGET COMPANY
VALUATION OF TECHNOLOGY
AS OF DECEMBER 31, 2001
(\$ 000s)

CALCULATION OF CONTRIBUTORY ASSET CHARGES

Contributory Asset

A. Asset Balances	2002	2003	2004	2005	2006
Net Working Capital	\$ 13,425	\$ 11,126	\$ 12,646	\$ 14,060	\$ 15,466
Land and Buildings	21,934	21,815	21,718	21,640	21,580
Machinery and Equipment, net	17,849	14,551	10,900	8,348	6,582
Software	7,070	7,070	7,070	7,070	7,070
Trade Name	23,760	23,760	23,760	23,760	23,760
Noncompete Agreement	9,300	9,300	9,300	9,300	9,300
Assembled Workforce	1,790	1,790	1,790	1,790	1,790
Customer Base	6,490	6,490	6,490	6,490	6,490

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
 VALUATION OF TECHNOLOGY
 AS OF DECEMBER 31, 2001
 (\$ 000s)

Exhibit 3.11

CALCULATION OF CONTRIBUTORY ASSET CHARGES

Contributory Asset

B. Total Returns	Rate	2002	2003	2004	2005	2006
Net Working Capital	5.0%	\$671	\$556	\$632	\$703	\$773
Land and Buildings	7.0%	1,535	1,527	1,520	1,515	1,511
Machinery and Equipment, net	8.0%	1,428	1,164	872	668	527
Software	18.0%	1,273	1,273	1,273	1,273	1,273
Trade Name	16.0%	3,802	3,802	3,802	3,802	3,802
Noncompete Agreement	16.0%	1,488	1,488	1,488	1,488	1,488
Assembled Workforce	16.0%	286	286	286	286	286
Customer Base	18.0%	1,168	1,168	1,168	1,168	1,168

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
 VALUATION OF TECHNOLOGY
 AS OF DECEMBER 31, 2001
 (\$ 000s)

Exhibit 3.11

CALCULATION OF CONTRIBUTORY ASSET CHARGES

Contributory Asset

C. Distribution of Revenues

	2002	2003	2004	2005	2006
Technology	\$61,800	\$63,654	\$65,564	\$67,531	\$69,556
IPR&D	7,200	15,696	23,705	30,665	38,459
Total DCF Revenues	\$69,000	\$79,350	\$89,269	\$98,196	\$108,015
Technology Percent	89.57%	80.22%	73.45%	68.77%	64.40%
IPR&D Percent	10.43%	19.78%	26.55%	31.23%	35.60%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
VALUATION OF TECHNOLOGY
AS OF DECEMBER 31, 2001
(\$ 000s)

CALCULATION OF CONTRIBUTORY ASSET CHARGES

Contributory Asset

D. Allocated Returns - Technology

	2002	2003	2004	2005
Net Working Capital	\$601	\$446	\$464	\$483
Land and Buildings	1,375	1,225	1,117	1,042
Machinery and Equipment, net	1,279	934	640	459
Software	1,140	1,021	935	875
Trade Name	3,405	3,050	2,792	2,614
Noncompete Agreement	1,333	1,194	1,093	1,023
Assembled Workforce	257	230	210	197
Customer Base	1,046	937	858	803
Total	\$10,436	\$9,036	\$8,109	\$7,498

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
 VALUATION OF TECHNOLOGY
 AS OF DECEMBER 31, 2001
 (\$ 000s)

Exhibit 3.11

CALCULATION OF CONTRIBUTORY ASSET CHARGES

Contributory Asset

E. Allocated Returns - IPR&D

	2002	2003	2004	2005	2006
Net Working Capital	\$70	\$110	\$168	\$220	\$275
Land and Buildings	160	302	404	473	538
Machinery and Equipment, net	149	230	232	209	187
Software	133	252	338	397	453
Trade Name	397	752	1,010	1,187	1,354
Noncompete Agreement	155	294	395	465	530
Assembled Workforce	30	57	76	89	102
Customer Base	122	231	310	365	416
Total	\$1,216	\$2,228	\$2,932	\$3,405	\$3,855

Note: Some amounts may not foot due to rounding.

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Contributory Asset Charges:

Working capital	5.0%
Land and building	7.0%
Machinery and equipment	8.0%
Software	18.0%
Customer base	18.0%
Assembled workforce	16.0%
Trade name	16.0%
Noncompete agreement	16.0%
Existing technology	18.0%
In-process research and development	25.0%

TARGET COMPANY
 VALUATION OF TECHNOLOGY
 AS OF DECEMBER 31, 2001
 (\$ 000s)

Exhibit 3.12

	<u>ACTUAL</u>	<u>FORECAST</u>	
	2001	2002	2005
Net Sales-Existing Technology (1)	\$60,000	\$61,800	\$67,531
Cost of Sales	<u>24,000</u>	<u>24,720</u>	<u>26,337</u>
Gross Profit	<u>36,000</u>	<u>37,080</u>	<u>41,194</u>
Operating Expenses (2)	12,000	12,360	12,831
Depreciation	<u>1,750</u>	<u>2,774</u>	<u>2,145</u>
Total Operating Expenses	<u>13,750</u>	<u>15,134</u>	<u>14,976</u>
Taxable Income	22,250	21,946	26,217
Income Taxes	<u>8,900</u>	<u>8,778</u>	<u>10,487</u>
Net Income	<u><u>\$13,350</u></u>	<u><u>\$13,168</u></u>	<u><u>\$15,730</u></u>

(1) Based on 2001 actual sales, with growth attributable to existing technology.

(2) Excludes development expenses of 10 percent to reflect that developed technology should not be burdened by the expenses of developing new technology.

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
VALUATION OF TECHNOLOGY
AS OF DECEMBER 31, 2001
(\$ 000s)

	<u>ACTUAL</u>	<u>FORECAST</u>	
	<u>2001</u>	<u>2002</u>	<u>2005</u>
Net Income	<u>\$13,350</u>	<u>\$13,168</u>	<u>\$15,730</u>
Residual Cash Flow Attributable to Technology			
Less Returns on			
\$16,500 Net Working Capital	5.0%	\$601	\$483
22,000 Land and Buildings	7.0%	1,375	1,042
19,000 Machinery and Equipment, net	8.0%	1,279	459
7,070 Software	18.0%	1,140	875
23,760 Trade Name	16.0%	3,405	2,614
9,300 Noncompete Agreement	16.0%	1,333	1,023
1,790 Assembled Workforce	16.0%	257	197
6,490 Customer Base	18.0%	1,046	803
Sum of Returns		<u>\$10,436</u>	<u>\$7,498</u>
After-Tax Residual Cash Flows		\$2,732	\$8,233
Survivorship of Technology (3)		100.0%	50.0%
Surviving Residual Cash Flows		\$2,732	\$4,116
18.00% Present Value Factor for Residual Cash Flow		<u>0.9206</u>	<u>0.5603</u>
Present Value of Surviving Residual Cash Flows		<u>\$2,515</u>	<u>\$2,306</u>
Sum of Present Values, 2002-2005		\$11,519	
Amortization Benefit			
Discount Rate	18.0%		
Tax Rate	40.0%		
Tax Amortization Period	15		
Amortization Benefit		<u>1,993</u>	
Fair Value of Technology, Rounded		<u><u>\$13,500</u></u>	

(3) Assumes 4 year life.

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
 VALUATION OF IN-PROCESS RESEARCH AND DEVELOPMENT
 AS OF DECEMBER 31, 2001
 (\$ 000s)

Exhibit 3.13

	FORECAST	
	2002	2006
Net Sales-New Technology (1)	\$7,200	\$38,459
Cost of Sales	2,880	14,999
Gross Profit	4,320	23,460
Operating Expenses (2)	1,440	7,307
Cost to Complete	300	0
Depreciation	323	906
Total Operating Expenses	2,063	8,213
Taxable Income	2,257	15,247
Income Taxes	903	6,099
Net Income	\$1,354	\$9,148

(1) Based on Business Enterprise Value (Exhibit 3.5), less sales due to existing Technology

(2) Excludes development expenses of 10 percent to reflect no future development costs re

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
 VALUATION OF IN-PROCESS RESEARCH AND DEVELOPMENT
 AS OF DECEMBER 31, 2001
 (\$ 000s)

Exhibit 3.13

			<u>FORECAST</u>	
			<u>2002</u>	<u>2006</u>
Residual Cash Flow Attributable to Technology				
Less Returns on				
\$16,500	Net Working Capital	5.0%	\$70	\$275
22,000	Land and Buildings	7.0%	160	538
19,000	Machinery and Equipment, net	8.0%	149	187
7,070	Software	18.0%	133	453
23,760	Trade Name	16.0%	397	1,354
9,300	Noncompete Agreement	16.0%	155	530
1,790	Assembled Workforce	16.0%	30	102
6,490	Customer Base	18.0%	122	416
Sum of Returns			\$1,216	\$3,855
After-Tax Residual Cash Flows			\$138	\$5,293
Survivorship of Technology (3)			100.0%	50.0%
Surviving Excess Cash Flows			\$138	\$2,647
25.0%	Present Value Factor for Residual Cash Flow		0.8944	0.3664
Present Value of Surviving Residual Cash Flows			\$124	\$970
Sum of Present Values, 2002-2006			\$3,833	
Amortization Benefit				
	Discount Rate	25.0%		
	Tax Rate	40.0%		
	Tax Amortization Period	15		
Amortization Benefit			498	
Fair Value of IPR&D, Rounded			\$4,330	

(3) Assumes 5 year life.

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
 VALUATION OF GOODWILL
 AS OF DECEMBER 31, 2001
 (\$ 000s)

Exhibit 3.14

Cash and Acquisition Costs	\$150,000
Debt-Free Current Liabilities	25,000
Current Maturities of Long-Term Debt	4,000
Long-Term Debt	<u>30,000</u>
Adjusted Purchase Price	209,000
Less: Fair Value of Current Assets	(41,500)
Less: Fair Value of Tangible Assets	(41,000)
Less: Fair Value of Intangible Assets	
Software	(7,070)
Customer Base	(6,490)
Trade Name	(23,760)
Noncompete Agreement	(9,300)
Technology	(13,500)
In-Process Research and Development	<u>(4,330)</u>
Residual Goodwill	<u><u>\$62,050</u></u>

Note: Some amounts may not foot due to rounding.

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TARGET COMPANY
 VALUATION SUMMARY
 AS OF DECEMBER 31, 2001
 (\$ 000s)

Exhibit 3.15

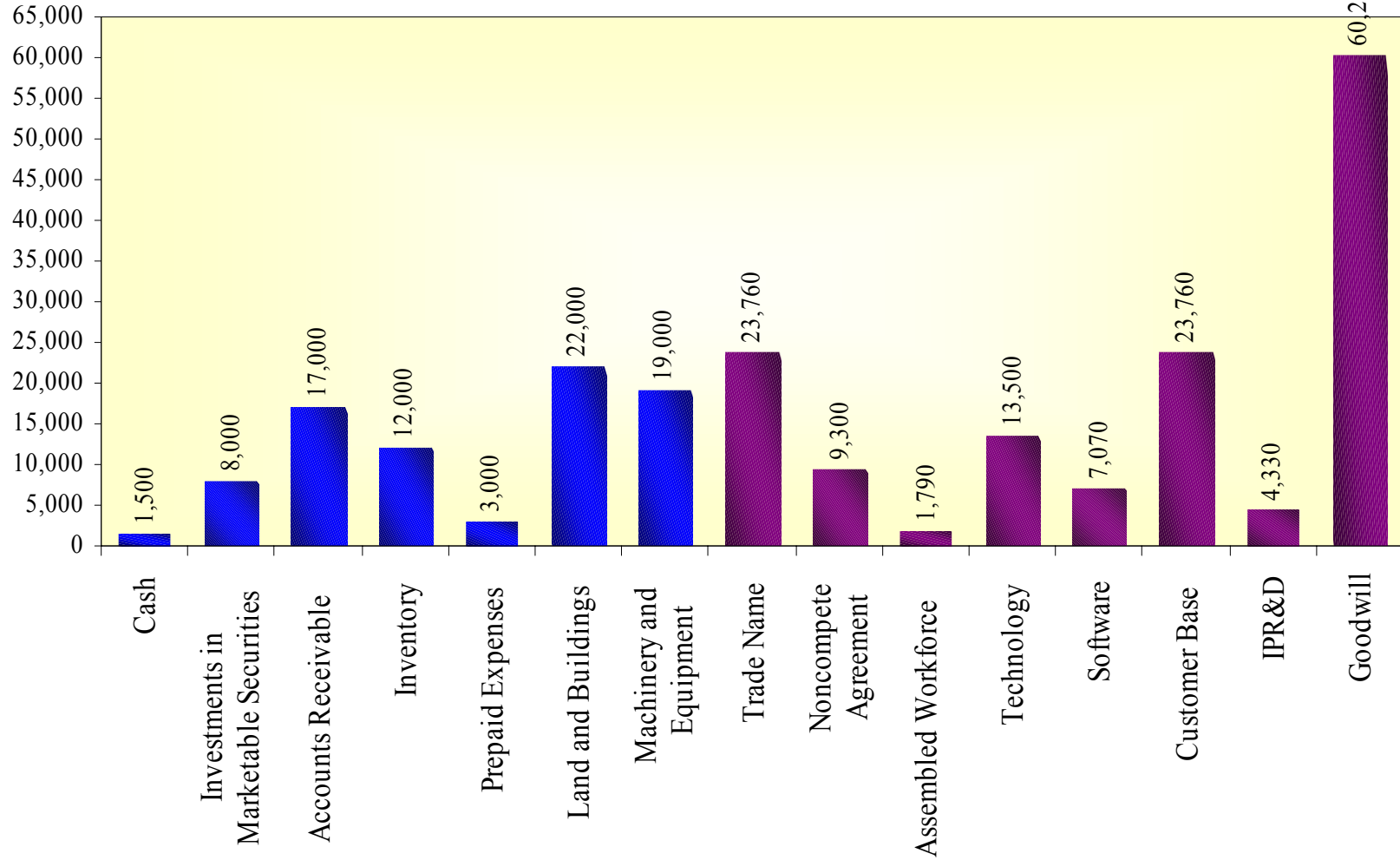
<u>ASSET NAME</u>	<u>FAIR MARKET VALUE</u>	<u>RETURN</u>	<u>PERCENT TO PURCHASE PRICE</u>	<u>WEIGHTED RETURN</u>
Cash	\$1,500	5.00%	0.7%	0.04%
Investments in Marketable Securities	8,000	5.00%	3.8%	0.19%
Accounts Receivable	17,000	5.00%	8.1%	0.41%
Inventory	12,000	5.00%	5.7%	0.29%
Prepaid Expenses	3,000	5.00%	1.4%	0.07%
Land and Buildings	22,000	7.00%	10.5%	0.74%
Machinery and Equipment, net	<u>19,000</u>	8.00%	9.1%	0.73%
TOTAL CURRENT AND TANGIBLE ASSETS	<u>\$82,500</u>			
Software	\$7,070	18.00%	3.4%	0.61%
Technology	13,500	18.00%	6.5%	1.16%
In-Process Research and Development	4,330	25.00%	2.1%	0.52%
Trade Name	23,760	16.00%	11.4%	1.82%
Customer Base	6,490	18.00%	3.1%	0.56%
Assembled Workforce	1,790	16.00%	0.9%	0.14%
Noncompete Agreement	<u>9,300</u>	16.00%	4.4%	0.71%
TOTAL INTANGIBLE ASSETS	<u>\$66,240</u>			
GOODWILL (excluding assembled workforce)	<u>\$60,260</u>	28.00%	28.8%	<u>8.07%</u>
TOTAL ASSETS	<u><u>\$209,000</u></u>			<u><u>16.05%</u></u>

Note: For financial reporting purposes, the fair value of goodwill includes the fair value of assembled workforce for a total fair value of residual goodwill of \$62,050,000.

Note: Some amounts may not foot due to rounding.

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Asset Values (\$ 000s)



Example: Goodwill Impairment

Triggering Event

Asset Allocation

Valuation of Tangible Assets

Valuation of Intangible Assets

Goodwill Impairment Analysis

Summary of Fair Values and Impairment



Triggering Event

	<u>2001 Actual</u>	<u>2002 Forecast</u>	<u>2002 Actual</u>
Net Sales	\$ 60,000,000	\$ 69,000,000	\$ 56,000,000
Cost of Sales	24,000,000	27,600,000	23,520,000
Percentage of Sales	40.0%	40.0%	42.0%
Gross Profit	\$ 36,000,000	\$41,400,000	\$ 32,480,000
Operating Expense	18,000,000	20,700,000	17,360,000
EBITDA	\$ 18,000,000	\$20,700,000	\$15,120,000
Percentage of Sales	30.0%	30.0%	27.0%



Asset Allocation

	12/31/01	12/31/02
	<u>Fair Value</u>	<u>Carrying Value</u>
Cash	\$ 1,500,000	\$ 2,850,000
Investments in Marketable Securities	8,000,000	7,000,000
Accounts Receivable	17,000,000	13,000,000
Inventory	12,000,000	10,500,000
Prepaid Expenses	3,000,000	2,500,000
Land and Building	22,000,000	21,687,000
Machinery & Equipment, net	19,000,000	16,216,000
TOTAL TANGIBLES	<u>\$ 82,500,000</u>	<u>\$ 73,753,000</u>



Asset Allocation

	12/31/01	12/31/02
	<u>Fair Value</u>	<u>Carrying Value</u>
Software	\$ 7,070,000	\$ 5,300,000
Technology	13,500,000	10,120,000
In-Process Research & Development	4,330,000	0
Trade Name	23,760,000	23,760,000
Customer Base	6,490,000	5,190,000
Non-Competition Agreement	9,300,000	7,440,000
TOTAL INTANGIBLES	<u><u>\$ 64,450,000</u></u>	<u><u>\$ 51,810,000</u></u>



Asset Allocation

	12/31/01	12/31/02	12/31/02
	<u>Fair Value</u>	<u>Carrying Value</u>	<u>Fair Value</u>
TOTAL TANGIBLES	\$ 82,500,000	\$ 73,753,000	\$ 78,150,000
TOTAL INTANGIBLES	64,450,000	51,810,000	45,420,000
GOODWILL	<u>62,050,000</u>	<u>62,050,000</u>	<u>39,430,000</u>
TOTAL ASSETS	<u><u>\$ 209,000,000</u></u>	<u><u>\$ 187,613,000</u></u>	<u><u>\$163,000,000</u></u>



Valuation of Tangible Assets

Land and Building	\$ 23,000,000
(Per real estate appraisal)	
Machinery and Equipment	19,000,000
(Per machinery and equipment appraisal)	



Valuation of Intangible Assets

	Carrying Values <u>12/31/02</u>	<u>Fair Value</u>	Impairment <u>Loss</u>
Software	\$ 5,300,000	\$ 7,810,000	\$ 0



Valuation of Intangible Assets

	Carrying Values <u>12/31/02</u>	<u>Fair Value</u>	Impairment <u>Loss</u>
Software	\$ 5,300,000	\$ 7,810,000	\$ 0
Customer Base	5,190,000	5,820,000	0



Valuation of Intangible Assets

	Carrying Values <u>12/31/02</u>	<u>Fair Value</u>	Impairment <u>Loss</u>
Software	\$ 5,300,000	\$ 7,810,000	\$ 0
Customer Base	5,190,000	5,820,000	0
Assembled Workforce*	1,790,000	1,510,000	0

* Included in Goodwill



Valuation of Intangible Assets

	Carrying Values		Impairment
	<u>12/31/02</u>	<u>Fair Value</u>	<u>Loss</u>
Software	\$ 5,300,000	\$ 7,810,000	\$ 0
Customer Base	5,190,000	5,820,000	0
Assembled Workforce*	---	---	---
Trade Name	23,760,000	18,450,000	(5,310,000)

* Included in Goodwill



Valuation of Intangible Assets

	Carrying Values <u>12/31/02</u>	<u>Fair Value</u>	Impairment <u>Loss</u>
Software	\$ 5,300,000	\$ 7,810,000	\$ 0
Customer Base	5,190,000	5,820,000	0
Assembled Workforce*	---	---	---
Trade Name	23,760,000	18,450,000	(5,310,000)
Noncompete Agreement	7,440,000		

* Included in Goodwill

Valuation of Intangible Assets

Noncompete Agreement Impairment Test

TARGET COMPANY
VALUATION OF NONCOMPETE
AS OF DECEMBER 31, 2002
(\$ 000s)

Exhibit 5.7

	<u>ACTUAL</u>	<u>FORECAST</u>	
	2002	2003	2012
Fair Value of Noncompete Agreement, Rounded		<u>\$5,000</u>	
<u>SFAS No. 144 Impairment Test</u>			
Undiscounted Net Cash Flows, BEV (Exhibit 5.2)		\$21,062	\$22,141
Undiscounted Net Cash Flows, BEV with Competition		<u>20,538</u>	<u>20,890</u>
Difference = Net Cash Flows, Attributable to Noncompete		<u>\$524</u>	<u>\$1,251</u>
Sum of Undiscounted Net Cash Flows Attributable to Noncompete	<u>\$9,463</u>		
Carrying Value of Noncompete	<u>\$7,440</u>		

Conclusion: Recoverable under SFAS No. 144, therefore no impairment.

Note: Some amounts may not foot due to rounding.

The impairment test presented in this example is assumed to be performed as of December 31, 2002.

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Valuation of Intangible Assets

	Carrying Values		Impairment
	<u>12/31/02</u>	<u>Fair Value</u>	<u>Loss</u>
Software	\$ 5,300,000	\$ 7,810,000	\$ 0
Customer Base	5,190,000	5,820,000	0
Assembled Workforce*	---	---	---
Trade Name	23,760,000	18,450,000	(5,310,000)
Noncompete Agreement	7,440,000	5,000,000	0

* Included in Goodwill



Valuation of Intangible Assets

	Carrying Values		Impairment
	<u>12/31/02</u>	<u>Fair Value</u>	<u>Loss</u>
Software	\$ 5,300,000	\$ 7,810,000	\$ 0
Customer Base	5,190,000	5,820,000	0
Assembled Workforce*	---	---	---
Trade Name	23,760,000	18,450,000	(5,310,000)
Non-competition Agreement	7,440,000	5,000,000	0
Technology	10,120,000		

* Included in Goodwill

Valuation of Intangible Assets

Technology Impairment Test

TARGET COMPANY

Exhibit 5.9

VALUATION OF TECHNOLOGY

AS OF DECEMBER 31, 2002

(\$ 000s)

SFAS No. 144 Impairment Test

Sum of Undiscounted Residual Cash Flows (4)		<u><u>\$7,345</u></u>
Sum of Present Values, 2003-2006		\$5,104
Amortization Benefit		
Discount Rate	18.0%	
Tax Rate	40.0%	
Tax Amortization Period	15	
Amortization Benefit		<u>883</u>
Fair Value of Technology, Rounded		<u><u>\$5,990</u></u>

(4) The sum of the undiscounted residual cash flows of \$7,345 is less than the carrying value of \$10,120, indicating impairment under SFAS No. 144.

Note: Some amounts may not foot due to rounding.

The impairment test presented in this example is assumed to be performed as of December 31, 2002.

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Valuation of Intangible Assets

	Carrying Values		Impairment
	<u>12/31/02</u>	<u>Fair Value</u>	<u>Loss</u>
Software	\$ 5,300,000	\$ 7,810,000	\$ 0
Customer Base	5,190,000	5,820,000	0
Assembled Workforce*	---	---	---
Trade Name	23,760,000	18,450,000	(5,310,000)
Non-competition Agreement	7,440,000	5,000,000	0
Technology	10,120,000	5,990,000	(4,130,000)

* Included in Goodwill

Valuation of Intangible Assets

	Carrying Values		Impairment
	<u>12/31/02</u>	<u>Fair Value</u>	<u>Loss</u>
Software	\$ 5,300,000	\$ 7,810,000	\$ 0
Customer Base	5,190,000	5,820,000	0
Assembled Workforce*	---	---	---
Trade Name	23,760,000	18,450,000	(5,310,000)
Non-competition Agreement	7,440,000	5,000,000	0
Technology	10,120,000	5,990,000	(4,130,000)
IPR&D	0	2,350,000	0

* Included in Goodwill

Valuation of Intangible Assets

	Carrying Values		Impairment
	<u>12/31/02</u>	<u>Fair Value</u>	<u>Loss</u>
Software	\$ 5,300,000	\$ 7,810,000	\$ 0
Customer Base	5,190,000	5,820,000	0
Assembled Workforce*	---	---	---
Trade Name	23,760,000	18,450,000	(5,310,000)
Non-competition Agreement	7,440,000	5,000,000	0
Technology	10,120,000	5,990,000	(4,130,000)
IPR&D	<u>0</u>	<u>2,350,000</u>	<u>0</u>
TOTAL IDENTIFIED INTANGIBLES	<u><u>\$ 51,810,000</u></u>	<u><u>\$ 45,420,000</u></u>	<u><u>(\$ 9,440,000)</u></u>

* Included in Goodwill



Goodwill Impairment Analysis

	Carrying Values <u>12/31/02</u>	<u>Fair Value</u>	Impairment <u>Loss</u>
Goodwill (Including Assembled Workforce)	\$ 62,050,000		

Goodwill Impairment Analysis

TARGET COMPANY	Exhibit 5.11
VALUATION OF GOODWILL	
AS OF DECEMBER 31, 2002	
(\$ 000s)	
Total Value of Invested Capital	\$143,000
Debt-Free Current Liabilities	<u>20,000</u>
Total Liabilities and Equity	163,000
Less: Fair Value of Current Assets	(36,150)
Less: Fair Value of Tangible Assets	(42,000)
Less: Fair Value of Intangible Assets	
Software	(7,810)
Customer Base	(5,820)
Trade Name	(18,450)
Noncompete Agreement	(5,000)
Technology	(5,990)
In-Process Research and Development	<u>(2,350)</u>
Residual Goodwill	<u><u>\$39,430</u></u>

Note: Some amounts may not foot due to rounding.

The impairment test presented in this example is assumed to be performed as of December 31, 2002.

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Goodwill Impairment Analysis

	Carrying Values <u>12/31/02</u>	<u>Fair Value</u>	Impairment <u>Loss</u>
Goodwill (Including Assembled Workforce)	\$ 62,050,000	\$ 39,430,000	(\$22,620,000)

Summary of Fair Values and

TARGET COMPANY
SUMMARY OF FAIR VALUES AND IMPAIRMENT LOSSES
AS OF DECEMBER 31, 2002
(\$ 000s)

Exhibit 5.12

	CARRYING VALUE BEFORE		CARRYING VALUE AFTER		
	<u>FAIR VALUE</u>	<u>IMPAIRMENT</u>	<u>FAIR VALUE</u>	<u>IMPAIRMENT</u>	<u>IMPAIRMENT</u>
	12 / 3 1 / 0 1	12 / 3 1 / 0 2	12 / 3 1 / 0 2	12 / 3 1 / 0 2	12 / 3 1 / 0 2
Cash	\$1,500	\$2,850	\$2,850	\$2,850	na
Investments in Marketable Securities	8,000	7,000	7,300	7,000	na
Accounts Receivable	17,000	13,000	13,000	13,000	na
Inventory	12,000	10,500	10,500	10,500	na
Prepaid Expenses	3,000	2,500	2,500	2,500	na
TOTAL CURRENT ASSETS	41,500	35,850	36,150	35,850	0
Land and Buildings	22,000	21,687	23,000	21,687	0
Machinery and Equipment, net	19,000	16,216	19,000	16,216	0
TOTAL LONG-LIVED TANGIBLE ASSETS	41,000	37,903	42,000	37,903	0
TOTAL CURRENT AND TANGIBLE ASSETS	82,500	73,753	78,150	73,753	0
Software	7,070	5,300	7,810	5,300	0
Technology	13,500	10,120	5,990	5,990	(4,130)
In-Process Research and Development	4,330	0	2,350	0	0
Trade Name	23,760	23,760	18,450	18,450	(5,310)
Customer Base	6,490	5,190	5,820	5,190	0
Noncompete Agreement	9,300	7,440	5,000	7,440	0
TOTAL IDENTIFIED INTANGIBLE ASSETS	64,450	51,810	45,420	42,370	(9,440)
GOODWILL (including assembled workforce)	62,050	62,050	39,430	39,430	(22,620)
TOTAL ASSETS	\$209,000	\$187,613	\$163,000	\$155,553	(\$32,060)

Note: Some amounts may not foot due to rounding.

The impairment test presented in this example is assumed to be performed as of December 31, 2002.

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Implementation of SFAS Nos. 141 and 142: Controversial Issues



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

1. In valuing a reporting unit, using the Market Comparable Approach (prices of publicly traded securities of ‘similar’ companies) should one apply a ‘control premium’? Obviously the impact of adding 20% - 30% or more is to reduce the likelihood of an impairment charge. Some appraisers are adding the control premium and others are not. The FASB clearly believes the basis for valuing a reporting unit is on the premise of control, including any acquisition premium which a buyer may pay over the implied value from the trading prices of individual shares of stock. The SEC has challenged this, arguing that there is a heavy burden of proof to overcome their contention that the price of a share of stock is its fair value. Clarification is necessary.



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

RESPONSE: The use of a control premium in applying the market approach is an individual judgment issue, based on the facts of the case. Mergerstat documents that a vast majority of transactions include a control premium. Nevertheless, if a control premium is used it should be tested with other means, namely the Income Approach. This will assure that the degree of control premium assessed is supported by available cash flow.



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

2. In applying the Income Approach, should the company's own WACC be used, should an industry-wide WACC be used, or should something else? The reporting unit will, by definition, be less than a totally independent business so the question is, what is the most appropriate discount rate?



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

RESPONSE: The industry WACC should be considered. The definition of fair value contemplates a transaction at the reporting unit level. Since a transaction is contemplated, the industry ratios should be considered, along with a discussion with management about the current capital structure.



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

10. In some industries individual brands are purchased based on the contribution margin of the product. The company only purchases brands in its existing marketplace. The company already does business with Wal-Mart, Kmart, Eckerd Drugs, etc. It does not need to add any sales personnel to sell the new brand. They simply throw a few more boxes on the delivery truck. So when they bid on brands and acquire brands they run DCFs on *incremental* profits. They buy a number of brands this way. When the baseline assessment is performed, we are told by an accounting firm to allocate corporate overhead to the brands. But that is not how brands are bought and sold in this market place. Also, we are told to add the tax shield, although the client never figures this into his calculation of what he thinks the brand is worth.



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

RESPONSE: Although brands may be purchased based on incremental profits, the issue seems to be the degree of allocation. The client example implies very little overhead allocation. In the extreme, the client position would be that no overhead would ever be allocated. The answer to this point is that there should be an overhead allocation and a tax shield. However, this issue does bring up a more valid question: When does fair value equal what was paid? This question seems to be the crux of the conference.



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

16. Valuation issues related to valuing contingent consideration should be discussed. Is the methodology consistent with asset valuations?



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

RESPONSE: The methodology of valuing contingent consideration is consistent with determining fair value for intangibles. There is a new exposure draft forthcoming from the FASB, which in the preliminary stages establishes that fair value is to be the standard of value for contingent consideration. Mike Mard sits on the Task Force for that FASB Exposure Draft.



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

19. Only those reporting units with goodwill need to be valued for Step 1 of the SFAS impairment test. But the values of the units tested should be checked against the value of the entire entity, at least for reasonableness. This is problematic where the client is willing to pay for the valuation of only those units to be tested. Is there a solution?



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

RESPONSE: This is the ‘pushback’ question. The answer is yes, the determination as the full entity value needs to be determined and the practitioner, if he has quoted a fee not supporting that work may have to eat some fee. Otherwise , the practitioner may have avoided his responsibilities for conducting due diligence.



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

20. Should the valuation professional opine on management's conclusion regarding assignment of assets to the reporting units?



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

RESPONSE: Part of the valuation conclusion is to infer agreement with management's allocation of assets to the reporting units. If the valuation professional disagrees with such allocation, he cannot render his conclusion without qualification. Likewise, an unqualified conclusion would require some degree of due diligence so that the valuation professional will have a basis of comfort with management's allocation of assets. However, it is management's responsibility.



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

21. In applying the Income Approach, should the appraiser utilize management's projections? What if they appear unreasonable, should the appraiser substitute his own judgment?



AITF Meeting: SFAS 141 and 142 Symposium: Essential Discussion Items

RESPONSE: The IPR&D Practice Aid gives best practices guidance on prospective financial information (PFI) and requires significant due diligence on the PFI by the valuator. Though specific to the Practice Aid, the SEC and public at large will not continue to accept management representations related to the PFI without some level of due diligence. The PFI is critical to virtually all of the conclusions related to the valuation and as such it requires specific care and consideration.



AITF Meeting: SFAS 141 and 142 Symposium: Essential Discussion Items

23. Should the valuation guidance of the Practice Aid be applied to all financial reporting valuation matters?



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

RESPONSE: Yes, the Practice Aid is being strongly considered as a staff bulletin. Its procedures and content are very meaningful, although its organization is poor. The reality is the Practice Aid is here to stay and the practitioner to deviate is likely to be asked some very pointed questions as to justifying that deviation.



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

24. When using market cap as the indication of fair value of the reporting unit, can the stock price being used be from a date other than the valuation date? Two approaches: no information subsequent to the valuation date should be considered and therefore the stock price should be as of the valuation date --- or: in a situation the auditor and the company felt information that the Company knew and a prospective buyer would have known (i.e. poor fourth quarter results and lack of market traction of newly introduced products) brought down the share price, therefore alternative date should be used.



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

RESPONSE: Generally, the practitioner may have to consider market data covering a broad horizon. Market declines may be temporary, but impairment is permanent. If the decline is seen as temporary, the practitioner needs to look at the subsequent data to support the temporary nature of the decline. On the other hand, if the decline is seen as permanent, the practitioner needs to analyze the subsequent data to support the permanent nature of the decline. The appraiser should consult with the auditor.



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

25. When valuing developed technology do ancillary revenue streams need to be excluded, similar to IPR&D? A software company sells pre-packaged software that is generally sold with some maintenance, consulting, implementation services that are an indirect result of the sale of the software licenses. (first year maintenance is required to be purchased) Can/should the ancillary cash flows be considered in valuing developed technology?



AITF Meeting: SFAS 141 and 142 Symposium: Essential Discussion Items

RESPONSE: The Practice Aid should be followed.



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

26. When performing an allocation for either an impairment of goodwill or for an acquisition should a contributory asset charge be applied for an assembled workforce, even though it is no longer recognized apart from goodwill? How can a contributory charge for workforce be estimated, given the fact that the Board does not believe it can be valued?



AITF Meeting: SFAS 141 and 142

Symposium: Essential Discussion Items

RESPONSE: Yes, the contributory charge for assembled workforce must be assessed. The assembled workforce is a valid intangible asset although not separable by definition. The FASB has dictated that assembled workforce will be subsumed into goodwill, however, to not assess contributory charge to assembled workforce will result in incorrect conclusions of value for other assets.