Purchase Price Allocation ("PPA")Valuations

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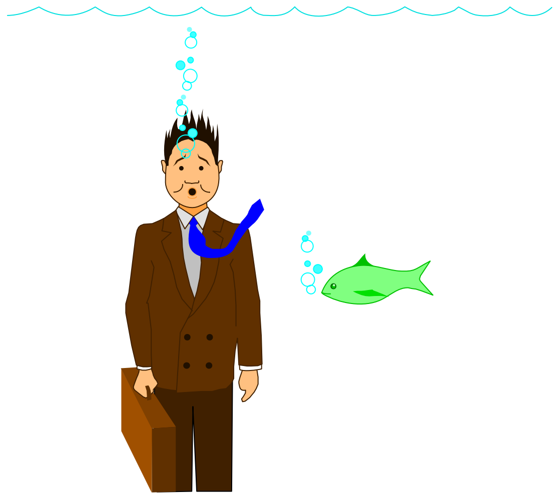
Agenda

- Overview
- Allocation Valuation Process

Ask Questions!



Email Questions!

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Overview of PPA Valuations

- In a Nutshell, What is It?
  - » Allocate Purchase Price Paid for Acquired Company to its Tangible and Intangible Assets
- Deal-Based
- Purpose – Financial Reporting
- Regulation/Oversight – SEC
- Guidelines – SFAS 141 and 142
  - » Guidelines Effective Mid-2001
  - » New Guidelines Soon [141(R)]

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Why New Accounting Requirements?

- More Accurately Reflect Components of a Company's Worth
- Give Investors More Information about a Company's Intangible Value
- Progression away from "Old School" Valuation Thinking (as with Book Val.->Earnings->CFs)

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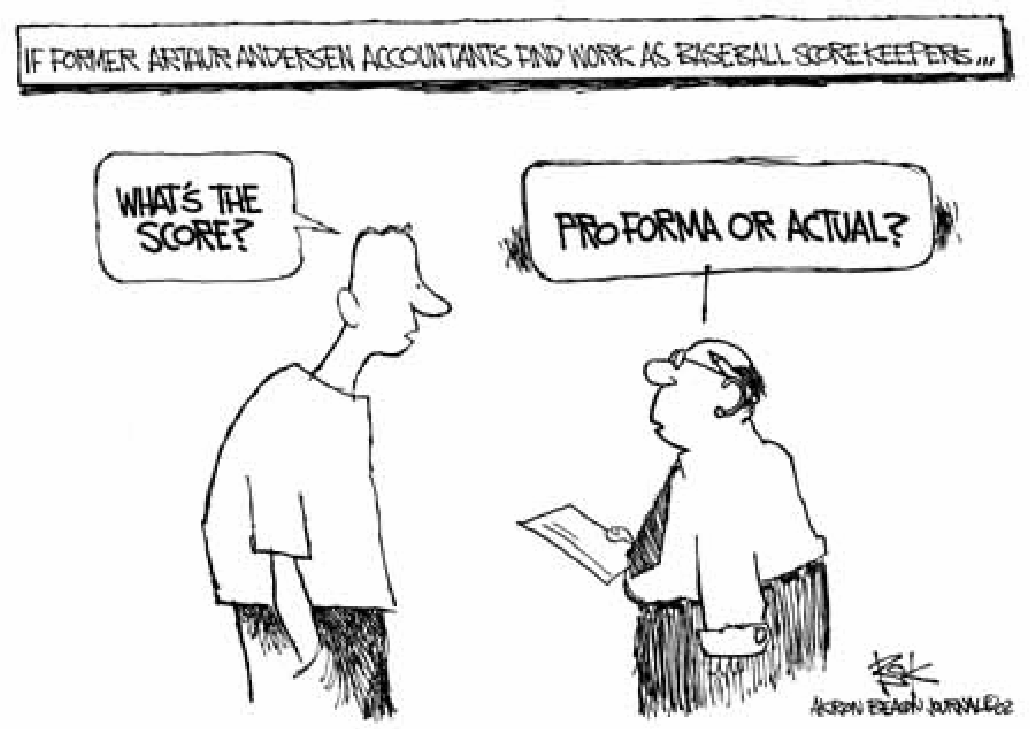
Why do PPA Valuations Matter to Acquiring Companies?

- Most Intangible Assets are Amortized over Their Expected Lives; This Expense can Have a Major Impact on Reported Earnings



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Valuation Process - Overview

- Determine Purchase Price and Total Asset Base
- Identify Components of Total Asset Base
  - Tangible Assets
  - Intangible Assets
  - Goodwill (remainder)
- Allocate Value to Company's Asset Components
- Reconciliation of Asset Conclusions
- Our Role is <u>Intangible Asset Valuation</u>

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Valuation Process – Purchase Price

- To Know What to Allocate, the Purchase Price Must be Identified
  - Focus on Market Value of Acquired Company's Equity and Debt, or Market Value of Invested Capital
  - Currently Purchase Price includes Deal-related Costs, such as Restructuring and Transaction Costs [will change per SFAS 141(R)]
  - Current Liabilities Added to MVIC of Acquired Company, to Arrive at its Total Asset Base

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Calculation of Purchase Price, Etc.

Company XYZ Calculation of Deal Value As of Acquisition Date	
Stock compensation	15,000,000
Cash compensation	10,000,000
Restructuring costs	3,000,000
Transaction costs	2,500,000
Equity Purchase Price	**$30,500,000**
Assumed debt	5,000,000
	35,500,000
Market Value of Invested Capital	**$35,500,000**
Current Liabilities	3,000,000
Total Asset Base for XYZ Co.	**38,500,000**

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Identify Components of Value

- Next Step - Identify Components that Make Up Total Asset Base, in this Case, $38.5 million
- Components of Value
  - » Tangible Assets
    - – Value Typically Estimated by Client or Through Property Appraisals
  - » Intangible Assets
    - – Separately Identifiable Assets
    - – Other Intangible Assets
    - – Remainder = Goodwill

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Sample Allocation Summary

Company XYZ
Summary of Values
As of Acquisition Date

Balance Sheet Item		Value ($US)
Current assets		$5,500,000
Net fixed assets		2,500,000
Security deposits		500,000
Tangible assets		$8,500,000
In-process R&D		$1,500,000
Trademarks/names		4,000,000
Core Technology		5,200,000
Customer Contracts		3,700,000
Goodwill		15,600,000
Proprietary Database	1,000,000	
Workforce in Place	1,500,000	
Residual Goodwill	13,100,000	
Total	15,600,000	
Total Asset Value		$38,500,000
Less: Assumed Liabilities (Excl. Debt)		(3,000,000)
Market Value of Invested Capital		$35,500,000
Less: Debt Oustanding		(5,000,000)
Company equity value		$30,500,000

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Identification of Intangible Assets

- There are Many Types of Intangible Assets
- A Typical Case May Involve Half a Dozen Intangibles Identified and Valued
- Certain Intangibles Dictated by Industry
  - Recipes Valued in Food Industry
  - Web Site Members Valued in Internet Industry
  - Production Processes and Patterns Valued for Manufacturing Companies

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Identification of Intangible Assets (cont.)

- Common Intangible Assets Include
  - Trademarks/names (e.g. Coca-Cola, IBM)
  - Customer Contracts & Relationships
  - Technology
  - Workforce
  - Patents
  - Databases
  - Non-compete Agreements
  - In-process Research and Development (“IPRD”)
  - Goodwill

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Identification of Intangible Assets (cont.)

- After Identification, Intangible Assets Must be Classified into Two Categories:
  - Intangible Assets Separable from Goodwill
  - Intangible Assets Not Separable from Goodwill
- Distinction Made Between Assets that Have a Clearer Basis of Value vs. Assets That Have a More Ambiguous Basis of Value

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Identification of Intangible Assets (cont.)

- According to Accounting Guidelines, an Intangible Asset is Separate from Goodwill if:
  - It Arises from Contractual or Legal Rights
    - Patents
    - Trademarks
    - Customer Contracts
  - It Can Be Sold, Transferred, or Licensed Separately
    - Technology
    - Customer List
    - <u>Not</u> Workforce
  - Same Asset Can Be Treated Differently (e.g., Databases)

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Example

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Valuation – Standards of Value

- Fair Value
  - Basis of Value for Financial Reporting Purposes
  - The price at which an Asset could be bought or sold in a current transaction between willing parties, that is, other than in a forced or liquidation sale.
- Investment/Synergistic Value
  - The specific value to a particular investor, in this case the acquirer.
  - Can only include synergies that a typical buyer would realize

Valuation Tips - Use Common Sense

- Understand Transaction and Its Value Drivers
  - » Press Releases
  - » Board Presentations
  - » Due diligence reports
  - » Discussions with Management
  - » Perceived Value per Acquiring Company’s Mgmt.
  - » Consider Impact of Acquisition on
    - – Customer Base (Reaction to Merger?)
    - – Technology (Integration?)
    - – Other

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Use Common Sense (cont.)

- Avoid "Analysis Paralysis"
  - » Do not Let Raw Data/Rote Spreadsheet Analysis Override Deal Rationale
  - » Understanding Value Drivers and How to Approach Valuation Key Aspect of Process

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Valuation Approaches

- Income Approach
  - » Project Cash Flows Attributable to Asset Over its Useful Life
    - – Similar to Discounted Cash Flow Analysis
- Market Approach
  - » Identify Transactions of Similar Assets and Use as a Guideline to Value
- Cost Approach
  - » Cost to Replace an Asset

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Income Approach

- Project Future Cash Flows Attributable to Asset over Estimated Life
- Make Sure that Charges are Taken for Assets that Contribute to the Stream of Cash Flows Generated
- Develop Weighted Average Cost of Capital
  - Use Company WACC as Starting Point and Adjust Based on Perceived Risk Differences for Intangible
  - Compare to deal IRR for Reasonableness

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Income Approach (cont.)

- Projected Cash Flow Streams are Discounted to Present @ WACC Rate
- To This Value, a "Tax Amortization Benefit Factor" is Applied
  - » Present Value of Ability to Amortize an Intangible Asset over a 15-Year Period, for Tax Purposes

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Tax amortization benefit calculation

Company XYZ
Company WACC Summary/Conclusion

WACC	15.0%
Tax life	15.0
Base intangible asset value	100.0
Amortization/year	6.7
Tax rate	40.0%
Amortization benefit/year	2.6667

Sample calculation detail

Year	Discount Period	Mid Year Disc. Factor	Amort.	PV of Amort.
1	0.5000	0.9325	2.67	2.48668
2	1.5000	0.8109	2.67	2.16233
3	2.5000	0.7051	2.67	1.88029
4	3.5000	0.6131	2.67	1.63503
5	4.5000	0.5332	2.67	1.42177
6	5.5000	0.4636	2.67	1.23632
7	6.5000	0.4031	2.67	1.07506
8	7.5000	0.3506	2.67	0.93483
9	8.5000	0.3048	2.67	0.8129
10	9.5000	0.2651	2.67	0.70687
11	10.5000	0.2305	2.67	0.61467
12	11.5000	0.2004	2.67	0.53449
13	12.5000	0.1743	2.67	0.46478
14	13.5000	0.1516	2.67	0.40415
15	14.5000	0.1318	2.67	0.35144
		Total:	40.00	16.72

Sum of Present Values	16.72
Asset Value Pre-Amort. Benefit	83.28
Tax Amortization Premium	20.1%

Amortization Premium Table

WACC	Premium	WACC	Premium
5.0%	0.396	33.00%	0.101
6.0%	0.364	34.00%	0.099
7.0%	0.335	35.00%	0.096
8.0%	0.311	36.00%	0.093
9.0%	0.289	37.00%	0.091
10.0%	0.270	38.00%	0.089
11.0%	0.253	39.00%	0.087
12.0%	0.238	40.00%	0.085
13.0%	0.224	41.00%	0.083
14.0%	0.212	42.00%	0.081
15.0%	0.201	43.00%	0.08
16.0%	0.191	44.00%	0.078
17.0%	0.181	45.00%	0.077
18.0%	0.173	46.00%	0.075
19.0%	0.165	47.00%	0.074
20.0%	0.158	48.00%	0.072
21.0%	0.152	49.00%	0.071
22.0%	0.146	50.00%	0.07
23.0%	0.140	51.00%	0.068
24.0%	0.135	52.00%	0.067
25.0%	0.130	53.00%	0.066
26.0%	0.125	54.00%	0.065
27.0%	0.121	55.00%	0.064
28.0%	0.117	56.00%	0.063
29.0%	0.114	57.00%	0.062
30.0%	0.110	58.00%	0.061
31.0%	0.107	59.00%	0.06
32.0%	0.104	60.00%	0.06

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Income Approach (cont.)

- Relief From Royalty Method
  - » Variation of Income Approach
  - » Estimates Value for Asset, Based on the Cost Savings Realized through Ownership
  - » Cost Savings Determined, Based on the Royalty Rate a Licensor Would Pay for the Asset
    - – Sources of Royalty Rates include SEC filings, Online Databases, Management, Certain Hardcover Publications, Previous Engagements
  - » Commonly Used for Trademarks/names and Sometimes Technology/Patents

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Example

Company XYZ
Value of Core Technology (Income Approach)
As of Acquisition Date

	Remainder 2002	Projected 2003	Projected 2004	Projected 2005	Projected 2006	Stub Period 2007
Projected Company Revenue	10,208,333	17,500,000	21,875,000	26,250,000	28,875,000	12,332,031
Times: Royalty Rate	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Company Royalty Savings	1,020,833	1,750,000	2,187,500	2,625,000	2,887,500	1,233,203
Less: Maintenance/Enhancement Costs	(72,917)	(125,000)	(156,250)	(187,500)	(206,250)	(88,086)
Net Royalty Savings	947,917	1,625,000	2,031,250	2,437,500	2,681,250	1,145,117
Less: Provision for Taxes	(379,167)	(650,000)	(812,500)	(975,000)	(1,072,500)	(458,047)
Tax rate:	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%
After-Tax Royalty Income	568,750	975,000	1,218,750	1,462,500	1,608,750	687,070
Times: Discount Factor	0.9576	0.8515	0.7340	0.6328	0.5455	0.4703
Discounted After Tax Royalty Income	544,655	830,185	894,596	925,445	877,577	323,102

Present Value of Discounted Royalty Streams:	4,395,560
Times: Tax Amortization Benefit Factor	1.1910
	5,235,112

Value of Core Technology (Income Approach): $5,200,000

Assumptions:
WACC: 16.0%

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Asset Useful Life

- Needed for DCF Projection Period and to Amortize Value
- Lives for Amortization Purposes a Company/Accounting Issue
- Factors Used to Determine
  - » Management Discussions
  - » Analysis of Market Conditions and Asset Specific Factors
  - » Mathematically, Using Attrition Rate or Weighted Average Contribution of PV of Cash Flows
  - » Benchmarking (Lives Reported by Other Companies)

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Useful Life (Cont.)

- Some Intangible Assets Have Indefinite Lives
  - Trademarks/names with Strong Brand Recognition
  - Goodwill
  - Do Not Confuse “Indefinite” with “Infinite”
- Useful Lives can Vary Greatly for an Asset
  - A Widget Manufacturer’s Customers May Have a Life of 20 Years (5% Attrition Rate)
  - On the Other Hand, One or Two Year Lives are Possible for Web Members/Customers for Internet Companies (a 50% to 100% Annual Attrition Rate)

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Market Approach

- Limited With Intangible Assets
  - Intangible Assets Very Unique
  - Information on Sales Highly Confidential
  - Examples where may be Useful
    - Sales of FCC Licenses
    - Sales of Domain Names
- Source for Royalty Rates and Useful Lives to be Applied in DCF

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Cost Approach

- Cost Estimated to Replace Asset
  - Adjustments Made for Obsolescence
- May be Used to Value:
  - Workforce in Place
  - Internally Developed Software
  - Magazine or Telecom Subscribers
- Problems with Cost Approach
  - Unique Attributes of Asset Ignored
  - May Understate the Asset's Value (e.g., cure for cancer)
  - Validity Increasingly Questioned
- Note: Tax-effecting and Amortization Benefit Factor Use Subject to Debate

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Example

Company XYZ
Value of Workforce in Place
As of Acquisition Date

Employee Category	Aggregate Annual Salaries ($US)	Number	Average Annual Salary	Recruitment Costs % Salaries	Recruitment Costs $ Amount	Training Costs* % Salaries	Training Costs* $ Amount	Total Replacement Costs
Senior Management	600,000	5.0	120,000	25.0%	150,000	20.0%	120,000	270,000
Sales and Marketing	2,000,000	33.0	60,606	30.0%	600,000	10.0%	200,000	800,000
Research and Development	800,000	10.0	80,000	25.0%	200,000	10.0%	80,000	280,000
Production and Support	300,000	5.0	60,000	25.0%	75,000	10.0%	30,000	105,000
Platform	200,000	4.0	50,000	25.0%	50,000	10.0%	20,000	70,000
Customer Service	225,000	6.0	37,500	25.0%	56,250	10.0%	22,500	78,750
Product Marketing	160,000	3.0	53,333	25.0%	40,000	10.0%	16,000	56,000
Marketing Communications	300,000	5.0	60,000	25.0%	75,000	10.0%	30,000	105,000
IS	350,000	4.0	87,500	25.0%	87,500	10.0%	35,000	122,500
Finance, Legal, & Admin.	400,000	7.0	57,143	25.0%	100,000	10.0%	40,000	140,000
Consulting	206,878	5.0	41,376	25.0%	51,719	10.0%	20,688	72,407
Totals:		**87.0**			**1,485,469**		**614,188**	**2,099,657**

Employee Replacement Costs	2,099,657	
Less: Value of Tax Shield	(839,863)	@ 40.0%
	1,259,794	
Times: Tax Amortization Benefit	1.2200	
	1,536,949	

Value of Workforce in Place: $1,500,000

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Remaining Step - Goodwill

- Determine Goodwill Value
  - » Goodwill = Amount Paid in Excess of Identified Assets
  - » Value Goodwill = Total Asset Base - Identified Assets
  - » Goodwill is the Value Remaining, or the "Plug Number"
  - » Reasons for Goodwill include Expected Synergies, Assets not Identified, Mgmt. Hubris, and Other Factors Difficult to Quantify
  - » Negative Goodwill: Value Assets > Purchase Price

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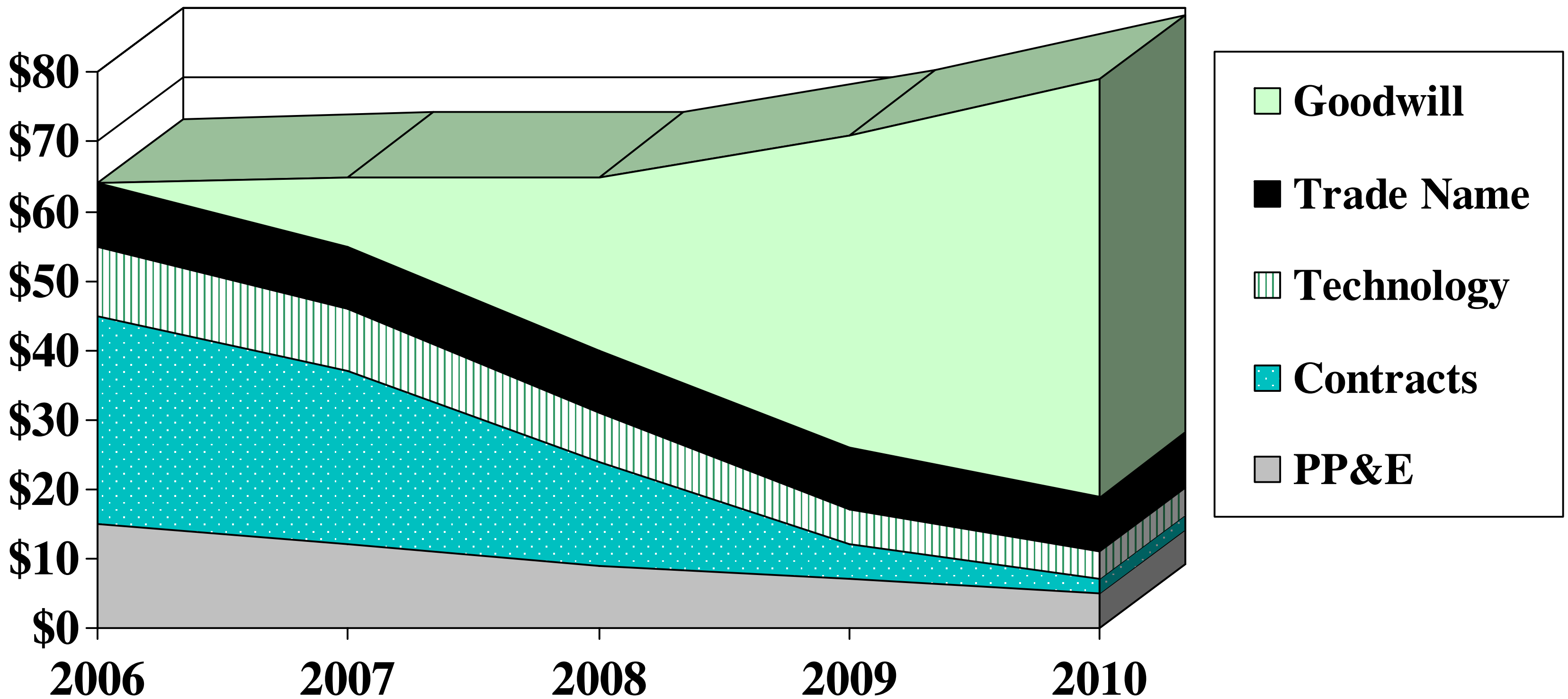
% Goodwill CFs Increases Over Time…



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Valuation Issues

- The Valuation of Intangible Assets is Typically Very Subjective and Difficult to Quantify
- Take the following Workforce Valuation for Example…

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What Value Would You Assign to this Management Team?

Microsoft Corporation, 1978

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Valuation Issues (cont.)

- Client, Auditor or SEC Disagreements
  - Intangible Asset Valuation Very Speculative – Differences in Opinion Bound to Arise and Do
    - Must Distinguish Between Reasonable Differences in Opinion with What is Outlandish or Unethical
  - Financial Stmts. can be Restated due to Differences of Opinion
  - Market Turmoil Sometimes Creates Tight Rope to Walk
  - Important to Have Assumptions Verified by Management and/or Backed up with Market Data

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Collecting Data

- Thorough Collection of Data Required
  - Visit of Key Location(s)
  - Legal Documents Related to Acquisition & Intangibles
  - Projections for Acquired Company
  - Due Diligence Materials Related to Acquisition, Including Board Presentation
  - Management Interviews
  - Research (Royalty Rates, Market Data, Useful Lives, etc.)
  - Interactive Process…Depending on Facts/ circumstances

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Elements in a Valuation Report

- Purpose and Definition of Valuation
- Effective Date of Valuation
- Applicable Standards and Levels of Value
- Nature and History of the Assets Being Valued
- Economic Outlook – Industry & Company
- Financial Condition and Analysis
- Selection and Application of Valuation Approaches
- Adjustments to Values
- Reconciliation of Values & Conclusion

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SFAS 141(R): New Guidelines on the Horizon

- To be Effective for Fiscal Years beginning after December 15, 2006
- Contingent Consideration to Be Valued as Part of the Purchase Price Paid
  - » Currently Recognized When Contingency Resolved and Additional Consideration Tendered
- Acquisition Costs to be Expensed
  - » Currently Included as Part of the Cost of the Acquired Business
- Definition of a Business to be Broadened

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SFAS 141(R) (Cont.)

- Value of all Consideration Measured at Acquisition Date
  - » Currently Acquirer's Marketable Securities Valued as of date Acquisition Agreed to and Announced
- In Process Research & Development("IPR&D")
  - » To be Capitalized Instead of Expensed
  - » Indefinite-lived until Completion; Then Amortized
- Other

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